



BURNSIDE

**Highway 26 / Grey Road 40
Intersection Improvements
Municipal Class Environmental
Assessment
Schedule B
Project File Report (PFR)**

The Town of The Blue Mountains

**R.J. Burnside & Associates Limited
3 Ronell Crescent
Collingwood ON L9Y 4J6 CANADA**

**May 2016
300032093.0000**

Distribution List

No. of Hard Copies	PDF	Email	Organization Name
10	Yes	Yes	The Town of The Blue Mountains

Record of Revisions

Revision	Date	Description
Final	May 2016	Submission to The Town of The Blue Mountains

R.J. Burnside & Associates Limited

Report Prepared By:



Deanna De Forest
Environmental Assessment and Regulatory Coordinator
DDF:sr

Report Reviewed By:



Ron Kerr, MPA, P.Eng.
Project Engineer
DDF:sr

Executive Summary

R.J. Burnside & Associates Limited (Burnside) was retained by The Town of The Blue Mountains (Town) to complete a Municipal Class Environmental Assessment (EA). The Town of The Blue Mountains, in partnership with the Ministry of Transportation and County of Grey ("road authorities"), initiated the EA to consider improvements to the transportation network to meet projected increases in traffic volume and address traffic congestion and access to Highway 26 in the area of Grey Road 40 (study area).

The planning of improvements was carried out in accordance with the Schedule 'B' requirements (Phases 1 to 2) of the Municipal Engineers Association Municipal Class Environmental Assessment document (October 2000, as amended in 2007 and 2011), which is approved under the Ontario Environmental Assessment Act.

In Phase 2 of the Class EA, six alternative solutions were considered to address the improvements to the transportation network including: 1) Do Nothing; 2) Signalized Control; 3) Additional Turning Lanes; 4) Additional Through Lanes; 5) Realignment or Closure of Intersections, 6) Roundabout, or some combination of alternatives.

The alternatives were evaluated against the natural, social, economic and technical environment. It was determined that a combination of alternatives was preferred over the short and long term. Over the short term, Option 5-Realignment or Closure of Intersections and Option 3-Additional Turning Lanes, were preferred. Over the long term, Option 2) Signalized Control, was the preferred alternative solution. The preferred solution and its sub options include the following:

Short Term

Option 5C-Realignment or Closure of the Following Intersections:

- Woodland Park Road and Lakewood Drive at their intersection with Highway 26.
- Woodland Park Road at its intersection with Grey Road 40.

New road connections to be provided between Georgian Glen Subdivision and Woodland Park Road.

Option 3B: Eastbound right-turn lane on Highway 26 at Grey Road 40

Long Term

Addition of Option 2: Signalized Control at the Intersection of Highway 26 / Grey Road 40 / Lakewood Drive (contingent upon MTO signal warrants being met), including a Northbound Right Turn Lane, combined with Options 3B and 5C.

A key component of the study included consultation with interested stakeholders, considered broadly to include government and non-government agencies, Aboriginal

Communities, property owners, and the general public. Consultation with stakeholders included a Notice of Commencement and Notice of Completion. In addition, a Public Information Centre (PIC) was held to present the project and obtain input from interested stakeholders. A Notice of Completion will be published in the local newspapers and mailed to stakeholders and agencies that have interest in the project. As per the requirements of the Municipal Class EA, this Project File Report (PFR) is available for public review and comment for a period of 30 calendar days following the publication of the Notice of Completion.

The Notice of Completion will provide the dates, times and locations where the PFR can be reviewed, and names and addresses of people to whom they can send their comments.

If concerns arise regarding this project which cannot be resolved in discussion with the Town, a person or party may request that the Minister of the Environment make an Order for the project to comply with Part II of the Environmental Assessment Act (referred to as a Part II Order), which addresses Individual Environmental Assessments. Requests must be received by the Minister within 30 calendar days of the first publication of the Notice of Completion.

Table of Contents

1.0	Introduction.....	1
2.0	Problem / Opportunity Identification	1
3.0	Existing Conditions	3
3.1	Technical Environment	3
3.2	Natural Environment	3
3.2.1	Soils	5
3.2.2	Stormwater.....	5
3.2.3	Vegetation.....	5
3.2.4	Fish and Aquatic Habitat	5
3.2.5	Wildlife	6
3.2.6	Species of Conservation Concern (Rare and Special Concern Species)	7
3.2.7	SAR (Endangered and Threatened Species)	7
3.3	Social Environment.....	8
3.3.1	Policy and Planning.....	8
3.3.2	Cultural Environment.....	13
4.0	Identification of Alternative Solutions.....	15
5.0	Summary of Public Consultation.....	15
6.0	Preferred Alternative Solution	16
7.0	Impacts	19
8.0	Mitigation.....	24
9.0	Staging of Works for the Preferred Alternative.....	31
10.0	Future Considerations.....	31
11.0	Conclusions	32

Figures

Figure 1 Site Location Map.....	2
Figure 2: Preferred Alternative.....	18

Appendices

Appendix A	Evaluation of Alternatives
Appendix B	Supporting Studies
	Natural Heritage Summary
	Stage 1 Archaeological Assessment
	Cultural Heritage Evaluation Report
	Technical Memo No. 1
	Technical Memo No. 2
	Technical Memo No. 3
	Traffic Analysis Report

Highway 26 / Grey Road 40 Intersection Improvements
May 2016

Appendix C Existing Conditions

- Background Information Search
- Town of Blue Mountains Official Plan Mapping
- Grey County Official Plan Appendix Maps and Schedules
- Excerpts from the Niagara Escarpment Plan
- Drinking Water Source Water Protection Map 4.2.S1.4 - Intake Vulnerability
- Drinking Water Source Water Protection Map 3.11 - Significant Groundwater Recharge Areas
- Natural Heritage Information Centre data
- Ontario Breeding Bird Atlas data
- Ministry of Natural Resources and Forestry Correspondence
- Screening for Built Heritage and Cultural Heritage Impacts

Appendix D Public Consultation Program

- Notice of Commencement Advertisement
- Notice of Commencement Letter to Agencies
- Agency List
- Agency and stakeholder comments following Notice of Commencement
- Public Information Centre Summary Report
- Council Presentation

1.0 Introduction

R.J. Burnside & Associates Limited (Burnside) was retained by The Town of The Blue Mountains (Town) to complete a Municipal Class Environmental Assessment (EA). The Town of The Blue Mountains, in partnership with the Ministry of Transportation (MTO) and County of Grey (“road authorities”), initiated the EA to consider improvements to the transportation network to meet projected increases in traffic volume and address traffic congestion and access to Highway 26 in the area of Grey Road 40 (Site) (Figure 1). Included in this area are potential improvements to the intersections of Highway 26/Grey Road 40/Lakewood Drive, Highway 26/Lakewood Drive/Woodland Park Road, Grey Road 40/Woodland Park Road, as well as consideration of an interconnection between Woodland Park Road and the adjacent Georgian Glen development. These intersections are currently stop-controlled intersections on the minor approach.

The existing conditions, proposed alternatives and the manner in which public notification was conducted, are presented in this Project File Report (PFR) for a Schedule ‘B’ Municipal Class EA.

2.0 Problem / Opportunity Identification

The Problem/Opportunity Statement has been defined as follows:

“Following the Comprehensive Transportation Strategic Plan, March 2010 (Strategic Plan), the Town of The Blue Mountains, in partnership with the Ministry of Transportation and the County of Grey, has identified key areas where improvements to the transportation network may be required to address traffic congestion and concerns related to access to Highway 26 and to meet projected increases in transportation demands (pedestrian, cyclist, vehicle) as the Town continues to grow.

The area of Grey Road 40 and Highway 26 has been identified as an area for potential improvements. Included in this area are possible improvements to the intersections of Highway 26/Grey Road 40/Lakewood Drive, Highway 26/Lakewood Drive/Woodland Park Road, Grey Road 40/Woodland Park Road, as well as consideration of an interconnection between Woodland Park Road and the adjacent Georgian Glen development.”

Based on the descriptions provided in the Municipal Engineering Association (“MEA”) Guide for Municipal Class EAs (2000, as amended in 2007 & 2011) for municipal road projects activities, the alternatives being considered and the estimated cost limit for the project (< \$2.4 million), it was determined that a Schedule ‘B’ Municipal Class EA with a Project File Report was appropriate for the undertaking of this investigation.




Sources:

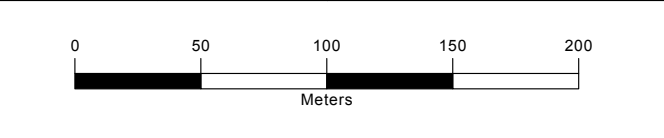
1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Disclaimer:

R.J. Burnside & Associates Limited and the above mentioned sources and agencies are not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

Datum: North American 1983 CSRS		
Coord. System: NAD 1983 UTM Zone 17N		
Projection: Transverse Mercator		
Central Meridian: 81°0'0.00"W		
False Easting: 500,000m	False Northing: 0m	
Rotation: 0	Scale Factor: 0.99960	



Client

TOWN OF THE BLUE MOUNTAINS

Figure Title

STUDY AREA

HIGHWAY 26 / GREY ROAD 40

MUNICIPAL CLASS EA

Drawn	Checked	Date	Figure No. 1
HN	DDF	2015/12/15	
Scale		Project No.	
H 1:3,000		300032093	

3.0 Existing Conditions

The Study Area includes the intersections of Highway 26/Grey Road 40/Lakewood Drive, Highway 26/Lakewood Drive/Woodland Park Road and Grey Road 40/Woodland Park Road as well as potential interconnections between Woodland Park Road and the adjacent Georgian Glen development (Figure 1). Adjacent properties include residential properties and undeveloped land.

3.1 Technical Environment

Burnside completed a Traffic Analysis Report for the study area to review existing traffic conditions and to consider improvements to address traffic congestion and access to Highway 26 in the area of Grey Road 40. The Traffic Analysis included a review of related studies, existing traffic conditions as well as future traffic conditions relative to the alternative solutions considered. Results of the Traffic Analysis Report and associated technical memos are presented in Appendix B.

3.2 Natural Environment

Burnside completed a review of available information, policies and plans including natural features, fisheries population and habitat data, significant environmental features (e.g., woodlands, wetlands, significant flora and fauna) and environmentally sensitive areas within the study area. Information available from the Grey Sauble Conservation Authority (GSCA), Ministry of Natural Resources and Forestry (MNR) and supporting information contained within the following background reports was reviewed for information relative to the study area:

- Terrestrial Ecosystems Impact Assessment (TEIA) report completed in 2015 by MMM Group for MTO
- Fish and Fish Habitat Impact Assessment Report completed in 2015 by MMM for MTO.
- Camperdown Craighleith Subwatershed Study, prepared by Gore & Storrie for the Grey Sauble Conservation Authority in 1993.
- Environmental Impact Statement (EIS) prepared by Gartner Lee in 2003 in support of a draft plan for proposed development on a portion of the study area, located south of Woodland Park Road, also known as Sorichetti Developments Property.

In addition, Burnside completed a site visit to delineate the natural communities of the study area according to the Ecological Land Classification (ELC) system for Southern Ontario (Lee et al. 1998) and ELC Ecosystem Catalogue: 2008 Version (Lee 2008), where applicable. Observation of the natural heritage features within the study area was completed on November 8, 2013.

Wildlife assessments consisted of incidental observations and an assessment of potential habitat for terrestrial and aquatic wildlife species in the study area, with particular focus on Species of Conservation Concern (SCC) and Species At Risk (SAR).

Burnside has not completed a detailed aquatic assessment, including amphibian surveys, of the study area as aquatic features are not anticipated to be directly impacted by the alternative solutions. Additionally, assessment of aquatic features is contained within the available background information and reports and was considered sufficient for the purpose of characterizing the natural environment in evaluating the potential indirect impacts of the alternative solutions on aquatic features. The background review included a review of aquatic survey conditions outlined in the Fish and Fish Habitat Impact Assessment Report completed by MMM for MTO in 2015 completed for the Highway 26 corridor within the study area, 2003 EIS completed by Gartner Lee for the Sorichetti (Georgian Glen) property and information available from the 1993 Camperdown Craighleith Subwatershed Study prepared by Gore & Storrie for the Grey Sauble Conservation Authority.

Characterization of the breeding bird habitat was obtained from existing information available from the 2015 TEIA, the 2003 EIS, and the GSCA Subwatershed Study and a review of Ontario Breeding Bird Atlas (OBBA) data (1981-1985 and 2001-2005). These documents were reviewed for the potential presence of SAR birds in the study area and the potential impact of the alternative solutions.

The assessment of SCC and SAR was completed through a review of records from the Natural Heritage Information Centre (NHIC) as well as a review of the Ontario Breeding Bird Atlas (OBBA), (1981-1985, 2001-2005) records for the study area, and correspondence with the MNR (January 8, 2016). Records from NHIC cover the Study Area and a 1 km² radius of the study area, while OBBA records cover a 10 x 10 km² area. Species of Conservation Concern includes rare and Provincial Special Concern species, as described in Section 3.2.6. SAR species include Threatened and Endangered species listed under the Ontario Endangered Species Act, 2007 as described in Section 3.2.7. The potential for SCC and SAR to be located in the study area was assessed based on a comparison of the description of these species and their habitat and the available habitat observed within the study area.

The requirement for subsequent studies to confirm the presence of rare, Special Concern and Endangered Species is dependent on the timing of implementation and the possible impact of the preferred solution on the potential habitat of such species, as well as appropriate seasonal timing for the studies and is outlined in the mitigation Section 8.

Results of the natural environment review and Review of Potential Species of Conservation Concern and SAR are presented in Appendix B and summarized in the following sections.

Potential impacts and mitigation are described in Section 7 and Section 8.

3.2.1 Soils

Bedrock within the study area is of Upper Ordovician, consisting of shale, limestone, dolostone, siltstone of the Georgian Bay Formation.; Blue Mountain Formation; Billings Formation; Collingwood Mb.; Eastview Mb. (Ministry of Northern Development and Mines, Bedrock Geology of Ontario, map 2544). Surficial Geology of the study area is Glaciolacustrine deposits consisting of sand, gravelly sand and gravel, nearshore and beach deposits (Ministry of Northern Development and Mines, Quaternary Geology of Ontario, southern sheet, map 2556).

3.2.2 Stormwater

Storm water within the study area generally flows overland and is infiltrated into the ground surface. Roadway drainage is conveyed overland to roadside ditches in a northeasterly direction toward Georgian Bay.

3.2.3 Vegetation

The study area is located in a primarily residential area, consisting of a combination of cultural landscaped areas, wooded areas and wetland areas. Based on ELC, six community types were located within the study area (Appendix B).

The community types identified within the study area are considered to be common and secure in Ontario (MNR 2000). The wooded areas to the southeast of Woodland Park Road are identified as significant woodlands on the Grey County official plan mapping, Appendix B, map 2, however, the wooded areas within the vicinity of Woodland Park Road are not identified as significant woodlands on the official plan mapping. Given the presence of roads, residential lots and trails, the natural features of the study area are influenced by human activity and alteration.

3.2.4 Fish and Aquatic Habitat

There are two unnamed watercourses conveying flows adjacent to the study area.

Based on the background information, both watercourses support year round fish habitat with both supporting cold water fish communities with one or more salmonoid species. The review noted that the watercourse to the west of the study area may provide spawning habitat for Brook Trout (*Salvelinus fontinalis*). The culvert crossing of Grey Road 40 at Highway 26 does not support fish use but provides indirect fish habitat that is disconnected from the downstream receiving watercourse. .

Based on observations made during the amphibian surveys completed for previous studies, amphibian habitat is present within the study area. As noted in the 2003 EIS; a

wetland area on the northeast side of Woodland Park Road may provide breeding habitat for one or more of the amphibian species observed in the study area, even if only for a short period of time.

3.2.5 Wildlife

Wildlife was not observed during the site visit conducted on November 8, 2014, however, the study area is anticipated to provide habitat for breeding birds and semi-urban tolerant mammal species that prefer open and small woodland habitat.

Amphibians

Characterization of amphibian habitat is obtained from the existing information available from the GSCA Subwatershed Study, the 2003 EIS and the TEIA, 2015. Spring Peepers heard on the northeast side of Woodland park road suggest that there may be pools of standing water suitable for breeding within the study area, even if only for a short period of time (tadpole development occurs within three months; Ontario Nature 2015). The amphibian surveys completed during the previous studies identified seven species within the greater subwatershed area. It is noted in the study that all seven amphibian species recorded as part of the previous studies are common in Ontario. Also noted in the Subwatershed Study, was a specimen that was not identified to species but is considered to be of the Jefferson Salamander complex. The Jefferson and blue-spotted salamander are not readily distinguishable by external features and interbreed, which results in two different hybrids. According to the Ontario Reptile and Amphibian Atlas (ORAA), queried on January 8, 2016, the range of the Jefferson Salamander is limited to south-central Ontario, from the west end of Lake Ontario (i.e., the Greater Toronto and Golden Horseshoe areas) to Long Point on Lake Erie. Therefore, this species is not expected to be present in the study area.

Breeding Birds

Breeding bird habitat in the study area was characterized based on existing information provided by GSCA, background studies, and a review of Ontario Breeding Bird Atlas (OBBA) data (1981-1985 and 2001-2005).

The habitat within the study area mainly supports bird species that prefer open habitat and wooded habitat, including area sensitive species, SCC and SAR species and migratory bird species.

The 2003 EIS identifies the wooded area south of the Georgian Trail as having a medium level significance as it provides some forest interior habitat for area sensitive bird species.

Current conditions observed during field investigations conducted in 2014 reveal that the presence of interior forest habitat in the study area has been reduced due to clearing

and edge effects of residential and road development. The 2003 observation of area sensitive and interior forest species south of Woodland Park Road may be a result of the study area being located at the edge of a larger forest area located to the northwest of the study area as well as the timing of the observation, completed prior to vegetation clearing for roads and residential lots on the Sorichetti (Georgian Glen) property. The forested area of FOMM7-2 may provide continuity in forest cover more predominant to the north of the study area.

3.2.6 Species of Conservation Concern (Rare and Special Concern Species)

The NHIC was reviewed November 26, 2012 for records of provincially rare and Special Concern species, as well as the OBBA records for the study area, background reports and correspondence with the MNRF (January 8, 2016). Based on a review of available records for the study area, a description of these species and their habitat and a comparison of the habitat available in the Study Area, species that have potential to be located within the study area are presented in the Natural Heritage Summary and Review of Potential Species at Risk and Rare Species in Appendix B. The results of the screening identified two provincially rare species and six species listed as Special Concern under the ESA in Ontario, as potentially being present in the study area (Appendix B).

The following Species of Conservation Concern (provincial) have been screened as having potential to be present within the vicinity of the study area:

- Variegated Meadowhawk (*Sympetrum corruptum*) (S3).
- Shrubby St. John's Wart (*Hypericum prolificum*) (S2).
- Eastern Wood-Pewee (*Contopus virens*)(Special Concern).
- Common Nighthawk (*Chordeiles minor*) (Special Concern).
- Golden-winged Warbler (*Vermivora chrysoptera*) (Special Concern).
- Wood Thrush (*Hylocichla mustelina*) (Special Concern).
- Milk Snake (*Lampropeltis triangulum*) (Special Concern).
- Snapping Turtle (*Chelydra serpentina*) (Special Concern).

Although species provincially listed as rare or Special Concern do not receive legal protection under the ESA or the federal Species at Risk Act, they may receive protection from some agencies, such as provincial and national parks or other acts such as the MBCA, Ontario Fish and Wildlife Conservation Act, which prohibits the killing, capturing, injuring, harassment and trapping of specially protected species.

3.2.7 SAR (Endangered and Threatened Species)

The NHIC was reviewed for records of provincially Endangered and Threatened species, as well as the OBBA records for the study area, background reports and

correspondence with the MNRF (January 8, 2016). Based on the records review, Endangered and Threatened species under the provincial Endangered Species Act, 2007 have been recorded in the vicinity of the Study Area. A description of these species and their habitat as well as their potential to be located within the study area, based on a comparison of the habitat of the identified SAR and the habitat available in the Study Area, is presented in the Natural Heritage Summary and Review of Potential Species at Risk and Rare Species Appendix B. The results of the screening identified one threatened species and one endangered species listed under the ESA in Ontario, as potentially being present in the study area (Appendix B).

The following Threatened and Endangered species have been screened to have the potential to be located within the Study Area:

- Chimney Swift (*Chaetura pelagica*) (Threatened)
- Butternut (*Juglans cinerea*) (Endangered)

Provincially Threatened and Endangered species and their habitat are protected by the Endangered Species Act, 2007 in Ontario.

3.3 Social Environment

3.3.1 Policy and Planning

A review of existing planning and policy data was conducted to obtain secondary source information relating to the natural and social environment within the Study Area and to provide an overview of existing policy framework in the study area. Sources reviewed included:

- Planning Act and Provincial Policy Statement (PPS).
- The Town of The Blue Mountains Official Plan (October 2015).
- Grey County Official Plan (Consolidated to June 25, 2013).
- GSCA Regulation- O.Reg 58/13.
- Fisheries Act.
- Niagara Escarpment Commission.
- Endangered Species Act, 2007.
- Clean Water Act -Source Water Protection.
- Planning Act.

Planning Act and Provincial Policy Statement

The Provincial Policy Statement (PPS) provides general policies on land use patterns, resources, and public health and safety that guide development across Ontario (PPS, 2005). Section 2.1 of the PPS provides guidance on the protection of natural heritage features.

Highway 26 / Grey Road 40 Intersection Improvements
May 2016

The definition of development under the PPS does not include “activities that create or maintain infrastructure authorized under an environmental assessment process”(PPS 2005). As such, intersection improvements are not subject to the Provincial Policy Statement and do not require approval under the *Planning Act*. Solutions for intersection improvements and the protection of natural heritage features are evaluated under the Municipal Class Environmental Assessment process.

The Town of The Blue Mountains Official Plan, October 2015

Section 3.14 Public and Utility Uses, of the Town of The Blue Mountains Official Plan provides that certain public uses, such as transportation facilities, may be permitted in all land use designations, except where specifically prohibited, provided that any building or structure is in harmony, in character and design, with uses permitted in the specific land use designation and is not detrimental to the natural environment.

The Town of The Blue Mountains Official Plan identifies the Study Area as located within Recreation Residential (RR) and Residential Infilling (RI), as identified on Schedule A, Land Use Plan (Appendix C). The permitted uses in RR include Residential development, intended to be primarily of single detached form however, other housing types, including duplex or townhousing developments may be permitted. Additionally, recreational uses such as parks, trail uses, equestrian facilities, community centres, cultural facilities, racquet facilities and other similar day use facilities may be permitted. The permitted uses in RI are Single detached residential dwellings, parks and open space.

Appendix Map A identifies Slope, Floodplain and Shoreline Hazard Lands to the south of Grey Road 40 (Appendix C). Appendix Map D identifies an Archaeological Area in the northwest portion of the study area and identifies a Rare Species Occurrence in the area to the southeast of the intersection of Highway 26 and Grey Road 40. Appendix Map F illustrates the study area being located within the Niagara Escarpment Plan Area as Escarpment Recreational. Appendix Map G identifies Highway 26 as a Provincial highway, Grey Road 40 as an arterial road, and Woodland Park Road and Lakewood Drive as a local roads.

The County of Grey Official Plan

Schedule A of the OP designates the subject lands as 'Recreational Resort Area'.
Section 2.6.7(1) of the OP states,

The Recreational Resort designation as shown on Schedule A of this Plan shall apply to those lands which are settlement areas which have developed as a result of site specific amendments to the County of Grey Official Plan and/or local Official Plan consisting of a

Highway 26 / Grey Road 40 Intersection Improvements
May 2016

defined development area, specific recreational amenities, residential development and serviced with full municipal services (sewer and water).

Schedule A also designates the subject lands as 'Escarpment Recreation Area'

Section 2.5.2(2) of the OP states:

Local Official Plans and/or Secondary Plans shall provide detailed land use policies and development criteria in these areas that are not in conflict with the provisions of the Niagara Escarpment Plan.

Appendix B of the OP indicates that the subject lands contain 'Significant Woodlands', south of Woodland Park Road.

Section 2.8.4(1) of the OP states:

No development or site alteration may occur within Significant Woodlands or their adjacent lands unless it has been demonstrated through an Environmental Impact Study, as per section 2.8.7 of this Plan, that there will be no negative impacts on the natural features or their ecological functions.

Appendix B of the OP also indicates that the subject lands abut Georgian Bay and contain multiple watercourses. Section 2.8.6(5) of the OP states:

No development shall be permitted within 30 metres of the banks of a stream, river, lake, or Georgian Bay. Where an Environmental Impact Study prepared in accordance with Section 2.8.6(4) of this Plan concludes setbacks may be reduced and/or where it has been determined by the appropriate Conservation Authority these setbacks may be reduced. Landowners are encouraged to forest the areas within 30 metres of any stream to maintain and improve fish habitat, ecological function of the stream and to increase natural connections.

Grey Sauble Conservation Authority (GSCA)

GSCA regulation O.Reg. 151/06 as amended by O.Reg 58/13, Grey Sauble Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses prohibits development or alteration within the jurisdiction of the GSCA in regulated areas without the permission of the authority.

Regulated areas are identified within the study area associated with watercourses in the south east and north west areas of the study area.

Fisheries Act

Section 35(1) of the Fisheries Act states that:

No person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery.

Serious harm to fish is defined as, “the death of fish or any permanent alteration to, or destruction of, fish habitat.” (Section 2(2))

The Department of Fisheries and Oceans may authorize work that may result in serious harm to fish subject to various conditions, appropriate mitigation and restoration.

The watercourses within the study area do provide fish habitat.

Niagara Escarpment Plan (NEP)

The Niagara Escarpment is a protected area under the Province of Ontario’s Niagara Escarpment Planning and Development Act, 1973, and the Niagara Escarpment Plan (NEP) Canada’s first large-scale environmental land use plan. The Niagara Escarpment Plan outlines land use designations, development criteria and related permitted uses, including farming, forestry and mineral resource extraction within the Niagara Escarpment area (<http://www.escarpment.org/home/index.php>, accessed December 9, 2015).

Correspondence from NEP (Appendix D) noted the study area is located within the NEP area and is designated Escarpment Recreation Area. The study area within the NEP is not within the area of Niagara Escarpment Development Control as municipal zoning is in effect. Designated Recreation Areas are areas of existing or potential recreational development associated with the Escarpment and may be seasonal or permanent residences.

Section 2.15 of the NEP addresses development criteria pertaining to transportation and utilities. The objective of the criteria in Section 2.15 is to design and locate new and expanded transportation and utility facilities to have the least possible change in the environment and natural and cultural landscapes. Section 2.15 of the NEP is presented in Appendix C of this report.

Section 2.6 addresses development criteria pertaining to New Development Affecting Water Resources. The objective of the criteria set out in Section 2.6 is to ensure new development affecting streams, watercourses, lakes, wetlands and groundwater systems will have minimum individual and cumulative effect on water quality and on the escarpment environment. Section 2.6 of the NEP is presented in Appendix C.

Section 2.7, which provides criteria to address development within woodlands and preservation of wooded areas, as well as Section 2.8, which provides criteria to address wildlife habitat and the protection of habitat of endangered, threatened, special concern

Highway 26 / Grey Road 40 Intersection Improvements
May 2016

and rare species may also be applicable for the project, depending on the preferred solution. Section 2.7 and 2.8 of the NEP are provided in Appendix C.

Green Belt Plan

The Greenbelt Plan includes lands within, and builds upon the ecological protections provided by, the Niagara Escarpment Plan (NEP) and the Oak Ridges Moraine Conservation Plan (ORMCP). It also complements and supports other provincial level initiatives such as the Parkway Belt West Plan and the Rouge North Management Plan. The Greenbelt Plan identifies where urbanization should not occur in order to provide permanent protection to the agricultural land base and the ecological features and functions occurring on this landscape. (The Green Belt Plan, 2005).

For lands within the NEP, the requirements of the NEP, established under the *Niagara Escarpment Planning and Development Act*, continue to apply and the Protected Countryside policies of the Green Belt Plan do not apply with the exception of section 3.3 of the Green Belt Plan; the provision and development of parkland, open space and trails strategies.

Endangered Species Act

Under the Endangered Species Act, 2007, Section 9(1):

No person shall, (a) kill, harm, harass, capture or take a living member of a species that is listed on the Species at Risk in Ontario list as an extirpated, endangered or threatened species.

Furthermore, according to Section 10(1):

*No person shall damage or destroy the habitat of,
(a) a species that is listed on the Species at Risk in Ontario List as an endangered or threatened species; or
(b) a species that is listed on the Species at Risk in Ontario List as an extirpated species, if the species is prescribed by the regulations for the purpose of this clause.*

According to the review of background information and the Review of Potential Species at Risk and Rare Species in Appendix B, Species at Risk Chimney Swift and Butternut have the potential to be located within the study area, with Butternut being recorded south of Woodland Park Road during the 2003 EIS completed for the development property known as Sorichetti (Georgian Glen) property.

As a provincially Threatened species, Chimney Swift and their habitat are protected by the Endangered Species Act, 2007 in Ontario. If Chimney Swift are nesting in or

adjacent to the study area, a portion of the study area may be considered Category 1 habitat, considered to be a human-made nesting/roosting feature, or a natural nesting/roosting tree cavity and the area within 90 m radius of the tree, represents the area considered the least tolerant to alteration (MNRF, 2005).

As an Endangered Species, Butternut and its associated habitat are protected by the Endangered Species Act, 2007 in Ontario. Any disturbance or impact within 25 m of a retainable Butternut tree (as determined by a Butternut Health Assessment) must be avoided unless no other alternative is available. Any impacts to retainable Butternut trees and their habitat will need to be addressed through the Endangered Species Act, and the implementation of rules set out in regulation for Endangered Species, O.Reg 242/08, specifically the regulations pertaining to Butternut trees.

Clean Water Act-Source Water Protection

As a result of the *Clean Water Act*, communities in Ontario are required to develop source protection plans in order to protect their municipal sources of drinking water. These plans identify risks to local drinking water sources and develop strategies to reduce or eliminate these risks. (<http://www.conservation-ontario.on.ca/what-we-do/source-water-protection>, accessed December 11, 2015).

The Town of The Blue Mountains obtains its municipal drinking water from Georgian Bay. A review of map 4.2.S1.4, Intake Vulnerability-Thornbury, indicates the study area is not located within a vulnerable area. A review of the Approved Source Water Protection Plan, map 3.11, for the Source Protection Area for GSCA, indicated the study area is not located within a Significant Groundwater Recharge Area.

3.3.2 Cultural Environment

A Stage 1 Archaeological Assessment was completed for the study area by Amick Consultants Limited and is presented in Appendix C. The study area was subject to reconnaissance and photographic documentation as part of the Stage 1 Assessment.

As a result of the Stage 1 Background Research, the project area potentially impacted by the proposed undertaking has been identified as an area of archaeological potential. A Stage 2 Property Assessment is required for those areas beyond the existing asphalt road and disturbed gravel Georgian Trail, where earthworks are required.

A Cultural Heritage Resources Assessment and Heritage Impact Assessment was completed for the study area by Amick Consultants Limited and is presented in Appendix C. The assessment was completed to identify cultural heritage resources including built heritage resources and cultural heritage landscapes.

Highway 26 / Grey Road 40 Intersection Improvements
May 2016

Findings of the assessment noted the enhancements to traffic control and linkages in the immediate vicinity will represent a significant enhancement to the local community. Given these considerations, a Heritage Impact Assessment (HIA) has determined that mitigation of impacts to heritage values is not necessary for the proposed undertaking.

4.0 Identification of Alternative Solutions

In Phase 2 of the Class EA, six alternative solutions were considered to address the improvements to the transportation network including:

- 1) Do Nothing.
- 2) Signalized Control.
- 3) Additional Turning Lanes.
- 4) Additional Through Lanes.
- 5) Realignment or Closure of Intersections.
- 6) Roundabout.

or some combination of alternatives.

The study evaluated alternatives with consideration for the natural, cultural, technical and economic environment. The evaluation table is presented in Appendix A.

5.0 Summary of Public Consultation

The Schedule B Class EA requirements include two mandatory public points of contact during the EA process. A Notice of Commencement, inviting public input on the project, was published in the Blue Mountains Courier-Herald and the Collingwood Enterprise Bulletin on May 29, and June 5, 2013. A Notice of Completion will be published in two editions of the Blue Mountains Courier-Herald and the Collingwood Enterprise Bulletin at the conclusion of the study.

The notices were mailed or emailed to agencies, utilities, Aboriginal Communities, local residents who live within the study area and other stakeholders that may have an interest in the project. As well, the notices were posted on the Town's website and at the community library and other key locations within the community. With each notice, these persons had opportunity to submit comments and concerns.

Copies of correspondence received during the EA can be referenced in Appendix D.

An additional point of public consultation was conducted as a Public Information Centre (PIC) held on Thursday April 24 and Saturday April 26, 2014. Details of the date, time, location and purpose of the PIC were published in the Blue Mountains Courier-Herald on April 2 and April 9, 2014 and the Collingwood Enterprise Bulletin April 4 and April 11, 2014. Notification of the PIC was also mailed or emailed to agencies, utilities, Aboriginal Communities, local residents who live within the study area and other stakeholders that

may have an interest in the project. As well, the notice of PIC was posted on the Town's website and at the community library and other key locations within the community.

A PIC summary report, including presentation material and comments received, is presented in Appendix D. Comments received following the PIC were noted and a response provided where appropriate. The comments received throughout the EA were incorporated into the evaluation of the alternatives.

6.0 Preferred Alternative Solution

Based on the evaluation of the alternatives, the comments received from stakeholders, agencies and interested parties, it was determined that a combination of Alternatives was preferred over the short and long term. Over the short term, Option 5-Realignment or Closure of Intersections and Option 3-Additional Turning lanes was preferred. Over the long term, the addition of Option 2) Signalized Control, was the preferred alternative solution. The preferred solution and its short and long term options includes the following:

Short Term

Option 5C-Realignment or Closure of the Following Intersections:

- Woodland Park Road and Lakewood Drive at their intersection with Highway 26
- Woodland Park Road at its intersection with Grey Road 40

New road connections to be provided between Georgian Glen Subdivision and Woodland Park Road

Option 3B: Eastbound right-turn lane on Highway 26 at Grey Road 40

Long Term

Addition of Option 2: Signalized Control at the Intersection of Highway 26 / Grey Road 40 / Lakewood Drive (contingent upon traffic volumes meeting MTO signal warrants), Including a Northbound Right Turn Lane, Combined with Options 3B and 5C.

The following improvements are included under the preferred solution:

- Replace the existing east-bound right turn taper with an eastbound right turn lane on Highway 26 at Grey Road 40.
- Extend the paved shoulders on Grey Road 40 to Highway 26 or construct a localized off-road sidewalk/trail at this location to improve pedestrian and cyclist connections.
- Retain pedestrian and emergency only accesses at the closed intersections of Lakewood Drive (west) at Highway 26, Woodland Park Road at Grey Road 40 and Woodland Park Road at Highway 26.

Highway 26 / Grey Road 40 Intersection Improvements
May 2016

- Implement two road connections between Woodland Park Road and the Georgian Glen development, one full use and one emergency access only. These connections are required prior to the closure of Woodland Park Road at Highway 26 or at Grey Road 40.
- Consider additional warning signs on Grey Road 40 for the curve and Georgian Trail crossing. While existing signs are considered adequate, additional signs may improve overall traffic operations.
- Implement improvements to subdivision roads (e.g., turn-around facilities) where required to maintain access for service vehicles and community mail boxes
- Over the long term, consider the installation of traffic signals at the intersection of Highway 26/Grey Road 40/Lakewood Drive, including the addition of a northbound right turn lane on Grey Road 40.



- Planned Emergency Access
- New Road Connection
- Stop Sign
- Right Turn Lane
- Road Closure
- Parcels

Sources:

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.
3. Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Disclaimer:

R.J. Burnside & Associates Limited and the above mentioned sources and agencies are not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

Datum: North American 1983 CSRS

Coord. System: NAD 1983 CSRS UTM Zone 17N

Projection: Transverse Mercator

Central Meridian: 81°0'0.00"W

False Easting: 500,000m

False Northing: 0m

Rotation: 0

Scale Factor: 0.99960

N

Grid North

050100150

Meters



Client

TOWN OF THE BLUE MOUNTAINS

Figure Title

PREFERRED ALTERNATIVE

HIGHWAY 26 / GREY ROAD 40

MUNICIPAL CLASS EA

Drawn	Checked	Date	Figure No. 2
HN	DDF	2015/12/15	
Scale		Project No.	
H 1:2,300		300032093	

7.0 Impacts

Impacts to the Technical Environment

From a technical perspective, the preferred alternative provides for existing and future traffic control needs including efficient intersection operation, improved sightline distances and improved capacity as well as improved access control along both Highway 26 and Grey Road 40. The preferred solution addresses intersection spacing issues with the closure of Woodland Park Road (west) and Lakewood Drive (west) at Highway 26, the closure of Woodland Park Road (east) at Grey Road 40 and new road connections between the Georgian Glen development and Woodland Park Road. The existing alignment of Grey Road 40 at Highway 26 is considered to be operationally tolerable. Minor improvements are recommended, including additional warning signage for the curve and extending the paved shoulder on Grey Road 40, to allow for a small shift of the centreline lane marking and edge marking to the east on this road in the area of the stop control, to address issues raised by residents during the EA (i.e. vehicles running off of Grey Road 40 and potential conflicts for turning movements).

Storm water management for the preferred alternative will maintain existing conveyance of storm water including the collection of road drainage in a combination of overland flow and infiltration, swales/ditches and watercourses in the area. During detailed design, quality and quantity control requirements will be assessed.

Over the long term (over 20 years) signalization may be required at the intersection of Highway 26/Grey Road 40/Lakewood Drive. Roundabout control can be considered, in lieu of signal control, however based on current technical considerations (i.e. traffic operations, collision considerations), as well as the significantly higher cost, increased footprint and associated impact to the natural environment of roundabout control, the preferred option is considered to be signal control at this location.

Impacts to the Economic Environment

The preferred solution represents a low to moderate capital cost for construction and installation, operation and maintenance. It also does not compromise MTO's future planning studies related to providing bypasses to Collingwood and Thornbury in the broader study area. The preferred alternative may incur moderate costs for the construction and property acquisition for the new road accesses to the Georgian Glen subdivision.

Impacts to Social Environment

From a community perspective the preferred alternative provides for improved traffic operations at intersections and lowers the potential conflicts. Extending the paved shoulders on Grey Road 40 to Highway 26, or constructing a localized off-road

sidewalk/trail at this location, as well as consideration of additional warning signs on Grey Road 40 for the curve and Georgian Trail crossing, provides for improved pedestrian and cyclist connections. The provision of future traffic signals will further enhance access to the Georgian Trail to the south of Highway 26 and to the waterfront features to the north of Highway 26, and will be consistent with other traffic controls in the area.

The closure of intersections will add travel time for some residents, however, the additional travel time is anticipated to be less than 2.5 minutes under the worst case scenario.

Nuisance impacts such as restricted property access during construction are anticipated to be limited with the implementation of mitigation measures such as detours. Additional nuisance impacts, such as visual impacts and noise impacts from the construction, are anticipated to be temporary.

Impacts to Cultural Environment

The assessment, of the effects of the proposed undertaking to the cultural heritage landscape of the study area, determined that there are no potential adverse impacts. Given these considerations, a Heritage Impact Assessment (HIA) has determined that mitigation of impacts to heritage values is not necessary for the proposed undertaking.

As a result of the Stage 1 Background Research, the project area potentially impacted by the proposed undertaking has been identified as an area of archaeological potential. A Stage 2 Property Assessment is required for those areas beyond the existing asphalt road and disturbed gravel Georgian Trail, where earthworks are required.

Impacts to the Natural Environment

Impacts to natural features are anticipated with the new road connections from Woodland Park Road to the Georgian Glen development, including impact to wooded areas with potential impact to Species of Special Concern and SAR and associated habitat.

Vegetation

The implementation of the preferred solution is not anticipated to significantly impact vegetation in the study area, with the exception of the construction of the new road accesses from Woodland Park Road to Georgian Glen subdivision. Construction of the new roads will result in the removal of vegetation within a wooded area including selected trees within a White Cedar – Hardwood Mixed Forest. The wooded areas anticipated to be impacted are not inferred to be significant woodlands, as identified on the Grey County Official Plan Appendix B, map 2. The specific impact to vegetation will depend on the determination of the final new road alignments within this area.

The closure of roads, extending paved shoulders, installing signs and the installation of traffic signals as well as the addition of an eastbound right turn lane and a northbound right turn lane at Highway 26/Grey Road 40/Lakewood Drive are considered to have limited impact to vegetation, as construction is anticipated to be completed within the existing right-of-way, in areas that have previously been influenced by human activity. The potentially impacted natural vegetation communities are considered to be widespread and secure in Ontario (OMNR, 2000).

Habitat

The habitat within the footprint of the preferred alternative is considered to have the potential to support breeding birds and mammals typical of disturbed open habitat and small woodlands in a semi-urban environment.

Fish

The background reports confirm the presence of fish within the study area watercourses. The implementation of the preferred alternative is not anticipated to directly impact fish and fish habitat given the work does not include “in water” works associated with a watercourse crossing containing fish. Construction activities completed near water resulting in the potential direct or indirect impact to fish habitat will require the proponent to complete Fisheries Act review and Self Assessment to determine the potential for serious harm to fish.

Amphibians

Amphibian surveys completed during previous studies confirm the presence of amphibian habitat in the study area. It is unlikely that the study area is considered significant for breeding amphibians as the amphibian study did not confirm the presence of a highly diverse, rare, or numerous breeding populations of frog species. The implementation of the preferred alternative is not anticipated to impact potential amphibian breeding habitat located on the northeast side of Woodland Park Road.

Birds

Several breeding bird species have the potential to be located within the general study area. Many receive protection nationally under the Migratory Birds Convention Act. The “incidental take” of migratory bird nests or the disturbance, destruction or taking of the nest of a migratory bird are prohibited under section 6 of the Migratory Bird Regulations under the authority of the Migratory Birds Convention Act, 1994. Nests contents (eggs and young) are protected by virtue of the Migratory Birds Convention Act (MBCA) which has implications on development activities that might occur during the breeding season (Canadian Wildlife Service, July 2012).

Highway 26 / Grey Road 40 Intersection Improvements
May 2016

Background reports and OBBA data recorded area-sensitive bird species in the greater area (Appendix C). Area sensitive species were observed in the study area during the breeding bird survey completed for the 2003 EIS (Hairy Woodpecker, Red-breasted Nuthatch, Black and White Warbler and American Redstart). These species require large tracts of habitat (>30ha).

Based on the observation of forest area sensitive species within the study area, the forest areas of the study area may contribute to the overall habitat in the greater area for some forest area sensitive species that require large tracts of habitat, however, the wooded areas within the study area are not considered to be of sufficient size (~7.5ha) to represent forest area habitat. The wooded community within the study area does not represent interior forest habitat (at least 200 m from a forest edge, SWHTG). Habitat for open area sensitive species is not present within the study area given the small size of the open meadow communities (~0.6ha);

The estimated footprint of the preferred alternative is not anticipated to significantly impact the habitat of forest area sensitive species above existing conditions, as the relative amount of vegetation to be removed is not expected to have a significant impact on the available overall habitat within the greater area for these species.

Species of Conservation Concern

Species of Conservation Concern have been screened as having potential to be present within the vicinity of the study area:

Although species provincially listed as rare or Special Concern do not receive legal protection under the provincial Endangered Species Act, 2007 or the federal Species at Risk Act, they may receive protection from some agencies, such as provincial and national parks or other acts such as the Migratory Birds Convention Act, Ontario Fish and Wildlife Conservation Act, which prohibits the killing, capturing injuring, harassment and trapping of specially protected species. The preferred alternative is not anticipated to impact Special Concern Species with the implementation of avoidance measures, including timing of construction for the removal of vegetation.

Species at Risk (SAR)

Threatened and Endangered species have been screened to have the potential to be located within the Study Area:

As a provincially Threatened species, Chimney Swift and their habitat are protected by the Endangered Species Act, 2007 in Ontario. If Chimney Swift are nesting in or adjacent to the study area, a portion of the study area may be considered Category 1 habitat, considered to be a human-made nesting/roosting feature, or a natural nesting/roosting tree cavity and the area within a 90 m radius, represents the area considered the least tolerant to alteration (OMNR 2005). Human-made nesting/roosting

features, i.e., buildings, are not anticipated to be impacted by the alternative solutions being considered. Natural nesting/roosting tree cavities may be present in the wooded areas where vegetation removal may be completed to facilitate the construction of new roads, depending on the location of the new road accesses. In Ontario, the most commonly known tree species to host Chimney Swift nesting or roosting sites are white pine, sycamore, yellow birch and cypress (MNRF, 2005).

Butternut was recorded during the 2003 EIS completed for the development property to the south of Woodland Park Road, within the Sorichetti (Georgian Glen) property. Butternut and its associated habitat is protected by the Endangered Species Act, 2007 in Ontario. Retainable Butternuts are protected and cannot be removed without an authorization under the Endangered Species Act 2007, i.e., without either (1) an overall benefit permit, or, if no more than 10 trees are concerned; (2) a planting plan that has been approved by the MNRF, or has not been approved or refused within 30 days following its submission to the MNRF district office. Butternut tree(s) may be present in the wooded areas where vegetation removal may be completed to facilitate the construction of new roads, depending on the location of the new road accesses.

Should avoidance measures not be sufficient to mitigate impacts to identified Species at Risk, construction and alteration of habitat will be subject to rules in regulations established under the Endangered Species Act and/or consultation with the MNRF to determine whether or not the proposed works are likely to contravene subsection 9(1) or 10(1) of the ESA

Impact to GSCA regulated area

The implementation of the preferred alternative will require construction activities within GSCA Regulated Areas associated with watercourse to the southeast of the intersection of Highway 26/Grey Road 40/Lakewood Drive. A permit will be required from GSCA.

Impact to Niagara Escarpment Plan (NEP)

The implementation of the preferred solution will require construction activities within the NEP and may be subject to the criteria provided under the NEP for Transportation and Utilities; Section 2.15, New Development Affecting Water Resources; Section 2.6, Section 2.7, which provides criteria to address development within woodlands and preservation of wooded areas, as well as Section 2.8, which provides criteria to address wildlife habitat and the protection of habitat of endangered, threatened, special concern and rare species. Consultation with NEP is required to ensure the project conforms to the NEP prior to implementation.

8.0 Mitigation

The following measures and design approach should be implemented in order to mitigate negative impacts of the proposed project on the environmental features of the study area. It is also recommended that the following mitigation and monitoring measures be included within the detailed design process and reporting, and within the special provisions section of the tender documents, as applicable. All design and construction reports and plans will be based on a best management approach that centres on the prevention of impacts, protection of the existing environment and opportunities for rehabilitation and enhancement of the impacted areas.

Surface Water / Hydrology, Soils and Sedimentation

Impact

Temporary earthworks associated with construction activities

Effect

- A. Potential for sediments to enter area watercourses as a result of the following project activities:
 - 1) site clearing
 - 2) stockpiling
 - 3) excavation
 - 4) construction
- B. Potential for localized water quality impacts as a result of spills.

Mitigation

- A. The footprint of the disturbed area will be minimized as much as possible.

The watercourses and the associated regulated areas are under the jurisdiction of GSCA. The GSCA is to be contacted prior to the planning of construction activities within the regulated areas of the study area.

An erosion and sediment control plan will be developed. Implementation of the erosion and sediment control measures will conform to recognized standard specifications such as Ontario Provincial Standards Specification (OPSS).

Any stockpiled material will be stored at a safe distance from the watercourse to ensure that no deleterious substances enter the water.

Sediment and erosion control measures (silt curtains, silt fence) will be installed and will be maintained during the work phase and until the site has been stabilized.

Control measures should be inspected regularly to ensure they are functioning and are maintained as required. If control measures are not functioning properly, no further work will occur until the problem is resolved.

Any temporary mitigation measures will be installed prior to the commencement of any site clearing, grubbing, excavation, filling or grading works and will be maintained on a regular basis, prior to and after runoff events.

- B. All equipment fueling and maintenance will be done at a safe distance from the watercourses to ensure that no deleterious substances enter the waterways. No equipment or fuel storage shall be permitted in the GSCA regulated area or in any flood plain area.

The contractor will be required to develop spill prevention and contingency plans for the project.

Personnel will be trained in how to apply the contingency plans and the plans will be reviewed to strengthen their effectiveness and ensure continuous improvement. Spills will be immediately contained and cleaned up in accordance with provincial regulatory requirements and the contingency plan. A hydrocarbon spill response kit will be on site at all times during the work. Spills will be reported to the Ontario Spills Action Center at 1-800-268-6060.

All waste generated during construction must be disposed of in accordance with MOECC requirements.

The above mitigation measure will be implemented for any construction activity and will have to be identified and implemented in order to secure relevant agency permits.

Groundwater

Impact

Temporary earthworks and dewatering associated with construction

Effect

- A. Potential for localized groundwater quality impacts as a result of spills during construction.
- B. Potential for localized groundwater quantity impacts as a result of dewatering.

Mitigation

- A. Refueling of equipment and fuel storage should be conducted in designated areas with spill protection.
- B. As part of detailed design, the completion of a hydrogeological study will be considered depending on the nature of the construction, the sensitivity of adjacent wells and watercourses and permit requirements.

Vegetation, Wildlife / Terrestrial and Aquatic Habitat***Impact:***

Impact to wooded areas as a result of the construction of new road connections to Georgian Glen subdivision. The specific impact to vegetation will depend on the final determination of the road locations established during detailed design.

Impact to the habitat of breeding bird and generalist mammal species as a result of vegetation removal. The habitat within the footprint of the preferred alternative is considered to have the potential to support breeding birds and generalist mammal species.

Possible impact to habitat of SAR birds and SAR trees as a result of the new road connections to Georgian Glen subdivision.

Possible indirect impacts to fish and fish habitat as a result of construction activities near water.

Effect

- A. Loss of vegetation.
- B. Habitat loss.
- C. Impact to SAR.

Mitigation

- A. Minimize disturbance to existing vegetation by limiting the extent of construction footprint limits, as reasonable, and providing tree protection by means of snow fencing, wrapping, or other acceptable means during construction, as applicable. Disturbed areas will be stabilized and re-vegetated upon project completion and restored to a pre-disturbed state where practical. Topsoil, located where excavation will occur, shall be stripped and stockpiled separately. This material will be used for restoration to facilitate natural regeneration of native species.

- B. Consultation with Niagara Escarpment Commission is required to determine if the implementation of the preferred solution is subject to the Niagara Escarpment Plan (NEP) and that the project conforms to the NEP prior to implementation.

Construction activities with the potential to destroy migratory birds, nests and eggs, such as vegetation clearing, should not take place during the general breeding season, generally considered to be from April 26 to July 31, unless it can be determined there will be no contravention under the Migratory Birds Convention Act.

Construction activities completed near water resulting in the potential direct or indirect impact to fish habitat will require the proponent to complete Fisheries Act review and Self-Assessment to determine the potential for serious harm to fish.

- C. Earth works and vegetation removal activities related to the construction of the preferred alternative should be completed outside of the active season for Special Concern bird and reptile species identified as being possibly located or confirmed within the study area. The active season for breeding birds is considered to be April 26 to July 31. The active season for Snapping Turtle is early spring to fall and for Milk Snake is generally considered to be from May to October (COSEWIC, 2002).

Targeted breeding bird surveys are recommended to detect the presence of Chimney Swift (Threatened) and other Species at Risk birds, as well as Chimney Swift nest and roost sites within the wooded area, within 90 metres radius of the proposed new road accesses to Georgian Glen subdivision. The targeted breeding bird surveys are to be completed in the season before proposed construction and/or alteration of the study area. Breeding bird surveys will consist of three surveys during the active breeding bird window.

Should avoidance measures not be sufficient to mitigate impacts to identified Species at Risk birds, construction and alteration of habitat will be subject to consultation with the MNRF to determine whether or not the proposed works are likely to contravene subsection 9(1) or 10(1) of the Endangered Species Act, 2007.

During detailed design, an assessment of the trees within 25 m of the proposed new road accesses to Georgian Glen subdivision and construction activities should be completed in an effort to determine the presence of Butternut species. Should Butternut species be located within 25 m of construction activities, a Butternut Health Assessment must be completed by a certified Butternut Health Assessor during the MNRF's acceptable window for Butternut assessment.

The local district MNRF Species at Risk Biologist is to be contacted to discuss the presence of Butternut trees and potential impact and mitigation measures.

Any disturbance or impact within 25 m of a retainable Butternut tree is to be avoided unless no other alternative is available.

Should avoidance measures not be sufficient to mitigate impacts to identified Species at Risk Butternut, construction and alteration of habitat will be subject to rules in regulations established under the Endangered Species Act and/or consultation with the MNRF to determine whether or not the proposed works are likely to contravene subsection 9(1) or 10(1) of the ESA.

Impacts to retainable Butternut trees will need to be addressed through the Species at Risk Act, and the implementation of rules set out in regulations for Endangered Species, O.Reg 242/08, specifically the regulations pertaining to Butternut trees. Retainable Butternuts are protected and cannot be removed without an authorization under the Endangered Species Act 2007, i.e., without either (1) an overall benefit permit, or, if no more than 10 trees are concerned; (2) a planting plan that has been approved by the MNRF, or has not been approved or refused within 30 days following its submission to the MNRF district office.

Should SAR be encountered at any time during the project, the MNRF District Office shall be contacted for advice on how to proceed.

Noise / Vibration / Air Quality / Access

Impact

Possible temporary nuisance impacts, such as noise and air quality, during construction.

Some temporary disruption to the use and access of private property may occur during construction.

Effect

- A. Temporary nuisance noise during construction activities.
- B. Increased dust in air from construction activities.
- C. Road closures and/or detours.

Mitigation

- A. Noise control measures, such as adhering to the Town's Noise By-law 2002-09 and the use of appropriate machinery with mufflers will be implemented where required. All equipment with internal combustion engines should be in good repair, equipped with emission controls as applicable and operated within regulatory requirements.
- B. Dust generation will be monitored during construction. Both surface wetting using water (to protect water quality), street sweeping and mud mats will be employed as necessary.

- C. Notification will be given to residents of the upcoming temporary access restriction advising them of temporary detours around construction in addition to on-site construction and detour signs.

Every reasonable effort will be employed to minimize this temporary restriction.

Archaeology / Cultural Heritage

Impact

The study area is considered to have archaeological potential. Earthworks associated with construction activities may disturb or damage archaeological features, if present within the study area.

No Cultural Heritage Features were observed within the Study Area such that the proposed project would impact these features.

Effect

- A. Potential to impact archeological features.

Mitigation

- A. Stage 2 Property Assessment is required for the subject property. The archaeological report completed for the project includes the following recommendations:

It is recommended that the areas of existing asphalt road and disturbed gravel Georgian Trail identified within this report are exempt from any requirement for further investigation as they cannot be assessed using conventional methodologies.

It is required that the wooded area must be subject to high intensity test pit survey at an interval of 5 metres between individual test pits.

It is required that the area adjacent to either side of the asphalt road must be subject to high intensity test pit survey at an interval of 5 metres between individual test pits.

Saugeen Ojibway Nation (SON) has requested to be involved in field work for any Stage 2 archeological work for the project.

Highway 26 / Grey Road 40 Intersection Improvements
May 2016

Human health and safety

Effect

- A. Potential safety hazard from construction activities, heavy equipment and increased traffic.

Mitigation

- A. The contractor will be required to implement a Health and Safety Plan (OHSA 1990) and a traffic control plan.

9.0 Staging of Works for the Preferred Alternative

The construction of the various improvements identified in the Preferred Alternative can be implemented in stages, as approvals and available funding allow. These improvements may be implemented independently or, where possible, the road authorities may coordinate their completion. It is expected that coordination details and agreements will be formulated between the various road authorities as part of the detailed designs for these projects.

The implementation of the Woodland Park Road road closures and new road accesses to Georgian Glen subdivision are contingent on the completion of the Georgian Glen subdivision.

The implementation of the eastbound right turn lane on Highway 26 at the intersection of Highway 26/Grey Road 40/Lakewood Drive, to replace the existing eastbound taper, is dependent on MTO including these works in their capital improvement program. This right turn lane has not been included in the rehabilitation work on Highway 26, that is currently scheduled for completion in 2016.

The implementation of the improvements along Grey Road 40 (i.e., closure of the Woodland Road access and improving the pedestrian linkage at the Highway 26 intersection) is dependent upon co-ordination between the MTO, County and Town.

The installation of signals at Highway 26/Grey Road 40/Lakewood Drive, including the addition of a northbound right turn lane, is a long term consideration, subject to signal warrants being met.

10.0 Future Considerations

The preferred solution over the long term includes the following:

- Ongoing monitoring of traffic operations at Highway 26/Grey Road 40/Lakewood Drive to confirm if, or when, signal warrants are met.
- Signalization at the intersection of Highway 26/Grey Road 40/Lakewood Drive with provision of a northbound right turn lane on Grey Road 40, subject to signal warrants being met.
- Ongoing monitoring of traffic operations on Highway 26 to determine if additional deceleration length is needed for the eastbound left hand turn lane on Highway 26 at Lakewood Drive (east).
- Review impacts of the ongoing by-pass studies for Collingwood and Thornbury on the study area.

11.0 Conclusions

As per the requirements of the Municipal Class EA, this Project File is available for public review and comment for a period of 30 calendar days following the publication of the Notice of Completion.

If concerns arise regarding this project which cannot be resolved in discussion with the Town, a person or party may request that the Minister of the Environment make an Order for the project to comply with Part II of the *Environmental Assessment Act* (referred to as a Part II Order), which addresses individual environmental Assessments. Requests must be received by the Minister within 30 calendar days of the first publication of the Notice of Completion.

If the Minister does not receive a request for a Part II Order within the 30 calendar days, then the project will move forward to detailed design, approvals process and subsequent implementation of the preferred alternative.

Respectfully submitted by:

R.J. Burnside & Associates Limited

Highway 26 / Grey Road 40 Intersection Improvements
May 2016

References:

Natural Heritage Information Centre,
http://www.mnr.gov.on.ca/en/Business/NHIC/2ColumnSubPage/STDU_138223.html
NHIC accessed April 1, 2014.

Canadian Wildlife Service (Ontario Region) Explanation for the Core Nesting Periods
Table, July 2012

Conservation Ontario 2014 Species at Risk Stream Segments

COSEWIC 2002. COSEWIC assessment and status report on the milksnake
Lampropeltis triangulum in Canada. Committee on the Status of Endangered Wildlife in
Canada. Ottawa. vi + 29 pp..
http://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_milksnake_e.pdf

Ministry of Natural Resources and Forestry, Species at Risk in Ontario, various
species <http://www.ontario.ca/environment-and-energy/species-risk-ontario-list>,
accessed June 24, 2015

Ministry of Natural Resources and Forestry, Species at Risk in Ontario, Butternut
(*Juglans cinerea*) <http://www.ontario.ca/page/butternut-species-risk>, accessed January
7, 2016.

Ministry of Natural Resources and Forestry, General Habitat Description for the Chimney
Swift, (*Chaetura pelagica*), July 2, 2013. [http://files.ontario.ca/environment-and-
energy/species-at-risk/mnr_sar_ghd_chmny_swft_en.pdf](http://files.ontario.ca/environment-and-energy/species-at-risk/mnr_sar_ghd_chmny_swft_en.pdf), accessed Jan. 3, 2016.

Ministry of Natural Resources and Forestry, Snapping Turtle, Scientific name: *Chelydra
serpentina*, updated September 29, 2015. <http://www.ontario.ca/page/snapping-turtle>,
accessed December 11, 2015.

Ministry of Municipal Affairs and Housing, The Green Belt Plan, 2005.

Ministry of Municipal Affairs and Housing, Provincial Policy Statement (PPS), 2014

MMM Group Limited, Highway 26 Rehabilitations - 0.6 km West of Grey County Road 2,
Easterly to 0.1 km East of Grey County Road 21 (Osler Bluff Road). The Fish and Fish
Habitat Impact Assessment Report, February 2015.

MMM Group Limited, Terrestrial Ecosystems Impact Assessment Report
Preliminary & Detailed Design, Rehabilitation of Highway 26 from Thornbury to the Town
of Blue Mountains / Collingwood. March 2015.

OMNR. 2000. Significant wildlife habitat technical guide. 151p.

Highway 26 / Grey Road 40 Intersection Improvements
May 2016

Ontario Geological Survey 2003. *Surficial Geology of Southern Ontario*. Ontario Geological Survey, Miscellaneous Release-Data 128.

Ontario Geological Survey 1991. Bedrock geology of Ontario, southern sheet; Ontario Geological Survey, Map 2544, scale 1: 1 000 000.

Ontario Nature, Reptiles and Amphibians of Ontario, Milksnake (*Lampropeltis triangulum*)
http://www.ontarionature.org/protect/species/reptiles_and_amphibians/milksnake.php
Accessed June 22, 2015