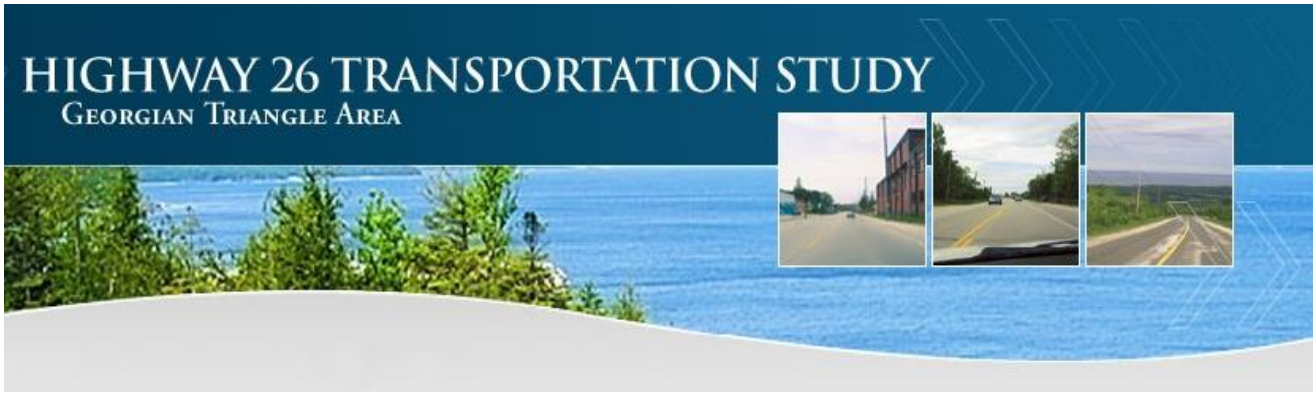
Ontario Ministry of Transportation



NEEDS ASSESSMENT REPORT

Volume I: Main Report

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Executive Summary

1. Introduction

Highway 26 along the south shore of Georgian Bay is an important regional mobility corridor, providing a principle route for moving people and goods between communities in the Georgian Triangle and other parts of Ontario, including the Greater Toronto Area. Highway 26 also supports access to a variety of adjacent land uses and plays a critical role in local circulation for area residents, businesses, and tourists in communities such as Collingwood, Blue Mountains, Wasaga Beach, Stayner, Meaford, and Thornbury. As the area is seeing unprecedented amounts of growth and development, the existing facility is experiencing increasing levels of congestion. Consequently, MTO has determined that the need for potential transportation improvements should be explored.

The Highway 26 Transportation Needs Assessment provides an analysis of existing and future transportation conditions, problems and opportunities; identifies and evaluates a range of multi-modal solutions to address the problems and opportunities; and recommends a preferred alternative(s). While the Transportation Needs Assessment is undertaken using a process that is consistent in many ways with the requirements of the Environmental Assessment Act, it is not a formal Environmental Assessment Study. As such, it provides a context for future transportation improvements by taking a system wide approach to assessing needs and potential improvements. Each transportation project would still be subject to separate study in accordance with the Environmental Assessment process (either individual EAs or Class EAs, depending upon the nature of the proposed transportation improvement).

The purpose of the Highway 26 Transportation Study is to:

- Establish an up-to-date, reliable profile of current and future travel activity in the Study Area, and determine transportation network needs;
- Identify future studies to address those network needs and determine the responsibility among MTO and area municipalities for undertaking them;
- Provide an overview of environmental conditions in the area; and
- Outline the environmental assessment process for future MTO studies that are identified.

For the purposes of this Highway 26 Transportation Study, the Study Area (as shown in **Figure ES-1**) spans from the Township of Clearview, in the vicinity of Horseshoe Valley Road/County Road 29 in the east, westerly to the Town of Meaford within Grey County. The Study Area covers the following municipalities:

- Simcoe County
    - Town of Collingwood
    - Town of Wasaga Beach
    - Township of Clearview
- Grey County
    - Town of The Blue Mountains
    - Municipality of Meaford

Figure ES-1: Study Area

2. Public and Agency Communication

Selected external ministries, agencies, aboriginal groups, municipal partners and members of the public had opportunities to provide input throughout the course of the study. Communication with these groups included meetings with municipal partners, the Ministry of Infrastructure and correspondence with interested stakeholders via mail and email, as discussed in the following sections.

The Notice of Study Commencement was posted on the study website and mailed to agencies and other stakeholders in February 2009. In addition, a copy of the notice was also posted in local newspapers.

A team of municipal partners was established at the onset of the study and consisted of representatives from each of the municipalities situated within the Study Area, including:

- Grey County;
- Town of The Blue Mountains;
- Municipality of Meaford;
- County of Simcoe;
- Township of Clearview;
- Town of Collingwood; and
- Town of Wasaga Beach.

Meetings with the Ministry of Infrastructure (MOI) were also held a two key points in the study process (December 2010 and May 2012).

3. Identification of Transportation Problems and Opportunities

Traffic volumes along Highway 26 have consistently increased from 1990 to 2008 across all segments, with growth in daily volumes of 40-80% for road segments to the east of Collingwood and 16-30% for road segments to the west of Collingwood. The most significant increases in traffic volumes are for Highway 26 in the eastern end of the Study Area (from Horseshoe Valley Road to Collingwood). The highest volumes are observed in the segment between Wasaga Beach and Collingwood, where the Ministry has recently completed construction of the New Highway 26 alignment.

Significant grown has occurred in the Georgian Triangle Area in the recent past and this trend is expected to continue into the future with planned growth in both local population and employment. Tourism and recreation related travel to the region is also expected to continue to grow, leading to increased trip making by the region's many visitors and seasonal residents.

Past studies have identified the need for highway improvements within the study area to address longer term growth in the Collingwood / Town of the Blue Mountains Area. One of the key questions facing the Ministry and local municipalities in past studies was the split between local and long distance ("provincial") traffic using Highway 26 through the Study Area, and how the growth in these two segments of the travel demand market would influence the need for and type of improvements required. Using the travel survey data collected for this study, an assessment of the growth in local travel demand compared to longer distance demands was summarized and used to identify improvement needs.

Two origin-destination (OD) surveys were carried out as part of this study in order to capture and analyze winter and summer travel patterns in the Study Area. The winter survey was focused on analyzing the travel patterns of ski patrons at local resorts, while the summer survey consisted of conducting roadside interviews at 13 survey stations located throughout the Study Area, as illustrated in **Figure ES-2**.

The winter survey included a comprehensive resort patron survey (face-to-face interviews with ski patrons) and a license plate survey of vehicles parked at five key ski resort parking areas. The interviews were conducted over a three day period between February 27 and March 1, 2009, at the Craigleith Ski Club and Blue Mountain Resort in the Town of The Blue Mountains. The interviews occurred during varying hours of operation, depending on the survey day. Over one thousand face-to-face surveys were completed over three weekend days, representing approximately 5.4% and 11.5% of the Craigleith Ski Club and the Blue Mountain Resort patrons, respectively.

The majority of skiers were found to travel to the ski hill directly from home (65%), while approximately 33% of skiers were found to travel from local condos, hotels, and resorts. The catchment area for the ski resorts was dominated by residents of the Greater Toronto Area and Hamilton (69% of weekend skiers), followed next by local residents in Simcoe and Grey Counties (14% of weekend).

The summer travel survey was conducted during the months of July, August and September 2009. As part of the summer survey, a comprehensive passenger vehicle survey was conducted at six stations along Highway 26, and seven stations located along adjacent municipal roadways within the Study Area. As such, each survey station collected data during one weekday, between 6:00 am and 8:00 pm, and one Sunday, between 9:00 am and 8:00 pm, between July 19th and September 20th, 2009. Approximately 20,000 weekday and 11,000 Sunday surveys were collected, achieving a 20% sample size on weekdays and a 15% sample size on Sundays (greatly exceeding the targeted 5% sample size).

Figure ES-2: Summer Survey Station Locations

One of the key questions facing the Ministry and local municipalities in past studies was the split between local and long distance ("provincial") traffic using Highway 26 through the Study Area. Using the travel survey data collected for this study, an assessment of the local travel demand compared to longer distance demands was summarized on a station by station basis.

For the purpose of this assessment, the average trip length from origin to destination was used as an indicator of the local versus long distance nature of trip making at each station. Trips were categorized into three trip length categories:

- Local Trips – Less than 20km in length
- Region Trips – between 20-50 km in length
- Long Distance – trips longer than 50 km

The summer travel survey revealed very different travel patterns in the eastern portion of the Study Area versus the western areas, with Collingwood representing the mid-point location where the patterns change.

To the east of Collingwood, local trip making represented about 63% of traffic on weekdays and about 47% on Sunday. Longer distance trips were split equally between trips to/from Barrie and the GTA on weekdays, although on Sundays, longer distance trips are dominated by trips to/from the GTA. There was a strong local commuting and recreational travel demand between Collingwood and Wasaga Beach and some of the County Roads in the area serve a moderate share of long distance "provincial" traffic, particularly on weekends.

To the west of Collingwood, local trip making represented about 70% of traffic on weekdays and about 56% on Sunday. Longer distance trip making demand was overwhelmingly oriented to the Bruce Peninsula, however, there was a strong local commuting and discretionary travel demand between Thornbury and Collingwood for work/business and shopping/social trips. The combination of Osler Bluff Road and Poplar Side Road was being used by local traffic as a bypass of Highway 26 in Collingwood.

One of the main observations from the summer travel survey is the role that Collingwood plays as a key travel destination and a "regional hub" for trip making in the Study Area. On Highway 26 to the east of Collingwood, two thirds of peak period weekday traffic during the summer has an origin or destination within Collingwood. To the west of Craigleith, approximately 60% of the weekday peak period traffic on Highway 26 is oriented to/from Collingwood.

The Highway 26 corridor currently serves a mixture of local, regional, and long distance trips since there are limited alternative routes available (particularly between Grey County and Simcoe County). Given that there are limited inter-regional transit services in the Study Area, there is a reliance on auto travel for the majority of medium to long distance trips in the Study Area for locals and recreational demands.

Forecasting Future Conditions

The summer survey was used extensively to develop the new Simcoe and Grey County Subarea travel demand model. The new Simcoe and Grey County Subarea model simulates daily and PM peak hour trip making for a typical summer weekday by expanding on the Ministry's existing GGH model and converting it to forecast summer weekday periods. This included adjusting the travel demands to reflect summer seasonal commuting demands; adding summer recreational and vacation trips from the travel survey; and adjusting base population and employment forecasts to account for the increase in seasonal residents that live in the area during the summer months at cottages and resorts.

Based on forecasts in the Growth Plan for the Greater Golden Horseshoe (Growth Plan), Simcoe County population and employment are expected to grow by 53% and 41% respectively to 2031, while during the same time period the Grey County Growth Management Study has forecast population and employment growth of 25% and 15% respectively over the same period[1]. Over 40,000 new residents and almost 6,000 new jobs are expected in the Study Area by 2031.

Population within the area of influence (i.e. Barrie and Owen Sound) is forecasted to grow by almost 120,000 and employment by over 40,000. Since Barrie and Owen Sound represent the key Regional Centres for growth, these increases will have a significant impact on both work trip commuting and discretionary trip making along Highway 26.

Annual inbound recreational/vacation visits to the Highway 26 Study Area are expected to grow by approximately 1.4 million visitors or 42% between 2006 and 2031. While part of this is for same day visits and overnight visits to hotels and campgrounds, a large component of this demand is for seasonal residents. Significant growth is expected in the number of seasonal residences in the study area, with the most dramatic increases occurring in Collingwood, the Town of The Blue Mountains and Wasaga Beach. This growth is not included in the population forecasts contained in the Growth Plan. Increases in seasonal residents can be expected to contribute to a further increase in the discretionary and recreational trip making in the region, and Highway 26 in particular.

The travel profile analysis reveals that traffic volumes on Highway 26 are forecast to grow in 2031 across all survey stations (except for Old Highway 26, which sees decreases in recreational and discretionary trips due to diversions to the New Highway 26) and across all trip purposes. To the east of Stayner on Highway 26, discretionary trips are expected to increase very significantly, together with a significant increase in work trip making. This pattern is primarily due to the influence of trip making into the City of Barrie, which is expected to be the Regional Centre for employment and services in Simcoe County.

[1] *While the province has released draft Amendment 2 to the Growth Plan for review and consultation with local municipalities in the Fall of 2012, the original Growth Plan figures from Amendment 1 were used in forecasting future demands for this study.*

Traffic on Highway 26 through Collingwood is expected to increase by about 50%, primarily due to a 120% increase in work trips and a 60% increase in discretionary trips. By comparison, recreational trip making is only expected to increase by 15%. Traffic volumes on Highway 26 through Grey County, to the west of Collingwood, on the other hand, are expected to grow by approximately 60%, again primarily due to increases in work and discretionary trips.

The growth in westbound Highway 26 demand destined for Collingwood is forecasted to be much higher than to other municipalities, accounting for 80% of westbound traffic. Similarly, the vast majority of demand on Highway 26 eastbound is from trips that originate in Collingwood (almost 90%).

Approximately one-third of 2031 westbound traffic that travels through Collingwood originates from external origins, while about 60% of traffic through Collingwood comes from within Collingwood itself. The majority of westbound through traffic is destined to the Town of The Blue Mountains (only 5% continues beyond the Study Area). Similarly, when moving eastbound the vast majority of traffic through Collingwood is destined to Collingwood itself (less than one quarter goes to external destinations). The largest growth in eastbound demand is from the local communities of the Blue Mountains and Collingwood.

The majority of the growth in Highway 26 demand to the west of Collingwood in both travel directions is due to local growth in Collingwood and the Town of The Blue Mountains (only one fifth of the westbound trips destined for the Town of The Blue Mountains is of external origin and less than 15% of eastbound trips are going to external destinations).

Figure ES-2 highlights the forecasted network deficiencies for the 2031 summer PM peak hour. Routes with major congestion, defined as LOS E/F conditions, are highlighted in red. Links with moderate congestion, defined as LOS D, where volumes are at 80-90% of capacity are illustrated in orange. Road segments operating at good levels of service (i.e., LOS C or better) are illustrated in green.

Figure ES-3: Forecasted Network Deficiencies 2031 Summer PM Peak

Overall, most of the Study Area's roadway network is forecasted to operate relatively well with moderate levels of congestion. Although the portion of Highway 26 New between Collingwood and Wasaga Beach is forecasted to operate well (given its high capacity), the 2-lane sections of existing Highway 26 are expected to

experience heavy congestion. To the east of Stayner, the existing 2-lane portion of Highway 26 is forecasted to approach capacity by 2031. Increased volumes will result in reduced gaps in traffic, making passing more difficult and increasing delays and uncontrolled intersections and entrances. Similarly, the 2-lane portion of Highway 26, between Stayner and Wasaga Beach, will operate over capacity during peak periods.

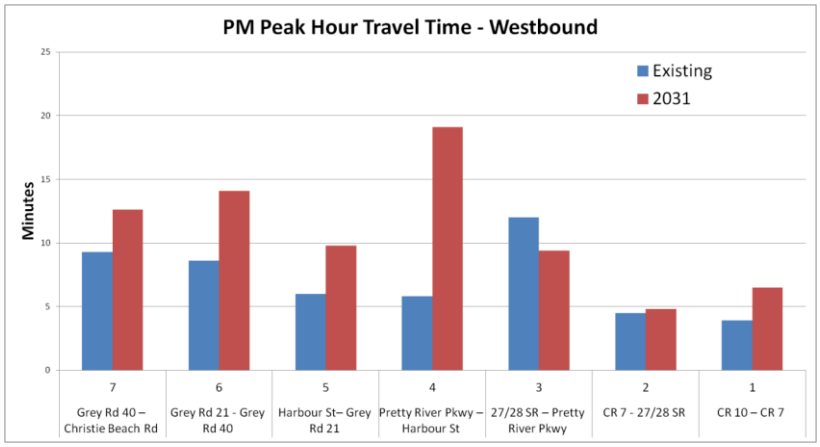
Approaching Collingwood, where Highway 26 New connects to existing Highway 26, forecasts indicate that this segment will also be over capacity during peak periods. MTO has an approved EA to widen this portion of Highway 26 to 5 lanes (4 lanes plus two-way centre left turn lane) with the timing of construction subject to funding availability. Once constructed, this improvement should provide sufficient capacity to 2031.

On the west side of Collingwood, the 2-lane section between High Street/First Street and Harbour Street is also forecast to be operating close to capacity during the summer weekday peak periods in 2031, with moderate-major levels of congestion. This will be aggravated by the intersection constraints at High Street/First Street, making actual congestion levels worse than indicated in the macro model.

Within Grey County, the 2-lane section of Highway 26 between County Road 19 and County Road 40 is forecast to operate near capacity with moderate congestion during typical summer weekday periods. Approaching Thornbury, between County Road 2 and Bruce Street, Highway 26 is forecast to exceed capacity with significant congestion, aggravated by the constrained intersection operation at Highway 26/Bruce Street.

Along the Highway 26, there are a number of specific areas where heavy and moderate congestion levels are expected through urbanized municipalities. Within the downtown urbanized areas of Stayner, Collingwood and Thornbury, the numerous signalized intersections, side roads, and commercial entrances will further reduce the capacity for through traffic on Highway 26, increasing congestion levels during the peak periods. In particular, the left turns at Highway 26 / First Street and Highway 26 / Pretty River Parkway can be expected to reach capacity before the mainline highway segments due the restricted capacity for these key movements. Increased congestion and delays through these urbanized areas will negatively impact both long distance and local trip making and lead to further traffic diversion on parallel county and local roads.

Figure ES-4: Increase in Peak Period Travel Time - 2031 Summer PM Peak



More detailed simulation modeling work undertaken along the Highway 26 corridor shows a 40-50% increase in travel time by 2031 in both the westbound and eastbound directions, with average speeds dropping from about 60km/h today to about 40 km/h in 2031. Almost all intersections within downtown Collingwood were found to operate at a Level of Service of E or worse with select critical movements experiencing delays in excess of 200 seconds (e.g. northbound left turn from Hurontario Street).

Overall, the modelling results support the need for new transportation capacity that is able to provide relief for the congested downtown areas of Collingwood, Stayner, and Thornbury and improve connectivity to the new Highway 26 between Collingwood and Wasaga Beach.

It also should be noted that conditions can be expected to be worse during summer weekends along key roadways that serve longer distance recreational traffic. Throughout the Study Area, weekend peak traffic volumes are approximately 15% higher than during the summer weekday period and up to 30% higher on Highway 26 between Collingwood and Barrie. Weekend network capacity deficiencies are particularly evident in the eastern end of the Study Area during the Sunday evening peak period.

Based on the travel demand forecasting work undertaken for this study, the following key problems / deficiencies can be expected by 2031 in the event that no improvements, beyond those planned by local municipalities, are completed in the Highway 26 Study Area:

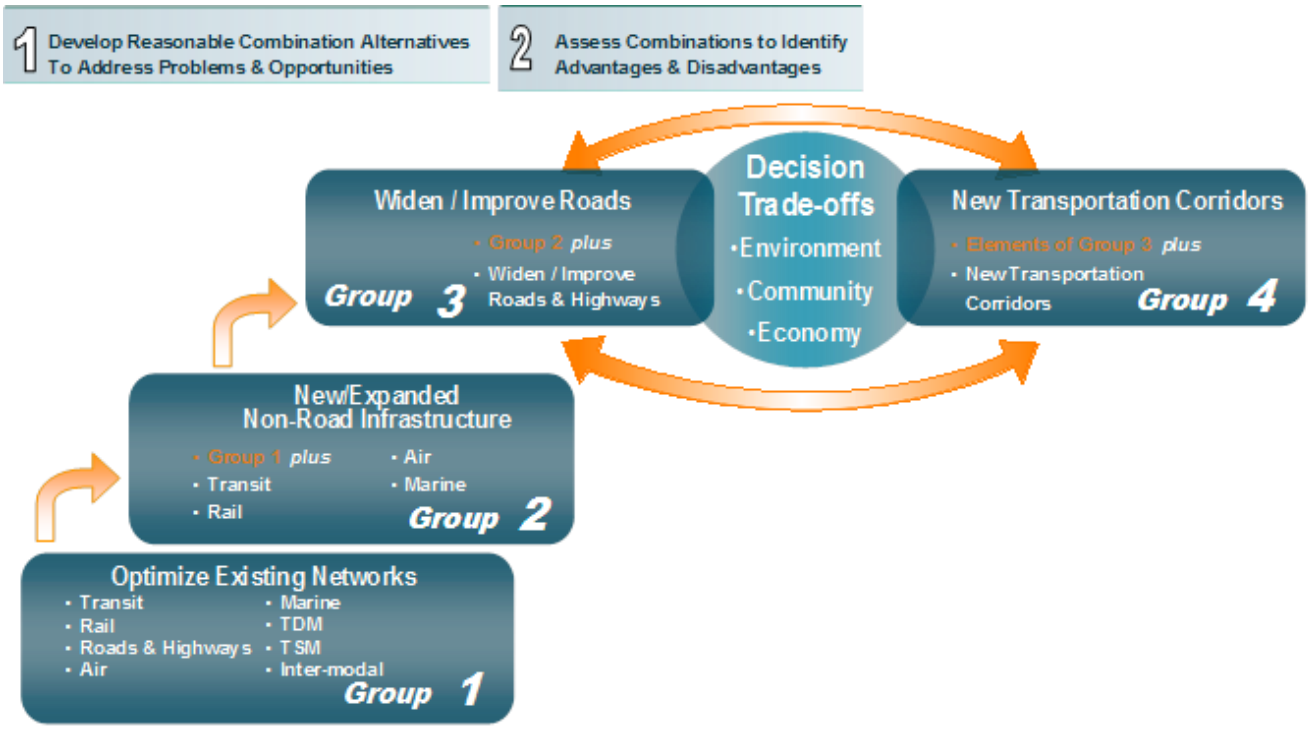
- The road network delay in the Study Area is expected to increase considerably with the PM peak hour delays increasing from 110 veh-hours in 2009 to 1,300 veh-hours in 2031. This tenfold increase in delay represents an annual economic cost of just under $110 million annually[2] (2012$).
- Congestion on Highway 26 can be expected to increase collision risk, particularly for the two lane rural sections of highway where passing opportunities will continue to be reduced as volumes increase.
- Congestion on Highway 26 through downtown Stayner, Collingwood, and Thornbury is forecasted to increase weekday PM peak corridor travel times by 50% in 2031, impacting both long distance provincial and local trip making.
- The significant increase in downtown congestion is not supportive of the urban design objectives of the local municipalities and may detract from the attractiveness of these commercial areas. The emphasis placed on creating pedestrian friendly environments in these downtown nodes within local Official Plans is inconsistent with the need to move large volumes of traffic.
- Weekday PM peak period average speeds on Highway 26 are estimated to drop from 60km/h today to under 40km/h, primarily due to congestion at intersections within the urbanized areas.
- Longer distance recreational and truck trips can be expected to divert to other north-south County Roads such as County Road 10 and County Road 42 to avoid congestion in Barrie and on Highway 400. These diversions will be more significant during the weekend evening peak periods where longer distance demand into and out of the Study Area will bring Highway 26 over capacity in the vicinity of Stayner and points to the east.

4. Identification and Evaluation of Alternative Transportation Solutions

A ‘building block’ approach (as illustrated in **Figure ES-5**) was used to develop the alternative solutions to address the problems and opportunities identified for the Study Area. This process was developed through an adaptation of the process used for two of the Ministry’s Individual Environmental Assessment studies currently underway: Niagara-to-Greater Toronto Area (NGTA) and Greater Toronto Area West (GTAW) Corridor Planning and Environmental Assessment studies.

[2] *Assuming 10% of daily travel in PM peak, 260 weekdays per year, vehicle occupancy of 1.6 and an average value of time of $20 per hour (2012$)*

Figure ES-5: Building Block Approach



A list of reasonable alternative transportation solutions for the Study Area was developed and subjected to a preliminary screening process on the basis of the effectiveness of each to address the identified problems and/or opportunities in the Study Area. Alternative solutions that were found to have the potential to address the identified problems/opportunities were then carried forward for further assessment using a higher level of detail and a range of criteria to identify potential environmental, community and economic impacts and benefits.

The initial screening concluded that no individual alternative is able to fully address all of the identified problems and opportunities; however those alternatives that were proven to be able to substantively contribute to addressing the problems and opportunities were carried forward in combination alternatives to the second step of the process.

Group 1 Alternatives: Optimize Existing Networks

The following optimization measures are recommended for consideration in addressing the anticipated travel demands in the Study Area:

- *Carpooling* - increase support for commuters in the Study Area to carpool through the development of carpool lots, HOV lanes, etc.
- *Transportation Demand Management (TDM)* - encourage the use of active transportation modes (for short trips); peak spreading and an increase in working from home.
- *Optimization of Existing Roadways* - improve local intersections and implement access management strategies and/or policies

As standalone alternatives, the Group 1 Alternatives are not able to address the future transportation problems in the Study Area; however, many of these initiatives may work well in combination with other alternatives.

Group 2 Alternatives: New/Expanded Non-Road Infrastructure

The following new/expanded non-road infrastructure measures are recommended for consideration in addressing the anticipated travel demands in the Study Area:

- *New Inter-Regional Transit Service* - provide new inter-regional Bus services between the Study Area and Barrie and/or the Greater Toronto Area
- *Improve Local/Regional Transit Services* - expand local and regional transit service from Collingwood to serve Wasaga Beach, Stayner and the Town of The Blue Mountains.
- *Active Transportation Infrastructure* – In addition to new trails and bike lanes within local municipalities, the County of Simcoe, Grey County, and MTO[3] should review their current policies with respect to the provision of paved shoulders on provincial highways / major roadways to provide improved safety and accessibility for cyclists, particularly in high tourist / recreation areas.

The implementation of these Group 1 and Group 2 measures could be expected to reduce the vehicle-km travelled in the Study Area by 2% and the vehicle hours of delay by 5%. Despite their limited effect, the Group 1 and Group 2 measures are comparatively cost effective and should play an important role in a multi-modal transportation plan for the study area. However, it is recognized that new roadway capacity will also be required to serve travel demands in 2031.

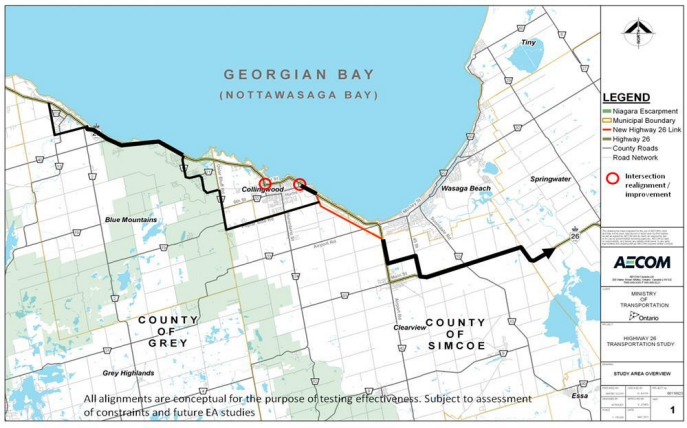
Group 3 Alternatives: Widen / Improve Roads

Three road widening/improvement alternatives were developed:

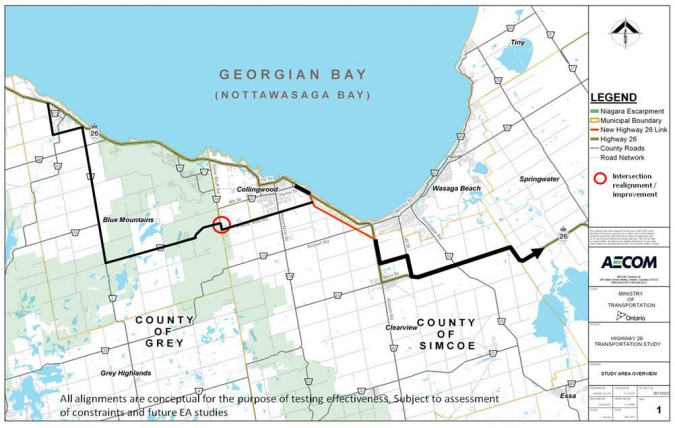
- **Alternative 3-1**, includes widening of the existing Highway 26 to 4 lanes from west of Thornbury to east of Stayner.
- **Alternative 3-2** includes the widening of portions of Highway 26 combined with local road improvements to bypass the downtowns of Collingwood, Stayner and Thornbury.
- **Alternative 3-3** is similar to Alternative 3-2, but includes improvements to Grey Road 19 and Grey Road 2 to form a local road bypass of the Blue Mountain resort area.

Alternative 3-1

Alternative 3-2



Alternative 3-3



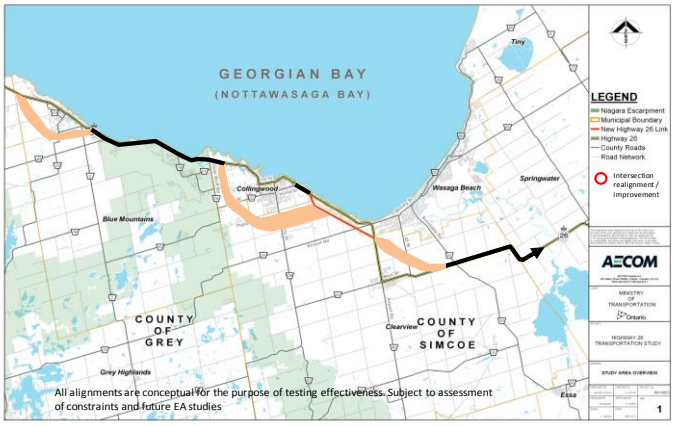
[3] *MTO may also need to consider changes to the Highway Traffic Act to permit bicycles to ride on paved shoulders*

Group 4 Alternatives

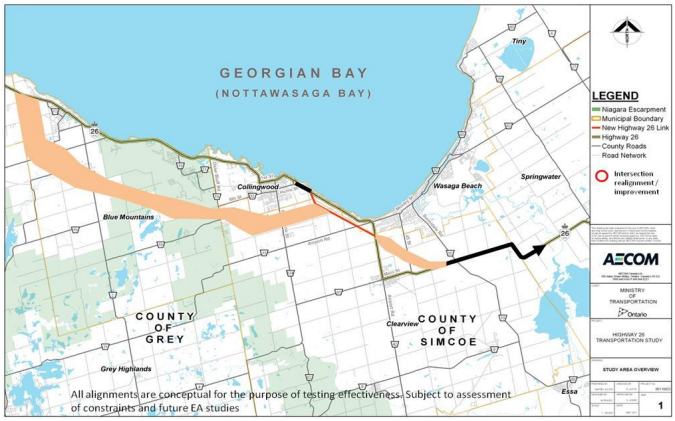
The Group 4 Alternatives make use of a combination of widened/improved roadway corridors and new provincial highway corridors to address future travel demands. Two Group 4 alternatives were developed:

- **Alternative 4-1** includes a new provincial highway facility developed to bypass the communities of Collingwood and Thornbury, as well as a northerly bypass of Stayner.
- **Alternative 4-2** provides a new Highway 26 corridor from immediately east of Collingwood westerly to immediately west of Thornbury. The bypass of Stayner is the same as Alternative 4-1.

Alternative 4-1



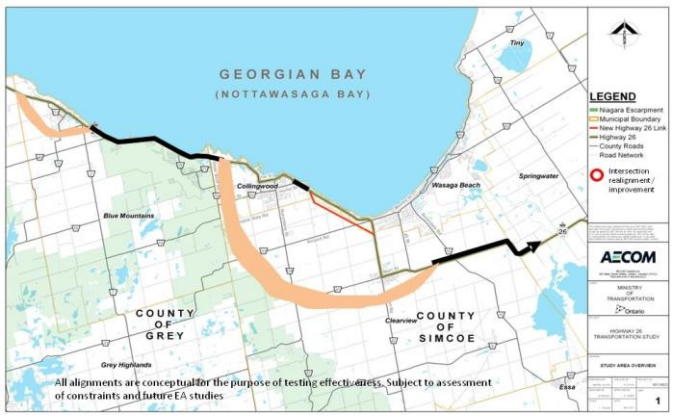
Alternative 4-2



Through consultation with municipalities and further testing in the model, two sub alternatives were also developed for Alternative 4-1. **Alternative 4-1A** follows a route further to the south of Collingwood but features the same general configuration in the Stayner and Thornbury Areas. **Alternative 4-1B** bypasses Stayner to the south, intercepting traffic on County Road 42 prior to reaching Stayner and continues west to intersect Highway 26 on the west side of Collingwood.

Alternative 4-1A

Alternative 4-1B



The initial transportation assessment of alternatives focused on the performance of each alternative in terms of addressing future travel demands in the Study Area. The assessment considered the ability of each alternative to reduce future volumes through the downtown areas within Thornbury, Collingwood and Stayner, as these areas were found to be operating at/over capacity in the 2031 Base Case Scenario. Increased congestion is not consistent with the planning objectives for these downtown areas within the respective municipal Official Plans.

The assessment also considered quantitative measures of total vehicle delay and system wide Vehicle Kilometres of Travel (VKT) which are two important factors that link to transportation user benefits that would be expected for each alternative.

Table ES-1 summarizes the reduction in Vehicle Kilometres of Travel (VKT) for each of the Group 3 and Group 4 alternatives.

Table ES-1: Alternative Summary: Reduction in Downtown Travel

Alternative	Reduction in Downtown Travel (VKT) Thornbury	Collingwood	Stayner
3-1	+22%	+6%	+103%
3-2	+2%	-13%	+1%
3-3	n/c	-14%	-3%
4-1	-26%	-29%	-4%
4-1A (south of Airport Rd.)	-27%	-31%	-6%
4-1B (south of Stayner)	-26%	-33%	-11%
4-2	-53%	-33%	-2%

The Group 4 new corridor alternatives all result in significant reductions in downtown traffic, particularly in Collingwood and Thornbury, where peak hour VKT is reduced by 25% or more. Alternative 4-2 provides the largest reduction in traffic in Thornbury, reducing peak period VKT by up to 53%. Despite lower reductions in Stayner, the Group 4 alternatives also perform better than the local road improvements and widening featured in Group 3. The alignment to the south of Stayner yields the highest reduction in VKT through the downtown area; approximately 11% lower than base case conditions.

The Group 3 alternatives do not generally perform as well. Widening Highway 26 alone (Alternative 3-1) results in a significant increase in traffic through the downtown areas, although this can be reduced to some degree through improvements to local roads, as tested in Alternative 3-2 and 3-3.

Table 4-2 compares the Group 1, 2, 3, and 4 alternatives to each other and the 2031 Base Case with respect to system VKT and total system-wide vehicle hours of delay during the 2031 summer PM peak.

Table ES-2: Alternative Summary: Summer Peak Hour Travel and Delay

Alternative	System VKT	Compare to Base	veh-hours delay	Compare to Base	Compare to Previous
2031 Base	451,892		1,288		
Group 1 &2	444,024	-1.7%	1,217	-6%	-6%
3-1	445,790	-1.4%	847	-34%	-30%
3-2	446,675	-1.2%	811	-37%	-4%
3-3	446,619	-1.2%	885	-31%	9%
4-1	441,402	-2.3%	755	-41%	-15%
4-1 A (south of Airport Rd.)	447,125	-1.1%	597	-54%	-21%
4-1B (south of Stayner)	448,592	-0.7%	532	-59%	-11%
4-2	445,234	-1.5%	765	-41%	44%

The new corridor alternatives (Group 4) result in the lowest vehicle-hours of delay, with these alternatives reducing delays by 41% to 59% compared to the 2031 Base Case. Alternatives 4-1A and 4-1B, which feature a more southern alignment to bypass Stayner and Collingwood, result in the lowest peak hour delays but also result in higher VKT levels than Alternative 4-1, due to the fact that these alignments create a faster but slightly less direct path between the communities of Collingwood and Stayner.

In the Thornbury Area, widening Highway 26 through the Town of The Blue Mountains (Alternative 3-1) will increase traffic VKT through downtown Thornbury by up to 22%. There is limited space to widen the highway through the village, and impacts to buildings in the downtown would be significant. These increases can be mitigated to some degree by improving local roads to bypass the downtown (Alternative 3-2, 2% increase), although this needs to be a high order arterial to attract traffic from Highway 26. A provincial highway bypass (Group 4 alternatives) would further relieve traffic through Thornbury by 26-53%.

In Collingwood, widening Highway 26 (Alternative 3-1) will also increase traffic through Collingwood by up to 6%, further aggravating forecasted congestion at key intersections in the 2031 Base Case. Upgrading or widening local roads (e.g. Poplar Side Road and Grey Road 19) can reduce traffic through downtown Collingwood by 13-14%, although upgrading Grey Road 19 across the Escarpment was found to have limited benefit as a bypass.

A new provincial highway bypass (Group 4 Alternatives) can reduce traffic through downtown Collingwood more significantly. All four bypass alternatives result in a similar reduction in downtown traffic through Collingwood (29-33%). Alternatives that make use of the New Highway 26 corridor between Wasaga Beach and Collingwood (Alternatives 3-1, 3-2, 3-3, 4-1, and 4-2) to connect to new bypass routes around Collingwood and Stayner will cause this corridor to approach capacity during peak periods by 2031.

A new highway corridor across the Escarpment would not be very well utilized and is only forecast to carry about 600 veh/hr in the peak direction. Through traffic within Thornbury is significantly reduced (-53%) with the new corridor but similar benefits (-26%) may be obtained with a more limited highway bypass. There is no additional benefit in terms of vehicle delay compared to the other alternatives and only a modest reduction in VKT.

In the Stayner Area, widening Highway 26 will increase traffic VKT by up 103% further aggravating congestion at key intersections. Upgrading / widening local roads (Simcoe CR 7) can reduce traffic through downtown by only 3%. A new provincial highway bypass can reduce traffic through downtown by 2-11%.

To the east of the Study Area, Highway 26 will require widening to 4 lanes. This widening may need to extend all the way to County Road 27; however this should be confirmed as part of the Simcoe Area Transportation Strategy.

5. Evaluation of the Alternatives

In addition to the initial transportation assessment, a series of evaluation factors and criteria were used to assess the alternatives which were grouped into the following five categories (consistent with requirements of the MTO Class EA process):

- Natural Environment;
- Socio-Economic Environment;
- Cultural Environment;
- Transportation; and
- Engineering.

A summary of the results of the evaluation are provided in **Figure ES-6.**

Figure ES-6: Evaluation Summary

Category	Do Nothing	Alternative 3-1 Widen Highway 26	Alternative 3-2 Widen Highway 26 & Improve Local Roads	Alternative 3-3 Widen Highway 26 & Local Road Bypasses	Alternative 4-1 / 4-1A Widen Highway 26 & Highway Bypasses (North or South of Airport Road)	Alternative 4-1B Widen Highway 26 & Highway Bypasses (South of Stayner)	Alternative 4-2 New Highway 26 Corridor
Natural Environment							
Socio-Economic Environment							
Cultural Environment							
Transportation							
Engineering							
Summary	Does not address the problem						

Least Preferred ← → Most Preferred

Based on the assessment of the alternative solutions, Alternative 4-1 was selected as the recommended alternative solution. This alternative, as illustrated in **Figure ES-7**, consists of widening portions of the existing Highway 26 corridor and new highway bypasses of Stayner, Collingwood and Thornbury.

Alternatives 4-1A and 4-1 B represent reasonable variations of the recommended alternative with similar impacts and benefits, and should also be carried forward for further study.

6. Conclusions and Recommendations

A comprehensive Transportation Development Strategy is the end result of the "building block" alternative analysis approach that was employed in this study. The strategy provides a series of recommended roadway capacity and operational improvements, transit improvements, and transportation demand management measures. Each component has a complementary role in addressing the Study Area's transportation problems and opportunities, while supporting future economic growth and minimizing impacts on the natural environment.

Optimizing Existing Infrastructure

This study has found that carpooling and Transportation Demand Management (TDM) measures can result in modest and cost effective reductions in auto travel demand by encouraging motorists to travel together in groups (typically co-workers) and by increasing telecommuting / working at home and the usage of active transportation modes (i.e. walking and cycling).

It is recommended that carpooling in the Study Area be encouraged through the planning and development of commuter carpool parking lots. As a next step, a study should be undertaken to identify and protect for potential commuter parking lot locations.

Promotion of Transportation Demand Management (TDM) in the Study Area should be encouraged to build upon the existing initiatives that have been implemented by Metrolinx and local municipalities in the Study Area.

Opportunities to implement operational improvements at key Study Area intersections should be explored. In particular, the following key operational intersection improvements are envisioned along Highway 26 (see **Figure ES-7**):

- Hume Street / Pretty River Parkway (Collingwood)
- High Street / First Street (Collingwood)
- Osler Bluff Road / Grey Road 21 (Blue Mountains)
- Bruce Street (Thornbury)

Figure ES-7: Recommended Operational Improvements

New Non-Road Infrastructure and Services

The Study Area currently has limited public transportation options and this study has demonstrated that there is an opportunity to encourage more non-auto trips through modest investments in new inter-regional and local transit services.

It is recommended that the introduction of GO Bus service between Collingwood and Barrie be studied, to build upon the service that already exists between Barrie and the Greater Toronto Area (GTA). From the preliminary analysis of this study, it is expected that this new GO Bus service would be limited to peak period operations with no more than 1-2 buses in operation, although a midday bus may provide some additional benefit in terms of serving discretionary demands to and from Barrie as well.

It is also recommended that existing local transit services be expanded to better connect Collingwood, Wasaga Beach, Stayner, and the Town of The Blue Mountains, building upon the initiatives already underway with the Town of Collingwood and Wasaga Beach. The feasibility of such expansions in service should be studied with the participation of local municipalities and Simcoe County.

In addition to serving local needs, expanded local transit in the Study Area can also further support the aforementioned inter-regional GO Bus service between Collingwood and Barrie by providing important connections to other area communities.

In addition to new trails and bike lanes within local municipalities, the County of Simcoe, Grey County, and MTO should review their current policies and relevant legislation with respect to the provision and use of paved shoulders on provincial highways / major roadways to provide improved safety and accessibility for cyclists, particularly in high tourist / recreation areas.

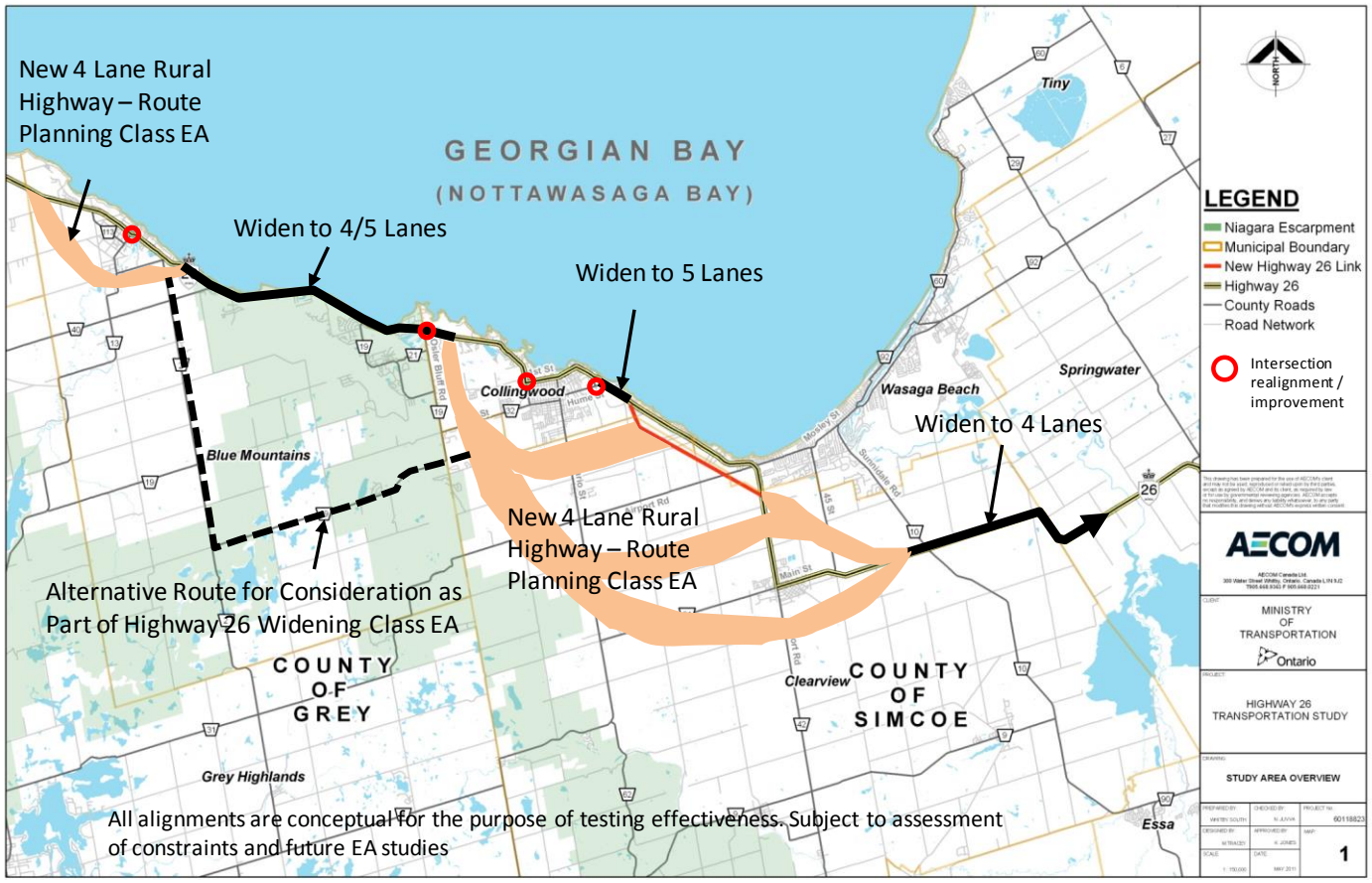
Roadway Improvements

In addition to the Group 1 and 2 initiatives discussed above, this study has determined that new roadway capacity is required in order to serve Study Area travel demands in 2031. The locations of each of the roadway improvements and new transportation corridors recommended by this study are presented in **Figure ES-8** and include:

- Widening Highway 26 to four (4) lanes to the east of Stayner.
- Widening Highway 26 to five (5) lanes between Hume Street / Pretty River Parkway and the western limits of Highway 26 New.
- Widening Highway 26 to 4-5 lanes between Thornbury Bypass and the proposed Collingwood Bypass.
- New Highway Bypass of Thornbury
- New Highway Bypasses of Collingwood and Stayner

Additional road improvements on municipal / county roads connecting to the proposed new highway by-passes may also required for connectivity to the road network, local destinations and tourist activity areas. Specific locations for these improvements will depend on the selection of a recommended route for the provincial highway corridor, and as such the details for these improvement needs would need to be considered during subsequent Class EA studies.

Figure ES-8: Recommended Roadway Improvements and New Corridors



The timing for implementation of each of the recommended roadway improvements will be subject to the availability of funding amongst other provincial priorities and the completion of the necessary Environmental Assessment Studies, Route Planning / Preliminary Design Studies, and subsequent detailed design work.

The widening of Highway 26 to five (5) lanes between the west limit of Highway 26 New and the east limit of Collingwood is required in the 0-5 year time horizon from a capacity perspective. MTO has completed the Class EA for this widening project with the timing of implementation subject to funding availability.

Based on the growth in traffic volumes it was determined that the majority of the remaining roadway improvements would be required in the 10-20 year time horizon, although for some projects this may be somewhat dependent on the selected alignment for the Collingwood and Stayner bypass.

In the 10-20 year horizon, the capacity issues at the Highway 26 intersection with First Street in Collingwood will be one of the first triggers to indicate the need for a Collingwood bypass. The recently completed Collingwood Transportation Study found that the SB left turn movement of this intersection is expected to fail within the 5-10 year horizon. With the construction of dual SB left turn movement, the intersection would continue to operate but will again reach capacity between 2020 and 2031.

In the vicinity of Stayner, Highway 26 is expected to reach capacity beyond 2021. However, improvements to local roads (i.e. County Road 7 and Sideroad 27 & 28 Nottawasaga) together with supporting bypass signage can likely defer the need for the new Stayner bypass corridor until beyond 2025. The remaining recommended roadway improvements, namely, the Thornbury Bypass, Highway 26 widening between Thornbury and

Collingwood, and Highway 26 Widening to the East of Stayner, are expected to be required between the midpoint and the end of the 10-20 year horizon.

Implementation

Implementation of the proposed roadway portion of the Transportation Development Strategy will require a number of future more detailed Environmental Assessment Studies. **Table ES-4** provides a summary of the recommended future studies required to implement the provincial components of this plan. Additional measures, noted in the Group 1 (Optimization) and Group 2 (Non-road infrastructure) may need to be implemented in conjunction with Metrolinx or municipalities under their respective planning and Environmental Assessment Processes.

Given ongoing planning work being completed as part of the Simcoe Area Multi-Modal Transportation Study, the recommendations of this study should be referred to the Simcoe Area study team, for consideration and prioritization amongst the multi-modal transportation strategies and improvement needs for the entire Simcoe County area.

Table ES-4: Recommendations for Future Studies

Project	Transportation Problem / Opportunity	Study Area	Proponent	Next Steps	EA Process
Thornbury Bypass	Downtown Thornbury capacity deficiency and space constrains.	See **Figure 64**	MTO	EA / Route Planning, TESR	Class EA Provincial
Hwy. 26 Widening (Town of The Blue Mountains) *	Capacity deficiency between Collingwood and Thornbury.	Collingwood Bypass to Thornbury Bypass Eastern Limit	MTO	EA, TESR	Class EA Provincial
Hwy. 26 Widening (Hwy. 26 New – Collingwood E Limit)	Capacity deficiency in vicinity of new Hwy. 26.	Sixth Line to Pretty River Parkway	MTO	Construction (pending funding availability)	Complete
Collingwood-Stayner Bypass	Downtown Collingwood and Stayner capacity deficiency and space constrains.	See **Figure 63**	MTO	EA / Route Planning, TESR	Class EA Provincial
Hwy. 26 Widening (East of Stayner)	Capacity deficiency between Stayner and Barrie.	East of County Road 7 to Midhurst / Barrie	MTO	EA, TESR	Class EA Provincial

* During the Class EA, upgrades to Grey Road 2 and Grey Road 19 will be considered as a potential alternative route. This improvement could also be initiated under a municipal class EA.

Completion of a Provincial Class EA / Route Planning Study for the new highway alignments will be required so that a route can be protected, property can be purchased, and preliminary and detailed design work can proceed as the need for new capacity arises. **Figures ES-9** and **ES-10** present the preliminary Study Areas that are recommended for the future route planning studies for the New 4 Lane Highway Bypasses of Collingwood, Stayner, and Thornbury. The option also exists for road improvements to be undertaken under the municipal Class EA process.

Figure ES-9: Preliminary Study Area for New 4 Lane Rural Highway Bypass of Collingwood and Stayner

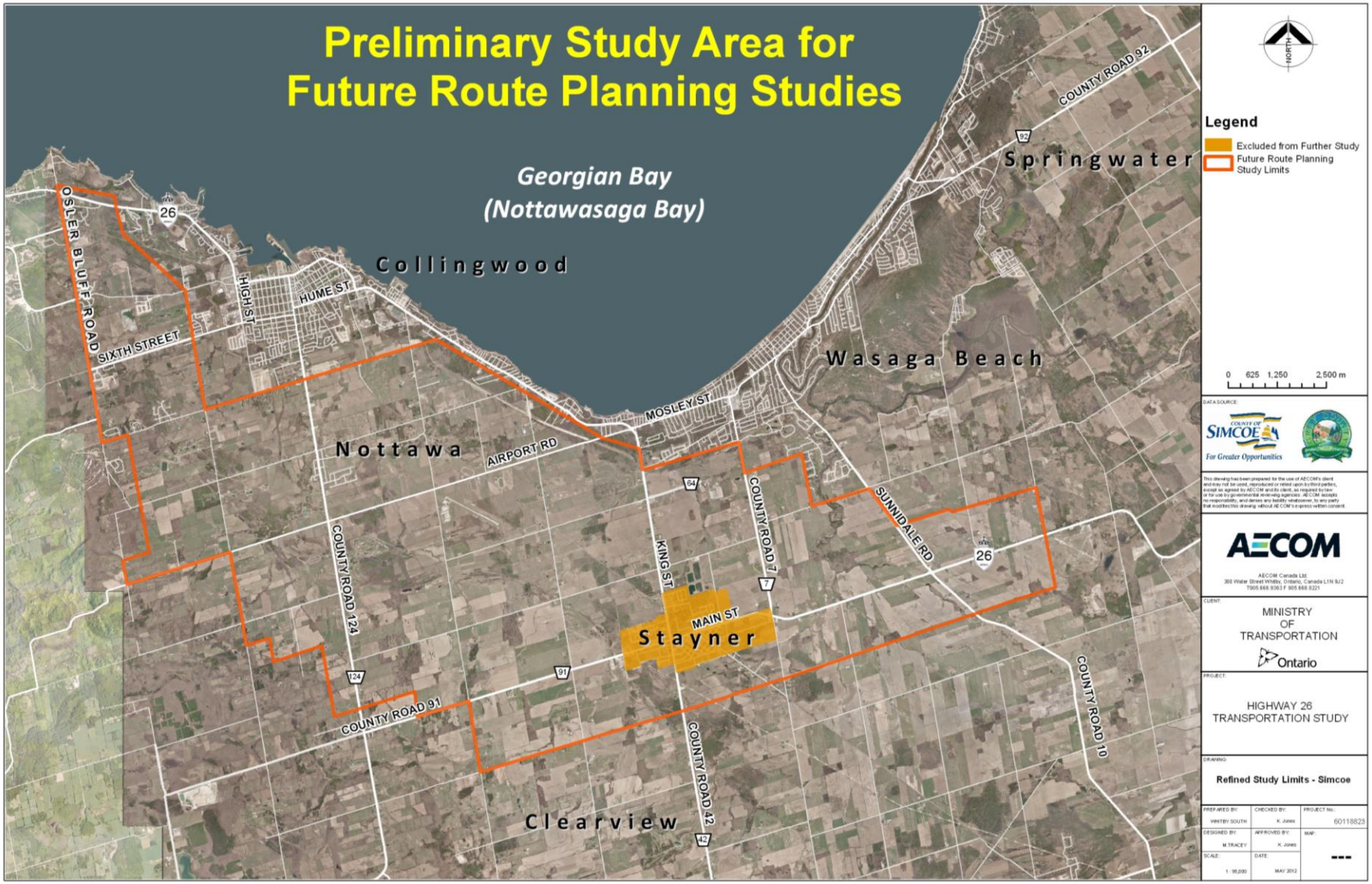
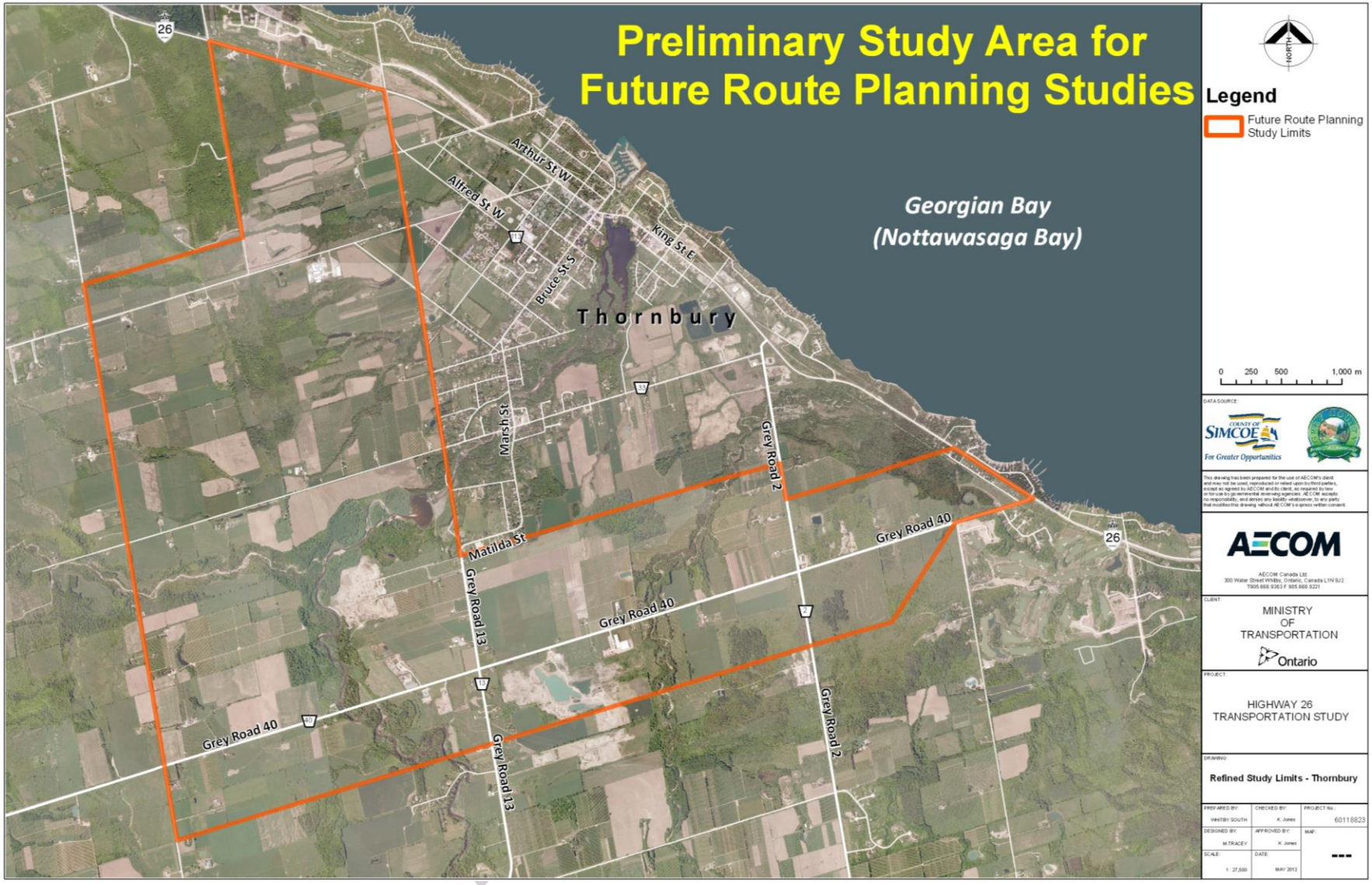


Figure ES-10: Preliminary Study Area for New 4 Lane Rural Highway Bypass of Thornbury



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1. Introduction

Section 1 provides the introduction to the Needs Assessment including the purpose and rationale for undertaking the study, the study context and approach, and the definition of the Study Area.

Highway 26 along the south shore of Georgian Bay is an important regional mobility corridor, providing a principle route for moving people and goods between communities in the Georgian Triangle and other parts of Ontario, including the Greater Toronto Area. Highway 26 also supports access to a variety of adjacent land uses and plays a critical role in local circulation for area residents, businesses, and tourists in communities such as Collingwood, Blue Mountains, Wasaga Beach, Stayner, Meaford, and Thornbury. As the area is seeing unprecedented amounts of growth and development, the existing facility is experiencing increasing levels of congestion. Consequently, MTO has determined that the need for potential transportation improvements should be explored.

A Transportation Needs Assessment is a long range multi-modal transportation planning study that determines the need and justification for potential transportation improvements and it may lead to the initiation of more detailed transportation studies and/or improvements.

The Highway 26 Transportation Needs Assessment provides an analysis of existing and future transportation conditions, problems and opportunities, identifies and evaluates a range of multi-modal solutions to address the problems and opportunities, and recommends a preferred alternative(s). While the Transportation Needs Assessment is undertaken using a process that is consistent in many ways with the requirements of the Environmental Assessment Act, it is not a formal Environmental Assessment Study. As such, it provides a context for future transportation improvements by taking a system wide approach to assessing needs and potential improvements.

Each transportation project would still be subject to separate study in accordance with the Environmental Assessment process (either individual EAs or Class EAs, depending upon the nature of the proposed transportation improvement).

1.1 Study Background & Purpose

The Highway 26 corridor is the backbone that supports the economic vitality of the communities in the Georgian Triangle area. It represents the key east-west corridor that connects the various communities in the analysis area and links the analysis area to adjacent communities, the 400 series highway network, and the Greater Golden Horseshoe.

Increasingly, day-to-day services (such as medical, legal, and government services) that residents in the area need to access are being located in larger urban centres such as Barrie. With the recent growth trends in the area, and the aging profile of the population of the Georgian Triangle, the need for convenient mobility solutions between communities is growing. With the current lack of alternative modes that can supply a level of service comparable to that of the automobile, the reliance on a good network of highways and arterials is critical.

There have been a number of provincial and municipal studies that have examined the transportation needs in the Georgian Triangle area over the past decade. All of the previous studies noted below have recognized that auto travel in the Highway 26 corridor will continue to increase, and that improvements will be required. A brief summary of the most recent studies include:

- The ***Georgian Triangle Area Transportation Study*** (2001) – A joint municipal / MTO study which recommended that additional transportation capacity would be required in or around the Town of Collingwood, and suggested that a new transportation corridor to the south of Collingwood and The Town of The Blue Mountains should be considered to bypass these communities. The study did not undertake any detailed assessments of the potential impacts associated with a new provincial highway corridor crossing the Niagara Escarpment.
- The ***Simcoe Area Transportation Needs Assessment Study*** (2002), completed by MTO, also recommended widening of Highway 26 and consideration of a new Highway 26 corridor around Collingwood, but did not identify the extent of this corridor, potential routing options, or a Study Area for future EA studies.
- The ***Simcoe County Transportation Master Plan (TMP)*** (2007) produced a multi-modal transportation strategy for the region aimed at "beginning the process of change" from an auto dominated culture to one that provides transportation choices for residents and visitors to the area. The TMP also recognized that auto travel will continue to increase over time, and recommended that MTO consider implementation of a longer term bypass for the Stayner area and Collingwood, in addition to the recently opened Highway 26 New Alignment constructed between Wasaga Beach and Collingwood.
- Joint planning work undertaken by the local municipalities in 2007 recommended improving local roads in the Stayner area and in Collingwood as an interim measure to provide alternate routes to address concerns about increased traffic through their downtown areas.
- The **Highway 26 Study Design Report** was originally initiated in 2004 by MTO but was never finalized due to concerns expressed by local municipalities with the draft recommendations and the lack of solid transportation data to assess the various improvement options. This study is being replaced by the current Highway 26 Transportation Study in the Georgian Triangle Area.

Alternative transportation modes within the area and connecting to Barrie and the Greater Toronto Area may also become increasingly viable given the pattern of local land development, the concentration of tourist destinations in the area, and the investments that are being made in transit and other modes of transportation by the province and municipal governments.

The purpose of the Highway 26 Transportation Study is to:

- Establish an up-to-date, reliable profile of current and future travel activity in the Study Area, and determine transportation network needs;
- Identify future studies to address those network needs and determine the responsibility among MTO and area municipalities for undertaking them;
- Provide an overview of environmental conditions in the area; and
- Outline the environmental assessment process for future MTO studies that are identified.

1.2 Study Overview and Approach

The study was composed of four key stages, as follows:

1) Data Collection:

- Undertake winter and summer travel surveys and traffic counts to provide an up-to-date assessment of travel patterns in the analysis;
- Prepare an inventory of environmental features and constraints, land use information and forecasts for the analysis area.

2) Transportation Analysis and Assessment:

- Develop and calibrate enhanced travel demand forecasting and micro-simulation models for the analysis area;
- Carry out a market based approach to examining the factors that will influence future travel demands, such as tourism, land use forecasts, and commercial goods movement considerations; and
- Examine future forecasts of travel demands, summarizing current and future conditions and constraints, and identify transportation deficiencies in the analysis area.

3) Develop and Assess Potential Transportation Improvements:

- Identify measures to reduce roadway traffic demand (transportation demand management, TDM) or improvements to support other modes of transportation, such as rail, transit, air, and marine;
- Consider alternative transportation infrastructure improvements, including, but not restricted to, improvements to the existing Highway 26 corridor, enhanced municipal arterial roads, and/or a new transportation corridor;
- Determine the benefit each improvement would have in addressing future demands; and
- Consult with municipalities, the public and other stakeholders regarding findings of the Transportation Study.

4) Preparation of “Highway 26 Transportation Study Report”:

- Document study findings; and
- Recommend scope, location and priorities of future engineering and environmental assessment studies necessary to obtain approvals for and to implement the recommended improvements.

1.3 Study Area

For the purposes of this Highway 26 Transportation Study, the Study Area (as shown in **Figure 1**) spans from the Township of Clearview, in the vicinity of Horseshoe Valley Road/County Road 29 in the east, westerly to the Town of Meaford within Grey County. As such, the Study Area covers the following municipalities:

- Simcoe County
  - Town of Collingwood
  - Town of Wasaga Beach
  - Township of Clearview
- Grey County
  - Town of The Blue Mountains
  - Municipality of Meaford

Figure 1: Study Area

2. Public and Agency Communication

2.1 Communication Approach

Selected external ministries, agencies, aboriginal groups, municipal partners and members of the public had opportunities to provide input throughout the course of the study. Communication with these groups included meetings with municipal partners, the Ministry of Infrastructure and correspondence with interested stakeholders via mail and email, as discussed in the following sections.

2.1.1 Study Contact Mailing List

A study contact mailing list was developed for mailing out the Notice of Study Commencement at the onset of the study.

The study contact mailing list consisted of First Nation communities (as identified by the MTO), federal government agencies, area MPPs, provincial government agencies (including conservation authorities) and municipal staff and politicians. A copy of the study contact mailing list is provided in **Appendix A** of this report.

2.1.2 Study Website and Email

A study website was established on February 9, 2009 (www.highway26transportationstudy.ca) to provide the public and other stakeholders notice of the study commencement, notification of travel survey events (i.e., winter and summer 2009) and copies of reports completed in support of the study, where appropriate. In addition, the public was invited to submit comments and/or questions to members of the study team via the study email account. As part of the study website an electronic comment form was available for public input. A copy of the comment form is attached in **Appendix A** of this report.

2.1.3 Notice of Study Commencement

The Notice of Study Commencement, provided in **Appendix A**, was posted on the study website and mailed to agencies and other stakeholders in February 2009. In addition, a copy of the notice was also posted in the following local newspapers in February 2009:

- Collingwood Connection;
- Collingwood Enterprise;
- Blue Mountains Courier-Herald/Thornbury Courier; and
- Stayner Sun.

2.2 Travel Pattern Surveys and Tourism Interviews

As part of this study, travel pattern surveys and the tourism interviews were conducted by Paradigm Transportation Solutions (Paradigm) in the summer and winter of 2009 to provide updated travel pattern information for the Study Area. The findings of these surveys are discussed in Section 3.4.2 of this report. Notification of the winter and summer travel surveys and/or tourism interviews was provided on the study website, as well as mailed to selected agencies and representative ski resort operators (winter travel surveys). The notification materials are provided in **Appendix A**.

2.3 Consultation with Municipalities & Government Agencies

2.3.1 Municipalities

A team of municipal partners was established at the onset of the study and consisted of representatives from each of the municipalities situated within the Study Area, including:

- Grey County;
- Town of The Blue Mountains;
- Municipality of Meaford;
- County of Simcoe;
- Township of Clearview;
- Town of Collingwood; and
- Town of Wasaga Beach.

Technical staff representatives from each municipality were invited to attend meetings at key points in the study and were given the opportunity to provide their input. In total, three meetings were held with the municipal partners (i.e., June 2010, May 2011 and December 2011). The purpose of these meetings was to present and discuss results and findings at key stages of the study and to receive and consider feedback from the municipal partners.

2.3.2 Ministry of Infrastructure

Meetings with the Ministry of Infrastructure (MOI) were also held a two points in the study. With the release of the proposed Amendment 1 to the Growth Plan for the Greater Golden Horseshoe, in October 2010, a revised allocation of future growth was introduced for Simcoe County to guide future planning. Members of the study team met with the MOI in December 2010 to introduce the Highway 26 study, and discuss the proposed approach to forecasting land use allocations within the Simcoe Area, and the general approach to forecasting future travel demands.

A subsequent meeting was held with the MOI in May 2012 to present a review of the study findings, including the results of the travel demand modelling, the development of the conceptual alternatives and the results of the preliminary evaluation of the alternative solutions.

Minutes of meetings are attached in **Appendix A** of this report.

3. Identification of Transportation Problems and Opportunities

Section 3 provides the background policy context for this study, review of previous transportation studies, Study Area conditions, existing and future travel demand, and transportation problems and opportunities.

3.1 Policy Context

3.1.1 Provincial Planning Policy and Legislation

The Ministry of Municipal Affairs and Housing (MMAH) has recently completed a five-year review of the PPS and is seeking feedback on the draft amendments.

The PPS contains policies on land use planning to promote strong communities, a clean and healthy environment and a strong economy.

Provincial Policy Statement

The Provincial Policy Statement (PPS) is issued under the authority of Section 3 of the Planning Act and came into effect on March 1, 2005. The PPS provides direction in matters of provincial interest related to land use planning and development and promotes a provincial policy led planning system based in:

- The efficient use and management of land and infrastructure;
- Protection of the environment and resources, ensuring appropriate support for a mix of uses; and
- Providing a clean and healthy environment and strong economy.

The PPS sets the policy framework for regulating land use and development and also supports the Province's goal of enhancing the quality of life for all Ontarians. The PPS is supported by other key provincial plans and municipal official plans. Together, these provide a foundation for integrated planning to achieve the long-term social, environmental and economic objectives of the Province. Specific policies contained within the PPS focus on the need to build strong communities, manage key resources and protect public health and safety.

Transportation and infrastructure corridors are considered to be fundamental to the development of strong communities. Specifically, the PPS requires transportation and land use considerations to be integrated throughout the planning process to provide a transportation system that is safe, efficient and facilitates the movement of people and goods. The PPS also highlights the importance of improved connectivity across jurisdictional boundaries. These objectives are relevant to this study as Highway 26 is a key transportation corridor spanning several counties and local municipalities.

Places to Grow Act

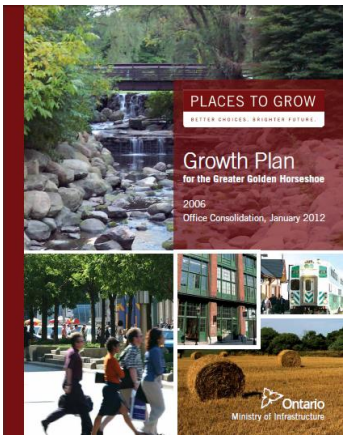
The Places to Grow Act received Royal Assent on June 13th, 2005 and was last amended in 2009. The Act was passed in recognition of the need to provide a planning framework to accommodate the expected population growth in Ontario, support its economic prosperity and improve the quality of life for its citizens.

The Act gives the Province the authority to plan for future growth in a coordinated and strategic manner and includes the following legislative powers:

- To designate any geographic region of Ontario as a growth plan area;
- To develop a growth plan in consultation with local officials, stakeholders and the public; and
- To develop growth plans in any part of Ontario.

The Act specifies that the content of growth plans should include population projections and allocations, an assessment and identification of priority growth areas, emerging growth areas and future growth areas, as well as strategies for achieving this growth. It also stipulates that policies should be developed to address a range of social, environmental and economic themes. With relevance to this study, infrastructure development and transportation planning are identified as two key areas of focus.

Places to Grow: Growth Plan for the Greater Golden Horseshoe



The Growth Plan was prepared under the Places to Grow Act and released designated by Ontario Regulation 416/05, and with reference to this study, it includes the County of Simcoe and therefore portions of the Study Area lie within its boundaries.

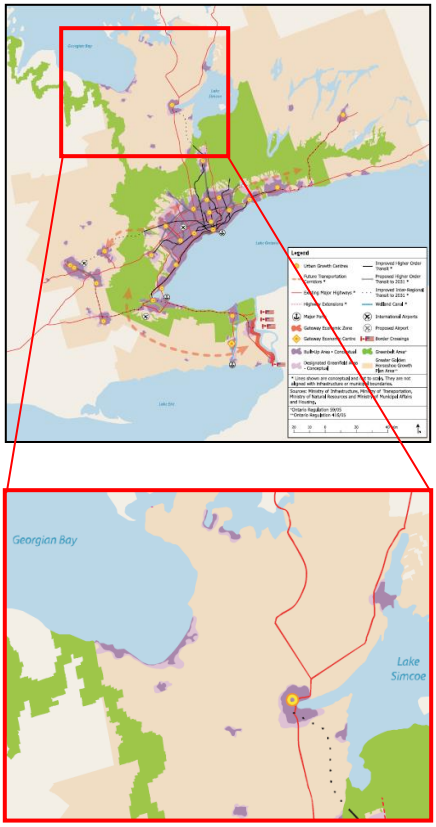
The Growth Plan provides a framework for implementing the Province's vision for the Greater Golden Horseshoe by 2031 and is a long-term growth plan for the Greater Golden Horseshoe. The vision focuses on supporting communities, a healthy natural environment and an expanding economy. Importantly, Section 1.2.1, A Vision for the Greater Golden Horseshoe, advocates enhanced mobility through an integrated transportation system and recognizes the importance of auto travel as one of the primary modes of transport in the Greater Golden Horseshoe.

The objectives of the Growth Plan are to ensure communities flourish; that the environment and other natural resources are protected; and that infrastructure is in place to support anticipated population and employment growth. The Growth Plan outlines strategies for where and how the Greater Golden Horseshoe should grow. Involving stakeholder consultation and technical research, the Growth Plan proposes ways to maximize the effectiveness of future investments.

The Growth Plan promotes policies that:

- Make better use of land by prescribing where growth should go and advising against the development of lands which provide food, water and recreation
- Reduce urban sprawl, traffic gridlock and smog
- Provide a range of housing choices and employment opportunities
- Maximize public infrastructure and infrastructure investment to deliver better transit services, quicker movement of goods and cleaner, safer water.

Schedule 2 - Places to Grow Concept



Source: Growth Plan

Future population growth in the Greater Golden Horseshoe is forecast to be accommodated through an increased emphasis on intensification in the existing built-up areas, particularly in urban growth centres, intensification corridors, major transit station areas, brownfield sites and greyfields. From 2015 onwards, a minimum of 40% of all residential development occurring annually within each upper- and single-tier municipality will be in these existing built-up areas.

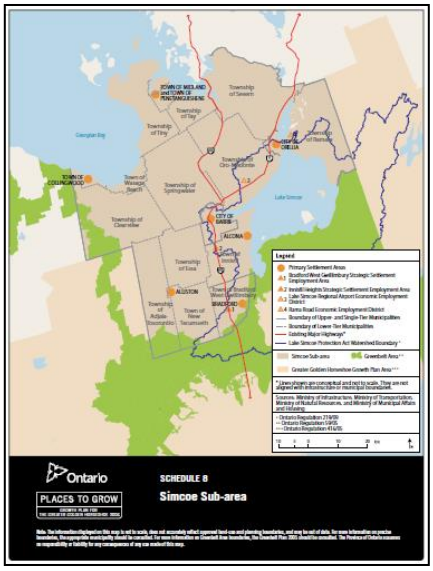
While the designation of growth areas contained in Schedule 2 *(left)* is conceptual, the corridor located between the Grey County/Simcoe County boundary and Wasaga Beach, adjacent to the Georgian Bay shoreline, is broadly located within a designated built-up area *(dark purple)* bounded by a Greenfield area *(light purple)*, as are the areas surrounding Stayner and Clearview. The Greenbelt Area, shown *(green),* includes portions of the Niagara Escarpment Plan area.

The Greater Golden Horseshoe population is expected to grow from its 2001 base of 7.79 million to 11.5 million by 2031, while employment is forecast to grow from 3.81 million to 5.56 million over the same period. Simcoe County is forecast to grow from a 2001 population of 392,000 to 667,000 residents by 2031(including the separated cities of Barrie and Orillia). Employment growth over the same period is forecast to increase from 154,000 to 254,000. The Growth Plan does not disaggregate the future population and employment forecasts for the County of Simcoe and those for the City of Barrie and City of Orillia. Proposed Amendment 1 to the Growth Plan addresses the Simcoe Sub-area in greater detail (see below).

Tools for the Simcoe Sub-Area

On October 28, 2010 the Ministry of Infrastructure introduced proposed Amendment 1 to the Growth Plan, specifically focusing on the Simcoe Sub-area, which includes the County of Simcoe, City of Barrie and City of Orillia. The Simcoe Sub-area is distinctive in that it faces the dual challenges of intense pressure for growth and the need to protect the significant number of environmental assets in the region. Amendment 1 was enacted on January 19, 2012 as a follow up to the Province's discussion paper entitled "Simcoe Area: A Strategic Vision Growth."

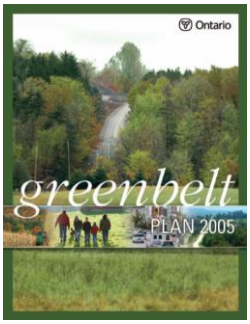
Schedule 8 – Simcoe Sub-area



Source: Growth Plan

Amendment 1 to the Growth Plan provides specific guidance to the Simcoe Sub-area on the targets, policies and objectives of the Growth Plan. With regard to directing growth, the City of Barrie is identified as the primary urban node in the Sub-area and Downtown Barrie is the primary urban growth centre. With specific relevance to this study, the Town of Collingwood is considered to be an urban node and 40% of future growth in this community must be accommodated through intensification, with a density target of 50 residents and jobs combined per hectare. This would result in a population of 33,400 and employment base of 13,500 by 2031. Other municipalities in the Study Area covered by Amendment 1 include the Township of Clearview and Town of Wasaga Beach. Both of these municipalities are to achieve an intensification target of 20% and a density target of 32 residents and jobs combined per hectare, resulting in respective populations of 19,700 and 27,500 and employment bases of 5,100 and 3,500 by 2031.

Under Section 12 of the *Places to Grow Act*, affected official plans must be brought into conformity with the Growth Plan and its amendments. The province also committed to the development of an area transportation study for Simcoe County that conforms with the Growth Plan. In January 2012 the Ministry of Transportation initiated the Simcoe Area Multi-Modal Transportation Strategy to complete this review. The Multi-Modal Strategy is anticipated to be completed in mid-2013.

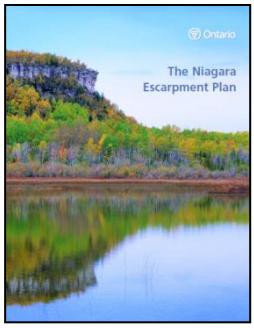


Greenbelt Plan

The Greenbelt Plan was established under Section 3 of the Greenbelt Act 2005 and was published on February 28, 2005 by the MMAH. The Greenbelt Plan identifies where urbanization should not take place in order to protect the agricultural land base and other key ecological features in Ontario. The Greenbelt is considered to be a cornerstone of the Growth Plan for the GGH.

The Greenbelt includes lands designated under the Niagara Escarpment Plan (NEP) and Oak Ridges Moraine Conservation Plan (ORMCP). It also supports other key initiatives such as the Parkway Belt West Plan and Rouge North Management Plan. The majority of the lands surrounding the Highway 26 corridor within Simcoe County do not fall within the Greenbelt. However, to the immediate west of the Grey County/Simcoe County boundary, Highway 26 borders an area protected under the Greenbelt and the Niagara Escarpment Plan (NEP).

The Greenbelt Plan recognizes that infrastructure is central to the economic and social well-being of Ontario and acknowledges that new and expanded infrastructure will be required to accommodate future growth. Infrastructure which receives the relevant environmental approval is permitted in the Protected Countryside providing it supports permitted activities within the Greenbelt, such as agriculture, recreation and the rural economy, or serves the significant growth in southern Ontario by providing appropriate infrastructure to connect urban growth centres outside of the Greenbelt. However, infrastructure must be located and designed to minimize the negative impacts on the natural environment.



Niagara Escarpment Plan

The Niagara Escarpment Plan (NEP) was approved on June 1, 2005 and updated on April 1, 2011. The relevant policies of the NEP form the policies of the Greenbelt Plan for the NEP area.

As illustrated in **Figure 2**, the Niagara Escarpment extends some 725km from Queenston to the islands off Tobermory on the Bruce Peninsula. This includes land broadly located adjacent to Highway 26, between the Grey County/Simcoe County boundary and Grey Road 40. In 1990, the United Nations Educational, Scientific and Cultural Organization (UNESCO) designated Ontario's Niagara Escarpment as a World Biosphere Reserve in recognition of its unique natural features and ecological importance.

Figure 2: Niagara Escarpment

The purpose of the NEP is to provide for the maintenance of the Niagara Escarpment and land in its vicinity as a continuous natural environment, and to ensure that any development that occurs is compatible with that natural environment.

The objectives of the Plan are:

- To protect unique ecologic and historic areas;
- To maintain and enhance the quality and character of natural streams and water supplies;
- To provide adequate opportunities for outdoor recreation;
- To maintain and enhance the open landscape character of the Niagara Escarpment in so far as possible, by such means as compatible farming or forestry and by preserving the natural scenery;
- To ensure that all new development is compatible with the purpose of the Plan;

- To provide for adequate public access to the Niagara Escarpment; and
- To support municipalities within the Niagara Escarpment Plan Area in their exercise of the planning functions conferred upon them by the Planning Act

The NEP requires that new or expanded transportation infrastructure is located to minimize the impact upon the natural and cultural landscape. Policies seek to reduce the environmental degradation and visual intrusion of infrastructure. In particular, transportation facilities should avoid lands designated as Escarpment Natural Areas. The NEP also recognizes that there may be a need for new infrastructure within the Niagara Escarpment Plan Area. Although this is discouraged, strict policies within the NEP guide the planning for any new infrastructure.

3.1.2 Provincial Environmental Policy & Legislation

Ontario Environmental Assessment Act (OEAA)

The term Environmental Assessment (EA) is both a study and a planning process, which evaluates the potential environmental effects and benefits of a project or undertaking on the environment before decisions are made about proceeding.

In Ontario, this process is defined by, and finds its authority in the Environmental Assessment Act (EAA). The purpose of the EAA is to provide for the protection, conservation, and wise management of Ontario's environment.

If an approved Class EA process is not followed, the OEAA requires a proponent to complete an Individual EA that complies with the requirements of the Act by:

- Accurately describing the undertaking;
- Considering 'alternatives to the undertaking';
- Considering alternative methods for the undertaking;
- Consulting with the public;
- Detailing impacts and proposed mitigation; and,
- Documenting all of the above for public review.

Canadian Environmental Assessment Act (CEAA)

In addition to the Ontario Environmental Assessment Act (OEAA), the Canadian Environmental Assessment Act (CEAA) subjects some projects to a federal EA process. The federal process is conducted either as a Screening or a Comprehensive Study.

A Screening under the CEAA must include:

- description of the project;
- description of the existing environment;
- the environmental effects of the project including cumulative effects, and the effects of possible accidents or malfunctions;

- the significance of environmental effects;
- technically and economically feasible measures that would reduce or eliminate any significant adverse environmental effects of the project;
- comments from the public that are received in accordance with the Act and the regulations; and,
- any other matters relevant to the screening that the responsible authority may require to be considered.

The majority of federal projects are assessed through a screening; however, some projects require a comprehensive study. These projects are described in the Comprehensive Study List Regulations (please refer to CEAA website).

The Canadian Environmental Assessment Agency has the responsibility for administering the Canadian Environmental Assessment Act and promoting co-ordination among federal agencies and with provincial agencies. Through workshops and training programs the Canadian Environmental Assessment Agency is responsible for creating an awareness of the Canadian Environmental Assessment Act and how it applies; promoting environmental assessments as a planning tool to protect and sustain a healthy environment; and acting as a resource to federal authorities, proponents and the public in interpreting CEAA.

Class Environmental Assessment for Provincial Transportation Facilities

The Class Environmental Assessment (EA) process is a planning process, approved under the Ontario Environmental Assessment Act (EA Act), for a class or group of undertakings. Projects included in the Class Environmental Assessment (EA) may be implemented without further approval under the EA Act, provided the approved Class EA planning process is followed. The process provides a decision making framework allowing the requirements of the Environmental Assessment Act (EAA) to be met in an effective and consistent manner.

The Ontario Ministry of Transportation developed the 'Class Environmental Assessment for Provincial Transportation Facilities', which was approved by Order in Council 1653/99 on October 6, 1999, as amended on July 14, 2000. It provides, in part, the following:

- Classification of projects and activities;
- Study stages and phases;
- Transportation engineering and environmental protection principles;
- Consultation principles and processes;
- Documentation and "bump-up" principles and processes; and
- Environmental clearance process.

The Class EA process can be conducted in such a way as to ensure that compliance with other environmental legislation may be achieved. The Class

EA does not replace or exempt the formal processes of other applicable federal, provincial and municipal legislation and by-laws.

MTO Environmental Standards and Practices

The MTO Environmental Standards and Practices documents provide the requirements, guidance and tools used by the Ministry of Transportation to protect the environment during all stages of highway management including transportation planning and highway design, construction, and operations and maintenance. They are also intended to support inter-agency protocols between the ministry and specific regulatory agencies such as the Ministry of the Environment (MOE) and the Department of Fisheries and Oceans Canada (DFO).

The Environmental Standards and Practices documents broadly include direction in the following areas:

- A synthesis and interpretation of the extensive list of applicable requirements from environmental legislation, regulation and government policy;
- The ministry's EA processes and procedures applicable to a range of environmental factors; and
- The selection, design and implementation of environmental protection, mitigation and compensation measures.

The Environmental Standards and Practices documents were developed through extensive consultation with provincial and federal regulatory agencies and internal stakeholders, as well as through public consultation using the Environmental Bill of Rights Registry.

3.1.3 County / Municipal Official Plans

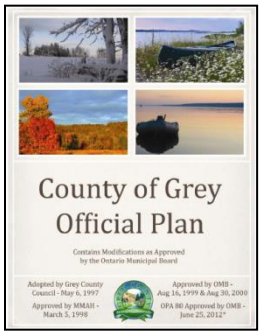
Grey County Official Plan

The Grey County Official Plan (OP) was adopted by Council on May 6, 1997 to repeal and replace the Grey/Owen Sound OP of 1981. Since then, several factors have led to changing growth patterns in the County, including its restructuring in 2000 and the requirement to provide consistency with the 2005 PPS. Following a program of public consultation, the MMAH approved Official Plan Amendment (OPA) #80 on February 14, 2011.

The purpose of OPA 80 is to update the County's OP in its entirety, with key changes being made regarding growth management, mineral resource extraction, settlement areas, natural environment, transportation and utilities, servicing, groundwater management and protection, consent policies, small scale commercial and industrial and settlement area buffer policies.

A key amendment in OPA 80 is the provision of new growth forecasts to 2026. Overall, the County's permanent population is expected to grow from 95,900 to 116,900, while its employment base is forecast to increase from 38,400 to 44,000. With reference to this study, the population of the Municipality of Meaford is expected to increase from 11,400 to 13,300, while

The Town of The Blue Mountains is forecast to increase from 7,000 to 9,300 residents. Employment in Meaford is forecast to grow from 3,100 to 3,600 jobs, while employment in The Town of The Blue Mountains is expected to grow from 3,000 to 3,700.



In line with the objectives of the Greenbelt Plan and NEP, OPA 80 also recognizes the need to maintain and enhance the Niagara Escarpment and direct development appropriately, as designated in the NEP. Highway 26 is identified as one of five provincial highways in the County which are under the jurisdiction of the Ministry of Transportation (MTO) and the need to work closely with MTO on matters affecting the provincial highway system is recognized.

OPA 80 was approved by the OMB on June 25, 2012.

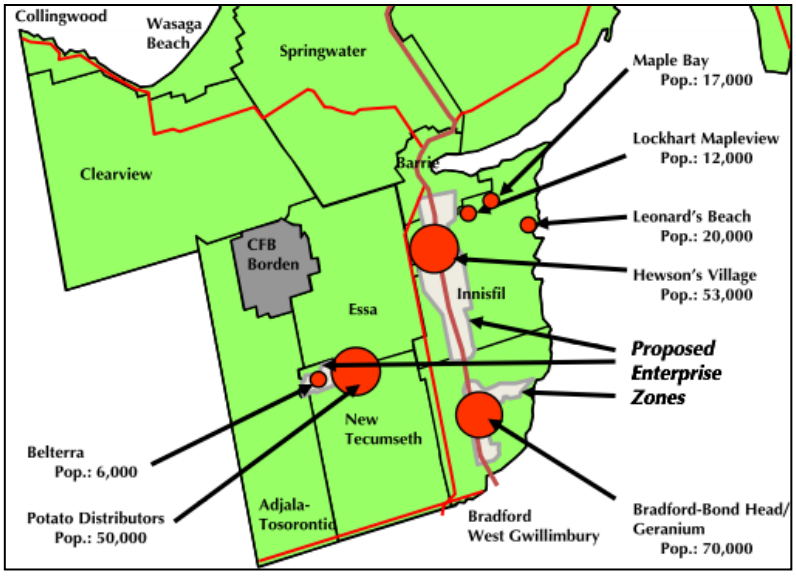
Simcoe Area Growth Plan

The Simcoe Area Growth Plan was initiated in 2006 to provide a framework for long-range planning in Simcoe County by defining the growth management policies to be implemented through the new County OP and local OP conformity exercises.

The Simcoe Area Growth Plan was largely a response to growing concerns amongst residents about the impacts of urban development on the quality of the environment and on their communities. Since 1981 the population of Simcoe County has almost doubled to 440,000 (2006), with most of the growth occurring over the last 10-15 years. Employment has also grown from 100,000 in 1996 to 185,000 in 2006.

In the absence of a growth management framework for the County, a number of proposed development applications had been submitted to the County, which could have realized a total population of nearly 1 million by 2031. **Figure 3** summarizes some of the major development applications that had been submitted to the County for approval.

Figure 3: Selected Major Development Applications in Simcoe County

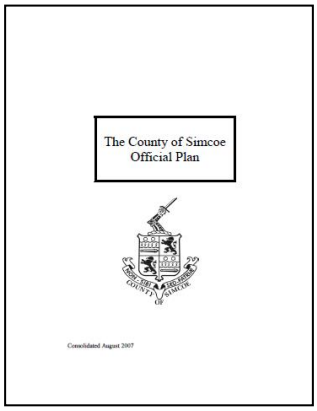


Source: Simcoe Area Growth

The Simcoe Area Growth Plan was completed in 2008, and recommended an allocation of the growth forecasts contained in the Provincial Growth Plan to each municipality in the County along with a series of growth management policies to guide the development of Official Plans for the County and member municipalities. In accordance with the Provincial Growth Plan, the Simcoe Area Growth Plan identified a total population of 667,000 people by 2031, with an employment base of 254,000 jobs.

The Simcoe Area Growth Plan was subsequently replaced by Amendment 1 to the Provincial Growth Plan, which outlined the provincial vision for managing future growth in Simcoe County.

County of Simcoe Official Plan



The County OP was first approved in 1999 and is currently consolidated with amendments as of 2007. A new County of Simcoe OP was adopted on November 25, 2008, to align with the development of the Simcoe Area Growth Plan, TMP and Natural Heritage System Update. It is currently under appeal at the Ontario Municipal Board (OMB).

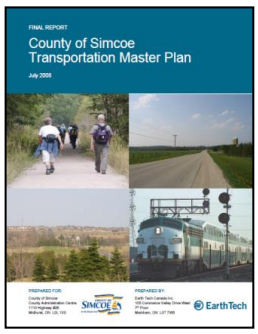
The planning strategy for the OP is based on four guiding themes:

- Direction of most non-resource related growth and development and settlements;
- Enabling and managing resource-based development including agriculture, forestry, aggregates, and tourism and recreation;
- Protection and enhancement of the County's natural heritage system and cultural heritage, including water resources; and
- Development of complete settlements with diversified economic functions and opportunities, and a diverse range of housing options.

The employment and population growth forecasts used in the OP are consistent with those allocated in the Provincial Growth Plan and in the Simcoe Area Growth Plan. Transportation is also a key theme in the OP, with the focus on improving links between settlement areas and other activity nodes, separating through traffic from local traffic, providing integration between modes, and providing for the efficient movement of goods.

The OP supports a number of transportation planning policies, one of which is to update the TMP in conjunction with reviews of the OP, and also consider amendments to the OP in light of policies resulting from updates the TMP. There is also a strong focus on the need for consultation, with the Province, local and neighbouring municipalities, and agencies which provide transportation services, in order to make recommendations regarding the improvement of transportation systems in Simcoe County.

The OP supports the planning, corridor protection and early construction of a number of Provincial facilities, including a long-term Provincial road facility bypassing traffic around the Collingwood area.



County roads often experience heavier volumes of traffic as a result of through traffic avoiding congestion on Provincial highways such as Highway 26.

Simcoe County Transportation Master Plan

The Simcoe County Transportation Master Plan (TMP) 2008, together with provincial policy, the Simcoe Area Growth Plan and Natural Heritage System Update, as well as other relevant research, provides the framework for the update to the Simcoe County OP. The purpose of the TMP is to provide a vision and overall direction for transportation in the County for all modes, to support the level of growth forecast.

The key objectives of the TMP are as follows:

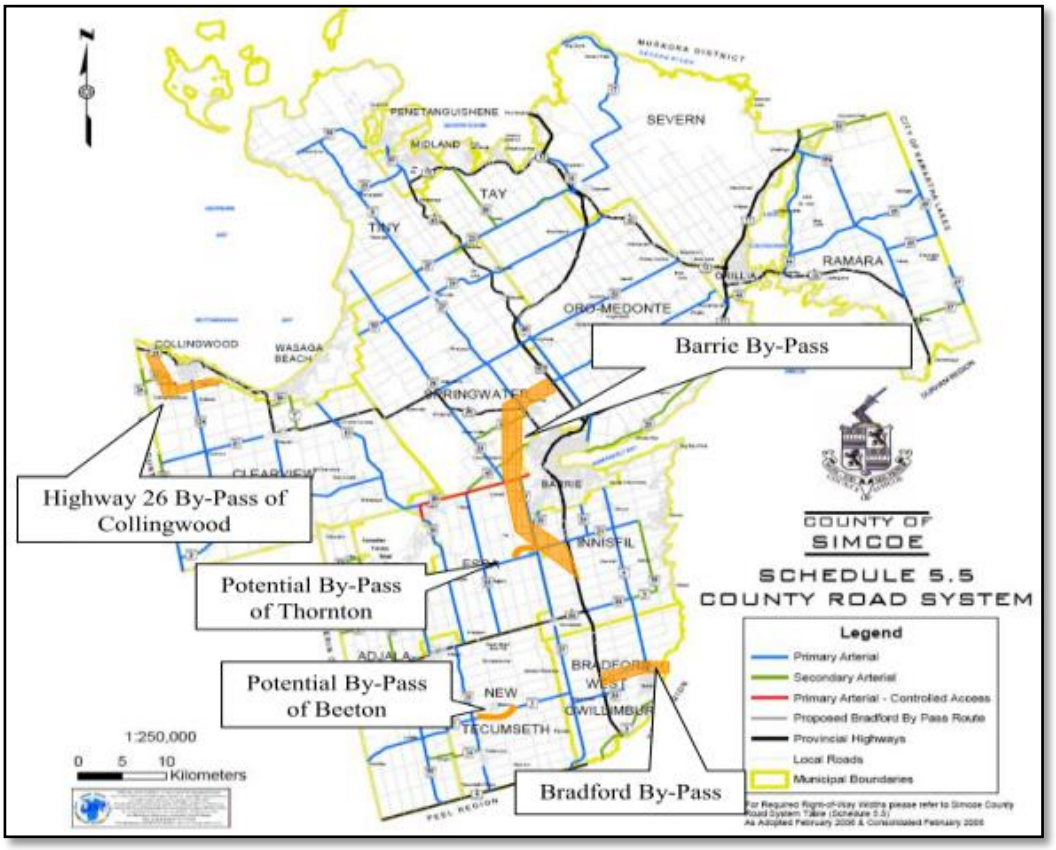
- Provide balance between growth and the environment;
- Meet the County's vision, goals and criteria;
- Establish cost effective solutions relative to present economic climate; and
- Position Simcoe to capitalize on planned growth.

The TMP states that Simcoe Area residents currently make an average of just over 1 million trips per day, with a number of Provincial and County Roads operating at or near capacity on certain sections. If this trend continued to 2031, it is expected that daily trip-making would increase by 63%, placing additional stress on transportation infrastructure.

The TMP seeks to "begin the process of change", by promoting strategies which provide a better balance between the various modes of transportation used by residents. As such, there is a focus upon improving active transportation modes, encouraging travel demand management (TDM) measures and enhancing transit services, but there is also recognition that the road network will continue to play the primary role in meeting the mobility needs of residents, supporting tourism, and facilitating goods movement.

Within the Study Area, the Simcoe County TMP recommended the construction of a Collingwood By-Pass and widening of portions of Highway 26 to the east of Collingwood. Improvements to County and Municipal Roads such as Poplar Side Road, 10th Line (Clearview), Flos Road 4, and County Road 10, were also recommended. **Figure 4** illustrates the Proposed Simcoe County Road System.

Figure 4: Simcoe County Proposed Road Network Plan

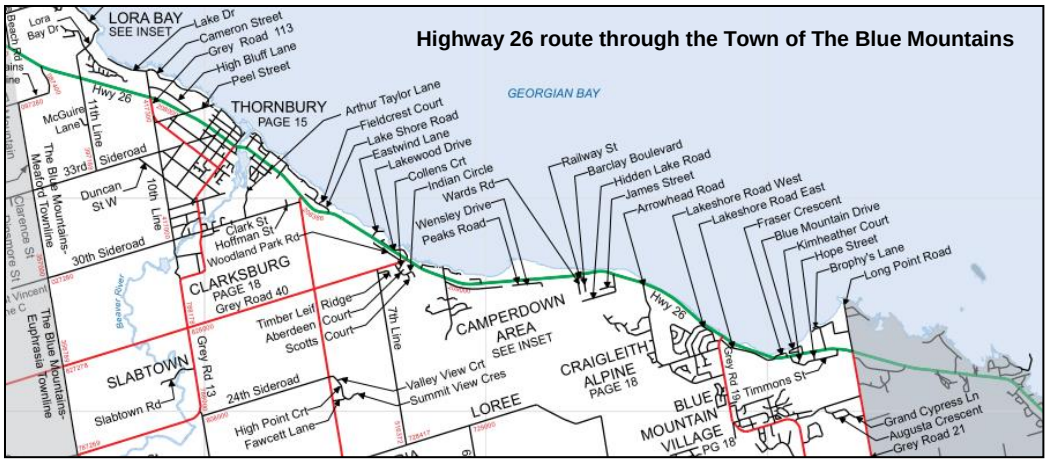


Town of The Blue Mountains Official Plan

The Town of The Blue Mountains was formed on January 1, 1998 following the incorporation of the Township of Collingwood and the Town of Thornbury. The Council adopted the OP in March 2007 to replace all previous OP documents affecting the former Township of Collingwood and Town of Thornbury (with the exception of the Beaver Valley OP and Amendment #7 as they pertain to the lands known as Castle Glen). The purpose of the OP is to provide the Town with a set of comprehensive planning policies to manage growth and maximize efficient land use with respect to the physical, social, environmental and economic aspects of development.

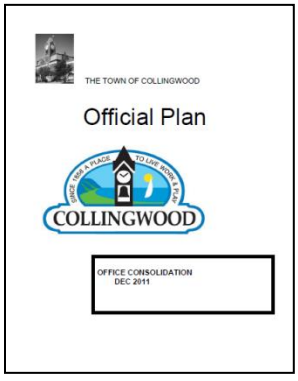
The OP indicates that all new and reconstructed transportation and utility structures should be designed and located to minimize the impact on the Niagara Escarpment and be consistent with the provisions of the NEP. The OP also advocates the restriction of further access points for new development on Highway 26 (subject to MTO approval). This includes a policy to prevent further fragmentation by subdivision of commercial lands along the highway, unless it is part of an overall Concept Plan for the entire parcel. The OP seeks to limit access to entrances that are acceptable for future road openings and acknowledges the status of Highway 26 as a special controlled access highway under the jurisdiction of MTO.

Regarding future development, the Camperdown service district is one of several areas where major residential and resort growth is forecast to occur, extending along Highway 26 between the Georgian Bay shoreline and the Escarpment Designation from Arrowhead Road to the easterly limit of the former Town of Thornbury. The OP states that, where possible, all new development along Highway 26 should be separated by a 30 m buffer strip to retain a suitable screen. Prior to the approval of any Draft Plan or Site Plan Applications, a Master Development Agreement and/or Cost Sharing Agreement for the financing of any required works should be prepared. This includes the equitable sharing of front end financing of a Highway 26 Access Management Plan in conjunction with MTO and the County of Grey.



Highway 26 route through the Town of The Blue Mountains

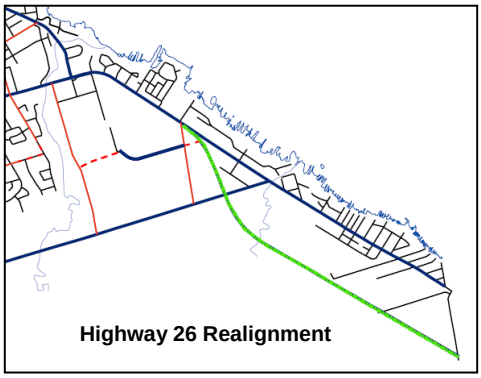
Town of Collingwood Official Plan



A second office consolidation of the Town's OP was undertaken in May 2010 following the initial consolidation on May 27, 2004. Since then, the OMB has conducted a series of case hearings to manage any appeals. Where a Board decision has affected the text of the OP, revisions have been made. The OP has also been amended periodically by the Town and approved or modified by either the County of Simcoe or OMB. The third office consolidation of the Town's OP was released in December 2011.

A central theme to the OP is the desire to maintain a balance between the needs of the recreational market place and the preferences of the Town's permanent residents to retain the small-town characteristics of the municipality. As such, the importance of tourism and also quality of life in Collingwood are recognized in the context of managing future growth. Collingwood is expected to grow from a 2001 population of 21,913 to 30,224 by 2021.

The OP outlines the location of the New Highway 26 alignment: a 6 km section from south of Mosley Street in the Town of Wasaga Beach to Sixth Line in the Town of Collingwood. This section of Highway 26 is subject to high volumes of traffic, which are expected to increase as a result of new permanent and recreational development. As detailed in Schedule D of the



Source: Schedule D - Transportation Plan

OP, this new controlled access highway enters the Town and reconnects with the existing Highway 26 near the Poplar Side Road.

The proposed Highway 26 East Corridor Secondary Plan covers the area between the Huronia Pathway road allowance in the north, the Town of Wasaga Beach in the south, Nottawasaga Bay in the east and the southwesterly limit of the Highway 26 realignment. This area is considered to be subject to a number of development constraints, including a lack of municipal services, poor quality of local roads and the traffic volumes experienced on Highway 26 itself.

The Secondary Plan will consider the planning implications of the realigned Highway 26, utilities, environmental/recreational needs and opportunities for revitalization through improvements to services such as schools, parks and commercial uses.

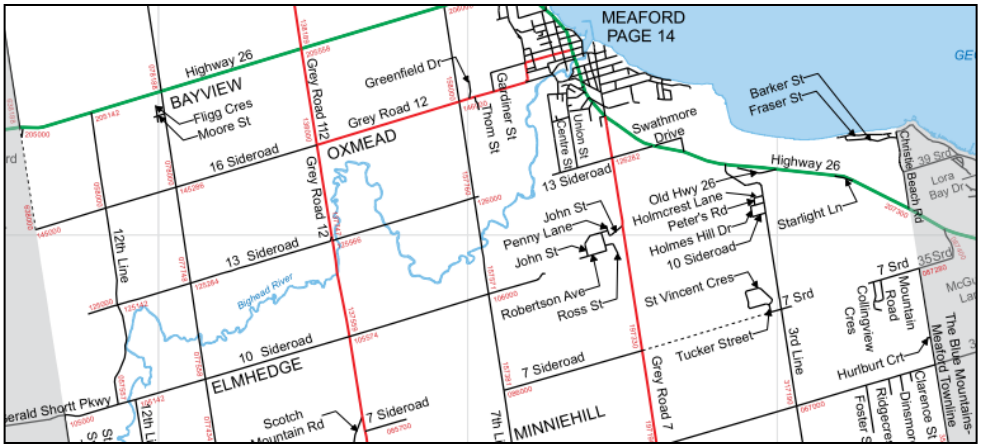
Municipality of Meaford Official Plan

The Municipality of Meaford OP came into effect on December 15, 2005. Since the approval of the OP, there have been 10 OPAs approved by Council. The Council has completed an initial internal review of the OP and also a preliminary conformity review with respect to the County of Grey OPA 80. Draft policies have been developed to address identified topic areas, including corporate and economic development policies, harbour and special policy areas, employment and commercial lands, healthy communities, attainable housing, rural development and performance measures. The Draft Official Plan Review - Background, Issues and Proposed Policy Updates, was prepared for Council and public review on November 2, 2012. It is anticipated that the final draft Amendment of the OP will be submitted to the County of Grey for Approval in May 2013.

The quality of life for residents of Meaford and the need to protect its environmental and natural assets, such as the Niagara Escarpment, are key objectives of the OP. It also recognizes that the Municipality is comprised of a distinct urban area and a distinct rural area. Accordingly, the OP directs the majority of new residential and employment growth to the urban area, which is considered to provide enough land to allow for 20 years of growth. Over this period it is anticipated that Meaford will increase by between 2,000 to 4,000 people, many of which will be retirees, but will also include growth from the expanding recreational and service industries.

The OP contains a strategic objective to properly plan the entrances along Highway 26 into the Meaford urban area, to ensure that they serve as desirable gateways. Lands abutting Highway 26, primarily located at these gateways, are classified as Urban Highway Commercial, including a range of auto services/sales, restaurants, accommodation, retail, storage and warehousing. In rural areas, the Rural Highway Commercial designation applies to commercial areas on Highway 26, permitting building supply outlets, nurseries and auto/RV services and sales. The OP recognizes that all development abutting Highway 26 is subject to MTO approval.

Highway 26 route through the Municipality of Meaford

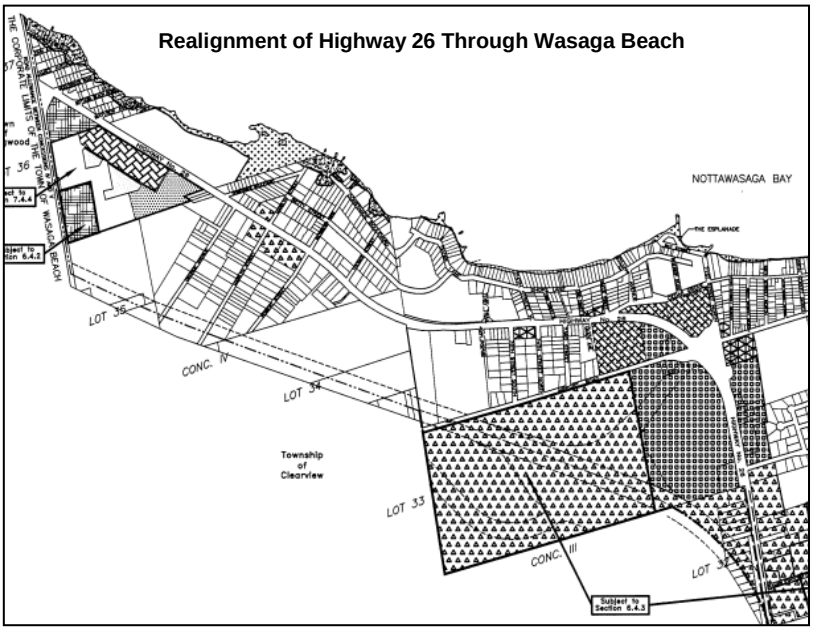


Town of Wasaga Beach Official Plan

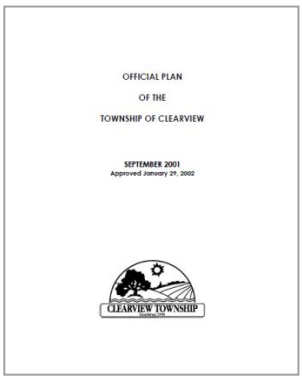
The Town of Wasaga Beach OP was approved by the County of Simcoe on June 22, 2004 and underwent an office consolidation in April 2008. On July 27, 2010 the Council adopted OPA 23, which seeks to comply with the requirements of Section 26 of the Planning Act by undertaking a five-year update of the OP. OPA 23 contains a significant number of new policy additions and amendments following changes in Provincial legislation, changes to the County of Simcoe OP, and through various initiatives undertaken by the Council during the interim.

OPA 23 recognizes the proposed realignment of Highway 26 between Ramblewood Drive in Wasaga Beach and Lakeview Avenue in Collingwood, stating that access will be controlled with one intersection providing access to Wasaga Beach via an extension of Airport Road and Mosley Street.

Council also encourages the aesthetic improvement of major vehicular and pedestrian entrances to the Town, to incorporate signage, landscaping, trailheads and urban design elements such as view corridors. It is considered that this will further promote the Town as a unique tourist destination. Highway 26 (eastbound and northbound at Airport Road) is considered to be a regional gateway to the Town where investment should be focused.



Source: Schedule A-1, Town of Wasaga Beach OP



Township of Clearview Official Plan

The OP of the Township of Clearview was adopted by the Council in September 2001 and approved on January 29, 2002. The Township was formed in 1994 through the amalgamation of the former municipalities of Nottawasaga, Sunnidale, Stayner and Creemore. The overall vision for Clearview recognizes the importance of balancing its agricultural and environment assets with the need to create sustainable employment opportunities and maintain a high quality of life for its residents.

Growth forecasts have been developed to 2021, which indicate that the population will increase to 18,794 from its 1997 base of 12,575. However, it is recognized that these may be conservative estimates owing to Clearview providing desirable alternative housing to Barrie, a significant and increasing seasonal resident population, and the potential to emerge as a preferred location for adult/leisure lifestyle communities in the Georgian Triangle resort area. Based on population growth forecasted as part of the Simcoe Area Growth Plan, the Township of Clearview's 2006 Census population will grow from 14,600 to 26,000 in 2031.

Primary settlement areas in Clearview are considered to be the communities of Creemore, New Lowell and Stayner, and these are three areas where major growth is to be directed, therefore preserving the municipality's prime agricultural lands.

Transportation policies within the OP seek to enable vehicles and pedestrians to move safely and efficiently within the transportation system. Highway 26 is identified as a Provincial highway and the OP recognizes a key issue as being the high traffic volumes between CR 92 in Wasaga Beach and Lakeview Avenue in Collingwood. Again, the realignment to Highway 26 is highlighted as a planned improvement.

3.2 Previous Transportation Studies

Town of Collingwood Transportation Study

The Town of Collingwood Transportation Study was completed in July 2012 and was intended to examine the local transportation context and assess the future transportation needs in the municipality.

Traffic data was collected at critical intersections and roadways in the Town, while future traffic forecasts were generated based upon anticipated growth rates and proposed developments in the area. Key deficiencies in the Study Area were identified at the Highway 26 (First Street) and High Street intersection. The Highway 26 and Harbour Street/Balsam Street intersection was also identified, however it was noted that improvements to the intersection were being implemented in 2012, including an exclusive westbound left turn lane on Balsam Street.

Where Highway 26 passes through the Town of Collingwood, a Connecting Link Agreement is in place to allow the municipality to operate and maintain this section of Highway 26 on behalf of the Province. A series of improvements to the Highway 26 corridor were recommended over the medium (5-10 years) and long term (10+ years) in order to address increased traffic volumes. These include:

Medium Term (5-10 yrs)	- High Street and Highway 26 (First Street) intersection improvements
Long Term (10+ yrs)	- Highway 26 & Harbour Street West/Balsam Street intersection improvements - High Street and Highway 26 (First Street) intersection improvements - Hume Street and Highway 26 (Pretty River Parkway) intersection improvements

It should be noted that ROW availability would likely prohibit some of the recommendations for First Street/High Street intersection.

In addition, it was noted that the following Highway 26 improvements were being planned by the Town / MTO within the horizon years:

- Highway 26 widening to 5 lanes, from Sixth Line to Pretty River Parkway
- Hume Street/Highway 26 (Pretty River Parkway) intersection improvements
- Signalization of Cranberry Trail with Highway 26
- Highway 26 (West) repaving and provision of a CTL, from Harbour Street to west of Princeton Shores Boulevard

Georgian Triangle Area Transportation Study

In July 2000, the Minister of Transportation announced support for the re-alignment of Highway 26 to the east of Collingwood, with Stage 1 linking Highway 26 north of Stayner to Poplar Side Road. Furthermore, in February

2001, the Province indicated that future consideration may be given to extending a 400-series highway to the Georgian Triangle area. The Georgian Triangle Area Transportation Study (GTATS) was published in June 2001 in order to provide direction to both of these considerations. The geographic scope of GTATS is bounded by Grey Road 13 to the west, Highway 26 to the east and north, and the Town of The Blue Mountains/Municipality of Grey Highlands boundary to the south.

GTATS assessed a number of different data sources to present the present and future travel demands for trips to and within the Georgian Triangle Area, including previous transportation studies and other municipal plans, field assessments, interviews with key industries and transportation providers, and origin-destination surveys. From this, a number of key findings and recommendations were established.

With specific reference to the objectives of this study, GTATS identified the need for significant, additional road capacity through or around the Town of Collingwood given the existing operational constraints and origin-destination patterns of travel. Subsequently, a bypass in the vicinity of the Poplar Side Road corridor was recommended with a potential connection at the east side of Collingwood to New Highway 26 in the vicinity of Sixth Line and a reconnection to Highway 26 at High Street on the west side of Collingwood. The GTATS study identified the need for an Environmental Assessment study to determine the location for this additional capacity, and to allow for co-ordination with the realignment of Highway 26 east of Collingwood.

Simcoe Area Needs Assessment

The Simcoe Area Needs Assessment was published by MTO in June 2002. It was prepared as part of the wider strategic long-range transportation planning program to improve major international gateways and transportation corridors in Ontario. The Transportation Needs Assessment paper was the first step of the process to ensure that investment in the Simcoe Area over the next 20-30 years is targeted to where it is most needed in a cost-effective manner.

The goals and objectives of the Simcoe Area Needs Assessment were broadly based upon the Province's previous "Smart Growth" principles and the Provincial Policy Statement. There is a commitment to building stronger communities, a stronger economy and a healthy environment. A number of transportation challenges to these principles were identified in the Simcoe Area, including the existing and future function of its primary roadways.

The Highway 26 corridor was identified as a key challenge, particularly on Bayfield Street, which connects to Highway 400 in Barrie and is a high-traffic commercial strip that does not adequately support the free flow of longer-distance tourist and recreational travel. In addition, congestion on Highway 26 between Collingwood and Stayner during the summer period was identified as an issue, along with the future function of the two-lane section between Midhurst and Stayner.

The Simcoe Area Needs Assessment presented a number of recommendations to address these challenges. Specifically, the plan to improve the Highway 26 corridor from Barrie to west of Collingwood included:

- Construct realignment of Highway 26 from Wasaga Beach to Collingwood
- Initiate environmental assessment process for a new alignment of Highway 26 around Collingwood
- Undertake study to address future capacity and operational needs on Highway 26 from Barrie westerly to Wasaga Beach area

The justification for these improvements is set within the context of a growing population in Collingwood, projected to grow by more than two-thirds between 2001 and 2031, and the need to accommodate the growth in recreational travel demand. This represents an annual population growth rate of approximately 2%, consistent with allocations provided as part of the Growth Plan and/or the Town of Collingwood OP. The recommendations in the Simcoe Area Needs Assessment are also supportive of the findings of the Georgian Triangle Area Transportation Study, as discussed herein.

The MTO is currently undertaking the Simcoe Area Multi-Modal Transportation Strategy (Strategy) to provide a long-term strategy (30+ years) to align with the Growth Plan, as well as other provincial plans and policies. The Strategy will identify options for the provincial transportation system within and surrounding Simcoe County, and guide on-going provincial transportation planning, environmental assessment approvals and investment strategies.

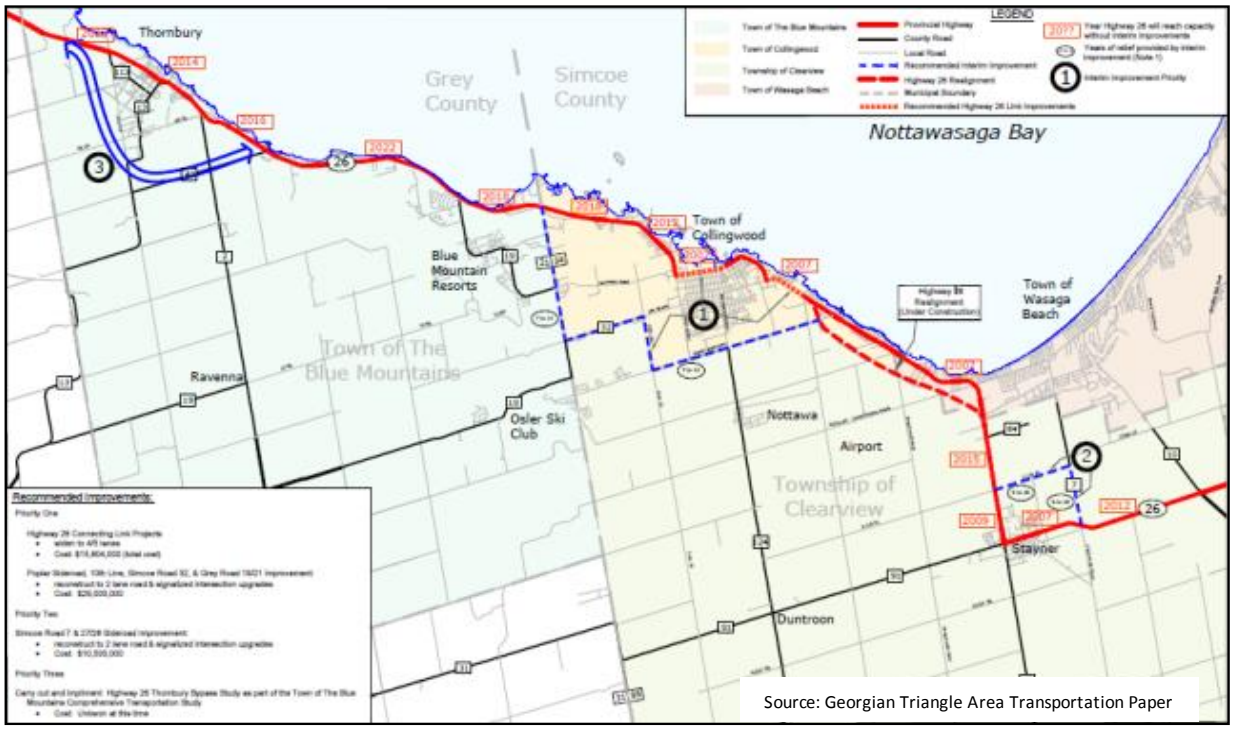
Georgian Triangle Area Transportation Paper – Phase 2 Report

In March 2007, mayors and municipal staff from the Township of Clearview, Town of Collingwood, Town of The Blue Mountains, Town of Wasaga Beach, Grey County and Simcoe County met with the Minister of Transportation to raise their concerns about congestion on Highway 26 and its impact on both local roads and the tourism market. Following a series of technical meetings, the Georgian Triangle Area Transportation Paper – Phase 2 Report was produced in January 2008 which recommended some key interim improvements to reduce congestion on Highway 26 and support economic growth in the tourism sector. As illustrated in **Figure 5**, these include:

- **Priority One:** Highway 26 Connecting Link and Interim Highway 26 Alternate Route around Collingwood. Given the provincial decision to proceed with the Highway 26 realignment between Collingwood and Wasaga Beach, this study identified additional improvement needs for the existing section of the Highway 26 Connecting Link through downtown Collingwood to be constructed subsequent to the completion of the realignment of Highway 26. An interim route around Collingwood was also recommended, through upgrades to Poplar Sideroad, 10th Line, Simcoe Road 32, and Osler Bluff Road. Estimated construction costs were $30.5 million dollars.

- **Priority Two:** Interim Highway 26 Alternate Route around Stayner. The Highway 26 Connecting Link through Stayner is at capacity and the report suggested that provincial traffic uses local roads to bypass this congestion. The study recommended improvements to Simcoe Road 7, and 27/28 Sideroad to serve as the interim Highway 26 Alternate Route, with an estimated construction cost of $11.5 million to fund the required improvements.
- **Priority Three:** Complete and implement a provincial Highway bypass of Thornbury, as recommended in the Town of The Blue Mountains Transportation Study.

Figure 5: Georgian Triangle Transportation Paper - Recommendations



The Phase 2 Report recommended that MTO consider sharing the costs of these improvements with the area municipalities in proportion to the provincial/local traffic split, suggesting that the improvements are attributable to external traffic rather than local traffic.

Road Section	Between ...	And ...	% Provincial Traffic	% Municipal Traffic	Total Cost	MTO Portion	Municipal Portion
Poplar Sideroad	Highway 26	Simcoe Road 124	70%	30%	$5,554,000	$3,887,800	$1,666,200
Poplar Sideroad	Simcoe Road 124	10th Line	65%	35%	$5,873,000	$3,817,450	$2,055,550
Simcoe County Rd 32 (1)	10th Line	Osler Bluff Road	75%	25%	$3,455,000	$2,591,250	$863,750
10th Line	Poplar Sideroad	Simcoe County Road 32	81%	19%	$4,736,000	$3,836,160	$899,840
Osler Bluff Road	Mountain Road	Highway 26	73%	27%	$7,271,000	$5,307,830	$1,963,170
Osler Bluff Road	Simcoe County Road 32	Mountain Road	75%	25%	$3,703,000	$2,777,250	$925,750
Simcoe County Rd 7 (1)	Highway 26	Wasaga S Limit	65%	35%	$4,783,400	$3,109,210	$1,674,190
27/28 Sideroad	Simcoe County Rd 7	Highway 26	79%	21%	$6,667,200	$5,267,088	$1,400,112
				Total	**$42,042,600**	**$30,594,038**	**$11,448,562**

Source: Table 16 - Cost Sharing, Georgian Triangle Transportation Paper

In 2008, the Ministry provided $10M in funding to the Town of Collingwood, on behalf of the Georgian Triangle municipalities, for capacity improvements on existing municipal roads to act as interim alternate routes around Stayner and Collingwood. The Ministry also agreed to undertake a planning study to examine the longer term highway improvement needs in the area. This study represents the completion of that commitment.

Town of The Blue Mountains Comprehensive Transportation Strategic Plan

The Town of The Blue Mountains Comprehensive Transportation Strategic Plan was published in January 2010 to address the short, medium and long-term aspirations for all levels of road infrastructure. Highway 26 is central to the plan given its function as the primary route through the municipality.

Based upon future traffic projections, the following capacity and operational deficiencies were identified for Highway 26:

- Sections of Highway 26 are expected to reach or exceed operational capacity by 2028
- A number of intersections along Highway 26 will operate at or beyond capacity by 2028 or sooner
- Public road spacing and private access densities along Highway 26 currently exceed MTO guidelines within the Craigleith area

In order to address the growing demands for transportation the Plan advocates a holistic approach combining three main strategies: manage the demand for transportation; optimize the existing transportation system; and increase supply of transportation facilities/services. To mitigate the future operational deficiencies on Highway 26 a number of improvements are identified. These include a two-way-left-turn centre lane between Grey Road 21 and Grey Road 19 to facilitate private access movements, additional through lanes and/or exclusive turning lanes at a number of intersections and the implementation of traffic signals at key intersections. The Plan also considers future improvements required in the municipality as a result of the Highway 26 Collingwood Alternative Route option.

The focus on Highway 26 is aligned with the Plan's overall objectives to develop a Highway Access Management Plan (HAMP) that will help to maintain and/or improve the safety, mobility and level of service along the Highway 26 corridor within the municipality.

3.3 Existing and Future Conditions in the Study Area

3.3.1 Natural Environment

Various natural heritage features, as illustrated in **Figure 6**, are present within the Study Area and are summarized below.

County Forest Tract

Designated County Forest Tract (CFT) areas are sparsely distributed within the southwest portion of the Study Area (i.e., Pretty River Valley and Kolapore Uplands). One CFT is situated at the east-central limits of the Study Area, immediately west of the County of Simcoe limits.

Conservation Areas

Conservation Areas are sparsely situated within the southwest portion of the Study Area, with the exception of the Clendenan Dam Conservation Area, which is located within the northwest portion of the Study Area. It should be noted that the Bruce Trail, a conservation corridor which generally spans from Queenston northwesterly to Tobermory, traverses the Study Area in various locations.

Areas of Natural or Scientific Interest

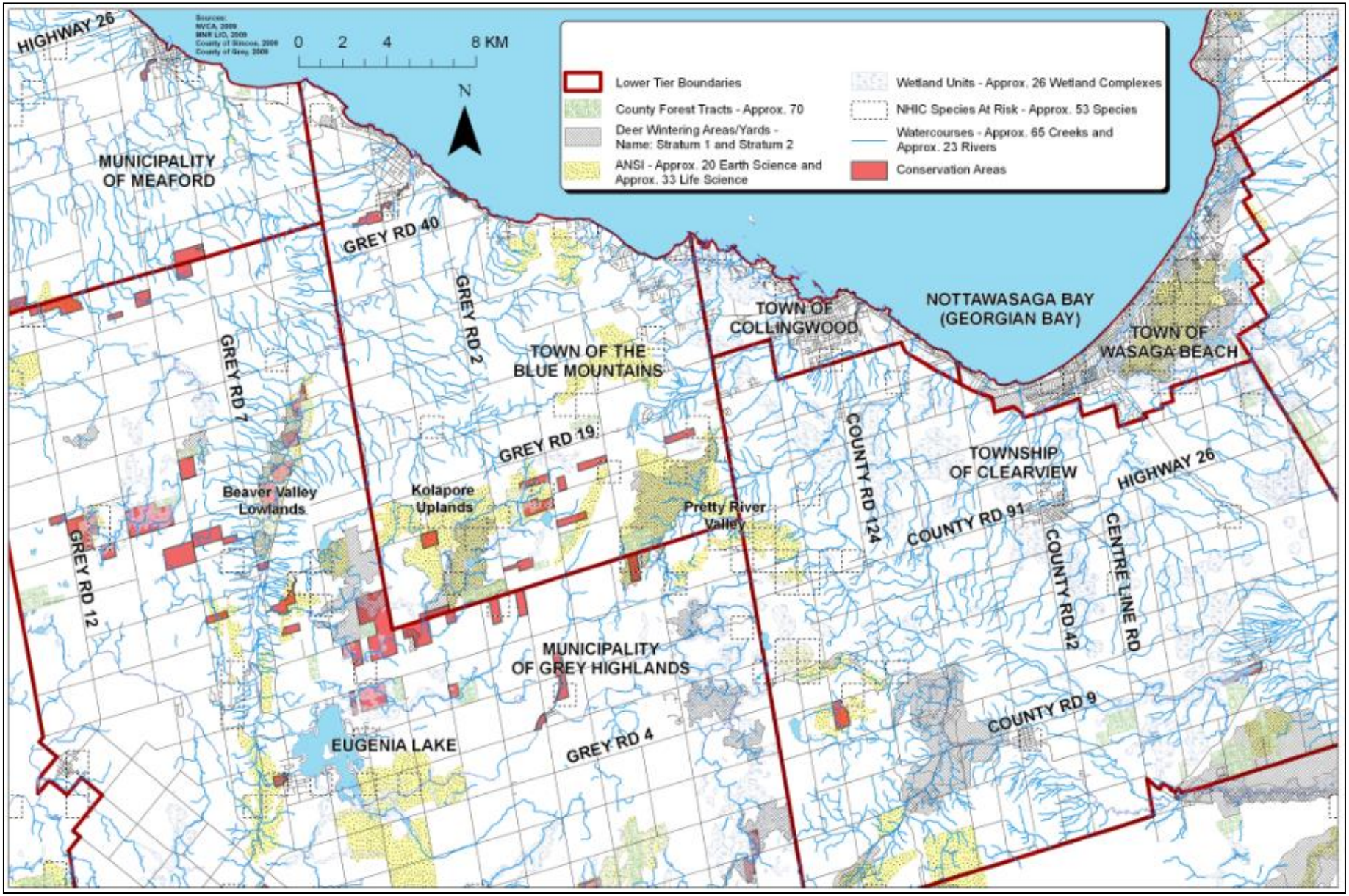
Areas of Natural or Scientific Interest (ANSIs) are areas of land (or water) that are protected by the province based on identified natural heritage features. These features can be associated with either a 'Life Science' or 'Earth Science' designation (i.e., regionally significant ecological or geological features, respectively). ANSIs are noted to occupy a large portion of the Town of Wasaga Beach and the southwest quadrant of the Study Area (i.e., Kolapore Uplands, Pretty River Valley). In addition, ANSIs are noted at the east-central and northern portions of the Town of The Blue Mountains. It is noted that ANSIs occupy much of the Pretty River Valley area, a portion of which extends to the southeast, at the western limits of the Township of Clearview.

Species at Risk

Terrestrial

The Natural Heritage Information Centre (NHIC) maintains data on rare and/or endangered species (i.e., species at risk (SAR)) within the province. Several occurrences of SARs are noted within the Study Area, many of which are generally situated in proximity to the ANSIs noted above. Based on the information reviewed, some SAR species in the Study Area include the Northern Ribbonsnake, Milksnake, and the Massasauga Rattlesnake; as well as some vegetation species including sedge, lichen and hawthorn.

Figure 6: Natural Heritage Features



Several SARs are noted to be present with the south-central portion of the Study Area, in the northwest portion of the Township of Clearview. In addition, several SARs appear to occupy a large portion of the Town of Wasaga Beach. Several SAR have also been identified in the vicinity of the existing Highway 26 corridor.

Aquatic

Ontario Conservation Authorities provide online mapping associated with the distribution of aquatic SAR, as maintained by the Department of Fisheries and Oceans (DFO). Based on a review of the distribution of aquatic SAR mapping (i.e., Grey Sauble Conservation Authority (Maps 1 through 4) and Nottawasaga Valley Conservation Authority (Map 1), no aquatic SAR are located within the Study Area.

Deer Wintering Areas

In response to weather conditions (i.e., cold, snow), deer congregate to 'wintering areas'. These areas are generally occupied by mature coniferous tree stands, ideal for shelter from heavy snowfall and/or deep snow conditions. Deer wintering areas (DWAs) are present within the southwest portion of the Study Area, in the general vicinity of the ANSIs and SARs noted within the Kolapore Uplands and the Pretty River Valley. In addition, these areas are indicated to be present within the northwest portion of the Study Area, immediately southwest of the Georgian Bay shoreline and another at the south-central portion of the Study Area limits, within the Municipality of Grey Highlands. It should be noted that DWAs also occupy a large portion of the Town of Wasaga Beach.

Niagara Escarpment

Source: www.escarpment.org

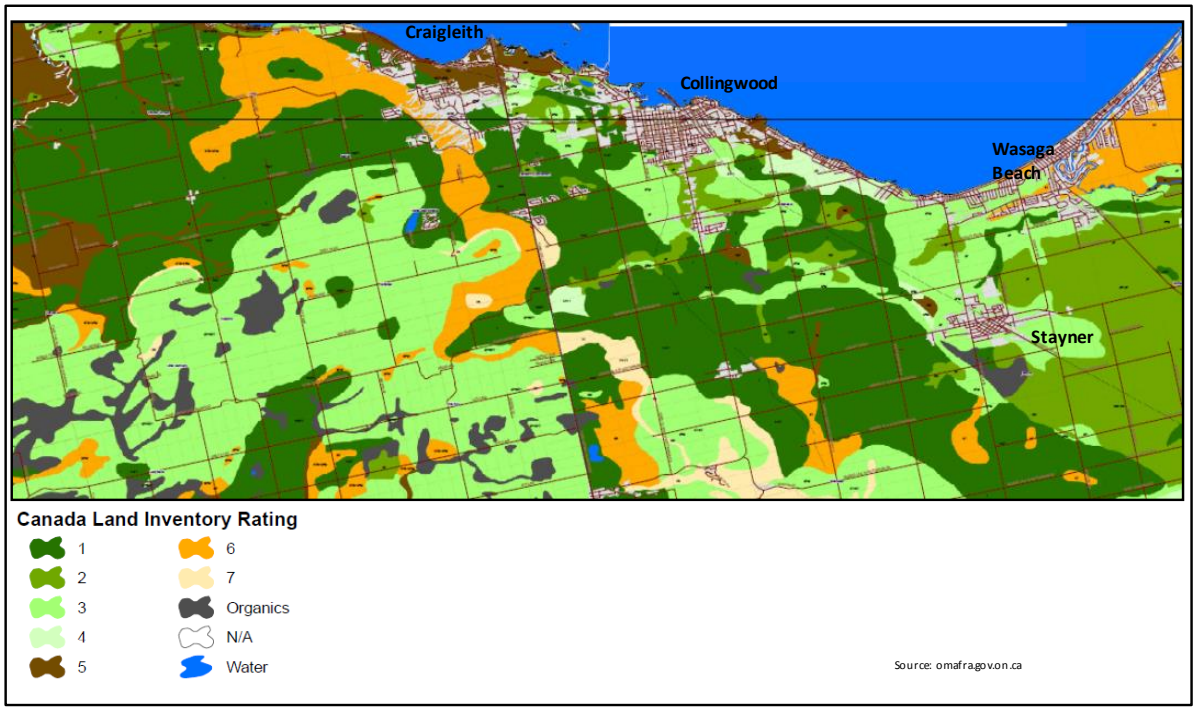
As noted in 3, the Niagara Escarpment is an internationally recognized natural feature, protected by policies outlined in the NEP. Where new infrastructure is not required, the NEP requires that new or expanded transportation infrastructure is located to minimize the impact upon the natural and cultural landscape. This feature occupies a significant area of the western portion of the Study Area, spanning from the south-central portion, north-westerly to the Georgian Bay shoreline, and subsequently descending in a southwesterly direction to the south portion of the western Study Area limits. This area is also occupied by designated Natural, Protection, Rural and Recreation Areas as per area Official Plans.

Agricultural Land Capability - Canada Land Inventory

The Canada Land Inventory (CLI) is a comprehensive land inventory of rural Canada that provides mapping of land capability for agriculture, forestry, wildlife and recreation. There are seven classes of soil used to rate agricultural land capability (i.e., Classes CL1 through CL7). This soil conditions of the landscape, as well as climate. Lands classified as CL1 are considered to have the highest capability to support agricultural land use activities, while CL7 soils are considered to have the lowest potential.

Based on AECOM's review of available mapping, designated rural and/or agricultural land uses occupy a significant portion of the Study Area. Each agricultural soil class appears to be represented within the Study Area, as illustrated in **Figure 7**. However, it is noted that soil classes CL1 through CL3 appear to dominate the region.

Figure 7: Agricultural Land Classifications



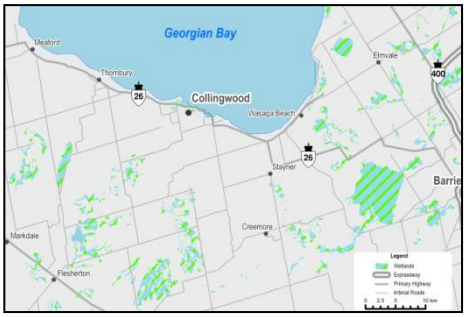
3.3.1.1 Aquatic Features

Watercourses

Various watercourses are distributed throughout the Study Area and generally consist of small lakes, wetlands, creeks and associated tributaries, many of which appear to be associated with nearby Georgian Bay. Predominantly cold water streams are present in the vicinity of the existing Highway 26 corridor and appear to generally flow in a northerly direction towards Georgian Bay.

Wetlands

The largest area of wetland features are located within the east portion of the Study Area (i.e., primarily within the Township of Clearview), and appear to be located in the general vicinity of the Pretty River, Batteaux Creek and Warrington Creek and other nearby watercourses.



The Ontario Ministry of Natural Resources developed a wetland evaluation system to assess the importance of individual wetlands in response to the need to conserve wetlands within the province. This classification system is based on scoring methodology which classes wetlands into Provincially Significant or Locally Significant categories. As per the policies indicated in the PPS, "*Development and site alternation shall not be permitted in significant wetlands"*. Based on available mapping, Provincially Significant Wetlands and/or Locally Significant Wetlands (i.e., PSWs and/or LSWs) are generally indicated to be distributed throughout the following locations of the Study Area:

- immediately south of Stayner;
- southern portion of Grey County; and
- the Town of Collingwood.

3.3.1.1 Snow Drifting

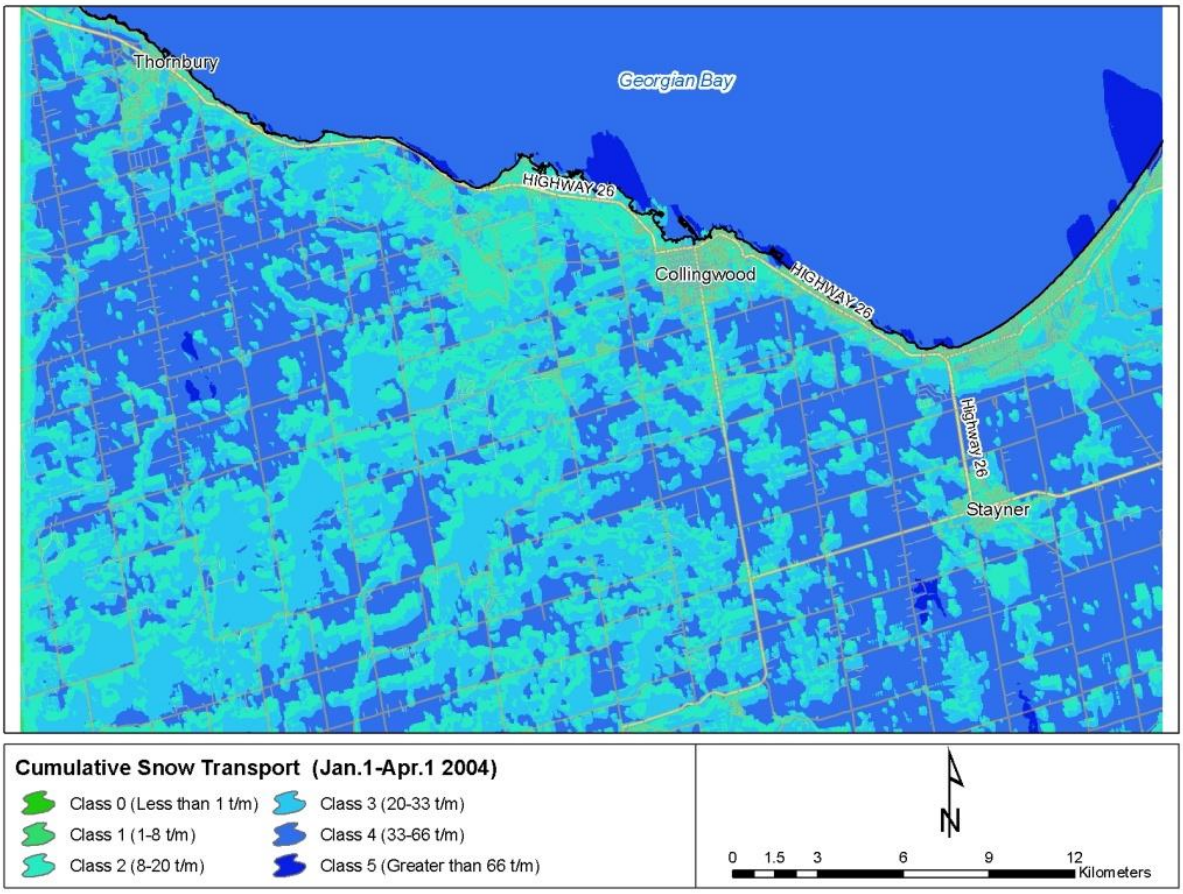
During the winter, lake effect storms can drop a significant amount of snow within the Study Area. Winds off the lake contribute to significant snow drifting areas, impacting many major highways and County Roads in the Study Area. These conditions often result in periodic closures of main highway routes due to unsafe travel and/or road conditions.

An assessment of snow drifting trends within the Study Area was carried out to identify areas that comprise a high potential for snow transport. The findings of the assessment were documented in the report entitled, *"Highway 26 Transportation Study: Snow Drift Assessment Study"*, completed by 4DM for AECOM on behalf of the MTO (i.e., Snow Drift Assessment).

In order to delineate high snow transport areas, a review of existing meteorological data provided from Environment Canada weather stations, and collected between 2000 and 2010 was carried out. In addition, the existing land cover and topography of the Study Area was reviewed.

Weather station data collected during the 2004 winter season was used to develop a snowdrift model and identify the areas expected to experience the highest annual snow transport values. These values were categorized based on snow drift severity (i.e., Classes 0 through 5), as illustrated in **Figure 8**.

Figure 8: Snow Drift Transport



Based on the findings of the Snow Drift Assessment, the highest expected area for snow transport (i.e., Class 5) was identified within the agricultural areas situated to the south of Thornbury and in the vicinity of Stayner. In addition, an area of Class 5 snow transport was also identified along the Georgian Bay shoreline, including the Highway 26 corridor in the vicinity of Craigleith. It was noted that the urbanized and forested areas along the shoreline provide wind resistance and trap blowing snow.

A copy of the Snow Drift Assessment is provided in **Appendix E** of this report.

3.3.2 Socioeconomic Conditions

3.3.2.1 Population and Employment (existing and projected)

Population and employment growth within the Georgian Triangle is anticipated to continue to increase. Population and growth projections were reviewed for various municipal and provincial planning and/or policy documents including:

- The Grey County Official Plan
- Simcoe Area Growth Plan
- County of Simcoe Official Plan
- Simcoe County Transportation Master Plan
- Town of The Blue Mountains Official Plan
- Town of Collingwood Official Plan
- Municipality of Meaford Official Plan
- Town of Wasaga Beach Official Plan
- Township of Clearview Official Plan
- Growth Plan for the Greater Golden Horseshoe: Amendment 1

The east portion of the Study Area is located within the County of Simcoe, a region comprising the central portion of the Greater Golden Horseshoe (GGH). As per Schedule 3 of the Growth Plan for the GGH (Growth Plan), the County of Simcoe is expected to grow from 254,000 residents and 85,000 jobs (Simcoe excluding Barrie and Orillia), in 2001, to 667,000 residents and 254,000 jobs (Entire Simcoe) by 2031.

Amendment 1 to the Growth Plan, 2012 (Amendment 1) provides specific direction for municipalities in Simcoe County and the Cities of Barrie and Orillia, to implement the Growth Plan. Population and growth projections for the Town of Collingwood, Township of Clearview and Town of Wasaga Beach, each of which comprises the east portion of the Study Area are provided in Schedule 7 of Amendment 1.

	Distribution of Population and Employment to 2031	
	Population	**Employment**
Town of Collingwood	33,400	13,500
Township of Clearview	19,700	5,100
Town of Wasaga Beach	27,500	3,500

3.3.2.2 Land Use

AECOM carried out a windshield survey of the existing Highway 26 corridor, from Stayner northwesterly to Meaford, Ontario, in November 2010. The purpose of the survey was to review and document the current land uses associated with the existing corridor, and to consider any constraints that may affect the feasibility of widening the current highway.

Based on the findings of the windshield survey of the current Highway 26 corridor, the following was noted:

- The village of Stayner is generally developed with mixed commercial land uses within its downtown core, the buildings of which are generally situated adjacent to the Highway 26 ROW;
- Residential, new commercial and sparse light industrial land uses generally occupy the balance of the developed area of Stayner.
- Woodlots, cultivated lands, orchards and rural residences are generally present along the corridor between Stayner and Brocks Beach;
- The ground surface topography was noted to vary along this portion of the corridor, however noted to be generally flat to the west of Stayner;
- The commercial land uses servicing Wasaga Beach were noted to be situated at generous setback from the existing corridor;
- Mixed commercial and residential land uses generally occupy the lands along the corridor between Brocks Beach and the Town of Collingwood;
- Lands in the vicinity of the Highway 26 corridor within the Town of Collingwood are developed with mixed commercial land uses (i.e., auto sales and service, grocery, various retail, etc.) and some residences. Numerous parking lots associated with the commercial development is generally located adjacent to the existing corridor within this area;
- Industrial land uses are present to the south of the existing corridor, within the east portion of the Town of Collingwood;
- Lands within Town of Collingwood (i.e., to the south of the corridor) are generally occupied by a variety of retail and/or commercial operations, suited to service local residents and tourists;
- Other mixed uses occupy the Town of Collingwood including, but not limited to, agricultural, residential, institutional and recreational;
- From the Town of Collingwood, northwesterly to Craigleith, sparse residential and commercial land uses were noted, some of which were noted to be situated in close proximity to the existing corridor. In addition, new condo/townhome developments were also under construction and/or constructed at the time of the windshield survey;
- Land uses in the vicinity of the Town of Thornbury generally consist of mixed commercial and retail operations. In the vicinity of the downtown core, the existing Highway 26 corridor is located in close proximity to these operations;
- Sparsely distributed orchards and commercial land uses occupy the lands adjacent to the Highway 26 corridor between the Towns Thornbury and Meaford, however residential dwellings are predominantly present within this area; and
- The Town of Meaford generally consists of rural residences and woodlots; however some commercial land uses were also noted, particularly within the downtown core.

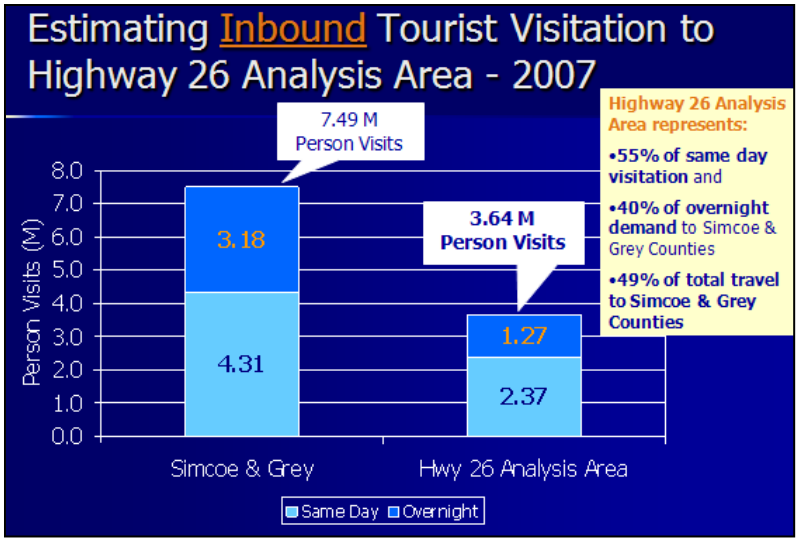
3.3.2.3 Tourism Assessment

Tourism is an important part of the local and regional economy in the Georgian Triangle Area and plays a key role in driving the demand for travel to/from and within the Study Area.

In October 2009, PKF Consulting carried out an assessment of current and projected tourism-related travel demands in the Study Area, the results of which were documented in the report entitled, *"Highway 26 Transportation Study, 2007 Tourism-Related Travel to Highway 26 Analysis Area & Visitation Projections to 2030*" (i.e., the PKF report). Based on the findings of the PKF report, the following is noteworthy:

2007 Conditions

- In 2007, there were 7.49 million visits to the Counties of Grey and Simcoe, approximately 49% of which travelled to/from locations within the Highway 26 area (i.e., 3.64 million tourists using the corridor);



- Approximately 13.3% of outbound trips were calculated to be made by residents in the Highway 26 area;
- Between 2006 and 2007, visitation to the Study Area has increased by 14%, largely due to increased travel from the Metro Toronto, Peel, Muskoka and Hamilton-Wentworth regions;
- Tourist spending within the Study Area accounted for $403.5 million in 2007;
- The automobile appeared to be the preferred mode of transportation, used by approximately 92.9% of tourists, followed by bus which was utilized by approximately 1.4%;
- The balance of tourists visited reportedly arrived to the Study Area via plane, boat and train; and
- Commercial accommodations were utilized by 38% of the overnight visitors. The balance of overnight visitors were accommodated by the private homes of friend and family, as well as private cottages (i.e., 44% and 18%, respectively).

Future Conditions (up to 2030)

Continued development of new tourism is anticipated to the Study Area is anticipated to grow from 3.85 million visitors in 2013 to 4.12 million visits by 2020 and 4.56 million by 2030. The number of visits attributed to same day and overnight visitors is expected as follows:

Visitors	2013	2020	2030
Same Day	2.49 million	2.67 million	2.95 million
Overnight	1.36 million	1.46 million	1.61 million
Total	3.85 million	4.13 million	4.56 million

The estimates of future tourism activity have been used in forecasting future travel demands in the Study Area as described in Section 3.4.4.

3.3.2.4 Cultural and/or Built Heritage

Jubilee Presbyterian Church
7320 Highway 26, Stayner

Downtown Collingwood Heritage Conservation District
Huron Street/Highway 26,

115 King Street East/Highway 26, Thornbury

A Cultural Heritage Inventory was completed for the existing Highway 26 corridor, the findings of which were documented in the report entitled, *"Cultural Heritage Inventory, Proposed Highway 26 Improvements, Simcoe and Grey Counties, Ontario",* prepared by Timmins Martelle Heritage Consultants Inc. (Timmins Martelle). A copy of the report is included in **Appendix G**. The purpose of the Heritage Inventory was to identify and describe any cultural heritage features in proximity to the existing Highway 26 corridor and in the general Study Area.

As part of the Heritage Inventory, a 'field review' of the existing Highway 26 corridor was undertaken combined with a desktop review of heritage information collected from local archives, historic collections and public library resources. Based on a review of the Heritage Inventory, the following observations were noted:

- A rich variety of built heritage and cultural landscape features are situated along the existing Highway 26 corridor
  - Stayner consists of more built heritage resources along the existing Highway 26 corridor than can be found in the balance of the corridor (within the limits of the Study Area), including a church, cemetery, and historic retail streetscape
  - The Collingwood Downtown Heritage Conservation District was identified as a significant cultural heritage landscape feature along the existing Highway 26 corridor, and is protected by strict by-law development restrictions. Numerous other built heritage features were identified within Collingwood, along the existing Highway 26 corridor
  - Four (4) candidate built heritage features were noted along the existing Highway 26 corridor within Thornbury
  - Three (3) other cultural heritage landscape features included the Georgian Trail, the Craigleith Shale Oil Works and the existing Highway 26 corridor itself;
- Rural areas located adjacent to the corridor comprise generous setbacks and low development densities; and
- Resources situated within the urban areas of Stayner, Collingwood and Thornbury comprise narrow setbacks from the existing roadway.

The findings of the Heritage Inventory recommended that a Cultural Heritage Evaluation be completed to further assess the impacts to cultural heritage features associated with future alternative design considerations. Given the location of the majority of the cultural heritage resources identified, the detailed Cultural Heritage Inventory was limited to the existing Highway 26 corridor.

The online Ontario Heritage Properties Database (information current as of 2005) was reviewed by AECOM to identify any heritage features (structural and/or landscape) within the balance of the Study Area that are designated under Parts IV or V of the Ontario Heritage Act (OHA).

3.3.2.5 Archaeological Resources

A Stage 1 Archaeological Assessment was completed for the Study Area in January 2010, the findings of which are documented in the report entitled, "Stage 1 Archaeological Assessment, Highway 26 Transportation Study, Georgian Triangle Area, W.O. 07-20008, Grey County, Simcoe County", prepared by Timmins Martelle for AECOM (Stage 1 AA). A copy of the report is included in **Appendix H**.

Based on a review of the Stage 1 AA, the majority of the Study Area was identified as consisting of high archaeological potential based on the following:

- Proximity to watercourses and ancient glacial beaches;
- Presence of previously registered archaeological sites;
- Presence of 19th century settlement areas; and
- Presence of historic transportation corridors.

As such, any new roadway corridor is anticipated to traverse areas consisting of archaeological potential. In addition, the widening of the existing Highway 26 corridor beyond the existing right-of-way is anticipated to encroach onto areas consisting of archaeological potential. It should be noted that lands which are heavily developed and generally consist of passive land uses (i.e., residential and/or agricultural) do not retain archaeological potential.

The findings of the Stage 1 AA recommended completion of more detailed archaeological studies, in the event that new infrastructure is recommended. In addition, it was noted that a Stage 2 AA would likely be required prior to any construction activities.

As per Appendix Map 'D' of the Town of The Blue Mountains OP, various areas identified as "Archaeology Areas" are indicated to be present throughout the TBM. These areas are protected by the policies outlined in the TBM's OP, which ensure that cultural heritage features are preserved and/or enhanced, and in line with the requirements of the province.

3.3.3 Transportation System

A transportation system consists of facilities that provide linkages to a variety of land uses to facilitate the movement of people and goods. A range of facilities and modes of travel are present throughout the local transportation system including, but not limited to, roadways, public transit, railways, marine and air. Effective transportation systems reduce transportation costs and improve travel times, providing benefits to the local and regional economies through efficient linkages between urban centres, rural areas, major ports, airports, and international gateways.

3.3.3.1 Existing & Future Roadway Network

The Study Area consists of provincial, regional and municipal roadways, each of which service the growing travel demands and provide links between the various land uses that occupy the Study Area.

<u>Provincial Roadways</u>

Highway 26 is the only provincial highway situated within the Study Area, which generally spans from Owen Sound in the west, to Barrie in the east. Connections to Highway 6, Highway 10 and Highway 21 and Highway 400 in Barrie, provide connectivity to other municipalities in Grey and/or Simcoe Counties, as well as to the GTA. Highway 26 provides a major link from Barrie to the Towns of Stayner, Wasaga Beach, Collingwood, Thornbury, Meaford and Owen Sound, and serves as the primary route to the recreational destinations in the Study Area (i.e., ski resorts and cottage country).


Highway 26 New – East of Collingwood

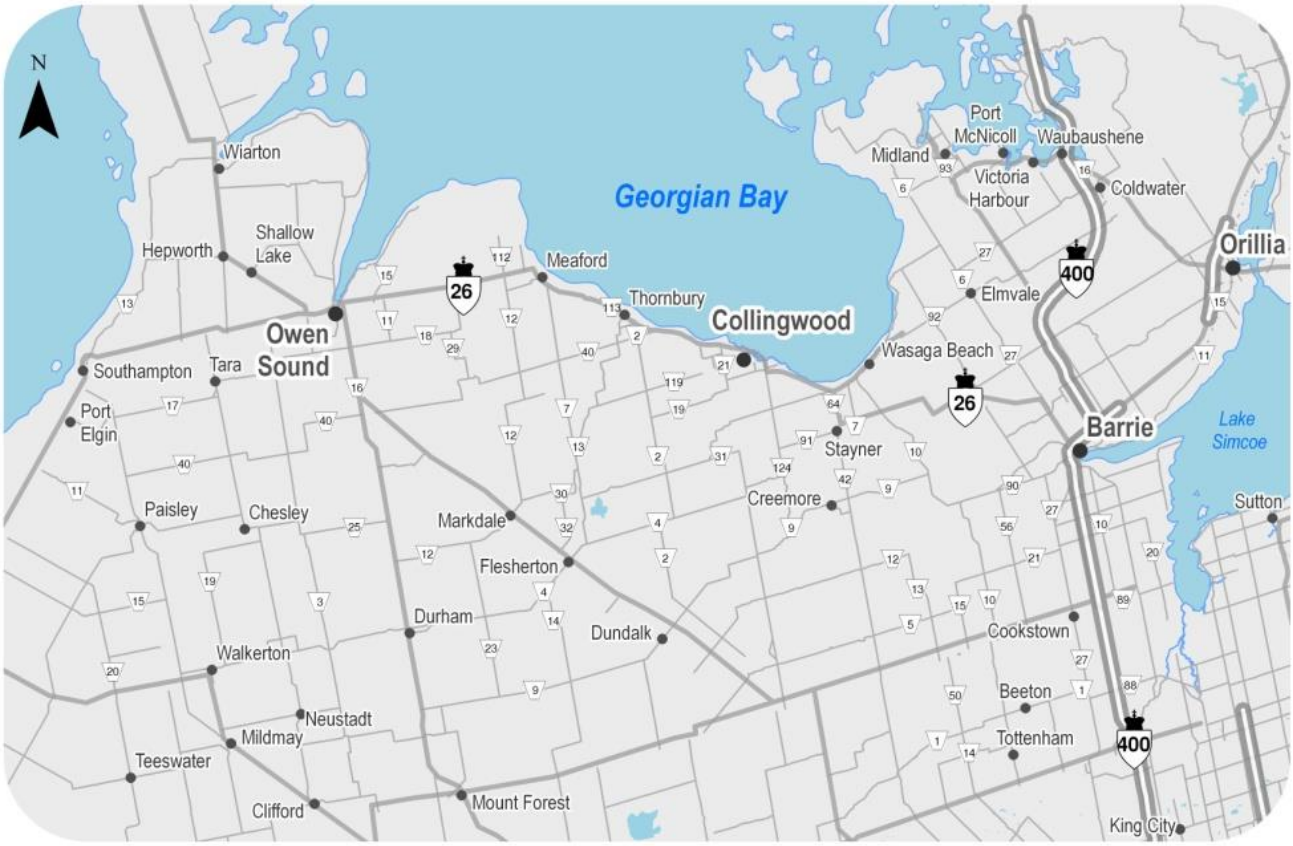
<u>County Roadways</u>

As noted above, the Study Area lies within two County jurisdictions; the County of Simcoe and Grey County. County Roads are generally characterized as two lane rural highways that provide links between the agricultural, rural, residential, and commercial/industrial land uses of the Study Area, as well as providing links to the provincial highway system.

According to the Simcoe County TMP, the primary role of a County road is to facilitate the medium to longer distance travel needs of residents and businesses[4]. The County of Grey identifies County roads as roads that are intended to connect smaller population centres and provide a continuous transportation network. These roads were historically intended to provide a "farm to market" road link in the Counties. A map illustrating major County Roads within the Study area is provided in **Figure 9**.

[4] *Chapter 4, Section 4.4, County of Simcoe Transportation Master Plan (July 2008)*

Figure 9: Provincial / County Road Network



Jurisdictions

Simcoe County

Simcoe County is responsible for maintaining an extensive network of County Roads, seven of which lie within the limits of the Study Area (i.e., County Roads 7, 10, 32, 34, 42, 64, 91 and 124).

County Roads 7, 10 and 64 are located within the east portion of the Study Area. County Road 7 is a north-south route to the east of Stayner, west of County Road 10. This County roadway provides a link into the Town of Wasaga Beach and also forms part of an alternate route around Stayner from the east of the village, northerly to Sideroad 27 & 28 Nottawasaga, which links back to Highway 26. County Road 10 is a major County Road running from Highway 9, through Angus, all the way to Wasaga Beach. Within the Study Area, County Road 10 provides a link to County Road 90 in Angus, which provides an alternate route to connect to Highway 400 and the City of Barrie. County Road 64 consists of a small segment of roadway serving as an easterly extension of Sideroad 30/31 Nottawasaga, from Highway 26 into the County's Nottawasaga Landfill site.

County Roads 32 and 34 are located in the northwest portion of Simcoe County, on the west side of Collingwood. County Road 32 (also known locally as Sixth Street) runs in an east-west direction between County Road 34 (Osler Buff Road) and High Street in Collingwood. County Road 34 is a north-south faciity that links between Poplar Side Road to Highway 26, where it becomes a local road known as Long Point Road. It is understood that a 2.7 km section of County Road 32 is scheduled for rehabilitation improvements as part of the 2011 Proposed Capital Budget for Simcoe County.

County Road 42 (also known locally as Airport Road) is situated south of Highway 26/County Road 91 in Stayner, and provides a continuous link from the Georgian Triangle Area through to the GTA, ending up at Pearson International Airport in Toronto and connecting to Highway 401. This route is a popular alternative to Highway 400 for tourist and truck traffic travelling between the north-western part of the GTA and the Study Area.

County Road 91 runs in an east-west direction, and terminates at the Simcoe- Grey County boundary. This roadway connects between Highway 26 in Stayner and County Road 95/Osprey-Clearview Townline and County Road 124.

County Road 124 (formerly Highway 24) runs in a north-south direction from Shelburne to Collingwood and terminates at Highway 26 (Huron Street) within Collingwood. Within Collingwood it is locally known as Hurontario Street, and it serves the historic downtown area of the community.

Grey County

Grey Roads 2, 19 and 21 generally run in a north-south direction and lie within the limits of the Study Area. Highway 26 functions as the northern limit to each of these County roadways. Within the Study Area, these County roadways directly serve the communities of Victoria Corners, Ravenna, Kolapore, Craigleith, McMurchy, Castle Glen, and Mair Mills.

Grey Roads 13, 31, 40 and 119 generally run in an east-west direction and directly serve the communities of Thornbury, Clarksburg, Slabtown, Heathcote, Camperdown, Rob Roy, Lady Bank, Swiss Meadows and Blue Mountain Village.

Local Roadways

Local roadways fall under the jurisdiction of their respective municipalities and serve as the final link within a road network. These roadways typically provide access to adjacent properties and/or subdivisions.

Private Roadways

It is noted that a number of private roadways are also present within the Study Area. These roadways are owned and/or maintained by individuals, property owner groups, or organizations comprising private developments, waterfront or cottage areas.

3.3.3.2 Transit Services (Existing and Planned)

The Town of Collingwood and Town of Wasaga Beach operate the only public transit systems in the Study Area. The Town of Collingwood (i.e., Colltrans) provides three transit routes and carried about 93,000 passengers in 2008. The Town of Wasaga Beach runs two routes providing regular service and one route that runs two days per week. In 2008 this service carried 5,200 riders. The two municipalities, with support from the County of Simcoe, also provide an inter-municipal transit service within the Study Area. The Collingwood-Wasaga Beach Link runs Monday to Saturday on an hourly basis, providing a link between Collingwood and Wasaga Beach. The two communities also implemented a Universal Pass for a cost of $120 / month, which provides unlimited rides on the Town of Collingwood sand Town of Wasaga Beach systems, along with the Collingwood-Wasaga Beach Link.

Supporting research for the Simcoe County Transportation Master Plan indicated that a very low number of trips made in the Simcoe area are currently using transit services. Based on the most recent data from the 2006 Transportation Tomorrow Survey, approximately 1.3% of trips in Simcoe County are on public transit, however when the urban areas of Barrie and Orillia are excluded, this share drops to 0.7%.

The Simcoe TMP proposed strategies for expanding and enhancing the existing transit services in the County over a 25-yr span, including the introduction of new transit services within the smaller settlement areas. In addition to improvements to link Collingwood and Wasaga Beach, transit service extensions from Collingwood to Stayner were recommended as part of the Simcoe County TMP. The development of a TDM program which provides policy and infrastructure plans to reduce travel on the County Road system was also recommended as part of the Simcoe County TMP.

Private sector transit services (i.e., Greyhound) currently provide limited inter-municipal services to Wasaga Beach, Owen Sound and Collingwood, connecting to cities such as Barrie, Toronto and Guelph.

Source: Bruce Trail Conservancy

3.3.3.3 Trail Systems (Existing and Planned)

Canada's oldest and longest hiking path, the Bruce Trail, intermittently traverses the Study Area, spanning from Queenston in the Niagara Region to the southeast and meandering to Tobermory in the northwest. The Bruce Trail is close to 900 km in length and home to significant flora and fauna.

At present, there are numerous existing community trails that occupy the Study Area, each of which are governed by local municipal bylaws.

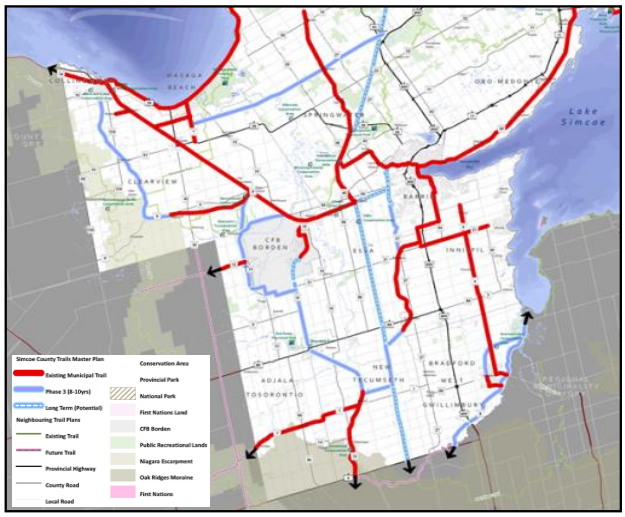
Grey County owns and manages approximately 8,340 acres of forested land, some of which are used for recreational trail purposes. Approximately 25 recreational trails are dispersed throughout Grey County's forest system. In 2004, the County also acquired the CP Rail Trail, a decommissioned rail line that runs 77 km between Owen Sound and Dundalk. Grey County also approved their Recreational Trails Strategy in November 2009, developed to provide policy direction for trail uses within the County

Simcoe County released the draft Trails Strategy in 2011 to enhance the coordination of a county-wide trail network (see **Figure 10**). This network would connect communities within the County and provide an accessible, active transportation option for its residents. As part of the proposed Trails Strategy, the trail network would be improved within the Study Area within the next 1-3 years, the length of which spans adjacent to the shores of Georgian Bay from Wasaga Beach and connects to an existing municipal trail in Collingwood. An additional proposed branch would span south from Sprinhurst Beach to the existing municipal trail between Nottawa and Stayner.

Figure 10: Simcoe County Draft Trails Strategy

Phase 1 (1-3 years)

Phase 3 (8-10 years)



Source: http://www.simcoe.ca/dpt/pln/trails/index.htm

3.3.3.4 Air, Rail & Marine Transportation

The Collingwood Regional Airport is situated within Clearview Township, located on Sixth Line, south of Sideroad 33-34, and is located in close proximity to the Towns of Wasaga Beach and Collingwood. The airport accommodates private, corporate and charter flights and is recognized as a significant and valuable component of the region's transportation infrastructure.

The Lake Simcoe Regional Airport (LSRA) is situated adjacent to Highway 11, in proximity to Highway 400, approximately 15 km east/northeast of the eastern extent of Highway 26. The LSRA has been in operation since 1991 and functions as a full service regional airport facility. At present, the airport serves aircraft ranging from small recreational and flight training to larger corporate, regional and commercial. In addition, the airport accommodates international passenger and freight travel. The LSRA is operated by the Cities of Barrie and Orillia, and the Township of Oro-Medonte.

Rail

Canadian Pacific Railway is the closest rail line to the Study Area, located approximately 15 km east of the Towns of Clearview and Wasaga Beach. This rail line spans from the GTA, into northern Ontario, and continues into western Canada.

The Barrie-Collingwood Railway (BCRY), which began operations in 1998, provides rail car transportation and switching service for customers of the City of Barrie and the Town of Collingwood. The BCRY is a short-line railway operation involving a partnership between the City of Barrie, Town of Collingwood, current shippers, CP Rail and the railway operator - Cando Contracting Ltd. BCRY interchanges traffic daily with CP Rail and provides daily rail service to shippers in the Barrie-Collingwood areas, including grain and lumber products, clays, chemicals and industrial products.

Passenger service along this line was discontinued in 1963. Within the Town of Collingwood, portions of this rail corridor have been converted to multi-use recreational trails.

Marine

Two harbours are present along the south shores of Georgian Bay, within the limits of the Study Area. Collingwood Harbour comprises approximately four docking areas. Today these harbours are generally limited to private and public docking and yacht club facilities. The harbor originated as the northern limit of the historical Northern rail line and served as a shipping port for cargo movement throughout the Great Lakes. Thornbury Harbour is situated on the shores of Nottawasaga Bay, northwest of Collingwood Harbour and east/southeast of the Town of Meaford, at the mouth of the Beaver River.

3.4 Existing and Future Travel Demand

3.4.1 Existing Traffic Volumes on Highway 26

Traffic data reported by the 2008 Ontario Ministry of Transportation (MTO) Provincial Highways Traffic Volumes publication was used to analyze historical growth trends and seasonal variations along Highway 26 through the Study Area. **Table 3-1** summarizes historical AADT values along Highway 26 through the Study Area from 1990 to 2008. Summer traffic volumes (SADT and SAWDT) are also provided to illustrate the influence of summer recreation traffic on the use of Highway 26. Definitions for each of these measures are presented in the bulleted list below.

- **AADT**: Annual Average Daily Traffic (January – December)
- **SADT**: Summer Average Daily Traffic (July – August)
- **SAWDT**: Summer Average Weekday Traffic (July – August)

Table 3-1: Historic Traffic Volumes on Highway 26 (1990-2008)

Location Description (From)	Location Description (To)	Dist. (km)	2008 AADT	2006 AADT	2000 AADT	1990 AADT	2008 SADT	2008 SAWDT
Horseshoe Valley Road - Stayner								
Simcoe Road 22	Simcoe Road 10	13.2	9,700	9,100	7,400	5,300	11,700	11,500
Simcoe Road 10	Centre Line Road	4.1	11,100	10,600	8,900	6,600	13,400	13,300
Centre Line Road	Mowat St.	1.6	11,700	11,300	10,100	8,400	14,200	13,900
Stayner – Collingwood								
Stayner North Limits Line 25-26	Simcoe Road 92	4.1	10,600	10,200	9,000	7,400	12,800	12,700
Simcoe Road 92	Collingwood	6.1	18,300	17,600	15,300	12,600	22,600	22,200
Collingwood - Thornbury								
Long Point Rd (N)	Grey Road 19 (S)	2.8	8,550	8,550	7,950	7,350	10,300	10,300
Grey Road 19 (S)	Thornbury	10.3	8,100	7,950	7,100	6,550	9,800	9,750
Thornbury - Meaford								
Thornbury	Meaford	9.8	6,300	6,300	5,850	4,750	6,650	6,250

From **Table 3-1**, it is evident that traffic volumes have consistently increased from 1990 to 2008 along Highway 26 across all segments, with traffic volumes increasing between 40-80% and 16-30% for road segments to the east and west of Collingwood respectively. The most significant increases in traffic volumes are observed for Highway 26 in the eastern end of the Study Area (from Horseshoe Valley Road to Collingwood). The 2008 AADT volumes for this stretch are about 4% higher than in 2006, while volumes to the west of Collingwood have seen little growth over the same period.

In 2008 the AADT along Highway 26 through the Study Area ranges between 6,300 and 18,300. Traffic volumes are generally higher in the vicinity of Collingwood and are higher to the east of Collingwood than they are to the west. The highest volumes are observed in the segment between Wasaga Beach and Collingwood, where the Ministry has recently completed construction of the New Highway 26 alignment.

Finally, the influence of the recreational destinations in the Study Area result in Highway 26 SADT volumes that are generally higher than their corresponding AADT volumes. Between Thornbury and Stayner the SADT volumes are approximately 20% higher than AADT volumes for every road segment. To the west of Thornbury, the difference is more modest, with an increase of about 5% observed during the summer. Comparing SADT and SAWDT volumes, the volumes show that weekday summer daily traffic volumes are approximately 5% lower than average during the entire week, suggesting that weekend volumes are at least 7-8% higher than weekday summer traffic volumes on average.

3.4.2 Origin-Destination Survey Results

Two origin-destination (OD) surveys were carried out by Paradigm Transportation Solution Ltd. (Paradigm) as part of this study in order to capture and analyze winter and summer travel patterns in the Study Area. The winter survey was focused on analyzing the travel patterns of ski patrons at local resorts, while the summer survey consisted of conducting roadside interviews at 13 survey stations located throughout the Study Area.

The summer survey was used extensively to develop the new Simcoe and Grey County Subarea travel demand model. Please refer to Section 3.4.4 for a discussion on the Simcoe and Grey County Subarea travel demand model. The results of each of these survey programs are discussed herein.

3.4.2.1 Winter Survey

The winter travel survey was conducted in February and March 2009, the results of which were documented in the report entitled "*Highway 26 Transportation Study - Winter Survey Summary Report", dated* June 15, 2010. A copy of the Winter Summary Report is attached in **Appendix B.**

The winter survey included a comprehensive resort patron survey (face-to-face interviews with ski patrons) and a license plate survey of vehicles parked at five key ski resort parking areas. The interviews were conducted over a three day period between February 27 and March 1, 2009, at the Craigleith Ski Club and Blue Mountain Resort in the Town of The Blue Mountains. The interviews occurred during varying hours of operation, depending on the survey day.

Over one thousand face-to-face surveys were completed over three weekend days, representing approximately 5.4% and 11.5% of the Craigleith Ski Club and the Blue Mountain Resort patrons, respectively. The key findings of the winter survey are summarized in the sections below.

- An average vehicle occupancy of 2.84 was observed. This indicates that skiing related travel is dominated by larger groups and families, which is to be expected.
- There were approximately 3,800 vehicles parked at the five resort parking lots at the peak time of Saturday afternoon.
- The majority of skiers were found to travel to the ski hill directly from home (65%), while approximately 33% of skiers were found to travel from local condos, hotels, and resorts.
- The catchment area for the ski resorts was dominated by residents of the Greater Toronto Area and Hamilton (69% of weekend skiers), followed next by local residents in Simcoe and Grey Counties (14% of weekend).
- A higher share of local resident skiers were observed at smaller private resorts, while the major resorts (Blue Mountain and Craigleith) were more oriented to GTA skiers.
- Almost half of all skiing patrons reported that they visit the resort areas on a weekly basis

3.4.2.2 Summer Survey

The summer travel survey was conducted during the months of July, August and September 2009, the results of which were documented in the report entitled *"Highway 26 Transportation Study, Summer Origin-Destination Survey Results"*, dated June 2010 (i.e., the Summer Survey Report). A copy of the Summer Summary Report is attached in **Appendix C.**

As part of the summer survey, a comprehensive passenger vehicle survey was conducted at six stations along Highway 26, and seven stations located along adjacent municipal roadways within the Study Area. As such, each survey station collected data during one weekday, between 6:00 am and 8:00 pm, and one Sunday, between 9:00 am and 8:00 pm, between July 19th and September 20th, 2009. Approximately 20,000 weekday and 11,000 Sunday surveys were collected, achieving a 20% sample size on weekdays and a 15% sample size on Sundays (greatly exceeding the targeted 5% sample size).

Figure 11 displays the location of each of the thirteen (13) summer survey station locations.

Figure 11: Summer Survey Station Locations

The summer travel survey revealed very different travel patterns in the eastern portion of the Study Area versus the western areas, with Collingwood representing the mid-point location where the patterns change. The following sections summarize the key results of the summer survey.

East of Collingwood

- Local trip making represented about 63% of traffic on weekdays and about 47% on Sunday.
- Longer distance trips were split equally between trips to/from Barrie and the GTA on weekdays. On Sundays, however, longer distance trips are dominated by trips to/from the GTA.
- There was a strong local commuting and recreational travel demand between Collingwood and Wasaga Beach.
- County Road 7 was already observed to operate as a Stayner bypass for regional and some longer distance trips.
- County Roads 42 and 10 were also observed to be serving a high share of long distance "provincial" traffic on weekends. However, these roads were carrying lower volumes of such traffic than Highway 26.
- Poplar Side Road was being used by local traffic as a bypass of Highway 26 through Collingwood.

Figures 12 and **13** display the travel patterns of roadside survey participants at survey stations to the east of Collingwood for weekdays and weekends respectively.

Figure 12: Weekday Trip Making Patterns for Summer Survey Stations East of Collingwood

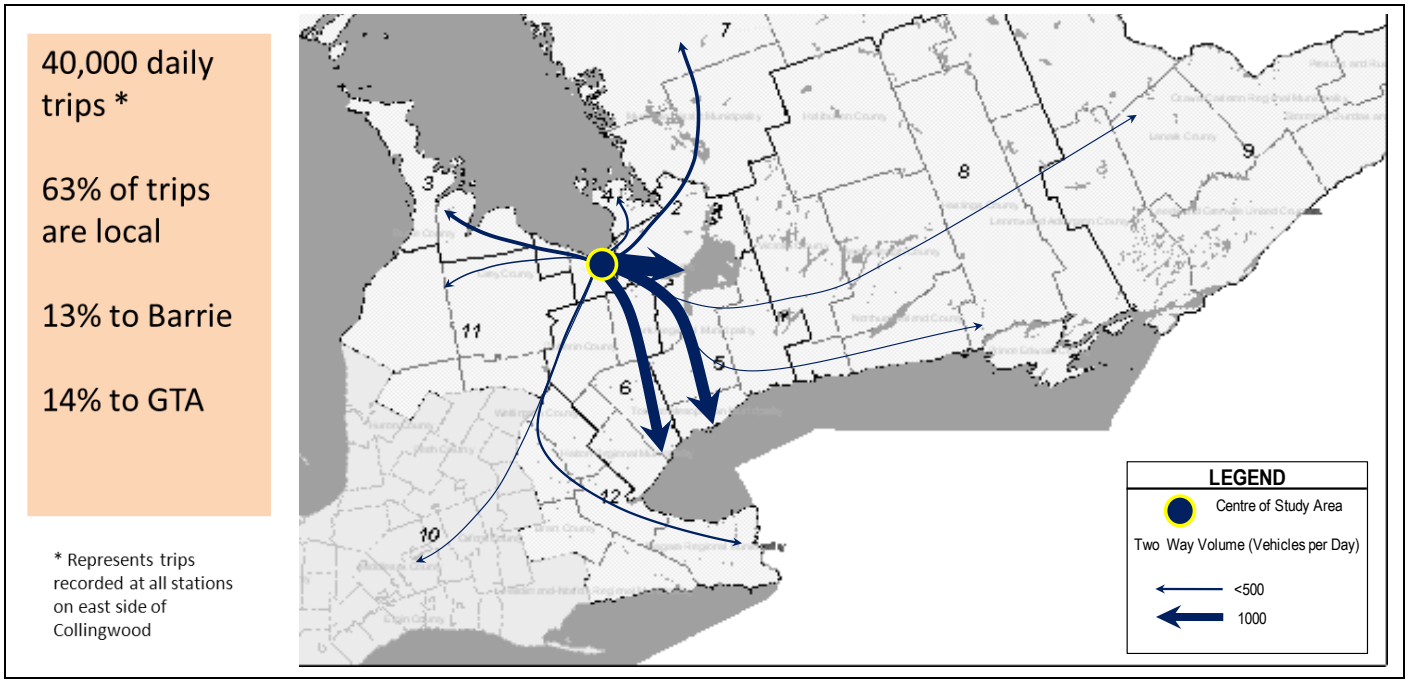
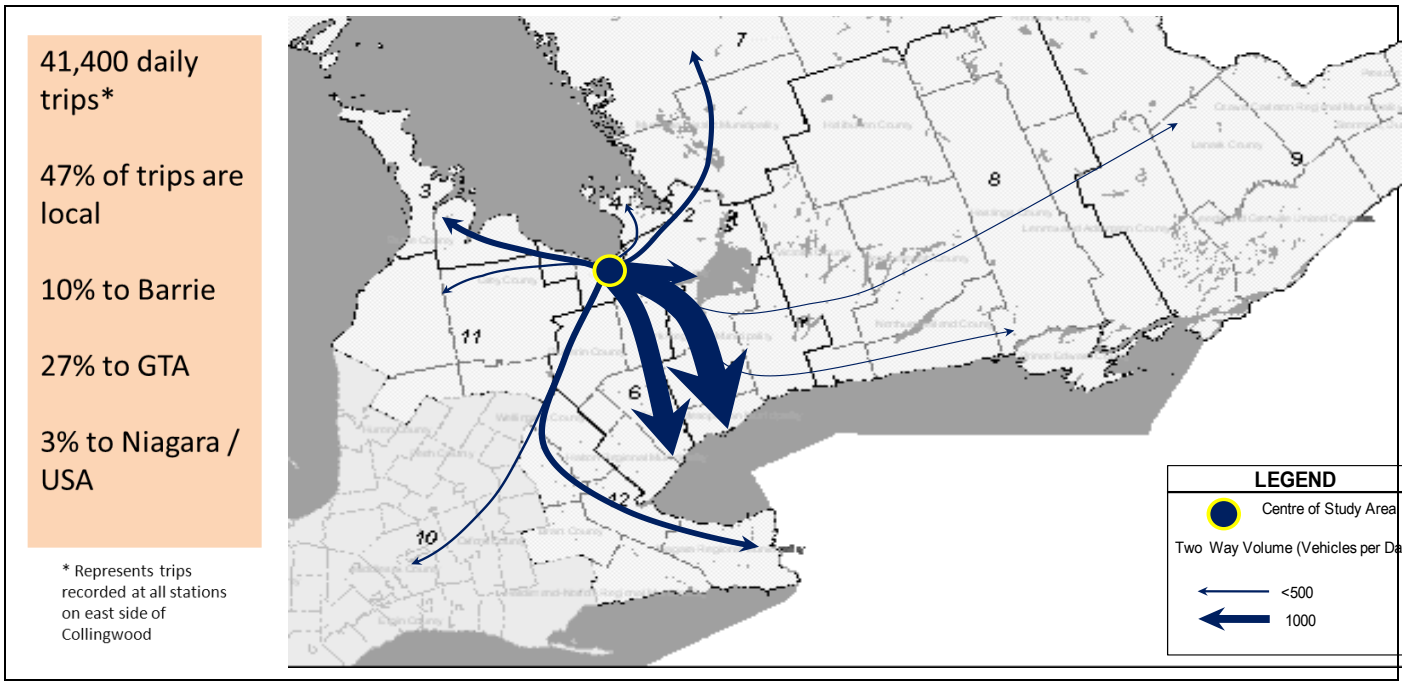


Figure 13: Weekend Trip Making Patterns for Summer Survey Stations East of Collingwood



West of Collingwood

- Local trip making represented about 70% of traffic on weekdays and about 56% on Sunday.
- Longer distance trip making demand was overwhelmingly oriented to the Bruce Peninsula.
- There was a strong local commuting and discretionary travel demand between Thornbury and Collingwood for work/business and shopping/social trips.
- The combination of Osler Bluff Road and Poplar Side Road were being used by local traffic as a bypass of Highway 26 in Collingwood.
- County Road 124 to the south of Collingwood carried a mix of local and some long distance traffic.

Figure 14 and **15** display the travel patterns of roadside survey participants at survey stations to the west of Collingwood for weekdays and weekends respectively.

Local versus Long Distance Traffic

One of the key questions facing the Ministry and local municipalities in past studies was the split between local and long distance ("provincial") traffic using Highway 26 through the Study Area. Using the travel survey data collected for this study, an assessment of the local travel demand compared to longer distance demands was summarized on a station by station basis.

For the purpose of this assessment, the average trip length from origin to destination was used as an indicator of the local versus long distance nature of trip making at each station. Trips were categorized into three trip length categories:

- Local Trips – Less than 20km in length
- Region Trips – between 20-50 km in length
- Long Distance – trips longer than 50 km

Figure 16 illustrates the general range for trips with an average length of 20 km and 50 km, respectively. For a 20 km trip starting in Collingwood, the destination would more than likely be located within the Study Area, representing a local trip. For 50 km trips starting from Collingwood, this would represent a trip destination in the vicinity of Barrie, Alliston or just east of Owen Sound, representing regional trip making activity. For trips longer than 50 km the long distance category was most appropriate.

Figure 14: Weekday Trip Making Patterns for Summer Survey Stations West of Collingwood

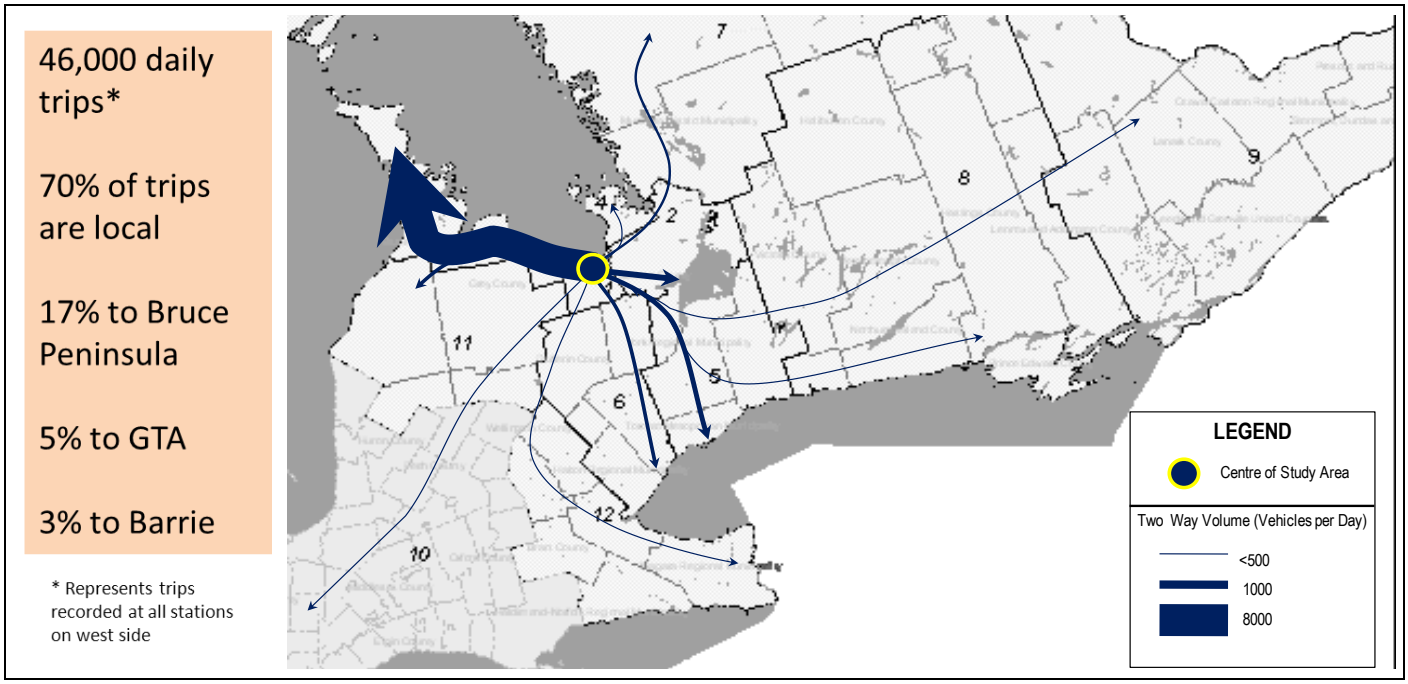


Figure 15: Weekend Trip Making Patterns for Summer Survey Stations West of Collingwood

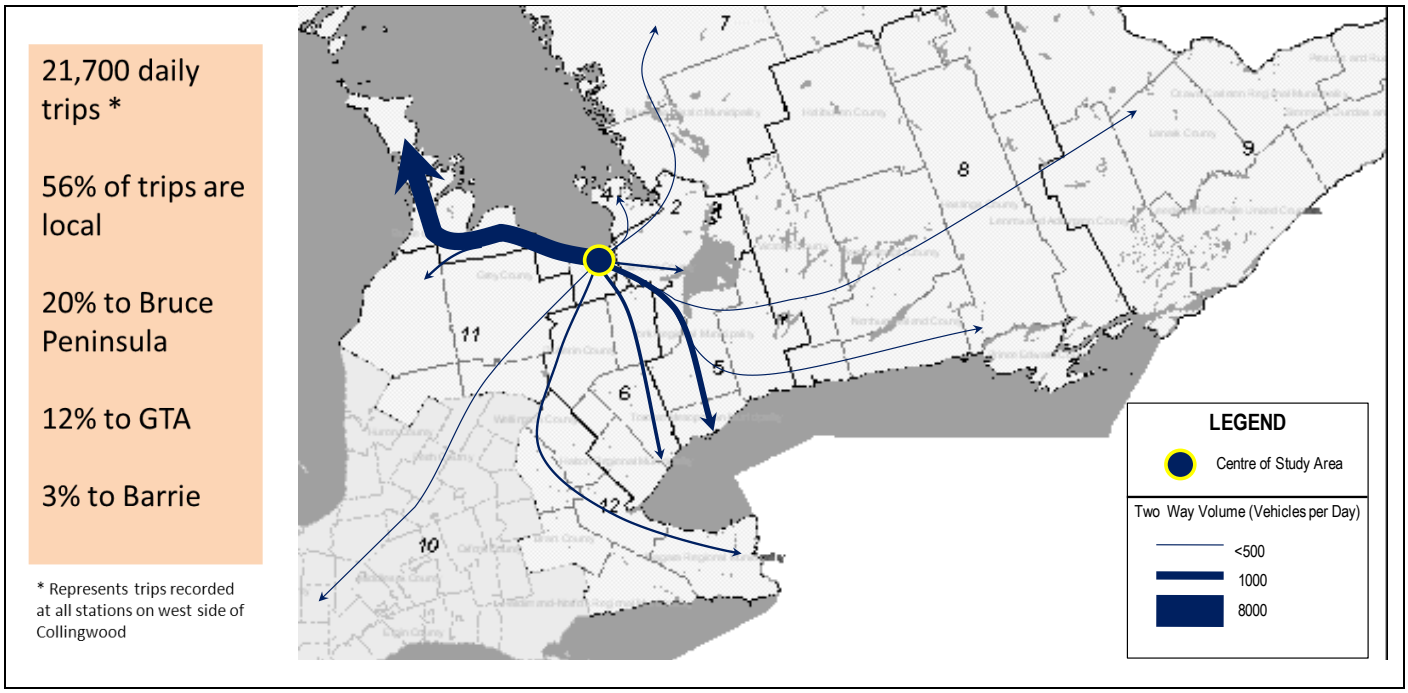
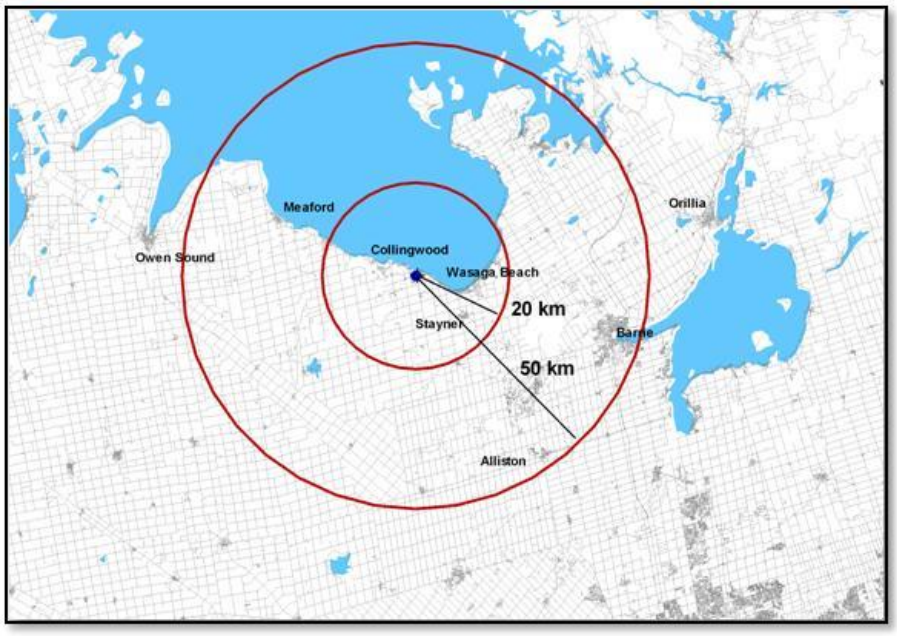


Figure 16: Local versus Long Distance Traffic Categories



Figures 17 and 18 compare the distribution of Local, Regional, and Long Distance trip making for each of the Highway 26 survey stations. Weekday percentages are displayed in black text while weekend values are displayed in red text.

From Figure 17, Highway 26 serves a significant amount of long distance traffic, ranging from 34-61% at the various stations. On weekends, the share of long distance traffic increases significantly and ranges from 41-78% at the various stations.

Across all stations on Highway 26, local traffic is equally significant and accounts for approximately 33-46% of traffic on weekdays and 24-41% on weekends. Station 1, to the east of Stayner is the only station that differs significantly from these averages due its rural location at the east end of the Study Area. As a result, the travel at this station is strongly oriented to regional and long distance travel patterns.

As illustrated in **Figure 18**, local traffic is the dominant trip length category for most of the survey stations on County Roads in the Study Area, with the exception of County Road 42 and County Road 10 in the vicinity of Stayner. Travel patterns at these two stations exhibit a high proportion of long distance traffic given their role in serving as an alternate route to access Barrie and the GTA.

One of the main observations from the summer travel survey is the role that Collingwood plays as a key travel destination and a “regional hub” for trip making in the Study Area. On Highway 26 to the east of Collingwood, two thirds of peak period weekday traffic during the summer have an origin or destination within Collingwood. To the west of Craigleith, approximately 60% of the weekday peak period traffic on Highway 26 is oriented to/from Collingwood.

Figure 17: Local versus Long Distance Traffic by Survey Station (on Highway 26)

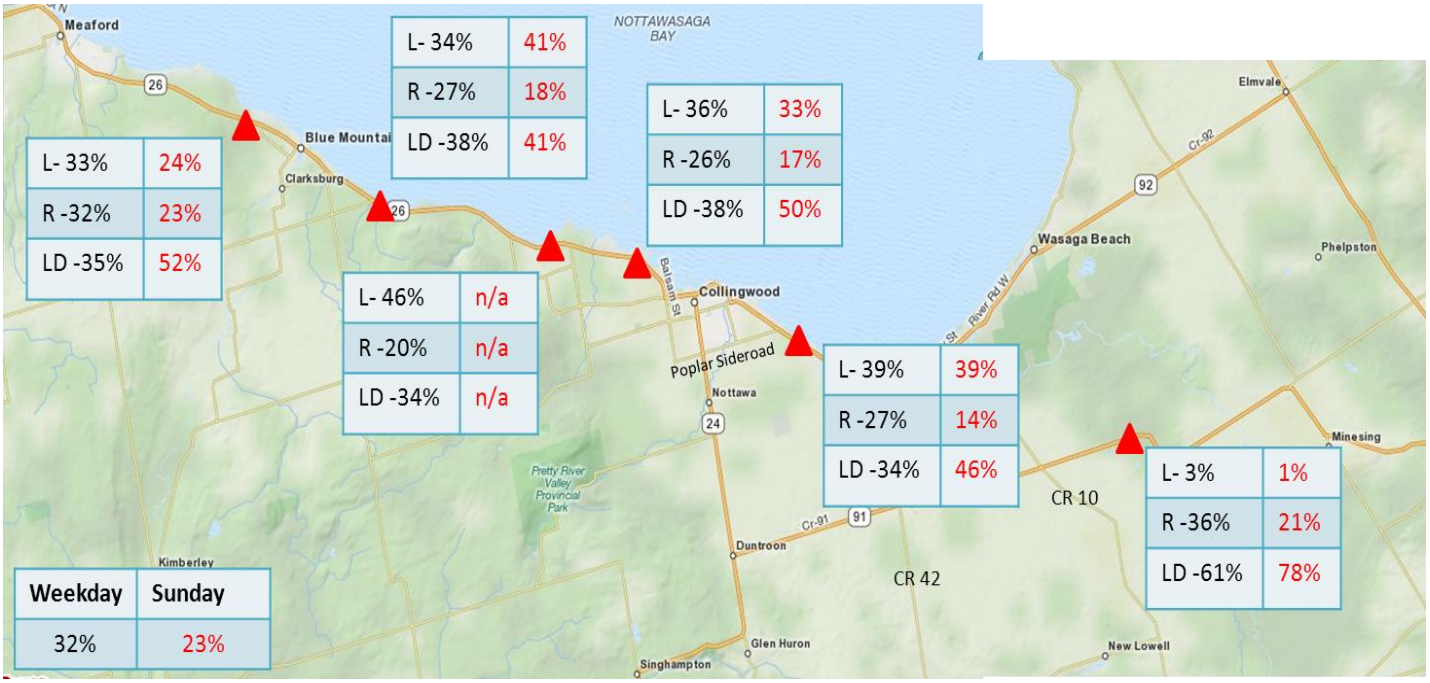
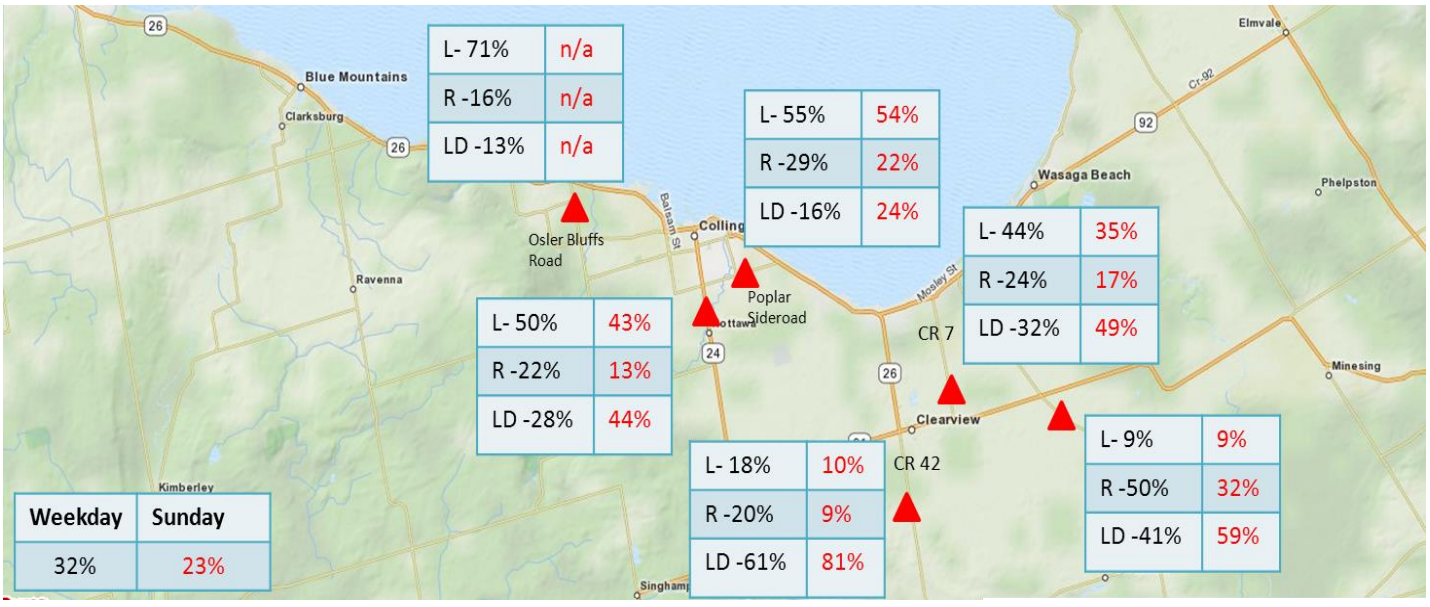


Figure 18: Local versus Long Distance Traffic by Survey Station (off Highway 26)

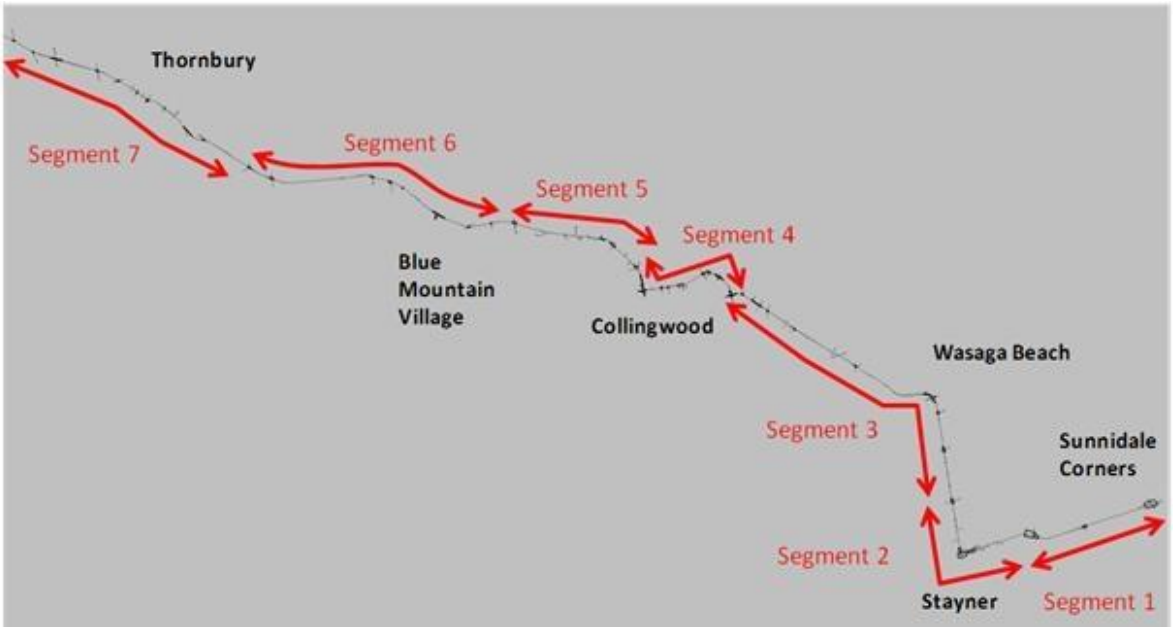


3.4.3 Existing Traffic Operations

A VISSIM microsimulation model was developed in order to assess current and future traffic operations at intersections along the Highway 26 corridor between Christie Beach Road in Thornbury and County Road 10 east of Stayner. This section provides a basic overview of the VISSIM model development and calibration process. A more detailed discussion can be found in the Highway 26 Transportation Study – Traffic Report (see **Appendix D**).

The network model includes seventeen (17) signalized intersections and twenty five (25) unsignalized intersections and covers approximately 50 km of Highway 26 through Thornbury, the Town of The Blue Mountains, Collingwood, Wasaga Beach, and Stayner. **Figure 19** displays a schematic of the VISSIM model's network split into seven (7) analysis segments.

Figure 19: Highway 26 VISSIM Microsimulation Model Network



Historical summer traffic count data from 2008 and 2009 was obtained from MTO in order to build the initial model. This data was supplemented with additional traffic counts undertaken at key signalized intersections in January and November 2010, which were used as the basis for the analysis of existing conditions and model calibration.

The VISSIM model was primarily calibrated against observed network travel times on Highway 26 through the Study Area, although calibration of intersection volumes and queues at intersections were also reviewed during model calibration. One of the primary reasons for developing the microsimulation model was to better assess how increases in future traffic volumes along Highway 26 would influence the operation through the

congested downtowns of Collingwood, Thornbury, and Stayner. Given the number of traffic signals and degree of traffic entering from side roads and entrances the microsimulation model can provide a more realistic estimate of future congestion, delays at intersections, and the resulting impacts on mainline travel times than is possible using a strategic macro model, link Emme/3.

Table 3-2 and **Table 3-3**, compare the simulated and observed travel times along Highway 26 in the westbound and eastbound directions for each of the seven (7) travel time segments identified in **Figure 19**.

Table 3-2: Simulated vs. Observed Travel Time Comparison - Westbound

Travel Time Segment	Dist. (km)	AM Peak Travel Time (Min.)			PM Peak Travel Time (Min.)		
		Simulated	Observed	SIM/OBS	Simulated	Observed	SIM/OBS
1. County Rd 10 – County Rd 7	4.9	3.9	3	130%	3.9	3	130%
2. County Rd 7 - 27/28 Sideroad Nottawasaga	4.5	4.5	5	90%	4.5	4	110%
3. 27/28 Sideroad Nottawasaga – Pretty River Parkway	11.7	11.9	10	119%	11.9	10	120%
4. Pretty River Parkway – Harbour St	4.4	5.8	6	97%	5.9	9	70%
5. Harbour St-Balsam St – Grey Rd 21	4.7	5.5	4	138%	5.3	4	130%
6. Grey Rd 21 - Grey Rd 40	10.0	8.5	9	94%	8.3	7	120%
7. Grey Rd 40 – Christie Beach Rd	9.5	9.2	11	84%	9.0	12	80%
Total Travel Time (min)	49.7	**49.3**	**48**	**103%**	**48.8**	**49**	**100%**

Table 3-3: Simulated vs. Observed Travel Time Comparison – Eastbound

Travel Time Segment	Dist. (km)	AM Peak Travel Time -Min.			PM Peak Travel Time - Min.		
		Simulated	Observed	SIM/OBS	Simulated	Observed	SIM/OBS
1. County Rd 10 – County Rd 7	4.9	3.9	3	130%	4.1	3	137%
2. County Rd 7 - 27/28 Sideroad Nottawasaga	4.5	4.6	6	77%	4.9	5	98%
3. 27/28 Sideroad Nottawasaga – Pretty River Parkway	11.7	12.0	11	109%	12.6	10	126%
4. Pretty River Parkway – Harbour St	4.4	6.6	10	66%	6.9	10	69%
5. Harbour St-Balsam St – Grey Rd 21	4.7	5.3	4	133%	5.5	4	138%
6. Grey Rd 21 - Grey Rd 40	10.0	8.3	8	104%	8.2	7	117%
7. Grey Rd 40 – Christie Beach Rd	9.5	9.0	11	82%	8.9	10	89%
Total Travel Time (min)	49.7	**49.7**	**53**	**94%**	**51.1**	**49**	**104%**

In the westbound direction, a total cumulative travel time of 49.0 minutes in the PM peak hour was observed in comparison to the simulated travel time of 48.8 minutes (percentage simulated/observed of100%). While in the eastbound direction, during the PM peak hour the observed travel time of 49.0 minutes compared well with the simulated time of 51.1 minutes (percentage simulated/observed of 104%). Similarly, in the AM peak hour, the percentages simulated/observed of 1.0 and 0.9 were obtained for the westbound and eastbound directions respectively. In both time periods the simulated travel times for the length of the corridor were within +/- 5% of observed times and all individual travel time segments were within +/- 20% of observed times. These results indicated that the VISSIM model has a very good level of calibration to existing conditions.

Although travel times were the primary calibration parameter for the VISSIM model, overall comparisons of modelled traffic volumes and queue lengths to observed values also produced favourable results. As a result, it was concluded that the VISSIM model was sufficiently well calibrated to enable it to be used to assess future operational conditions within the Highway 26 study corridor.

In the existing condition (2009), the operational analysis using the VISSIM model found that the Highway 26 Study Area intersections through The Town of The Blue Mountains, Collingwood, Wasaga Beach, and Clearview currently operate with an acceptable amount of delay. All intersections operate at an overall level of service (LOS) of C or better in both the AM and PM peak except the Highway 26 / Bruce Street intersection in Thornbury, which operates at a LOS of D.

All but one (1) critical movement in Thornbury (Bruce Street - EBT) and two (2) critical movements in Collingwood (Harbour Street – SBL) and Hume Street / Pretty River Parkway - EBL) have an LOS of D or better. Operational conditions were found to be generally worse during the PM peak in comparison to the AM peak with greater numbers of vehicles entering the network, higher delay, and lower average speeds.

3.4.4 Travel Model Development

3.4.4.1 Model Overview

A “new” Simcoe and Grey County Subarea transportation demand model was developed for the Highway 26 Transportation Study in order to provide forecasts of future network deficiencies and test the effectiveness of transportation investment alternatives. The new Subarea model forecasts daily and PM peak hour travel demand for a typical summer weekday using a market based approach that considers each of the following trip purposes:

- Work Trips
- Discretionary Trips
- Recreation / Vacation Trips
- Commercial Vehicle / Truck Trips

The new model was built by refining and validating the Ministry of Transportation’s (MTO) Greater Golden Horseshoe Model (GGHM) at the subarea level in order to produce reliable forecasts of summer travel patterns along Highway 26 in the Georgian Triangle Area. The GGH only covers Simcoe County and as a result, the model was expanded as part of this study to include portions of Grey County within the Study Area. The GGHM is a four stage travel demand model that incorporates the following standard practice model components:

- **Trip Generation**: Forecasts the number of trips that originate from or are destined to a given area (represented by zones).
- **Trip Distribution**: Forecasts the number of trips that travel between each pair of zones.
- **Mode Choice**: Forecasts the transportation modes used by trips that travel between each pair of zones.
- **Trip Assignment**: Forecasts the paths used to travel between zones and the resulting traffic volumes on the transportation network.

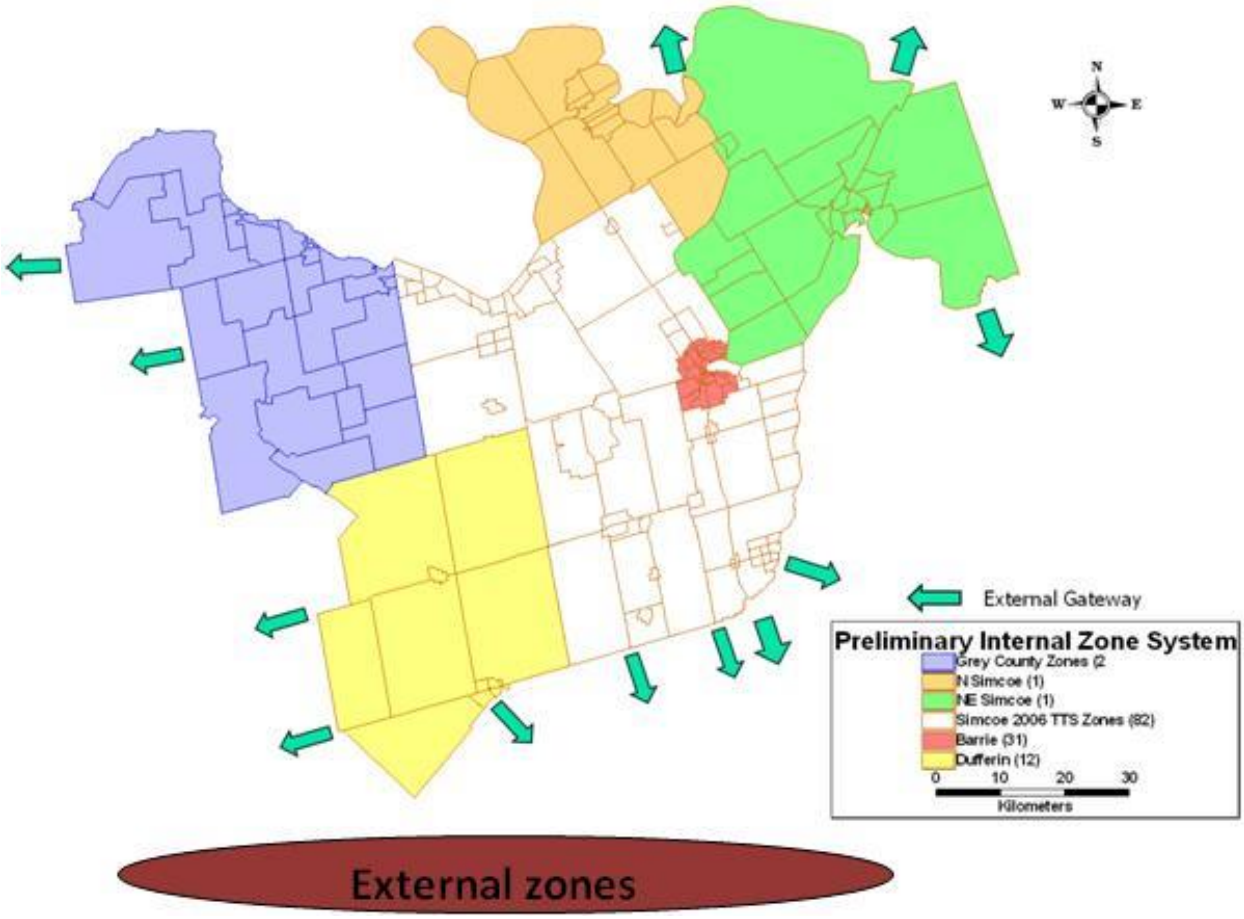
The GGHM forecasts travel by accounting for the impact of costs and travel times via available modes on a detailed representation of the transportation network with information on distance, travel speed, and lane capacities. Over 3,000 traffic zones are used in the model to provide information on existing and future population and employment data, land uses, socio-economic, and demographic information.

3.4.4.2 Model Coverage Area

The new Subarea model’s coverage area extends from Owen Sound in the west to the Orillia area in the east and from the Dufferin/Simcoe boundary with York / Peel in the south to Georgian Bay in the north. All of Simcoe County, most of Grey County, and part of Dufferin County are included in the model’s coverage area. External gateways are used to represent major highway and arterial road entry points into the Study Area.

Figure 20 presents a schematic representation of the model's coverage area and internal zone system.

Figure 20: Simcoe and Grey County Subarea Model Coverage



3.4.4.3 Modeling Approach

The new Simcoe and Grey County Subarea model simulates daily and PM peak hour trip making for a typical summer weekday by expanding on the Ministry's existing GGH model. The GGH model, however, is a weekday, non-summer, commuter based forecasting model that is well suited to assess the regular commuter based travel patterns of residents living within Simcoe County (Grey County is not within the model's coverage area). It is not designed to simulate the tourist/recreational and seasonal travel patterns that play a critical role in understanding the transportation needs of the Highway 26 corridor.

The new Simcoe and Grey County Subarea model developed as part of this study includes the following enhancements and refinements to the base GGH model:

Adjustment for Summer Season Commuter Demands

- The GGH model is based on fall season survey data, whereas the peak travelling season for the Highway 26 corridor is during the summer tourist season. Although overall demand is higher in the summer, the model also needs to account for the fact that regular work trip commuting demand is lower due to increased holidays, vacations, etc.

Expansion to Include Recreational / Vacation Trips

- The GGH model is primarily focused on regular commuting demand for discretionary and work trips.
- A significant proportion of summer traffic in the Highway 26 Study Area is recreational in nature and needs to be accounted for differently.

Expansion of Coverage Area to Grey County

- The GGH model treats Grey County as an external zone.
- Key seasonal tourist destinations, such as Craigleith and the Blue Mountains, that significantly influence summer Highway 26 demand are located in Grey County and must be explicitly included in the modeled coverage area.

Seasonal Population

- During the summer, there are a number of seasonal residents that live in summer homes, cottages and condos in the Study Area.
- Since these residents are not included as part of the 'official' population forecasts for the Study Area, a separate forecasting process is needed to account for their trip making activity.

Data Sources

The following sources of travel data were used to enhance the GGH model and create the new Simcoe and Grey County Subarea model:

- **2001 / 2006 Transportation Tomorrow Survey**
  - Base travel demands across all modes and trip purposes.
  - Survey was used as basis for original GGH model development.
  - Survey does not cover Grey County.
- **2009 Highway 26 Corridor Summer Weekday Travel Survey**
  - Provides auto travel patterns across all trip purposes (work, school, discretionary, and recreational) at 13 stations surveyed along Highway 26 and key alternate / approach routes.
  - Survey does not cover other roads and non-auto modes.
- **Highway 26 Tourism Related Travel Study**[5]
  - Provides base and forecast tourism demand to/from the Highway 26 Study Area.

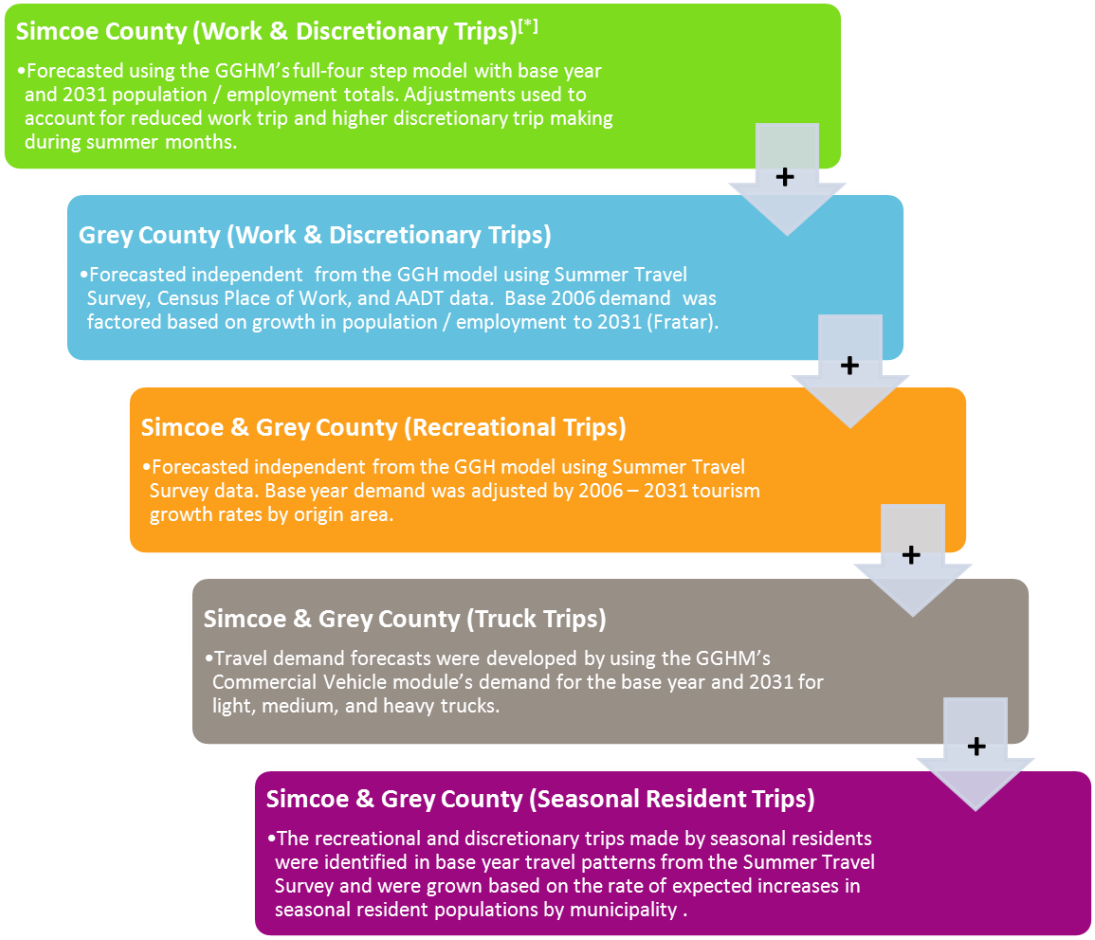
[5] *Highway 26: 2007 Tourism-Related Travel to Highway 26 Analysis Area & Visitation Projections to 2030. PKF Consulting.*

- **Census Place of Work Survey (2006)**
  - 20% sample size.
  - Provides home to work linkages across all modes.
  - Only includes work trips with a 'usual place of work.
- **Traffic Count Data**
  - AADT data for Grey and Simcoe County roadways.

Methodology

The new Simcoe and Grey County Subarea model was developed through an iterative procedure that progressively augmented and expanded on the base GGH model to better reflect summer weekday trip making patterns, by including recreational / vacation trips, and to include Grey County trips. **Figure 21** outlines the sources of the four (4) components of travel demand that were combined in the new Simcoe & Grey County Subarea Model.

Figure 21: Simcoe & Grey County Subarea Demand Model



Components

[*]The GGHM roadway network was also updated to 2031 conditions (see Section 3.4.5.3 below for more details) in order to take account network effects when forecasting future travel demand patterns.

The process used to develop each of these components of travel demand is discussed in more detail in the sections below.

Simcoe County (Work & Discretionary Trips)

The GGH model's outputs were used to estimate daily and PM peak hour work and discretionary trips. Prior to using the GGH model's outputs, its performance in simulating trip making in Simcoe county was assessed by comparing modeled traffic volumes to the observed counts at summer survey stations in Simcoe County in the AM and PM peak periods.

Overall, it was found that the GGH model provided a good level of calibration with observed survey data for use in the Simcoe portion of the new Subarea model. However, a number of key shortcomings were identified and addressed as follows:

- **Seasonal adjustments** were required in order to take into account the reduced work trip and school trip demand in the summer season and high rates of discretionary trip making factors obtained by comparing summer survey data and TTS data.
- **Network refinements** were made in order to account for congestion in the Barrie area and attract trips to competing parallel corridors such as Airport Road and County Road 10.
- **Zone splitting** and **refinements to local roads** were implemented in Clearview, Wasaga Beach, and Collingwood in order to improve the accuracy for loading vehicle trips onto local and provincial roads in these areas.
- **External Grey County demands were removed** since these demands were estimated separately as part of this study (see the following section for details).

Grey County (Work & Discretionary Trips)

Grey County is treated as an external zone in the GGH model. This required the creation of new traffic analysis zones in Grey County from Census Dissemination Areas and the coding of the County's roadway network in the new Subarea model. Furthermore, base year and future year travel demands for Grey County were developed independently from the GGH model by leveraging OD survey, AADT counts, and Census Place of Work data. Different processes were used to develop travel demand matrices for Work and Discretionary Trips, which are discussed in more detail below.

In order to estimate Grey County work trip demand, Census Place-of-Work (POW) to Place-Of-Residence (POR) linkages were taken as base values and adjusted in order to account for employees who do not work at a "usual" place of work"[6], regional auto mode shares, seasonal adjustments for decreased "regular" / year-round employment (same as adjustment in

[6] *Census data only provides linkages for those who reported having a normal place of work. Approximately 64% of Grey residents work at "no fixed" location, such as those who drive trucks, work in sales or construction, and some service-related employees.*

Simcoe County above), and increased seasonal tourism-based employment in Grey County, Collingwood, and Wasaga Beach.

Base Grey County discretionary trip demand was first constructed by extracting the travel demand patterns of motorists that passed through the summer travel survey stations located in Grey County (taking into account trips that were likely to pass through multiple survey stations). Discretionary trip demand that did not pass through the summer survey stations on Highway 26 was then estimated and added to the base demands by demand adjusting modelled traffic volumes on Grey County roads to match AADT traffic counts in Grey County.

Recreational / Vacation Trips

In a similar fashion to the Grey County Discretionary trips, Recreational / tourist demand matrices were developed for Grey and Simcoe County using the summer survey station data. This demand was also adjusted to avoid double counting trips that were likely to pass through multiple survey stations.

Weekday Truck Trips

Travel demands for Light Trucks, Medium Trucks, and Heavy Trucks were extracted from the GGH model's Commercial Vehicle module and imported into the Simcoe and Grey County Subarea model. Commercial vehicle trips to and from the GGH model external zones representing Grey County were routed through Grey County. The GGH model's base truck traffic demands were also demand adjusted to match AADT traffic counts.

Seasonal Resident Trips

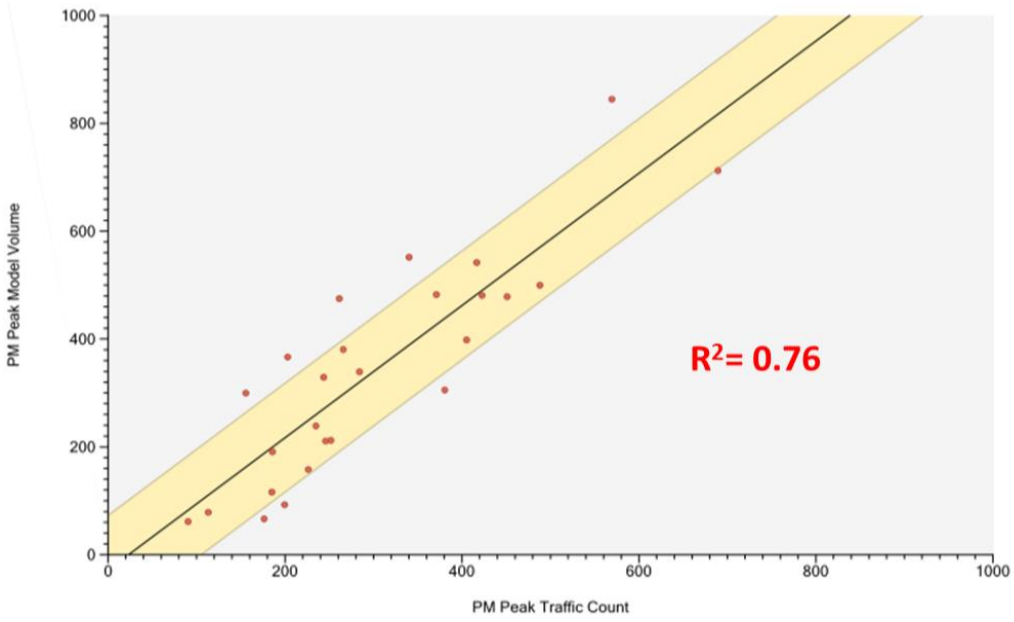
Seasonal Resident Trips are treated as a separate trip making market segment in order to recognize that these residents are expected to experience growth rates that are distinct from local residents and out-of-town visitors. The 2009 summer travel survey captured the recreational and discretionary trips made by seasonal residents as part of the Recreational trip purpose, which also included recreational trips made by "usual" residents of the region. The total summer seasonal resident population in 2009 was estimated from 2006 Census data using population and dwelling counts for Census subdivisions. To forecast growth to 2031, official plans were consulted in order to factor travel demand based on the rate of planned increases in seasonal resident units by municipality.

3.4.4.4 Model Validation

Base year 2009 summer weekday daily and PM peak hour Simcoe and Grey County travel demands across all trip purposes were assigned to the network of the Subarea model for validation purposes. Modeled traffic volumes were compared to actual counts at summer survey stations and to AADT counts.

As shown in **Figure 22** the PM peak model was found to have a good level of fit to observed survey station volumes with an R^2 value of 0.76 (the daily model had an R^2 of 0.85)[7].

Figure 22: 2009 PM Peak Model Validation to Summer Survey Counts



In addition, modeled average trip lengths at summer travel survey stations were also compared to the observed survey values. **Table 3-4** compares modeled and observed trip lengths for auto trips by survey station.

Overall, the model trip lengths at most Highway 26 stations match the survey reasonably well, especially when considering the larger zones and the sparse network in areas adjacent to the primary Study Area (e.g. Station 1 at the far eastern end of the Study Area).

Overall, it was found that the new Subarea model matched observed travel patterns in the Georgian Triangle Area reasonably well and it was concluded that the model was sufficiently calibrated to enable it to be used to assess network deficiencies and roadway improvements within the Highway 26 study corridor.

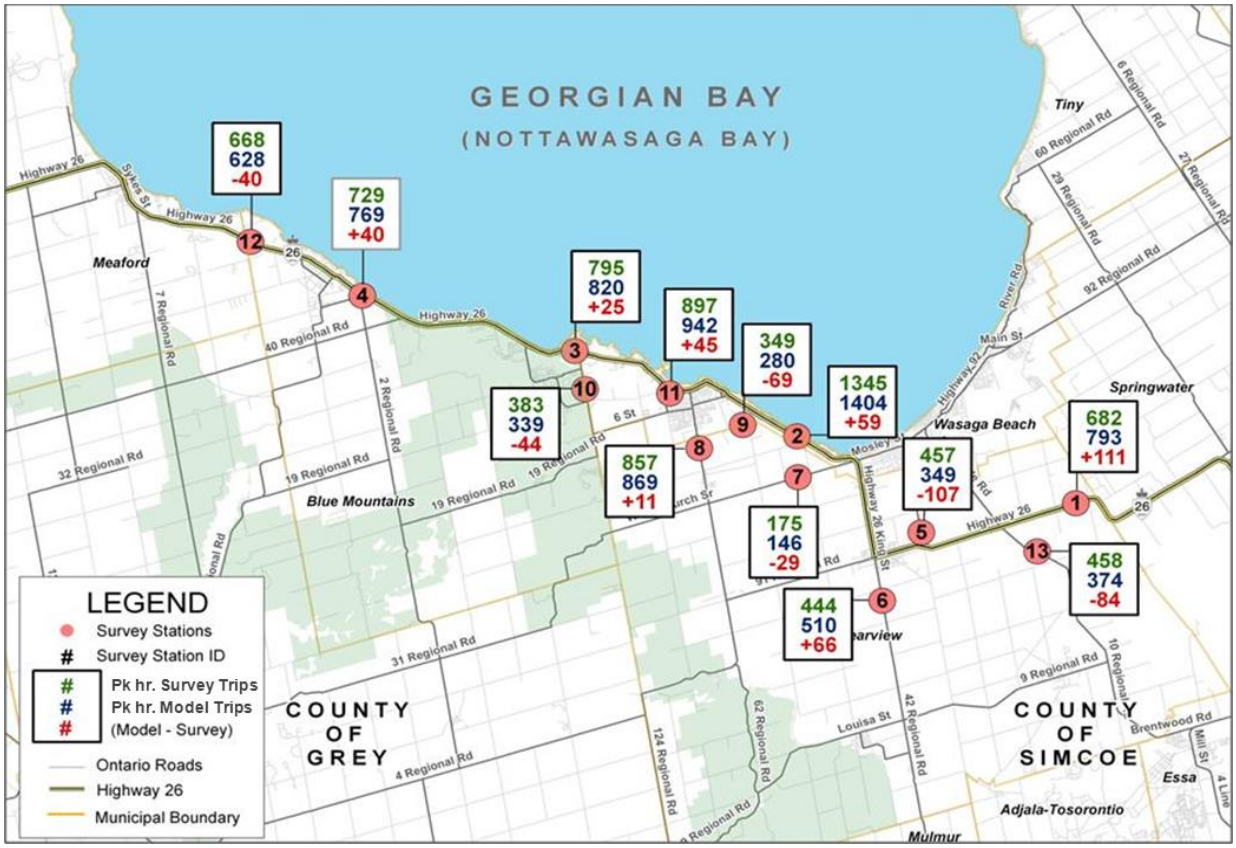
[7] *R^2 is a goodness of fit statistic that measures the amount of variability in the data set that is accounted for by the model (values closer to 1.0 are better).*

Table 3-4: 2009 PM Peak Model Validation to Summer Survey Trip Lengths

Station	Auto Trips	Average Trip Length (km)	<=20km	21-49 km	>=50km
		2009 Model			
1	590	69	32%	14%	55%
2	1,000	39	58%	19%	23%
3	580	51	34%	34%	33%
4	600	44	40%	34%	26%
11	700	47	41%	28%	31%
12	370	49	36%	31%	33%
		2009 Survey			
1	512	91	1%	34%	65%
2	887	52	45%	27%	28%
3	614	54	43%	24%	33%
4	582	51	35%	35%	31%
11	692	54	42%	22%	36%
12	433	56	30%	35%	36%

Figure 23 compares the modeled and survey traffic volumes at each summer travel survey station for the PM peak hour.

Figure 23: 2009 PM Peak Model Validation to Summer Survey Count Data (All Trip Purposes)



3.4.5 Future Travel Demand

3.4.5.1 Growth Projections

Significant grown has occurred in the Georgian Triangle Area in the recent past and this trend is expected to continue into the future with planned growth in both local population and employment. Tourism and recreation related travel to the region is also expected to continue to grow, leading to increased trip making by the region's many visitors and seasonal residents.

As shown in **Table 3-5** from 2006 to 2031 Simcoe County population and employment are expected to grow by 53% and 41% respectively, while during the same time period Grey County population and employment are expected to grow by 25% and 15% respectively.

Table 3-5: Simcoe and Grey County Population and Employment (2006-2031)[8]

Municipality	2006 Population	2031 Population	2006 Employment	2031 Employment
Simcoe County	437,100	667,000	180,700	254,000
Grey County	95,900	119,500	38,400	44,000

As summarized by **Table 3-6**, within the Study Area in particular, over 40,000 new residents and almost 6,000 new jobs are expected by 2031. Within the area of influence (i.e. Barrie and Owen Sound), on the other hand, population is forecasted to grow by almost 120,000 and employment by over 40,000. Since Barrie and Owen Sound represent the key Regional Centres for growth, these increases will have a significant impact on both work trip commuting and discretionary trip making along Highway 26.

Table 3-6: Study Area Population and Employment (2006-2031)[7]

Municipality	2006 Population	2031 Population	Growth	2006 Employment	2031 Employment	Growth
The Blue Mountains	7,000	9,700	2,700	2,980	3,690	710
Grey Highlands	9,800	13,400	3,600	3,870	4,590	720
Meaford	11,400	13,500	2,100	3,080	3,600	520
Clearview	14,600	19,700	5,100	4,400	5,100	700
Collingwood	18,000	33,400	15,400	10,800	13,500	2,700
Wasaga Beach	15,600	27,500	11,900	3,100	3,500	400
Primary Study Area	**76,400**	**117,200**	**40,800**	**28,230**	**33,980**	**5,750**
Barrie	133,500	210,000	76,500	64,300	101,000	36,700
Owen Sound	22,600	24,900	2,300	13,400	14,420	1,020
Area of Influence	***232,500***	***352,100***	***119,600***	***105,930***	***149,400***	***43,470***

[8] *Simcoe County forecasts from Places to Grow, Growth Plan, 2006.*
Grey County forecasts from Grey County Growth Management Strategy, 2008.

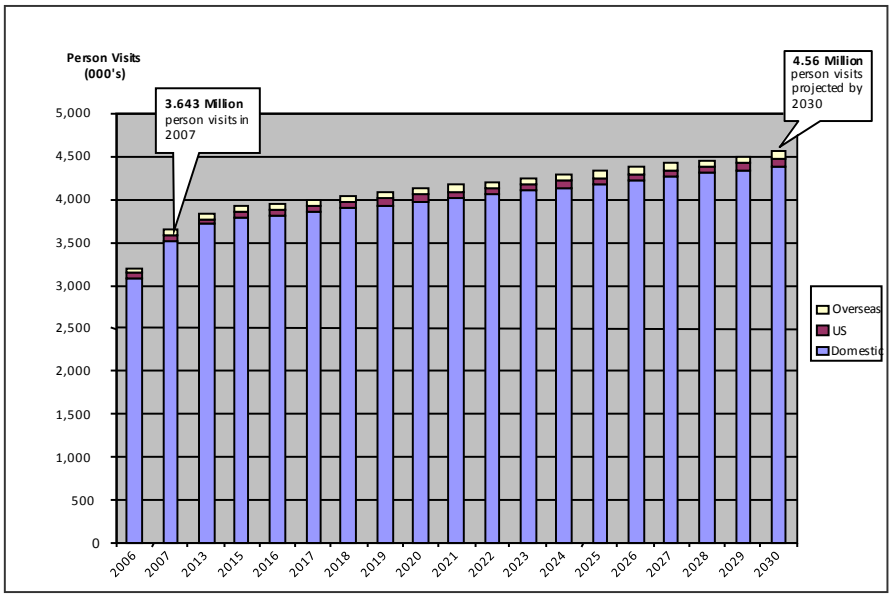
From **Table 3-7** it is evident that significant growth is also expected in seasonal residences with the most dramatic increases occurring in Collingwood, the Town of The Blue Mountains, and Wasaga Beach. Increases in seasonal residents can be expected to lead to further increased discretionary and recreational trip making in the region and Highway 26 in particular. This growth is not included in the population forecasts contained in the Growth Plan.

Table 3-7: Growth in Seasonal Residential Units[9]

Municipality	2006 Seasonal Residential Units	2031 Seasonal Residential Units	Growth
Clearview	803	N/A	17%
Wasaga Beach	3,480	5,204	50%
Collingwood	1,998	3,176	59%
Town of Blue Mountains	2,680	5,515	106%
Meaford	751	793	6%
Grey Highlands	1,455	1,733	19%

Finally, annual inbound recreational/vacation visits to the Highway 26 Study Area are expected to grow by approximately 1.4 million visitors or 42% between 2006 and 2031.
Figure 24 presents the historic and forecasted growth in tourism travel demand for the Highway 26 Study Area by market of origin.

Figure 24: Historic and Forecasted Inbound Tourism Travel Demand to Highway 26 Study Area by Market Origin[10]



[9] *Source: From 2006 Census / Municipal Official Plans.*
[10] *Highway 26 Tourism Related Travel Study (PKF Consulting).*

3.4.5.2 Forecasting 2031 Travel Demand

2031 travel demand for the Simcoe and Grey County Subarea model was forecasted by using the growth projections for population, employment, seasonal residences, and touristic visitations previously presented in Section 3.4.5.1. **Table 3-8** summarizes the resulting forecasted growth rates in travel demand between 2006 and 2031 by trip making market segment and municipality of destination.

Table 3-8: Forecasted 2031 PM Peak Hour Travel Demand Growth by Trip Purpose

	Work Trips			Discretionary Trips			Recreation Trips		
PM Peak Hour Trips To:	**2006 Base**	**2031 Forecast**	**Growth**	**2006 Base**	**2031 Forecast**	**Growth**	**2006 Base**	**2031 Forecast**	**Growth**
Collingwood	157	1,313	738%	898	2,021	125%	323	457	42%
Wasaga	194	581	200%	289	759	162%	163	228	40%
Stayner	210	602	187%	609	1,272	109%	66	92	38%
Rest of Simcoe	7,780	25,517	228%	25,428	56,823	123%	145	200	38%
Blue Mountains	189	483	155%	468	794	70%	318	474	49%
Grey Highlands	233	576	147%	290	409	41%	13	18	38%
Meaford	297	650	119%	381	475	25%	61	85	38%

3.4.5.3 Forecasted Travel Patterns

Figures 25 and **26** compare the forecasted 2009 and 2031 summer PM peak traffic volumes by trip purpose (Work, Recreational, and Discretionary) at each of the Study Area's thirteen (13) survey count stations.

The travel profile analysis reveals that traffic volumes on Highway 26 are forecast to grow in 2031 across all survey stations (except for Old Highway 26, which sees decreases in recreational and discretionary trips due to diversions to the New Highway 26) and across all trip purposes. To the east of Stayner on Highway 26, discretionary trips are expected to increase very significantly, together with a significant increase in work trip making.

This pattern is primarily due to the influence of trip making into the City of Barrie, which is expected to be the Regional Centre for employment and services in Simcoe County. Also of note is the fact that recreational traffic volumes are expected to decrease to the east of Stayner. This is primarily due to shifts in longer distance recreational trip making to County Road 10 to avoid congestion on Highway 26 in this area (see corresponding increases in recreational travel at Station 13).

Figure 25: Forecast 2009 and 2031 Summer PM Peak Travel Profiles by Purpose (Stations on Highway 26)

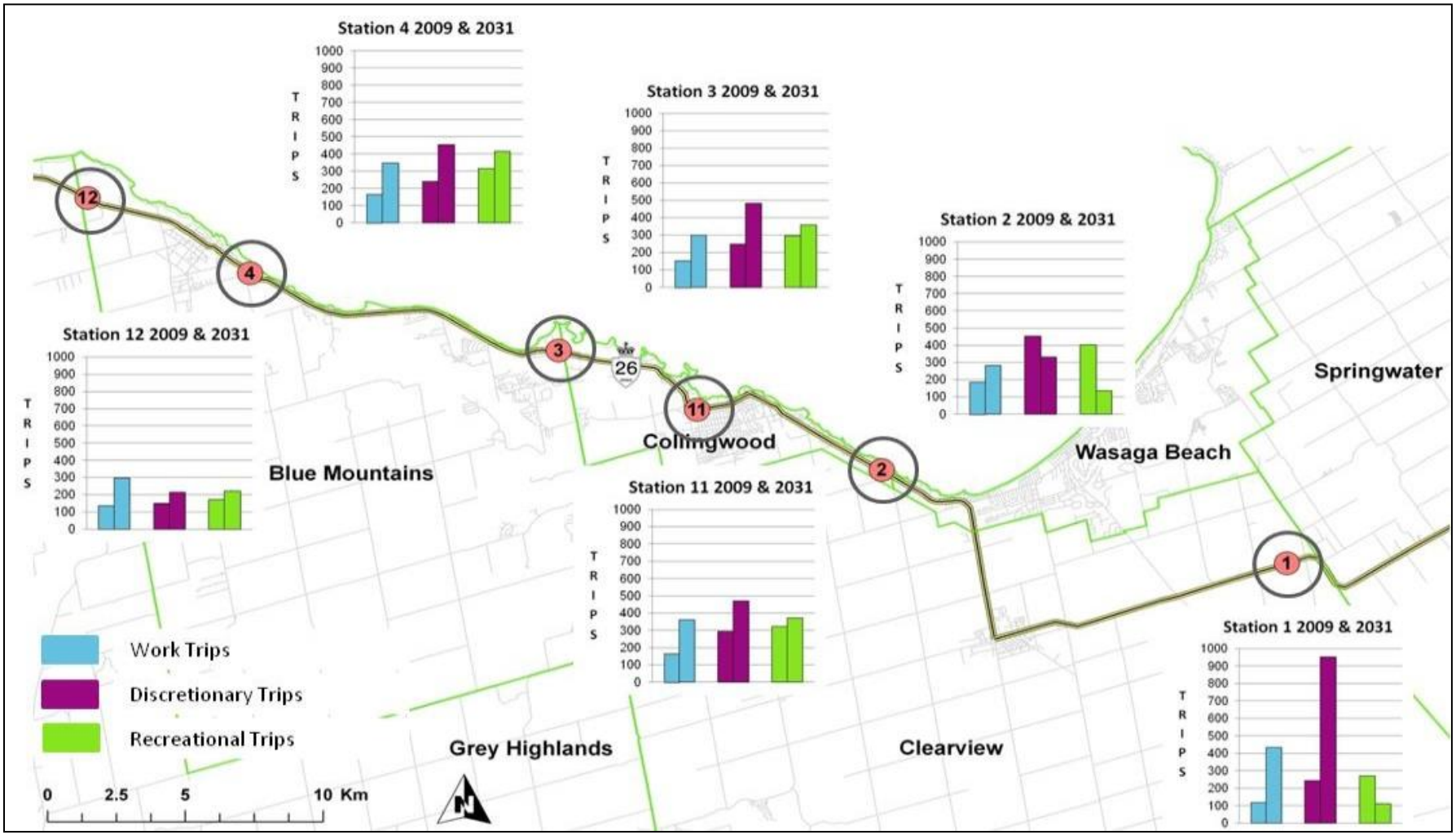
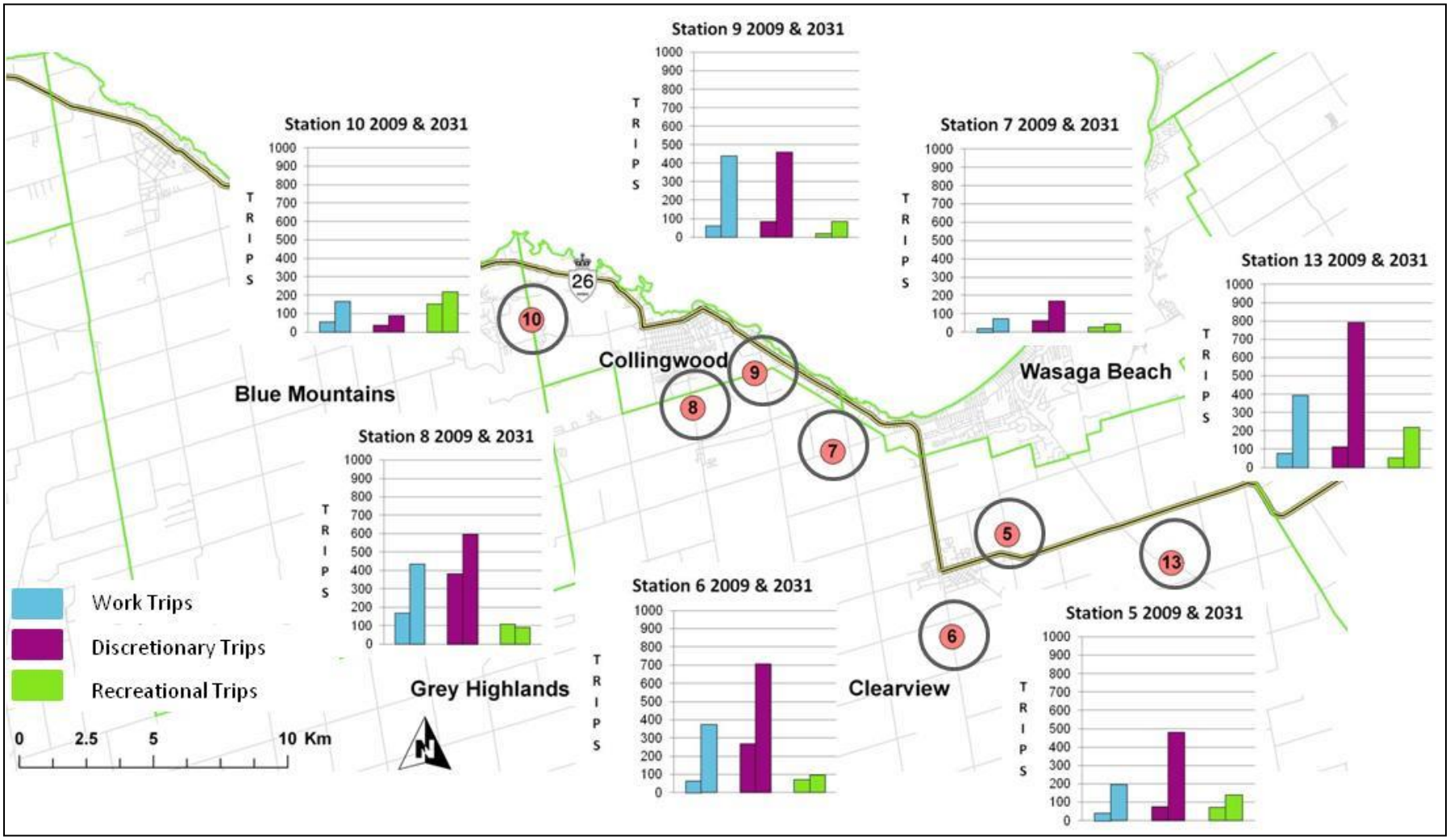


Figure 26: Forecast 2009 and 2031 Summer PM Peak Travel Profiles by Purpose (Stations off Highway 26)



Traffic on Highway 26 through Collingwood is expected to increase by about 50%, primarily due to increases in work and discretionary trips (120% and 60% for work and discretionary trips respectively and only 15% for recreational). Traffic volumes on Highway 26 through Grey County to the west of Collingwood, on the other hand, are expected to grow by approximately 60%, again primarily due to increases in work and discretionary trips. As previously noted, longer distance recreational traffic is found to divert to other North-South County and local roads to the east of Collingwood; County Road 10 in particular is expected to have a 300% increase in recreation traffic volumes. Poplar Side Road and County Road 124, on the other hand, see significant increases in work and discretionary trip making.

In order to help better understand the demands that Highway 26 is serving, **Figures 27** through **32** summarize the origin-destination (O-D) patterns of motorists that travel on the following segments of Highway 26. Each Figure compares the change in forecasted origins and destinations by municipality and the percentage of external trips in 2009 and 2031. The analysis was completed for:

- Highway 26 between Collingwood and Wasaga Beach
- Highway 26 through Collingwood
- Highway 26 between Collingwood and Thornbury

The growth in westbound Highway 26 demand destined for Collingwood is forecasted to be much higher than to other municipalities (accounting for 80% of westbound traffic). Westbound demand into Collingwood is almost evenly split between Wasaga Beach and external origins (about 40% of demand for each).

Similarly, the vast majority of demand on Highway 26 eastbound is from trips that originate in Collingwood (almost 90%). The majority of demand moving eastbound (over 60%) is destined for external destinations (with significant growth occurring between 2009 and 2031). Through traffic that is destined for or is originating from the Town of The Blue Mountains and points west is modest in 2009 and 2031.

As illustrated in **Figure 29**, approximately one-third of 2031 westbound traffic that travels through Collingwood originates from external origins, while about 60% of traffic through Collingwood comes from within Collingwood itself. The majority of westbound through traffic is destined to the Town of The Blue Mountains (only 5% continues beyond the Study Area). The majority of the growth in travel westbound to the Town of The Blue Mountains is from origins internal to the Study Area with the percentage of trips from external areas decreasing to 24% in 2031 from 38% in 2009.

Similarly, when moving eastbound (as illustrated in **Figure 30**) the vast majority of traffic through Collingwood is destined to Collingwood itself (less than one quarter goes to external destinations). The largest growth in eastbound demand is from the local communities of the Blue Mountains and Collingwood.

As illustrated in **Figures 31** and **32**, the majority of the growth in Highway 26 demand to the west of Collingwood in both travel directions is due to local growth in Collingwood and the Town of The Blue Mountains (only one fifth of the westbound trips destined for the Town of The Blue Mountains is of external origin and less than 15% of eastbound trips are going to external destinations).

Figure 27: 2009 and 2031 Summer PM Peak Highway 26 O-D Patterns (WB to East of Collingwood)

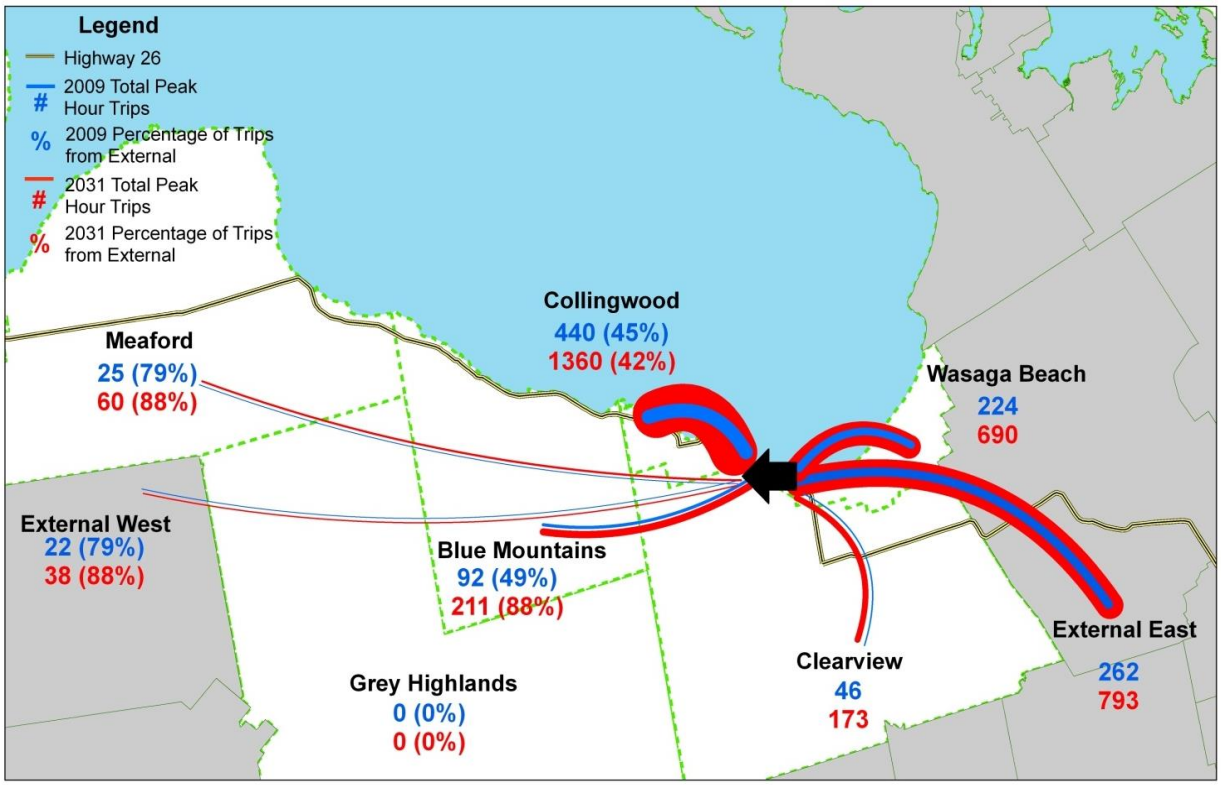


Figure 28: 2009 and 2031 Summer PM Peak Highway 26 O-D Patterns (EB to East of Collingwood)

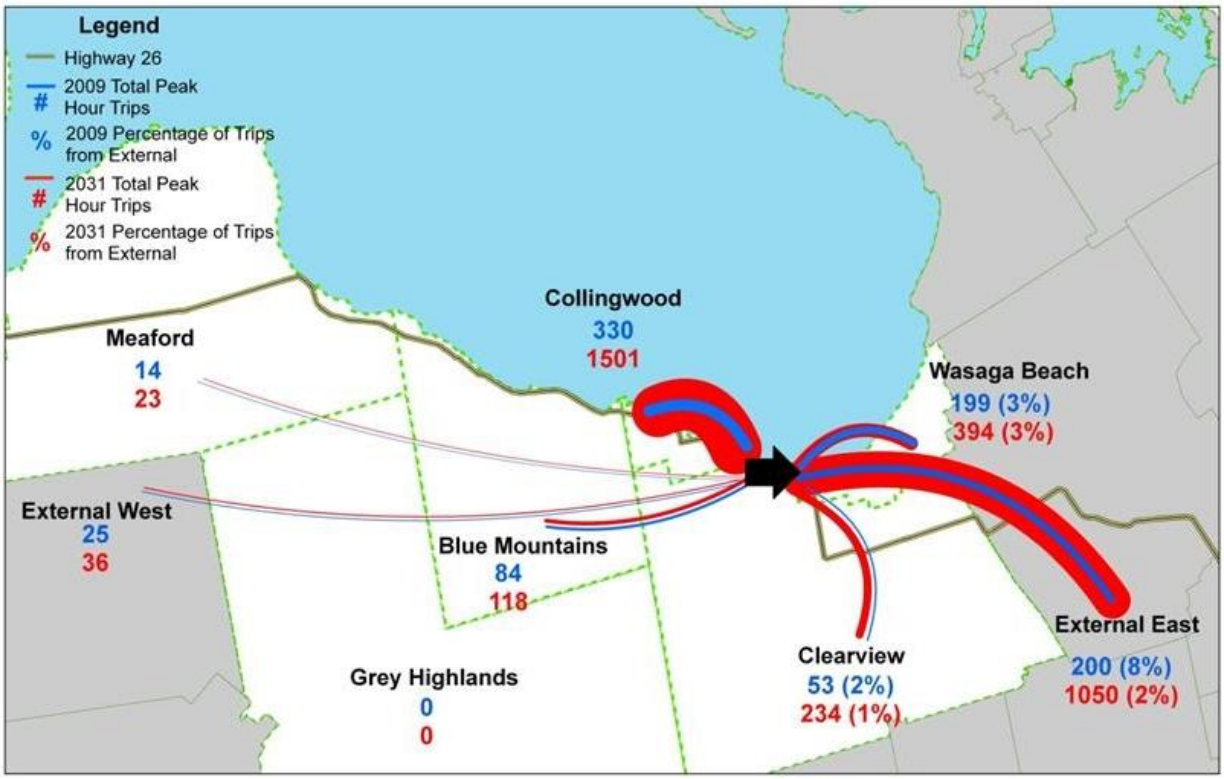


Figure 29: 2009 and 2031 Summer PM Peak Highway 26 O-D Patterns (WB Through Collingwood)

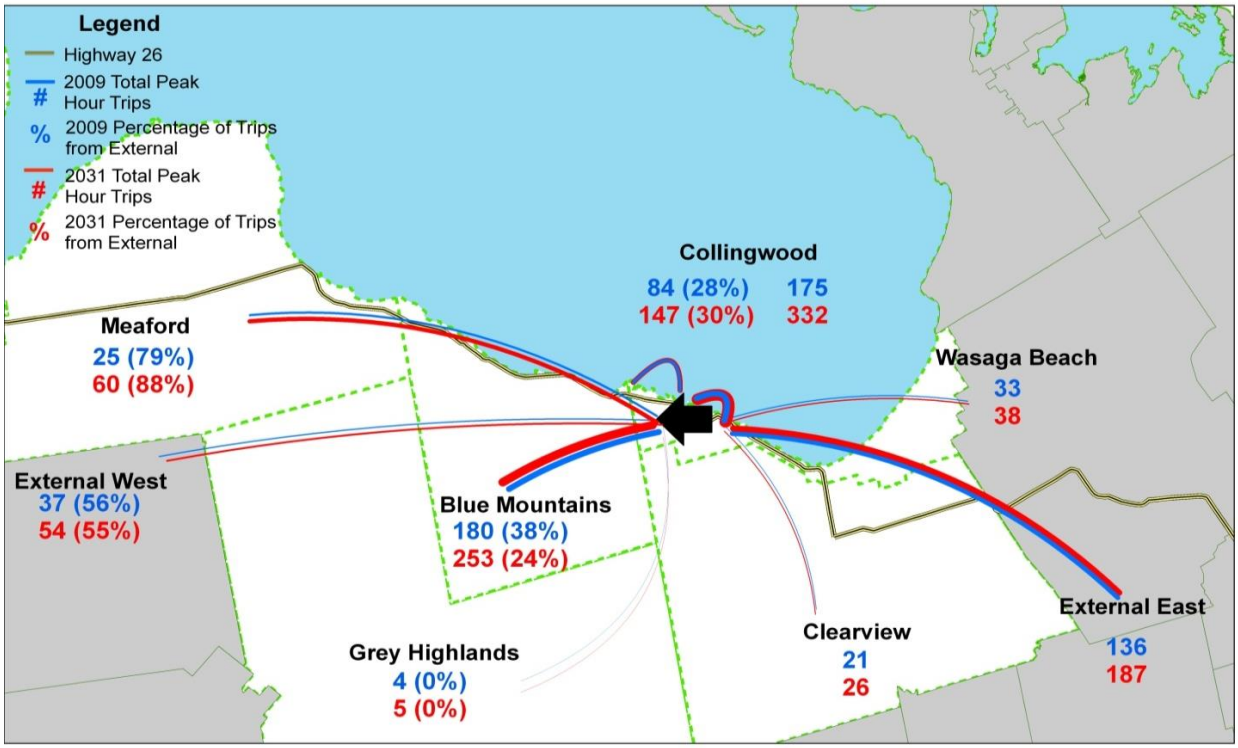


Figure 30: 2009 and 2031 Summer PM Peak Highway 26 O-D Patterns (EB Through Collingwood)

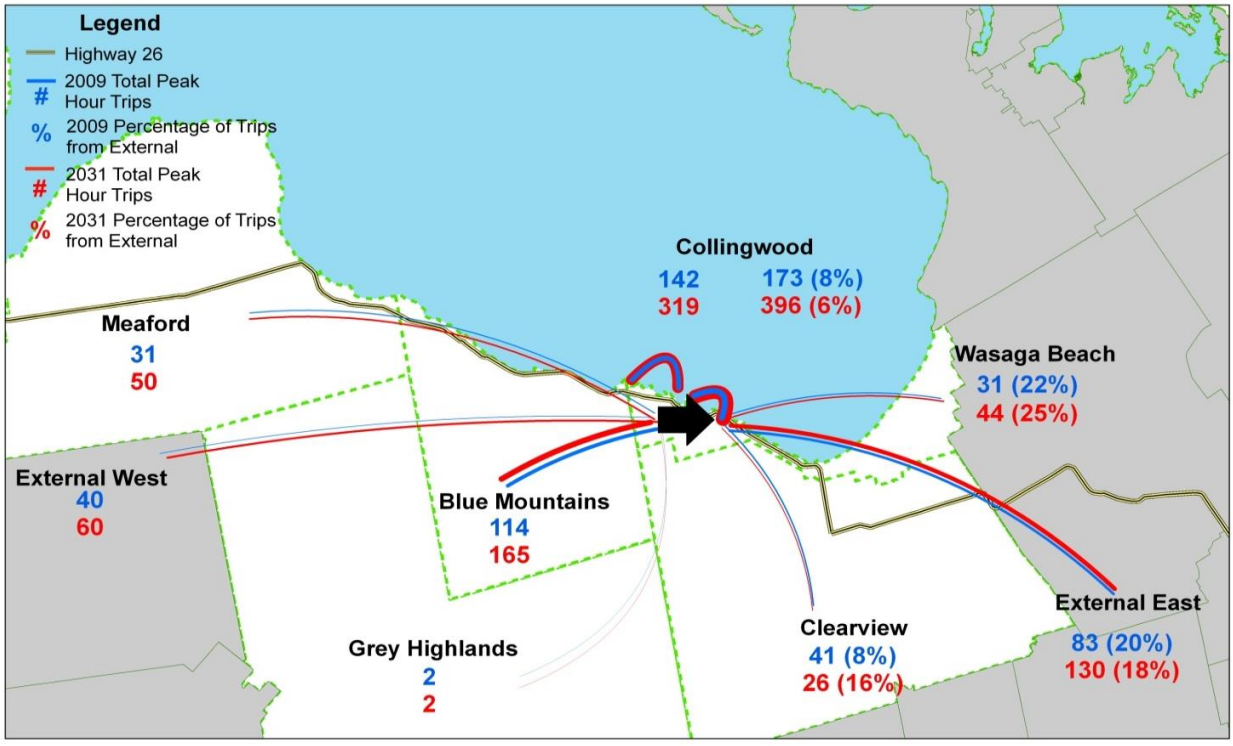


Figure 31: 2009 and 2031 Summer PM Peak Highway 26 O-D Patterns (WB to East of Thornbury)

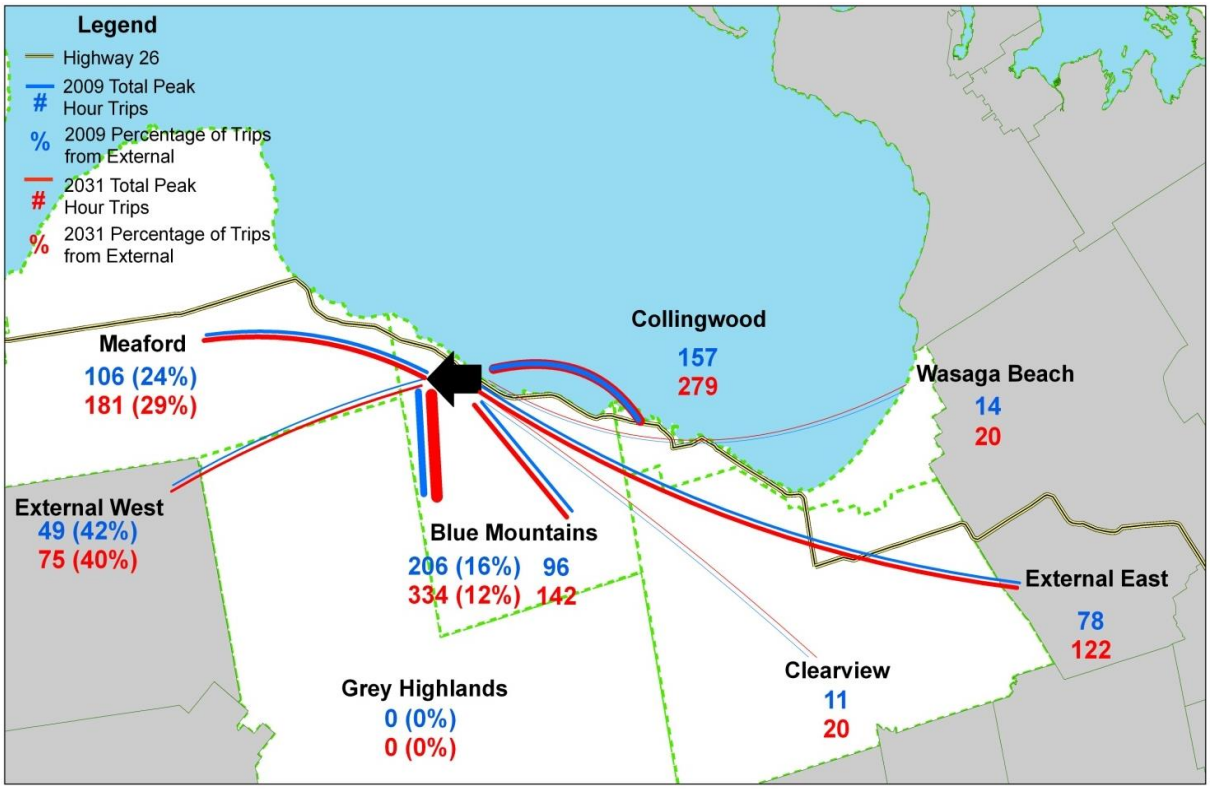
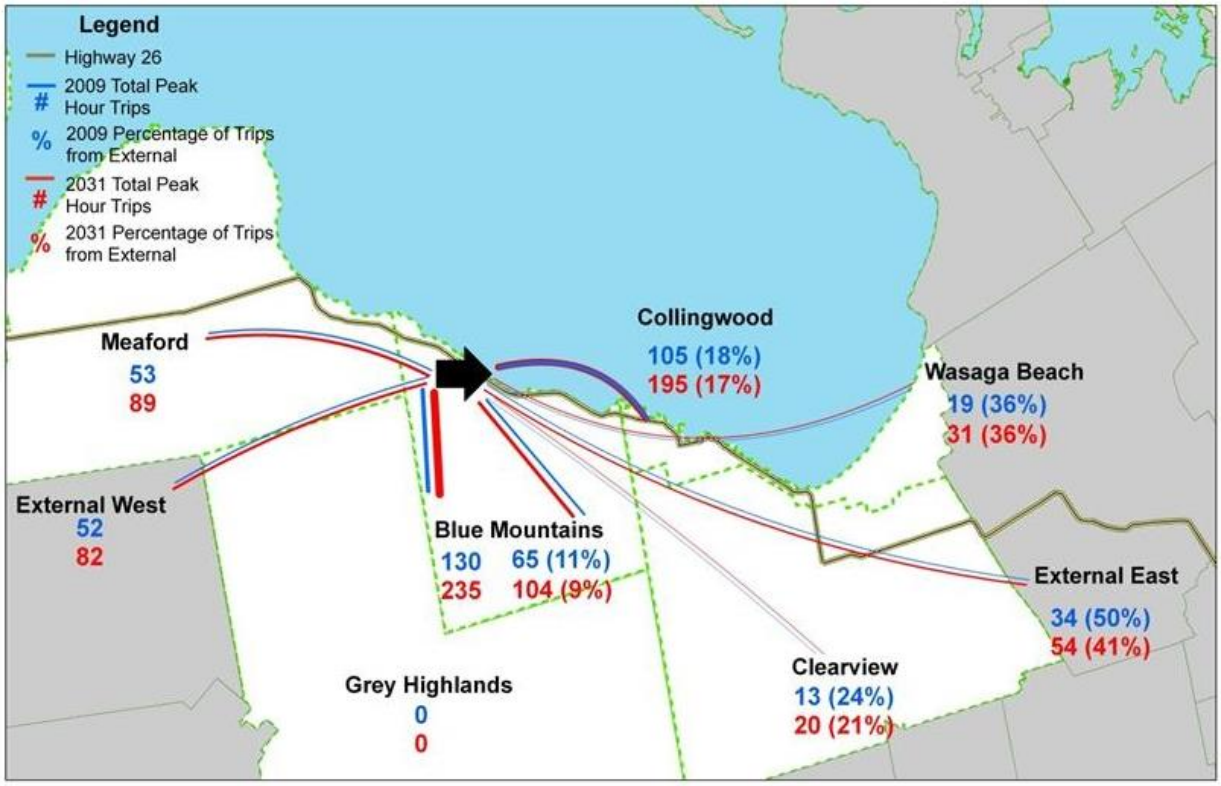


Figure 32: 2009 and 2031 Summer PM Peak Highway 26 O-D Patterns (EB to East of Thornbury)



3.4.5.4 Forecasted Traffic Volumes and Network Deficiencies

The network of the base Simcoe and Grey County Subarea model (see Section 3.4.4) was updated to reflect 2031 conditions by incorporating the following planned roadway improvements:

- Improvements identified in the Simcoe County Transportation Master Plan (excluding provincial highways)
- Highway 26 New between Wasaga Beach and Collingwood

The forecasted 2031 travel demands by trip purpose (see Section 3.4.5.2) were then assigned to the updated 2031 base network of the Subarea model in order to determine future travel patterns, identify transportation network deficiencies, and opportunities for improvement and future study. The following sections present the key results of this analysis.

Figure 33 and **34** display the forecasted change in PM peak traffic volumes between 2009 and 2031.

From **Figure 34,** it is evident that increased PM peak traffic volumes occur throughout most of the Study Area and on Highway 26 in particular. The new Highway 26 corridor between Wasaga Beach and Collingwood is very highly utilized (thereby decreasing volumes on the old Highway 26 corridor). It is also observed that longer distance traffic to and from the Georgian Triangle Area is being diverted from Highway 26 to other North-South county roads such as County Road 10, County Road 7, and County Road 42 in order to avoid congestion in Barrie and on Highway 400.

Figure 35 presents the historical and forecasted growth in daily traffic volumes on Highway 26 and reveals that the model's projected growth is in-line with past trends dating back to 1960.

Figure 36 highlights the forecasted network deficiencies for the 2031 summer PM peak hour.

Routes with major congestion, defined as LOS E/F conditions, are highlighted in red. Links with moderate congestion, defined as LOS D, or a volume/capacity ratio of 0.8 to 0.9 are illustrated in orange. Road segments operating at good levels of service (i.e., LOS C or better) are illustrated in green.

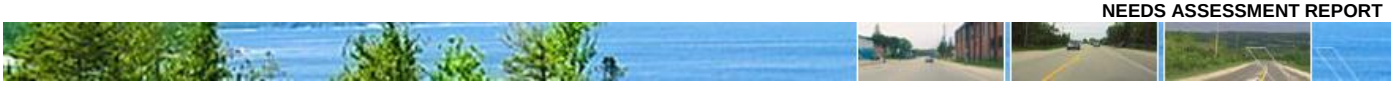


Figure 33: Growth in Summer PM Peak Traffic Volumes (Base 2009 – Base 2031)

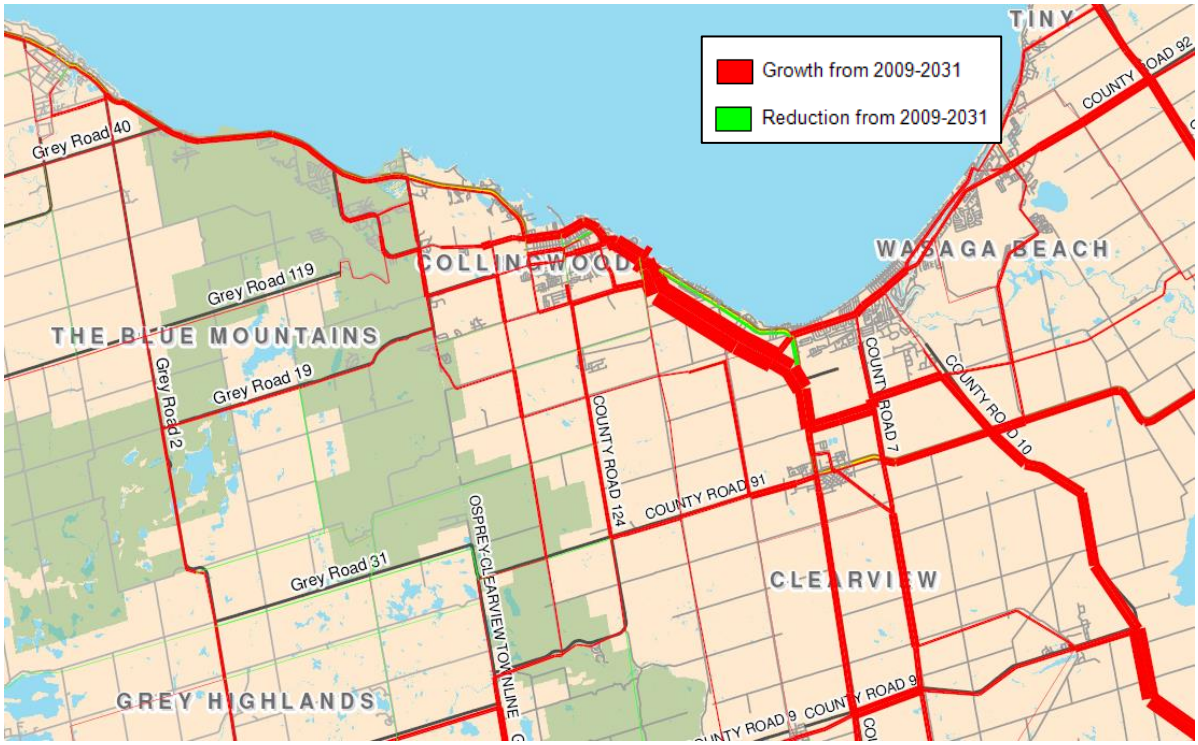
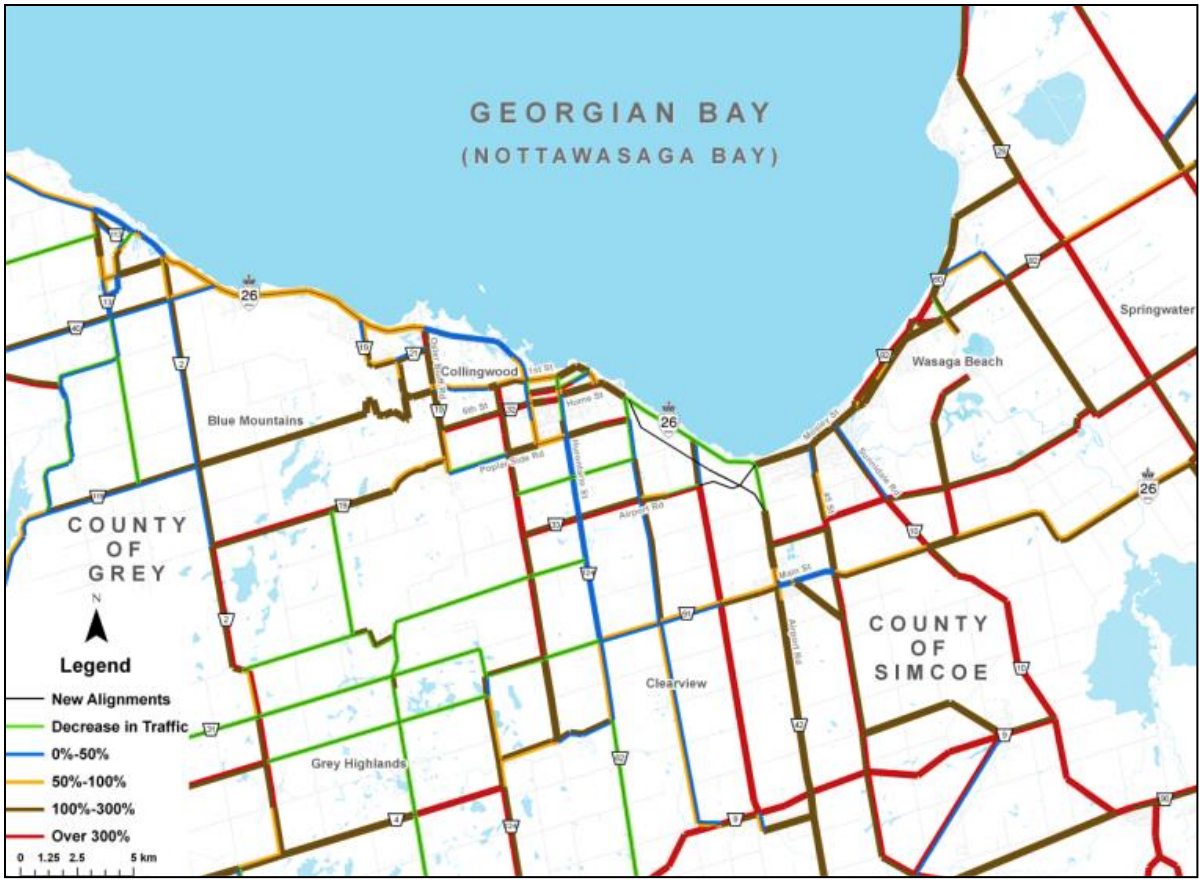


Figure 34: Percent Growth in Summer PM Peak Traffic Volumes (Base 2009 – Base 2031)



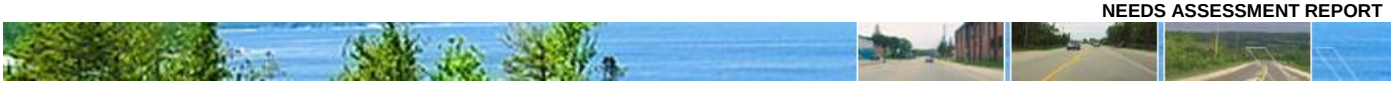


Figure 35: Historical and Forecasted Daily Traffic Volumes on Highway 26

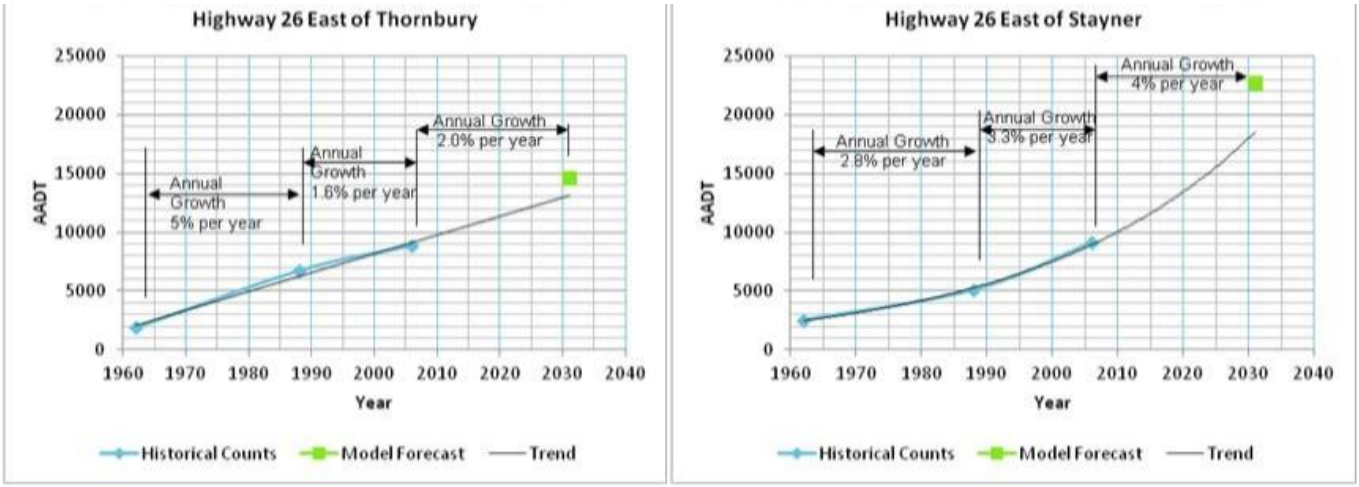


Figure 36: Forecasted Network Deficiencies 2031 Summer PM Peak

Level of Service	What Does it Mean?
A	Free Flowing Traffic Minimal Delays All traffic clears on green
B	Free Flowing Traffic Minimal Delays Most traffic clears on green
C	Uniform Traffic Flow Moderate Delays Some movements will not clear on green
D	Congestion noticeable Poor progression with frequent stops and increased delay Many movements at capacity and will not clear on green
E	Poor traffic flow with frequent stops and high delays Most movements over capacity and traffic rarely clears on first green
F	Forced Flow conditions with severe congestion Most movements over capacity with long queues that do not clear on green

** Note - The Level of Service (LOS) for roadways is grouped into 6 categories, as described above.*

Overall, most of the Study Area's roadway network is forecasted to operate relatively well with moderate levels of congestion. However, along Highway 26, there are a number of specific areas where heavy and moderate congestion levels are expected; in particular, heavy congestion is observed through downtown Stayner, Collingwood, and Thornbury. The high levels of congestion in these areas will be compounded due to the fact that these downtown areas have a significant number of signalized intersections that will increase delays further (see Section 3.4.3 for an analysis of traffic operations). Increased congestion and delays through these urbanized areas will negatively impact both long distance and local trip making and lead to further traffic diversion on parallel county and local roads.

Although the portion of Highway 26 New between Collingwood and Wasaga Beach is forecasted to operate well (given its high capacity), the 2-lane sections of existing Highway 26 are expected to experience heavy congestion. To the east of Stayner, the existing 2-lane portion of Highway 26 is forecasted to approach capacity by 2031. Increased volumes will result in reduced gaps in traffic, making passing more difficult and increasing delays and uncontrolled intersections and entrances. Similarly, the 2-lane portion of Highway 26, between Stayner and Wasaga Beach, will operate over capacity during peak periods.

To the east of Stayner, the existing 2 lane portion of Highway 26 is forecasted to approach capacity during summer weekday peak periods by 2031. Increased volumes will result in reduced gaps in traffic, making passing more difficult and increasing delays at uncontrolled intersections and entrances. Similarly, the 2-lane portion of Highway 26 between Stayner and Wasaga Beach will operate over capacity during peak periods.

Approaching Collingwood, where Highway 26 New connects to existing Highway 26, forecasts indicate that this segment will also be over capacity during peak periods. MTO has an approved EA to widen this portion of Highway 26 to 5 lanes (4 lanes plus two-way left turn lane) with the timing of construction subject to funding availability. Once constructed, this improvement should provide sufficient capacity to 2031.

On the west side of Collingwood, the 2-lane section between High Street/First Street and Harbour Street is also forecast to be operating close to capacity during the summer weekday peak periods in 2031, with moderate-major levels of congestion. This will be aggravated by the intersection constraints at High Street/First Street, making actual congestion levels worse than indicated in the macro model (please refer to Section 3.4.6 for additional details).

Within Grey County, the 2-lane section of Highway 26 between County Road 19 and County Road 40 is forecast to operate near capacity with moderate congestion during typical summer weekday periods. Approaching Thornbury, between County Road 2 and Bruce Street, Highway 26 is

forecast to exceed capacity with significant congestion, aggravated by the constrained intersection operation at Highway 26/Bruce Street.

Overall, the modelling results support the consideration of new transportation capacity that is able to provide relief for the congested downtown areas of Collingwood, Stayner, and Thornbury and improve connectivity to the new Highway 26 between Collingwood and Wasaga Beach.

3.4.6 Traffic Operations Assessment

VISSIM model runs were undertaken for summer PM peak conditions in order to examine operational issues within the downtown areas of Collingwood, Stayner, Town of The Blue Mountains, and Thornbury. Traffic counts undertaken at key signalized intersections in January and November 2010 were used as the basis for the existing conditions analysis.

Forecasted traffic volumes from the Simcoe and Grey County Subarea model, which was previously discussed in Section 3.4.5.2, were used to generate traffic growth rates that were applied to the base year volumes and balanced accordingly in VISSIM.

Comparing simulated base year operational conditions to those in 2031 (with no road network improvements), resulted in noticeable increases in congestion on Highway 26, particularly at intersections within the urban areas. The average travel time for the entire 50 km corridor was found to increase by 40-50% in both the Westbound and Eastbound directions with average speeds dropping from approximately 60 km/hr in the base year to about 40 km/hr in 2031.

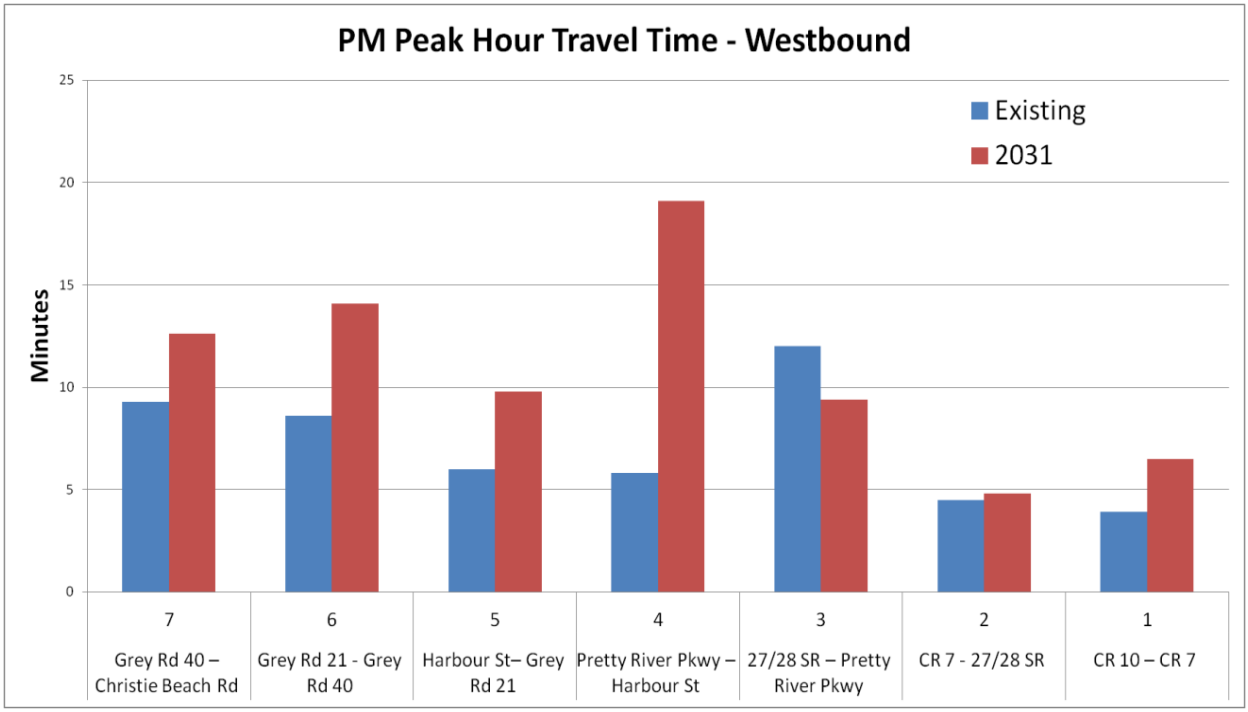
Almost all intersections within downtown Collingwood were found to operate at a Level of Service of E or worse with select critical movements experiencing delays in excess of 200 seconds (e.g. northbound left turn from Hurontario Street)[11]. The intersections of Highway 26 and Simcoe Road 10 (Wasaga Beach) and Grey Road 19 (Town of The Blue Mountains) were also found to operate at LOS E and D respectively. Finally, sideroad delays were found to be extensive due to mainline Highway 26 congestion. A more detailed assessment of existing and future operations on Highway 26 is provided in the Highway 26 Transportation Study – Traffic Report (see **Appendix D**).

Figure 37 compares the simulated existing and future travel times along each segment of Highway 26.

[11] *Note: Intersection delays are based on total delays from VISSIM model (not HCM Control Delay).*

Figure 37: Existing and Future 2031 Travel Times on Highway 26

Travel Time Segment	Dist. (km)	Westbound PM Min. (Avg. Speed -km/h)			Eastbound PM Min. (Avg. Speed -km/h)		
		Existing	2031	Change	Existing	2031	Change
1. County Rd 10 – County Rd 7	4.9	3.9 (75)	6.5 (45)	67%	4.1 (72)	4.0 (74)	-2%
2. County Rd 7 - 27/28 Sideroad Nottawasaga	4.5	4.5 (60)	4.8 (56)	7%	5.0 (54)	5.3 (51)	6%
3. 27/28 Sideroad Nottawasaga – Pretty River Parkway	11.7	12.0 (59)	9.4 (75)	-22%	12.8 (55)	13.4 (52)	5%
4. Pretty River Parkway – Harbour St	4.4	5.8 (46)	19.1 (14)	229%	9.0 (29)	28.2 (9)	213%
5. Harbour St-Balsam St – Grey Rd 21	4.7	6.0 (47)	9.8 (29)	63%	5.5 (51)	12.7 (22)	131%
6. Grey Rd 21 - Grey Rd 40	10.0	8.6 (70)	14.1 (43)	64%	8.3 (72)	9.6 (63)	16%
7. Grey Rd 40 – Christie Beach Rd	9.5	9.3 (61)	12.6 (45)	35%	8.6 (66)	8.9 (64)	3%
Total travel time (min)	**49.7**	**50.1 (60)**	**76.2 (39)**	**52%**	**53.2 (56)**	**82.0 (36)**	**54%**



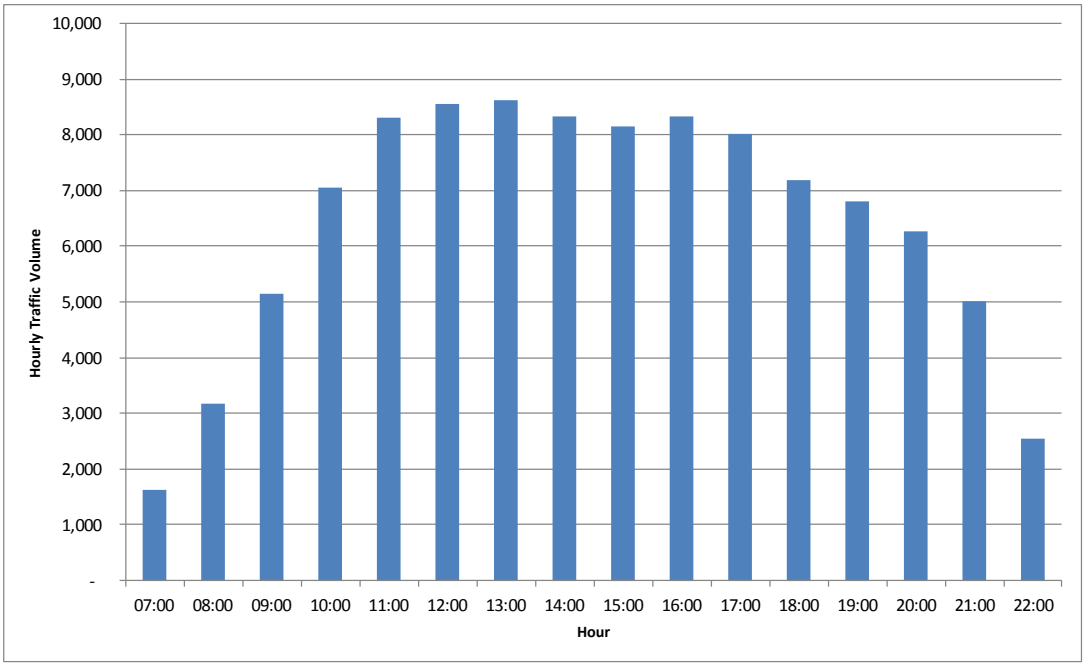
3.4.7 Summer Weekend Demand Deficiencies

A “strategic” demand assessment was used to forecast summer weekend travel demand and project future network deficiencies on Highway 26. This “strategic” assessment used a pragmatic approach that focused on Highway 26 corridor count locations and took advantage of the available summer weekend survey data. In particular, the approach recognized the following key data / model limitations for the summer weekend time period:

- The GGH model, which was relied upon to provide the network-wide travel demand for Simcoe County in the weekday model, does not include a weekend travel demand component.
- The roadside survey for the weekend did not count trips at stations 10 and 11. In addition, stations 4 and 7 were not surveyed during the PM peak period on the weekend.
- The weekend survey data collected only included trips passing through the survey sites, and did not capture trip making on other municipal roads

A review of the travel demand data from the summer roadside survey revealed that there are two peak periods on a summer weekend. The midday Peak (noon - 3 pm) travel demand is closely matched by the Evening Peak (3-6 pm) travel demand on summer Sundays.
Figure 38 shows the hourly distribution of travel demand across all thirteen survey stations combined.

Figure 38: 2009 Hourly Summer Weekend Trips at Survey Stations



Examining station-specific survey data revealed that travel demand at the eastern edges of the Study Area (e.g. stations 1, 6, and 13) peaked during the evening, while travel demand at the stations towards the interior of the Study Area and to the west (e.g. stations 2, 3, 8, and 11) peaked during the mid-day. This split between peak hours reflects the trip making patterns to/from the urban area of Collingwood, which is more midday oriented with a mixture of local discretionary trips, and visitors to the region. At the eastern stations, the late afternoon peak is representative of the patterns for recreational visitors to the area, making their trip back home via Highway 26 and other County Roads. As a result of these two distinct peaks, separate weekend travel demand forecasts were developed for the midday and evening peak periods in order to capture the peak demand in different parts of the Study Area.

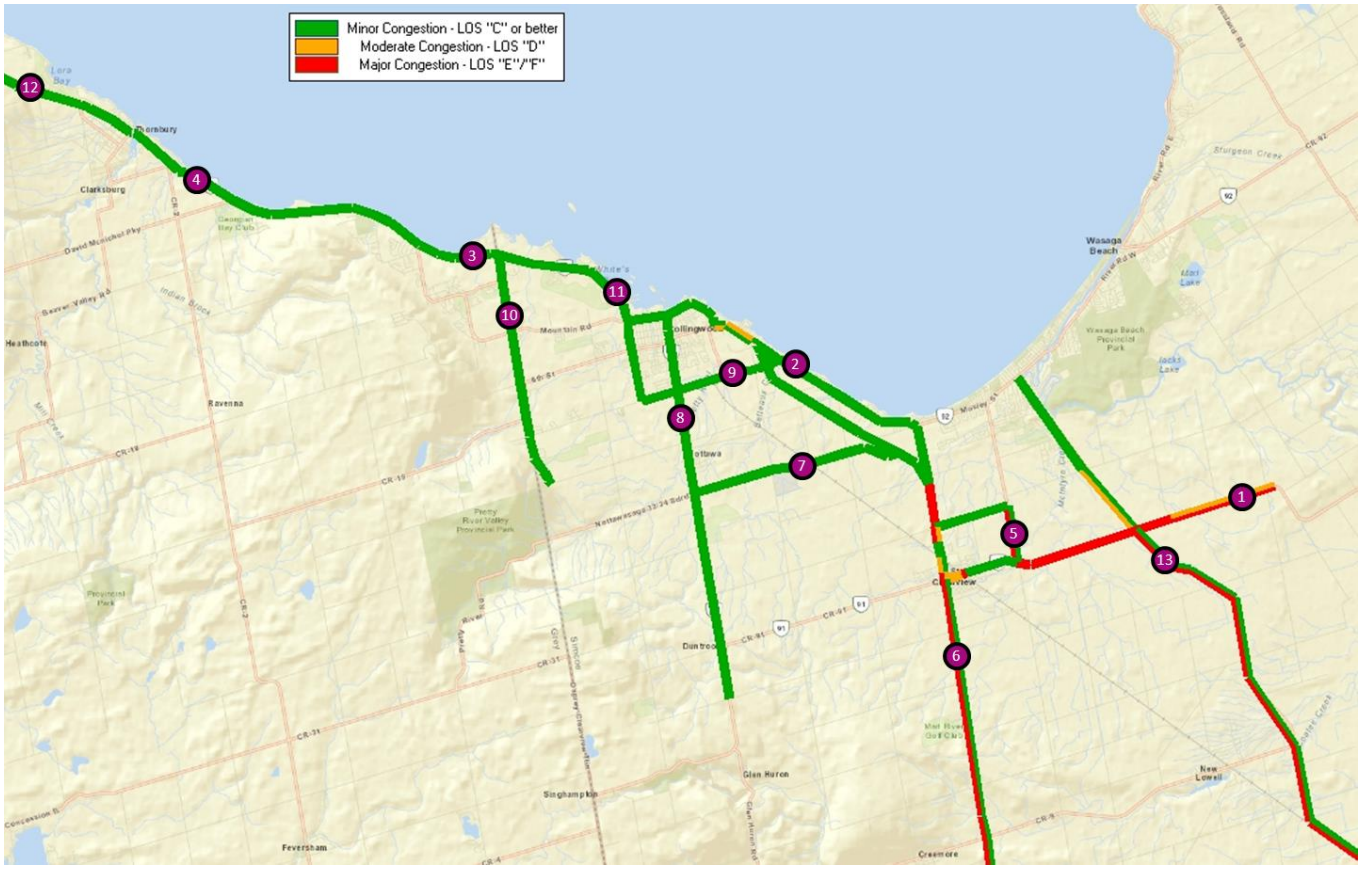
Base year 2009 weekend trip demand was extracted from the summer O/D survey data and corresponding ATR counts that were collected as part of this study. This data provided 2009 summer Sunday travel demand by trip purpose (i.e. work, discretionary, and recreational) at each of the thirteen (13) survey stations. In order to forecast 2031 traffic volumes at each station, the observed travel demand was factored by the forecasted 2009-2031 growth rate by trip purpose and direction of travel at each station (see Section 3.4.5.1 for more details). The ratio between the forecasted 2031 weekend evening (or mid-day) peak and summer weekday PM peak hour traffic volumes at each station were then used to estimate the level of congestion on key Study Area roads in the vicinity of each survey station[12].

Figure 39 displays the forecasted network deficiencies for the 2031 weekend Evening peak (Sunday) using this “strategic” demand assessment process. Routes with major congestion, defined as LOS E/F, are highlighted in red. Links with moderate congestion, defined as LOS D, or a volume/capacity ratio of 0.8 to 0.9 are illustrated in orange. The Figure also identifies the location of each of the study’s survey stations.

It should be noted that for Highway 26 New, the Station 2 weekend travel demands (on the existing Highway 26 corridor) were split between the existing corridor and the new corridor based on the distribution of trips using each corridor from the weekday model.

12 Each station’s weekend-weekday growth factor by direction was assumed to be “representative” of surrounding road segments upstream and downstream from the station.

Figure 39: Forecasted Network Deficiencies 2031 Evening Peak Summer Sunday



Consistent with the results of the 2031 summer weekday model, most of the Study Area's roadway network is forecasted to operate relatively well. Within the vicinity of Collingwood and areas to the west, nearly the entire network is forecasted to operate well at LOS "C" of better. Across all stations, the worst case weekend peak volume is approximately 15% higher than the volumes forecasted for the weekday PM peak. However, these increases are concentrated in specific parts of the Study Area and are highly directional; despite the overall increase, many stations see a slight decrease in traffic volumes on the weekend. These location differences are discussed in more detail in the following paragraphs.

For stations within Collingwood, weekend peak traffic volumes occur during the midday and peak volumes are approximately 90% of their corresponding weekday PM peak values, as illustrated at Station 11, and to a lesser extent at Stations 8, 9 and 10 on the local roads.

The stations to the west of Collingwood (Stations 3, 4, and 12) also peak during midday periods on weekends but have volumes that are appreciably lower than their corresponding weekday peak values (approximately 20% lower). This traffic is more oriented to local demands for discretionary trip purposes.

Figure 40 and **41** show the forecasted weekend midday and evening peak traffic volumes at each of summer survey stations by direction of travel. Station 7 has been omitted due to very low weekend volumes.

Figure 40: Forecasted 2009 and 2031 Summer Sunday Traffic Volumes (Stations on Highway 26)

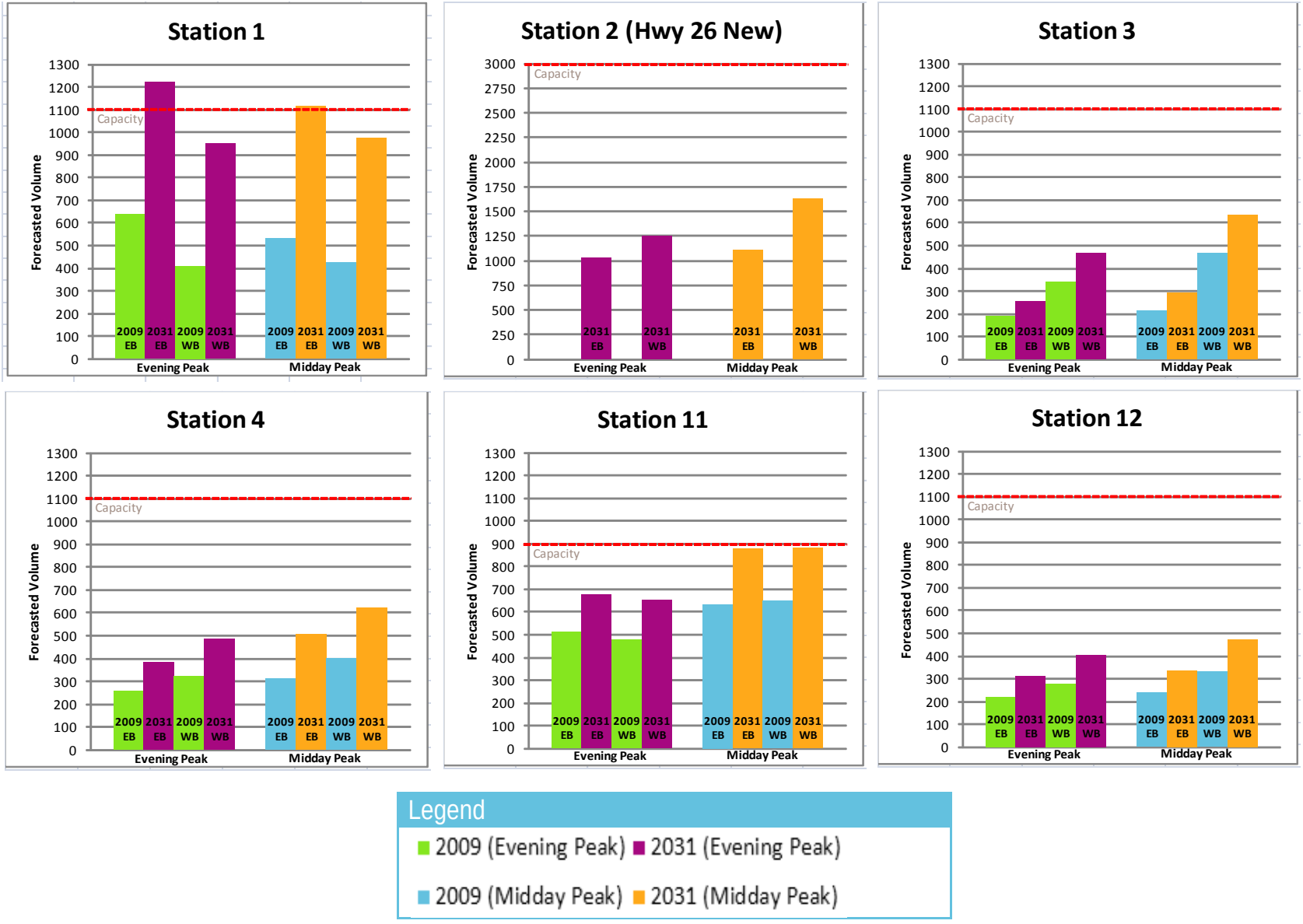
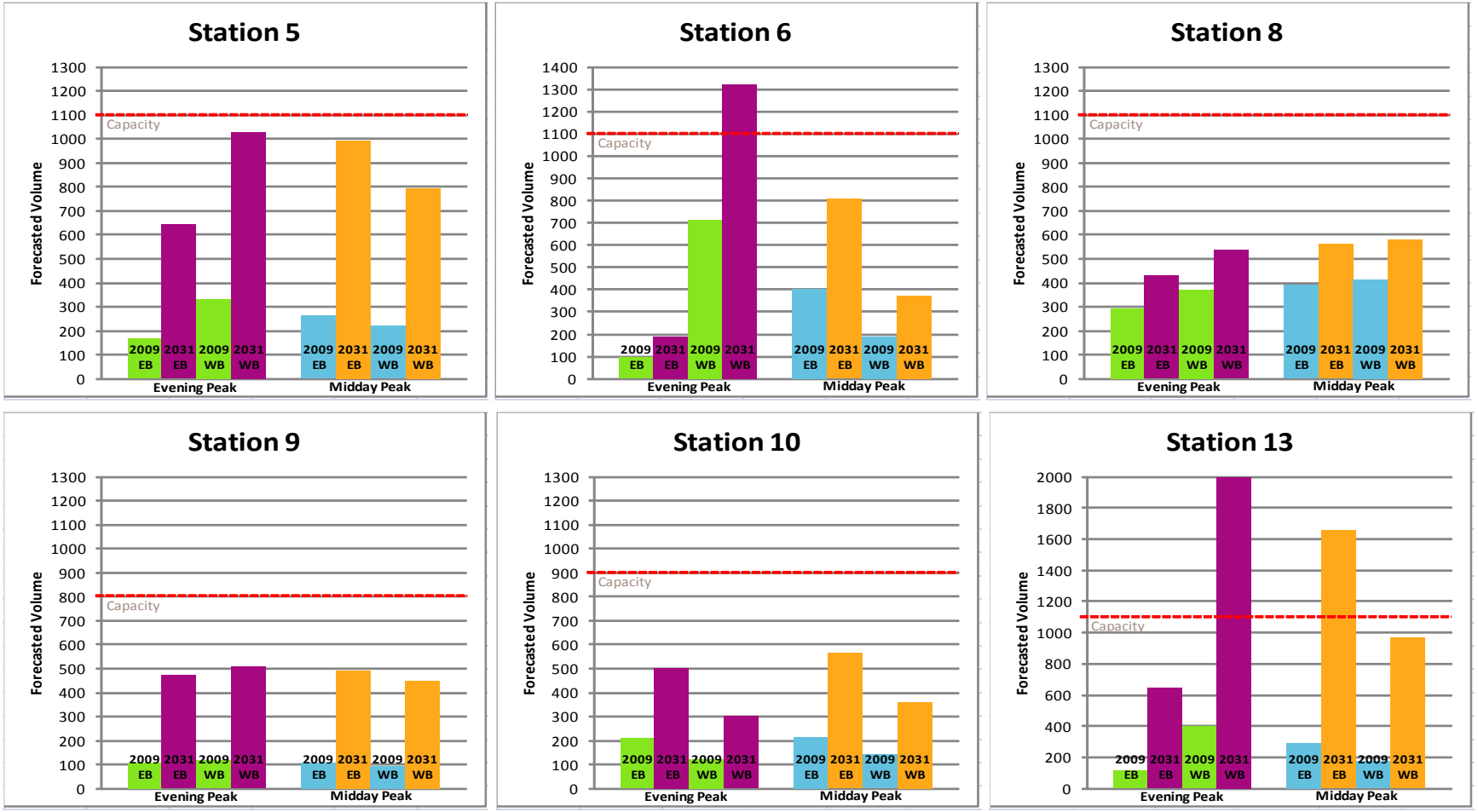


Figure 41: Forecasted 2009 and 2031 Summer Sunday Traffic Volumes (Stations on Local / County Roads)



In the eastern end of the Study Area near Stayner, during the weekend evening peak (Sunday), major congestion is expected to span much of the Highway 26 in the eastbound direction. Alternate diversion routes such as County Road 42, County Road 10 and County Road 7 are also expected to experience increased levels of congestion. At these stations, weekend evening peak traffic volumes are forecasted to be approximately 30% higher than weekday peak values. This is due to the travel demand patterns of recreational visitors returning back to their permanent homes in Barrie and the GTA.

When considering the peak travel direction alone for stations in the eastern end of the Study Area, weekend evening peak traffic volumes are almost 80% higher than their weekday peak levels. Indeed, Stations 1, 6, and 13 are forecasted to be at least 10-20% over capacity in the peak direction on weekends in 2031. Station 13, which has a capacity of 1,000 vehicles, has demands that are well over 2,000 vehicles in the peak direction during the evening peak. This reflects the high demand for travel in this corridor as an alternate to congestion along Highway 26 and Highway 400.

In reality, this roadway cannot accommodate this level of demand and motorists will find alternate routes by diverting to other regional and local roads. Improvements to Highway 26 and Highway 400 will also have an impact on the distribution of demand between Station 13, Station 1, and Station 6, which has not been factored into these base forecasts.

The combined volumes (eastbound and southbound) on Highway 26, County Road 42 and County Road 10 are forecast at just over 4,500 vehicles per hour by 2031 during the summer Sunday evening peak period. If Highway 26 was widened to 4 lanes, the combined planning capacity for these three roads would be about 4,400 – 4,600 vehicles per hour[13]. Additional improvements to the local roads beyond the Highway 26 widening would need to be considered by 2031 or beyond to maintain acceptable operations during the summer peak periods.

Overall, the weekend forecasting results do not have a significant impact on the deficiency analysis findings from the 2031 weekday PM peak period model. The weekend forecasting, however, does demonstrate a more acute need for new transportation capacity in the eastern parts of the Study Area, and highlights the capacity issues that are expected within the downtown urban areas along the Highway 26 corridor, particularly within Collingwood and Stayner. Indeed, the weekend modelling results further support the need for transportation improvements that provide relief to users of Highway 26 between the new Highway 26 alignment in Wasaga Beach and locations to the east of Stayner.

[13] *Based on 2 lanes / direction on Highway 26 with a capacity of 1,100-1,200 veh/hr/lane plus existing capacity on County Road 42 and County Road 10.*

3.5 Problems and Opportunities

The Highway 26 corridor currently serves a mixture of local, regional, and long distance trips since there are limited alternative routes available (particularly between Grey County and Simcoe County). Given that there are limited inter-regional transit services in the Study Area, there is a reliance on auto travel for the majority of medium to long distance trips in the Study Area for locals and recreational demands.

With the planned growth in Simcoe and Grey Counties by 2031, these issues will continue to grow and travel demands using Highway 26 are expected to increase by 110-190% in Simcoe County and by 50% in Grey County. The largest increases in demand are related to the growth in work and discretionary trips which will lead to increases in short and medium distance trips between communities within the Study Area to/from Barrie – the regional growth node for Simcoe County.

As a result, in 2031 many sections of Highway 26 will be at capacity during summer weekday peak periods. Within the downtown urbanized areas of Stayner, Collingwood and Thornbury, the numerous signalized intersections, side roads, and commercial entrances will further reduce the capacity for through traffic on Highway 26, increasing congestion levels during the peak periods. In particular, the left turns at Highway 26 / First Street and Highway 26 / Pretty River Parkway can be expected to reach capacity before the mainline highway segments due the restricted capacity for these key movements.

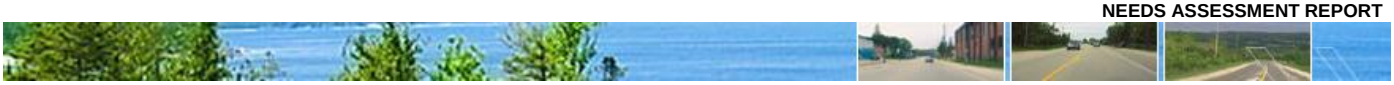
It also should be noted that conditions can be expected to be worse during summer weekends along key roadways that serve longer distance recreational traffic. Throughout the Study Area, weekend peak traffic volumes are approximately 15% higher than during the summer weekday period and up to 30% higher on Highway 26 between Collingwood and Barrie. Weekend network capacity deficiencies are particularly evident in the eastern end of the Study Area during the Sunday evening peak period where the majority of Highway 26 eastbound and County Road 10 / County Road 42 southbound is expected to be over capacity with major congestion.

The bulleted list below summarizes the key problems / deficiencies noted from the Do Nothing 2031 modelling for the Highway 26 Study Area:

- Road network delay in the Study Area is expected to increase considerably with the PM peak hour delays increasing from 110 veh-hours in 2009 to 1,300 veh-hours in 2031. This tenfold increase in delay represents an annual economic cost of just under $110 million annually[14] (2012$).

[14] *Assuming 10% of daily travel in PM peak, 260 weekdays per year, vehicle occupancy of 1.6 and an average value of time of $20 per hour (2012$)*

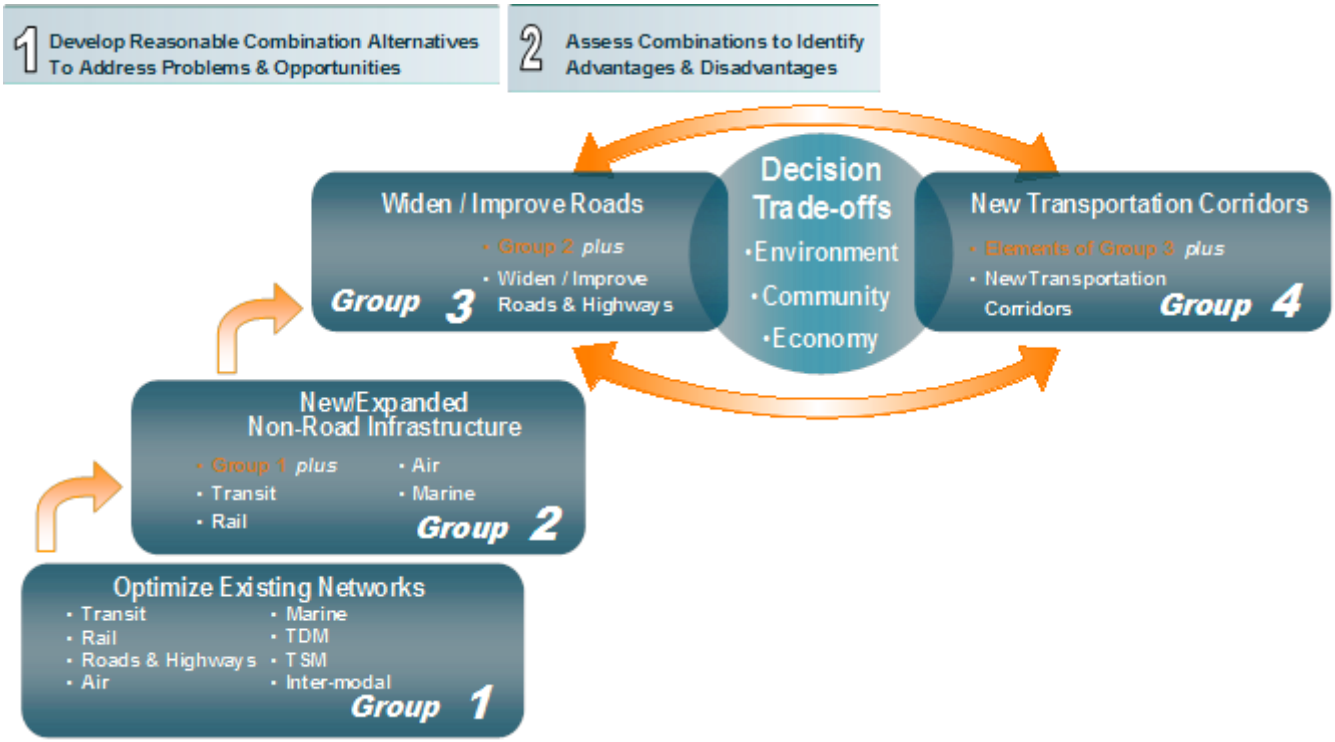
- Congestion on Highway 26 can be expected to increase collision risk, particularly for the two lane rural sections of highway where passing opportunities will continue to be reduced as volumes increase.
- Congestion on Highway 26 through downtown Stayner, Collingwood, and Thornbury is forecasted to increase weekday PM peak corridor travel times by 50% in 2031, impacting both long distance provincial and local trip making.
- The significant increase in downtown congestion is not supportive of the urban design objectives of the local municipalities and may detract from the attractiveness of these commercial areas. There is an emphasis placed on creating pedestrian friendly environments in these downtown nodes within the local municipal Official Plans (and to a large extent in the policies expressed in the Growth Plan), and this is inconsistent with the need to move large volumes of traffic.
- Weekday PM peak period average speeds on Highway 26 are estimated to drop from 60km/h today to under 40km/h, primarily due to congestion at intersections within the urbanized areas.
- Longer distance recreational and truck trips can be expected to divert to other north-south County Roads such as County Road 10 and County Road 42 to avoid congestion in Barrie and on Highway 400. These diversions will be more significant during the weekend evening peak periods where longer distance demand into and out of the Study Area will bring Highway 26 over capacity in the vicinity of Stayner and points to the east.



4. Identification and Evaluation of Alternative Transportation Solutions

A 'building block' approach was used to develop the alternative solutions to address the problems and opportunities identified for the Study Area. This process was developed through an adaptation of the process used for two of the Ministry's Individual Environmental Assessment studies currently underway: Niagara-to-Greater Toronto Area (NGTA) and Greater Toronto Area West (GTAW) Corridor Planning and Environmental Assessment studies. This process is generally illustrated in **Figure 42**, below.

Figure 42: Building Block Approach



Initially, measures and strategies designed to optimize existing modes of travel and existing infrastructure were examined to determine their ability to address existing and future problems and opportunities. These measures, referred to as Group 1 Alternatives, include improving existing rail, roadway, transit, marine and/or air services and implementing policies to manage travel demand (i.e., TDM).

Incremental improvements to provide new or expanded non-road infrastructure are considered under Group 2 Alternatives, building upon the benefits of feasible Group 1 measures. If the combination of these two groups of alternatives cannot address the problems in the Study Area, Group 3 and Group 4 Alternatives are considered which include widening or improving existing roads, or providing new transportation corridors.

A two-step process was used to develop and assess the Group 3 and Group 4 Alternatives. The two steps include:

- Step 1- develop reasonable combination alternatives to address problems and opportunities within the Study Area
- Step 2 – assess combinations to identify advantages and disadvantages of each

A list of reasonable alternative transportation solutions for the Study Area was developed and subjected to a preliminary screening process on the basis of the effectiveness of each to address the identified problems and/or opportunities in the Study Area. Alternative solutions that were found to have the potential to address the identified problems/opportunities were then carried forward for further assessment using a higher level of detail and a range of criteria to identify potential environmental, community and economic impacts and benefits.

The initial screening concluded that no individual alternative is able to fully address all of the identified problems and opportunities; however those alternatives that were proven to be able to substantively contribute to addressing the problems and opportunities were carried forward in combination alternatives to the second step of the process.

4.1 Assessment of Alternative Solutions

The alternative solutions were initially assessed based on the following factors and criteria to determine their ability to address the problems and opportunities in the Study Area:

- ability to meet local and/or regional travel demands
- ability to meet seasonal travel demands
- travel time and delay
- capacity
- safety
- mobility
- impacts to surrounding roadways

The new Simcoe and Grey County subarea transportation demand model helped the study team compare each alternative's advantages and disadvantages with respect to the expected impact on future 2031 traffic conditions within the Study Area. The following sub-sections summarize the results of the assessment of the performance of the Group alternatives 1 through 4.

4.1.1 Group 1: Optimize Existing Networks

As part of this alternative, the following improvements to the existing multi-modal network were considered to address the anticipated travel demands in the Study Area and optimize the performance of the existing network:

- *Carpooling* - increase support for commuters in the Study Area to carpool through the development of carpool lots, HOV lanes, etc.
- *Transportation Demand Management (TDM)* - encourage the use of active transportation modes (for short trips); peak spreading and an increase in working from home.
- *Optimization of Existing Roadways* - improve local intersections and implement access management strategies and/or policies
- *Inter-Modal and/or Rail* - improve infrastructure to reduce truck travel demands
- *Air/Marine* - increase use of air and/or marine travel modes

Carpooling has the potential to reduce auto travel demand by encouraging auto drivers to travel together in groups with other motorists (typically co-workers) thereby decreasing the total number of auto vehicle trips. By considering the potential change in base auto occupancy from 1.11 persons/vehicle (ppv) to 1.17 ppv, a 4% reduction in peak hour auto demand for work trips could be achieved within the Study Area. In order to achieve these levels of reduction, however, increased carpooling would need to be supported through investments in carpool parking lots, HOV lanes, etc.

Increased support for local Transportation Demand Management (TDM) measures was also considered as a potential means to reduce auto travel demand. Increased telecommuting / working at home can potentially lead to a 1% overall reduction in work trips within the Highway 26 Study Area. In addition, the promotion of increased usage of active transportation modes (i.e., walking and cycling) for short trips less than 5 km in length can potentially increase the existing work trip modal share within the Highway 26 Study Area from 9.7% to 12% and discretionary trip modal share from 1.2% to 3%.

In addition to managing the demand for peak period travel, minor intersection improvements, such as those shown in Figure 42 were also tested through the use of the VISSIM microsimulation model.

Figure 43: Tested Operational Improvements to Highway 26 Intersections

The VISSIM analysis revealed that these minor intersection improvements were only able to provide modest improvements to the performance of intersections along the Highway 26 corridor. More specifically, summer PM peak travel times over the approximate 50 km stretch of Highway 26 from Thornbury to Sunnidale Corners were found to improve by about 2% in the westbound direction and 10% in the eastbound direction. However, even with these improvements, travel times and congestion on Highway 26 were still significantly worse than the existing Base Case condition, with severe congestion occurring in downtown Collingwood (most intersections experience a LOS of E or worse even with the improvements). As a result, it was concluded that minor intersection improvements will not sufficiently address future capacity and operational issues on Highway 26.

The potential for using improved inter-modal/rail infrastructure to reduce truck traffic was also considered but it was determined that these improvements had limited applicability in the local context due to the modest levels of long distance trucking demand on Highway 26. Similarly, it was determined that there was limited applicability for increased usage of air and marine based travel modes.

In conclusion, the Group 1 Alternatives cannot address the future transportation problems in the Study Area, as standalone alternatives. However, many of these initiatives may work well in combination with other alternatives.

4.1.2 Group 2: New/Expanded Non-Road Infrastructure

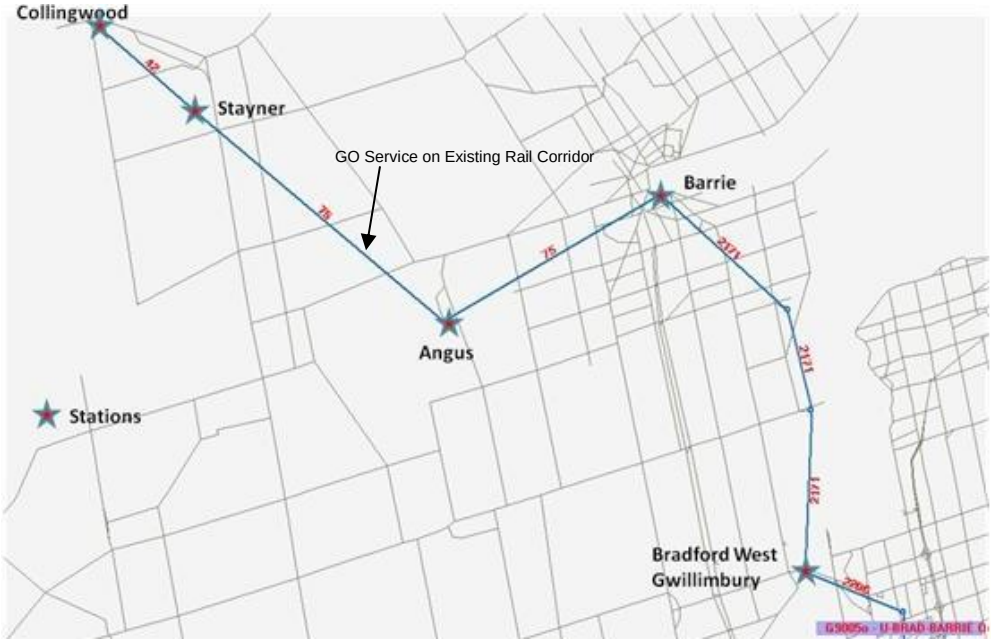
The following opportunities were identified to reduce the existing road network deficiencies through the implementation of new/expanded non-road infrastructure:

- *New Inter-Regional Transit Service* - provide new bus and/or train services between the Study Area and Barrie and/or the Greater Toronto Area
- *Improve Local/Regional Transit Services* - expand local and regional transit service from Collingwood to serve Wasaga Beach, Stayner and the Town of The Blue Mountains.
- *Active Transportation Infrastructure* – In addition to new trails and bike lanes within local municipalities, opportunities may exist to provide paved shoulders or provide other infrastructure on major roadways to provide improved safety and accessibility for cyclists, particularly in high tourist / recreation areas.

Travel within the Georgian Triangle Region is currently very auto oriented. There are limited existing public transportation options and an opportunity exists to encourage more non-auto trips in the local area through investments in new inter-regional and local transit services.

The GGH model was used to test the potential ridership if a new inter-regional transit service was provided to connect the Georgian Triangle Area to Barrie and the GTA by extending the existing Barrie GO Transit rail line to Collingwood. A schematic representation of the new transit service in the GGH model is shown in **Figure 44**.

Figure 44: Forecast 3-Hour PM Peak Period Ridership for GO Transit Extension to Collingwood



The estimated ridership on a new inter-regional transit line was low at about 150-200 per day or 75 riders in the PM peak period. As a result of these modest ridership levels, peak period bus based service is likely the only regular inter-regional transit service that could be reasonably supported by 2031. This level of ridership represents about 3% of long distance work trips from the Highway 26 Study Area to Barrie and the GTA. An additional 1% of long-distance GTA based summer recreational trips could also potentially be attracted to the inter-regional transit service assuming the implementation of supporting local transit connections to the surrounding communities of Wasaga Beach, Town of The Blue Mountains, etc.

The potential impact of improved local transit service within the region was also considered. The Simcoe County TMP recommended consideration for expanding the local bus service in Collingwood to provide services to the adjacent communities of Wasaga Beach and Stayner. Based on experience with similar studies and knowledge of the local context, implementing improved local transit by expanding existing bus transit services can potentially increase the transit modal share for work trips from 0% to 2% and for discretionary trips from 0.4% to 2%. Neither of these Group 2 Alternatives will result in enough of a reduction in auto demand to address future capacity problems on their own.

The Simcoe County Transportation Master Plan identified the need to support local walking and cycling infrastructure and to develop standards to allow for cycling / trail infrastructure on County Roads. The Ministry of Transportation, recently released a Draft Cycling Strategy for consultation on November 30, 2012 that identified a number of measures that are being proposed to promote cycling and improve safety for all road users.

Three of the key directions outlined in the Draft Strategy include the development of province-wide cycling route network to connect to existing local routes; working with municipalities and tourism organizations to update the Ontario Traffic Manual, Book 18: Bicycle Facilities; and the development of a Bikeways Design Manual for bike facilities on provincial highways. These initiatives will identify where and how cycling infrastructure should be planned and designed to promote safety for all users on the provincial highway network. Changes to the Highway Traffic Act may also be required to legalize the use of paved shoulders by cyclists.

Overall, the Group 1 & 2 alternatives in combination were found to have a marginal impact on the levels of auto trip making and do not result in any noticeable change to the future network capacity and operational deficiency forecasts identified in the Base Case for 2031.

The implementation of these Group 1 and Group 2 measures could be expected to reduce the vehicle-km travelled in the Study Area by 2% and the vehicle hours of delay by 5%. Despite their limited effect, the Group 1 and Group 2 measures are comparatively cost effective and these alternatives

are thus carried forward in combination with potential Group 3 & 4 alternatives, which consider improvements to existing roadway facilities and new roadway corridors.

4.1.3 Group 3 Widen / Improve Roads

Based on the description of Group 3 improvements, three road widening/improvement alternatives were developed. Alternative 3-1, assumes widening of the existing Highway 26 to 4 lanes from west of Thornbury to east of Stayner. Alternative 3-2 includes the widening of portions of Highway 26 combined with local road improvements to bypass the downtowns of Collingwood, Stayner and Thornbury. Alternative 3-3 is similar to Alternative 3-2, but includes improvements to Grey Road 19 and Grey Road 2 to form a local road bypass of the Blue Mountain resort area.

Prior to undertaking a full comparative evaluation of the alternatives, each of the alternatives was modelled using the new Simcoe Subarea model to determine how well they address the key capacity problems in the Study Area. The Group 3 alternatives are discussed in more detail, below.

4.1.3.1 Alternative 3-1

Alternative 3-1 would involve the widening of existing Highway 26 throughout most of the Study Area, while tying into the recently completed new Highway 26 alignment between the Town of Collingwood and Wasaga Beach. Intersection improvements at Highway 26/First Street and at Highway 26/Pretty River Parkway are also included as part of these proposed improvements. In addition, dual left and right turn lanes could be provided along Highway 26, at First Street and at High Street.

Figure 45 presents a schematic overview of the roadway improvements associated with Alternative 3-1. **Figure 46** illustrates the change in 2031 PM peak traffic volumes on the Study Area road network compared to the Base Case conditions.

From **Figure 46** it is evident that the widening of Highway 26 attracts additional traffic to the roadway from parallel roads that were previously used as detour routes (particularly between Collingwood and Stayner). As a result, the vehicle-kilometres-travelled (VKT) through the Stayner, Collingwood and Thornbury downtown areas increase by 103%, 6%, and 22%, respectively.

These traffic volume increases are significant and can be expected to compound existing intersection related delays in these urbanized downtown areas. Highway 26, to the east of Collingwood, also becomes congested and approaches capacity where Highway 26 New rejoins existing Highway 26.

Even with the planned widening to 5 lanes, (4 lanes plus centre turning lane), this segment is expected to approach capacity during peak periods (volume-capacity ratio of 0.92) by 2031.

Figure 45: Alternative 3-1 "Widen Existing Highway 26"

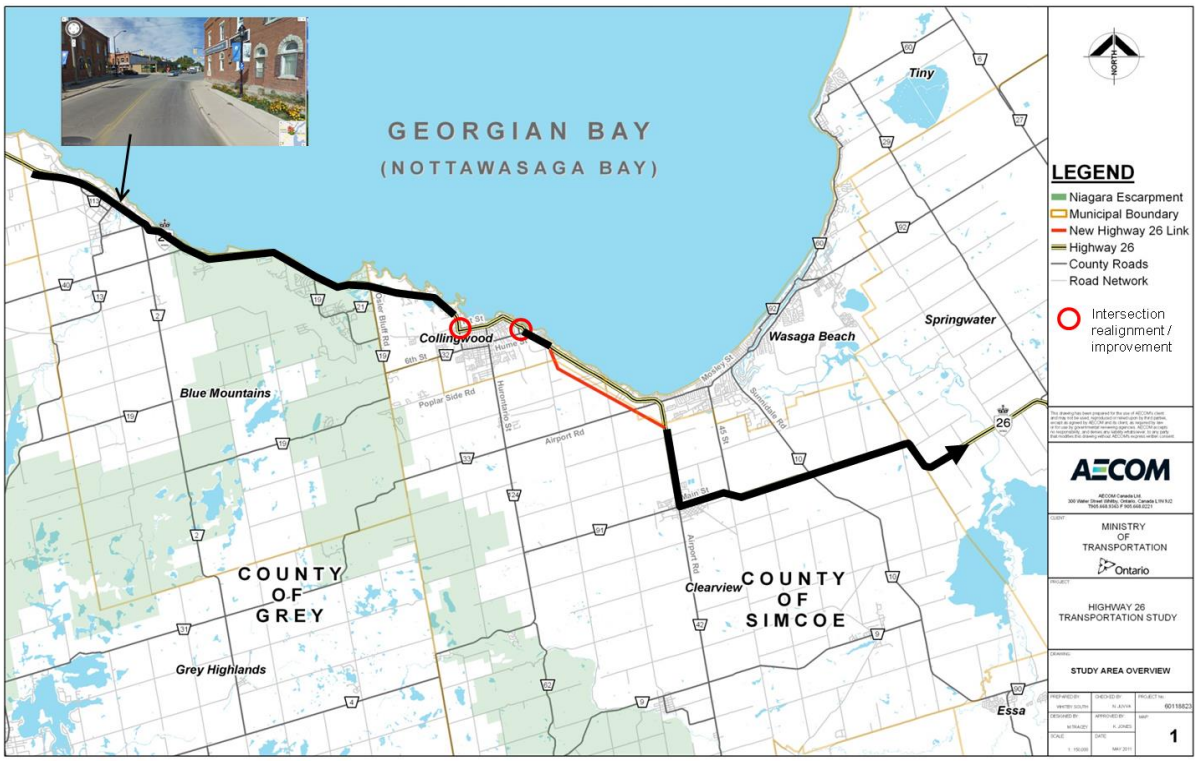


Figure 46: Alternative 3-1 Change in Modelled 2031 Summer PM Peak Traffic Volumes (Alternative 3-1 vs. 2031 Base Case)

4.1.3.2 Alternative 3-2

Alternative 3-2 would involve the widening of portions of the existing Highway 26 corridor, and the recently completed Highway 26 New realignment between the Collingwood and Wasaga Beach communities. Intersection improvements at Highway 26/First Street and Highway 26/Pretty River Parkway could also be included as part of these proposed improvements.

Improvements to segments of the existing local and/or regional road network would also be completed to develop these roadways up to provincial roadway standards and redirect through traffic around the communities of Stayner, Collingwood and Thornbury. In the Stayner Area, the local road improvements include upgrades to the existing County Road 7 and Nottawasaga Sideroad 27/28. Improvements to the existing Poplar Side Road, Osler Bluff Road/Grey Road 21 and Grey Road 19 would be completed to act as a bypass of Collingwood, and improvements to Grey Road 33 and West Street would be completed to bypass Thornbury.

Figure 47 and **Figure** 48 present a schematic overview of the roadway improvements associated with Alternative 3-2 and the modeled change in 2031 PM peak traffic volumes (versus 2031 Base Case).

From **Figure 48** it is evident that the newly widened bypass routes around Collingwood and Stayner (i.e., Poplar Side Road and CR-19) are well utilized. Highway 26 and these bypass routes attract additional traffic from parallel roadways (in the vicinity of Collingwood and Stayner in particular). As a result of the improved bypass routes, VKT through downtown Collingwood and Stayner decrease by 13% and 1% respectively. However, VKT through downtown Thornbury still increases by 2%, which indicates that the improved local bypass roadways around Thornbury are not attractive enough to redirect through traffic away from Highway 26.

In comparison with the previous alternative, conditions on roadways within downtown Collingwood improve appreciably due to the significant reduction in traffic. The section of Highway 26 New between Wasaga Beach and Collingwood becomes slightly more congested than in the previous alternative with PM peak direction volumes approaching 1700 veh/hr, or 80% of capacity. Highway 26, between Poplar Side Road and Pretty River Parkway, becomes appreciably less congested than in Alternative 3-1 due to the new local road bypass options around Collingwood.

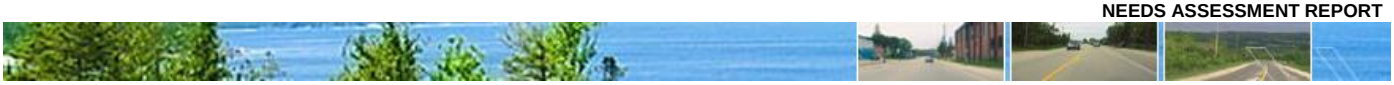


Figure 47: Alternative 3-2 "Widen Highway 26 & Improve Local Roads"

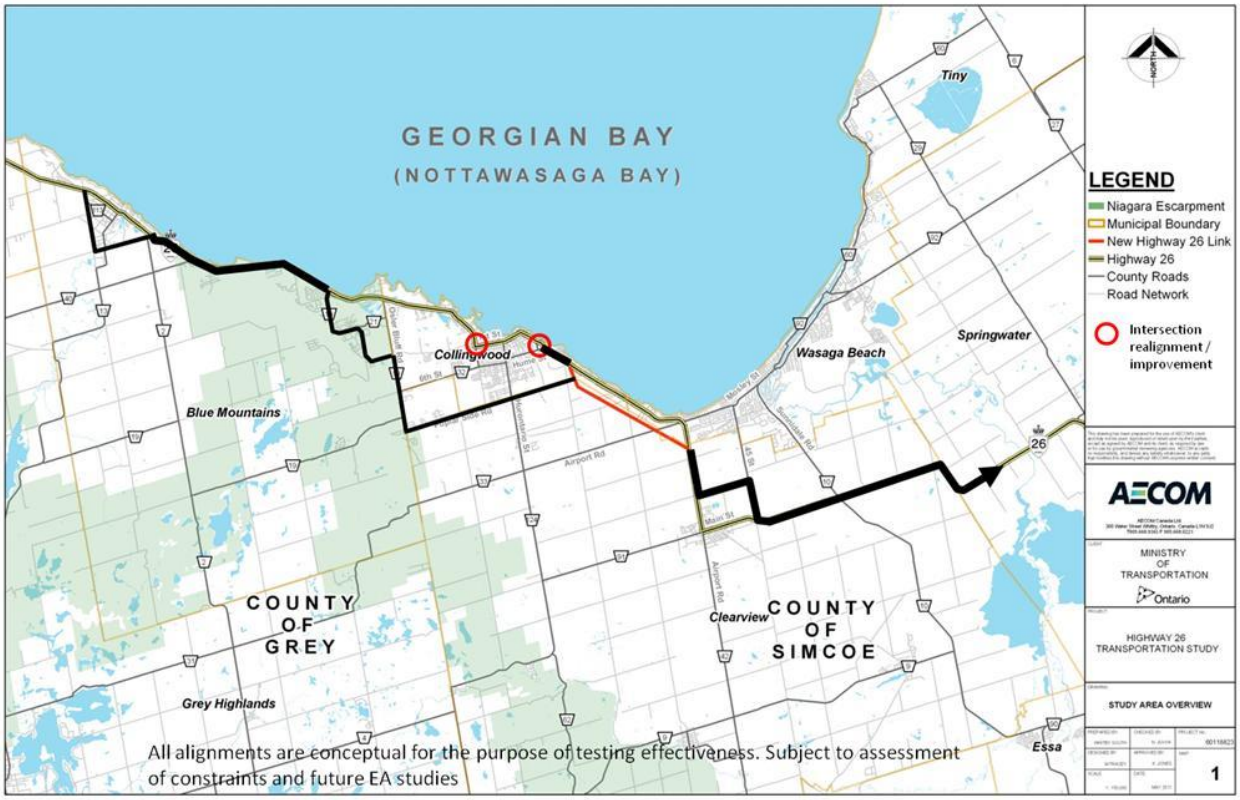
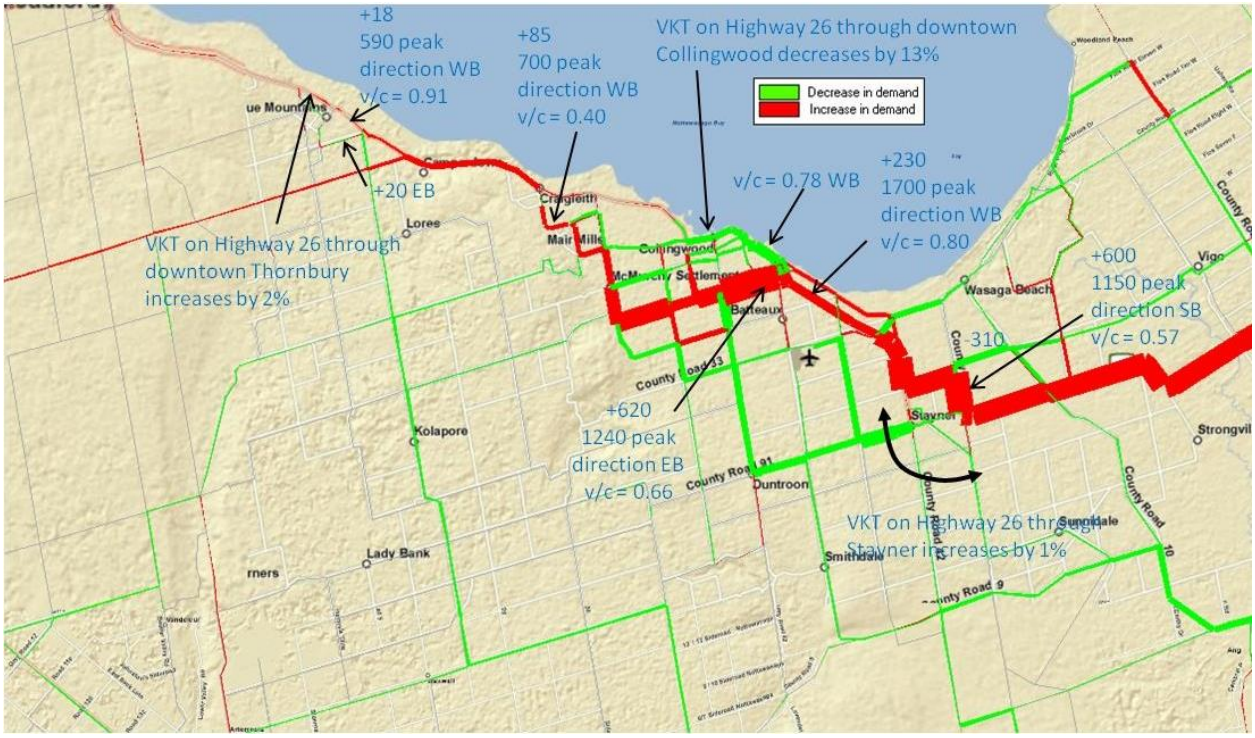


Figure 48: Alternative 3-2 Change in Modelled 2031 Summer PM Peak Traffic Volumes (Alternative 3-2 vs. 2031 Base Case)



4.1.3.3 Alternative 3-3

Alternative 3-3 includes improvements to the existing Poplar Side Road and Grey Road 19 and Grey Road 2 would be developed to create a bypass of Collingwood, the Village at Blue Mountains, and Craigleith. The balance of the improvements are similar to those indicated for Alternative 3-2, from Poplar Side Road easterly and for Grey Road 33 and West Street to direct traffic around Thornbury.

Figure 49 and **50** present a schematic overview of the roadway improvements associated with Alternative 3-3 and the modeled change in 2031 PM peak hour traffic volumes (versus 2031 Base Case).

Similar to Alternative 3-2, **Figure 50** shows that the local road bypass route around Stayner is well utilized and attracts traffic from Highway 26 through the downtown area, and from other roadways. The VKT through Stayner is reduced by 3% compared to base conditions.

The widening of Poplar Side Road also attracts a significant volume of traffic from parallel roads leading into Collingwood and, as a result, the VKT on Highway 26 through downtown Collingwood is reduced by 14%, compared to base conditions.

To the west of Collingwood, the widening of Grey Road 19 does not attract a significant amount of traffic from Highway 26 and, as a result, the two lane section between Craigleith and Thornbury is forecast to operate between 80% and 87% of peak period capacity.

Volumes through downtown Thornbury remain unchanged from the 2031 Base Case, which is a slight improvement over the other Group 3 alternatives. The newly improved local road bypass introduced by this alternative (i.e., Grey Road 19 and Grey Road 2) requires a more significant diversion from the Highway 26 mainline and is south and west of the growing resort areas of the Town of The Blue Mountains and does not serve the travel to/from this recreational area.

Figure 49: Alternative 3-3 "Widen Highway 26 & Improve Local Roads"

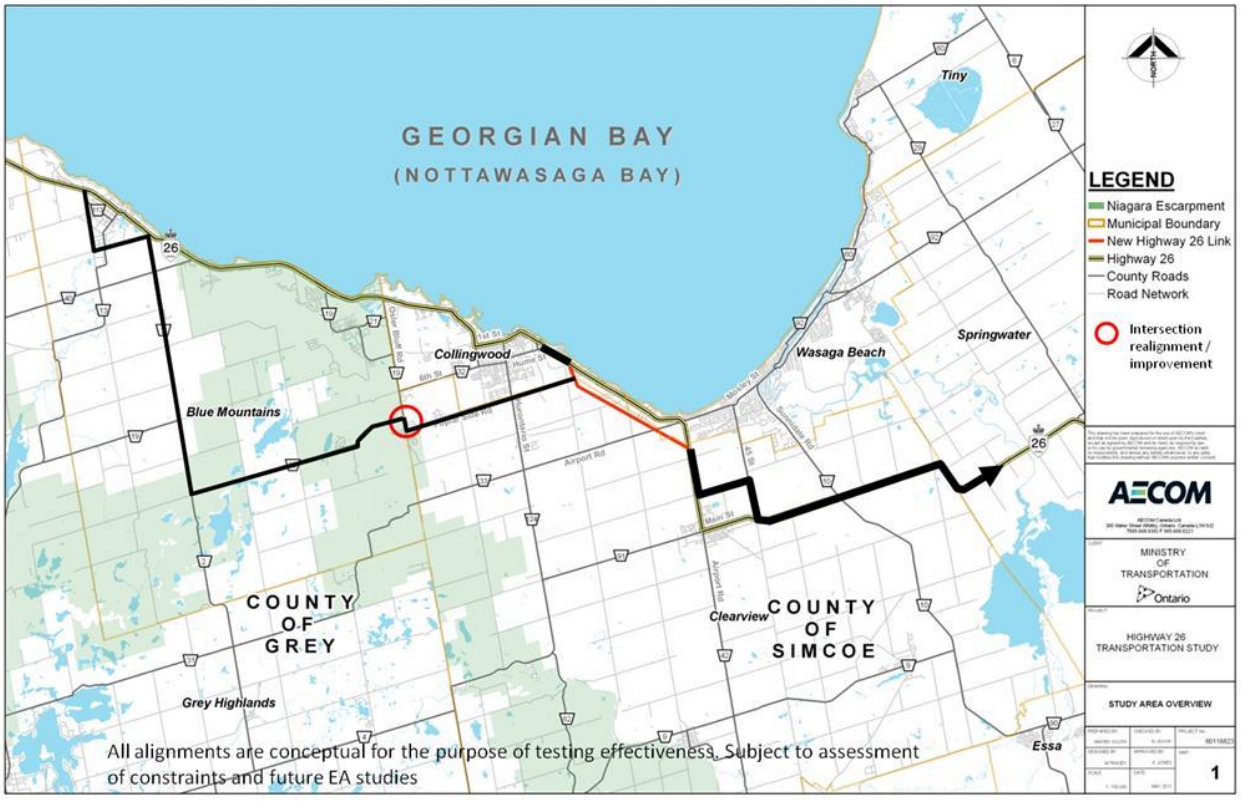
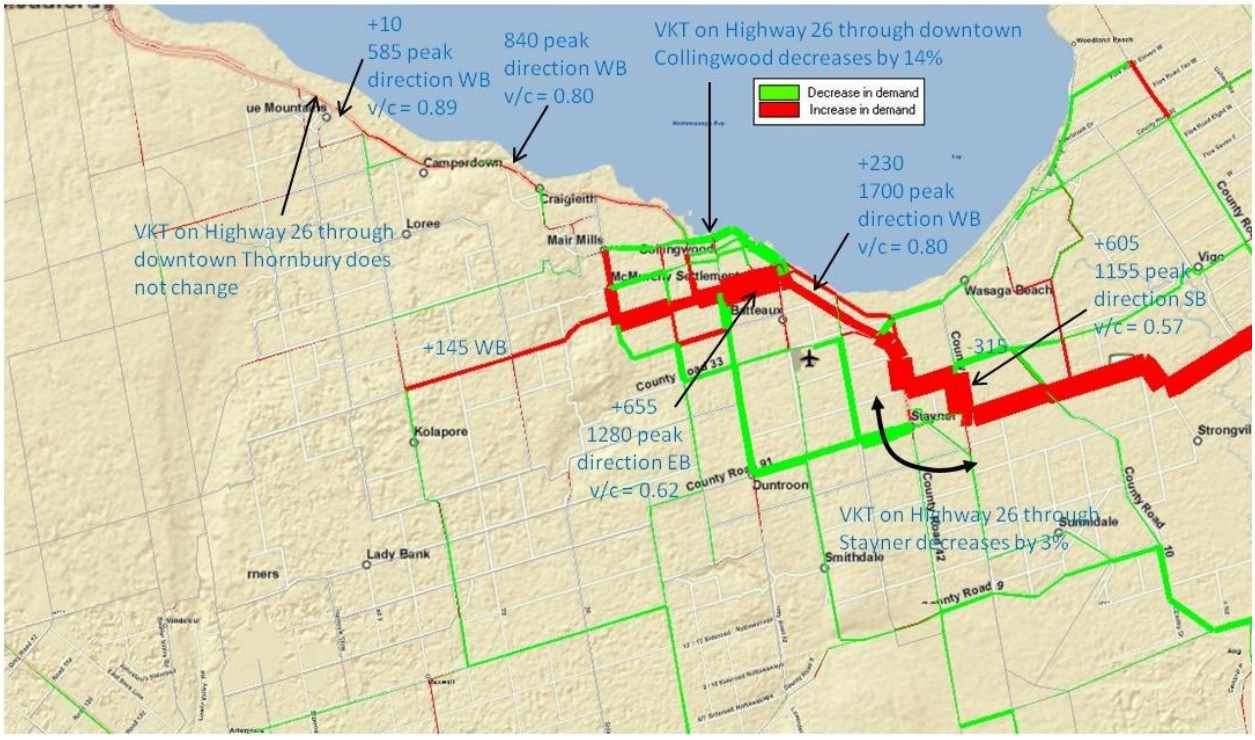


Figure 50: Alternative 3-3 Change in Modelled 2031 Summer PM Peak Traffic Volumes (Alternative 3-2 vs. 2031 Base Case)



4.1.4 Group 4 New Transportation Corridors

The Group 4 Alternatives make use of a combination of widened/improved roadway corridors and new provincial highway corridors to address future travel demands.

Alternative 4-1 includes a new provincial highway facility developed to bypass the communities of Collingwood and Thornbury, as well as a northerly bypass of Stayner. A sub alternative featuring a bypass to the south of Stayner (Alternative 4-1B) was also tested. Alternative 4-2 provides a new Highway 26 corridor from immediately east of Collingwood westerly to immediately west of Thornbury. The bypass of Stayner is the same as Alternative 4-1.

Prior to undertaking a full comparative evaluation of the alternatives, each of the alternatives was modelled using the new Simcoe Subarea model to determine how well they address the key capacity problems in the Study Area. The Group 4 alternatives are discussed in more detail below.

4.1.4.1 Alternative 4-1

Alternative 4-1 provides a new provincial highway facility developed to bypass the communities of Collingwood and Thornbury, as well as a northerly bypass of Stayner. In addition, this alternative consists of the widening of the existing Highway 26 corridor to the east of Stayner, easterly to Sunnidale, and between Collingwood and Thornbury.

Figures 51 and **52** present a schematic overview of the roadway improvements associated with Alternative 4-1 and the modeled change in 2031 peak hour traffic volumes versus the Base Case 2031 forecast.

Figure 52 shows that the new localized highway bypasses around Collingwood, Stayner, and Thornbury are well utilized. Highway 26 and these bypass routes attract additional traffic from parallel roadways that were previously used as informal detour routes for through traffic, and from Highway 26 itself.

The highway bypass north of Stayner attracts between 1250-1370 veh/hr and provides significant relief to traffic on parallel municipal roads in Clearview Township and through Wasaga Beach, as well as Highway 26 through the downtown Stayner area. As a result, total VKT through Stayner is 4% lower than the 2031 Base Case Scenario.

Highway 26 New, between Wasaga Beach and Collingwood is forecast to be approaching 90% of peak hour capacity by 2031 due to the additional traffic diverted from local roads in the Study Area.

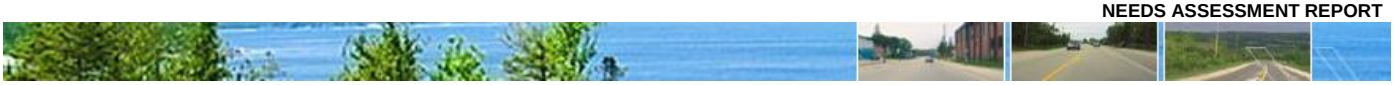


Figure 51: Alternative 4-1 "Widen Highway 26 & Highway Bypass"

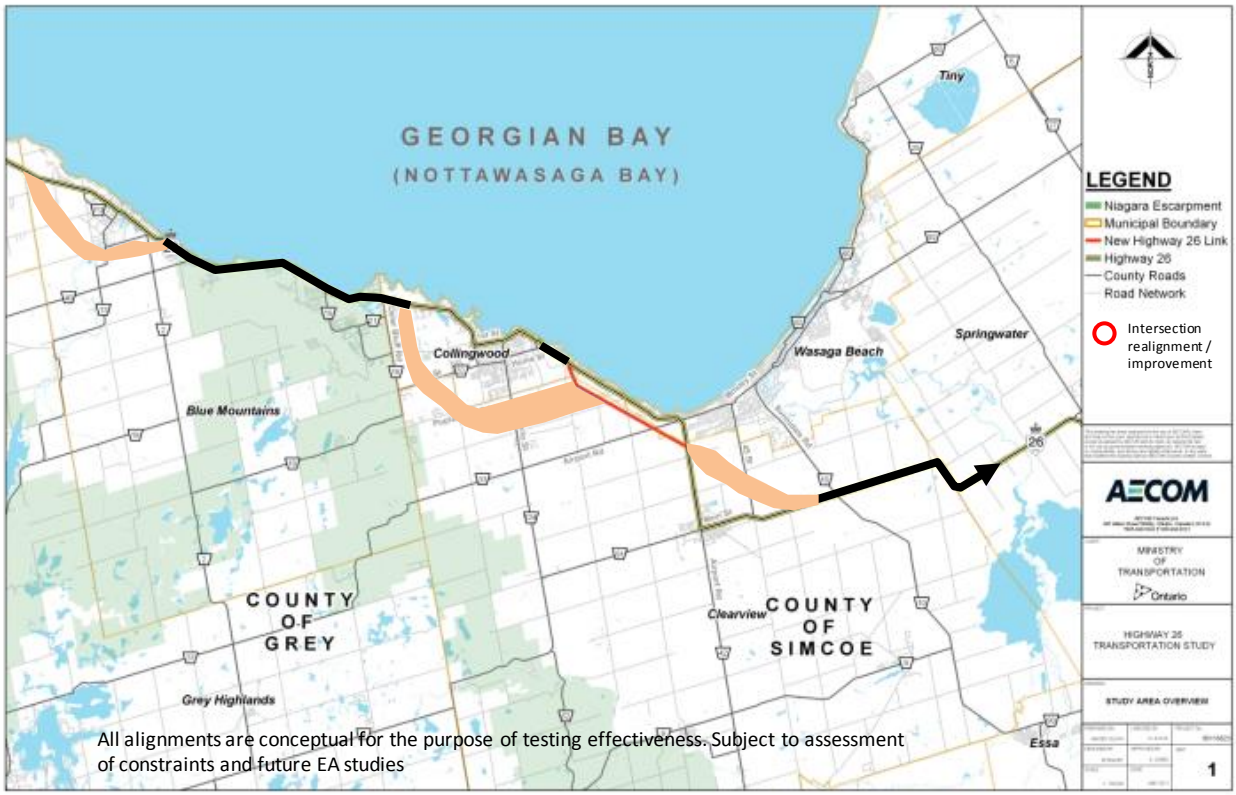
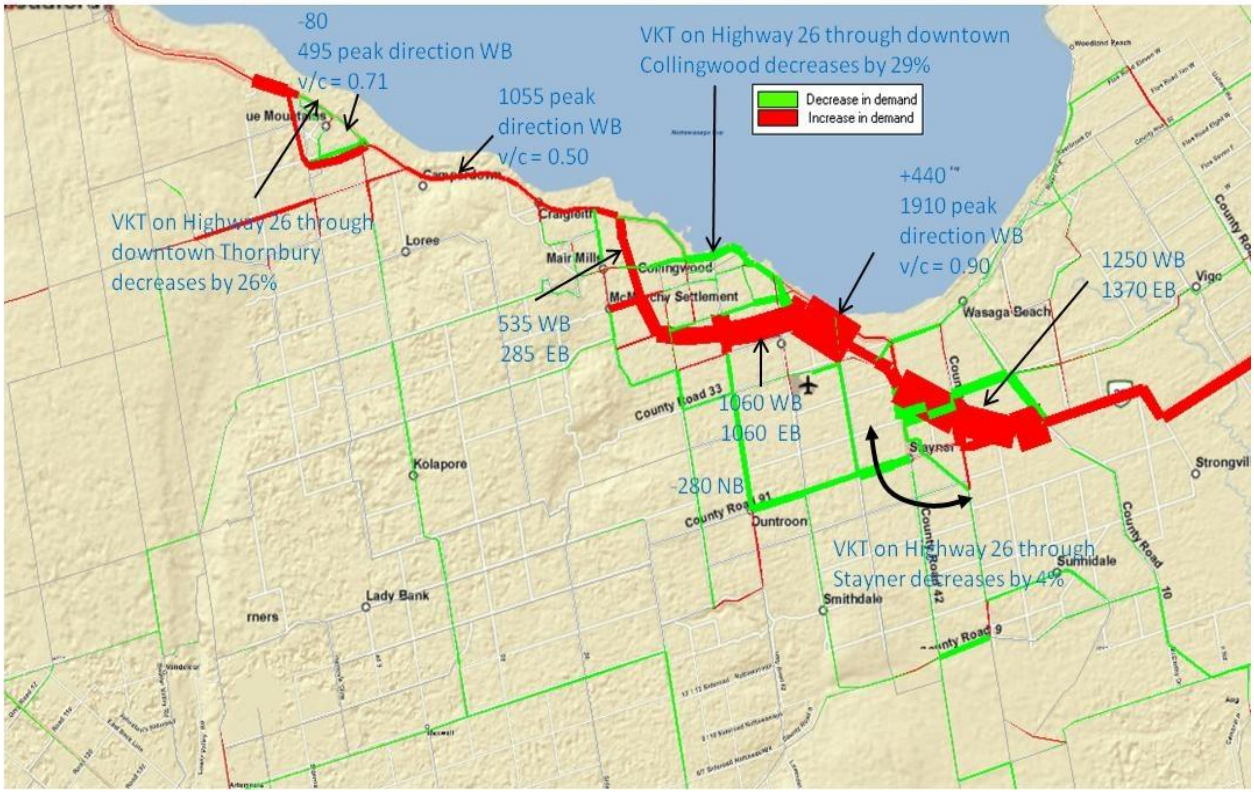


Figure 52: Alternative 4-1 Change in Modelled 2031 Summer PM Peak Traffic Volumes (Alternative 4-1 vs. 2031 Base Case)



The highway bypass around Collingwood is also well used, with volumes just over 1000 veh/hr during the 2031 PM peak. As a result, the VKT on Highway 26 through downtown Collingwood is reduced by 29% compared to base conditions. In addition, other east-west municipal roads in Collingwood (i.e., Poplar Side Road, Hume Street, and Sixth Street) also have reduced traffic volumes.

The widening of Highway 26 between Craigleith and Thornbury will accommodate peak hour flows with only 50% of available capacity being used. Finally, the highway bypass of Thornbury, with higher operating speeds than the local roads, attracts sufficient demand to provide capacity relief to Highway 26 through the downtown area. As a result, VKT is reduced by 26% compared to the Base Case Scenario.

4.1.4.2 Alternative 4-1A

Alternative 4-1A is essentially the same as Alternative 4-1, with a more southerly alignment for the bypass of Collingwood, to the south of Airport Road. As a result, this alternative does not make use of the recently constructed Highway 26 New corridor.

Figures 53 and **54** resent a schematic overview of the roadway improvements associated with Alternative 4-1A and the modeled change in 2031 traffic volumes versus the Base Case 2031 forecast.

As with the previous alternative, **Figure 54** illustrates the heavy use of the new highway bypass around Stayner. As a result, the total VKT through downtown Stayner decreases by 6% compared to base conditions.

Approaching Collingwood, the alignment to the south of Airport Road still attracts significant traffic (estimated at close to 1,000 veh/hr) and, as a result, this alternative relieves pressure on Highway 26 New and the original section of Highway 26 between Wasaga Beach and Collingwood, and allows these routes to better serve local and regional travel demands. The total VKT through downtown Collingwood is reduced by 31% compared to the Base Case Scenario. The widening of Highway 26, between Craigleith and Thornbury, and the new highway bypass to the south of Thornbury provide similar benefits as noted for Alternative 4-1.

Figure 53: Alternative 4-1A "Widen Highway 26 & Highway Bypasses (South of Airport Road)"

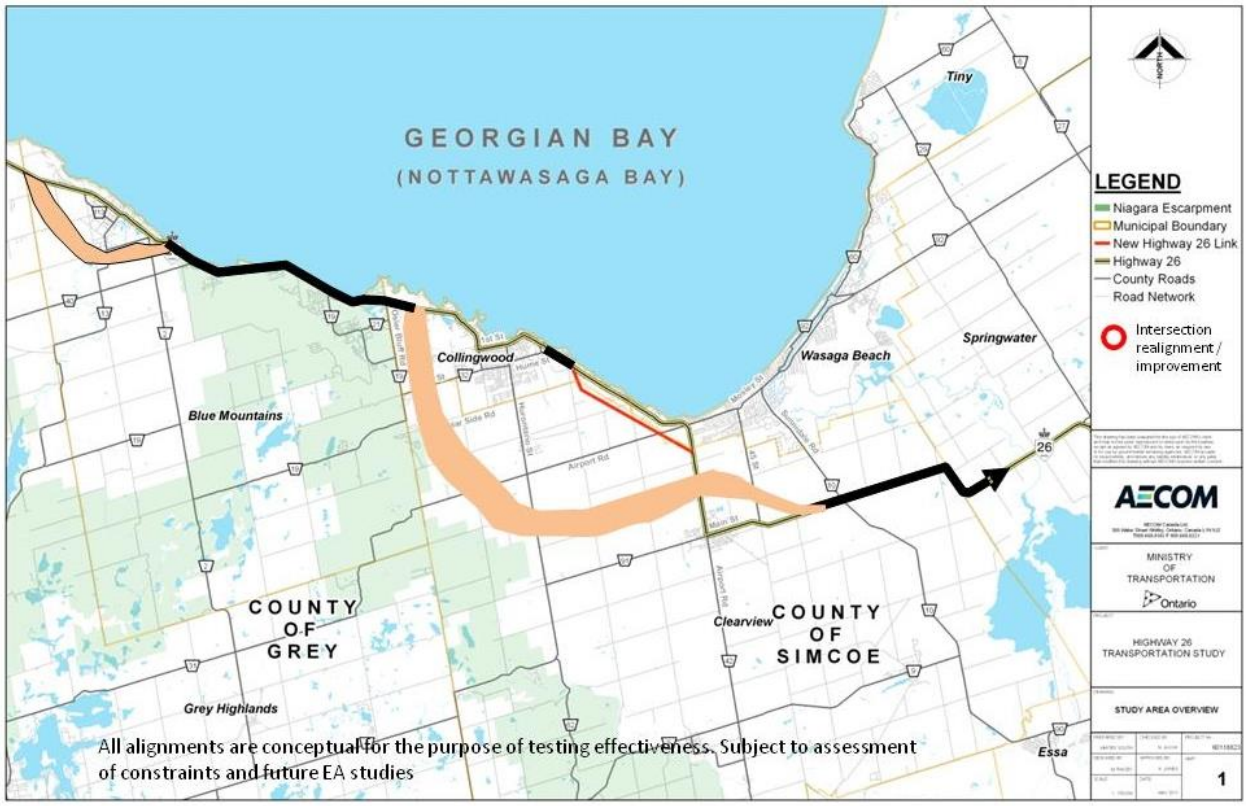
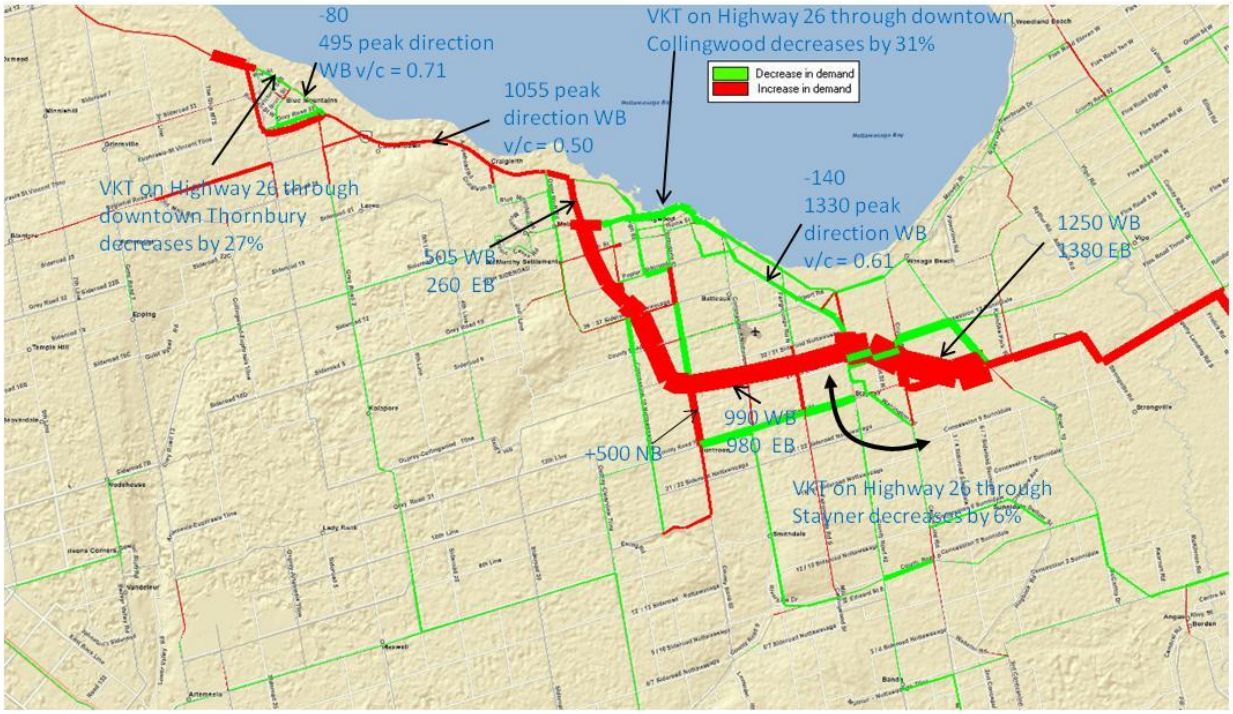


Figure 54: Alternative 4-1A Change in Modelled 2031 Summer PM Peak Traffic Volumes (Alternative 4-1A vs. 2031 Base Case)



4.1.4.3 Alternative 4-1B

Alternative 4-1B - A new provincial highway facility developed to bypass the communities of Collingwood and Thornbury, as well as a southerly bypass of Stayner. In addition, this alternative consists of the widening of the existing Highway 26 corridor to the east of Stayner, and between Collingwood and Thornbury.

Figures 55 and **56** present a schematic overview of the roadway improvements associated with Alternative 4-1B and the modeled change in 2031 peak hour traffic volumes versus the Base Case 2031 forecast.

In many ways, Alternative 4-1B provides similar transportation benefits to Alternative 4-1A, as the primary difference is the bypass route in the vicinity of Stayner. The bypass to the south of Stayner attracts slightly higher traffic volumes than the route to the north since it intercepts traffic on north-south municipal roads, such as CR 42 (Airport Road), before they reach Stayner. As a result, the VKT through Stayner is about 11% lower than Base Case conditions.

Slightly higher volumes are also attracted to this route between Stayner and Collingwood, providing similar benefits in terms of reduced traffic on Highway 26 New and through downtown Collingwood. As a result, VKT through downtown Collingwood is reduced by 33% compared to Base Case conditions. Between Collingwood and Thornbury, this alternative essentially performs the same as Alternative 4-1A.

Figure 55: Alternative 4-1B "Widen Highway 26 & Highway Bypasses (South of Stayner)

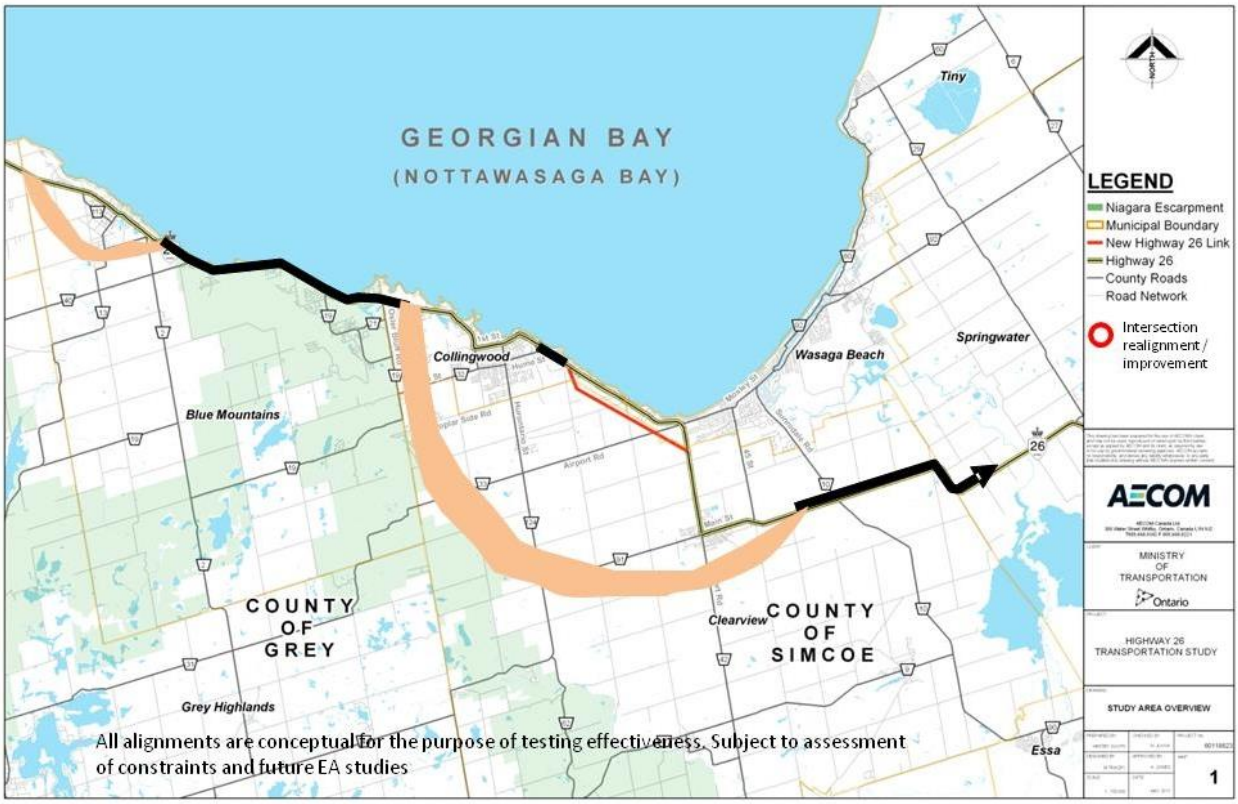
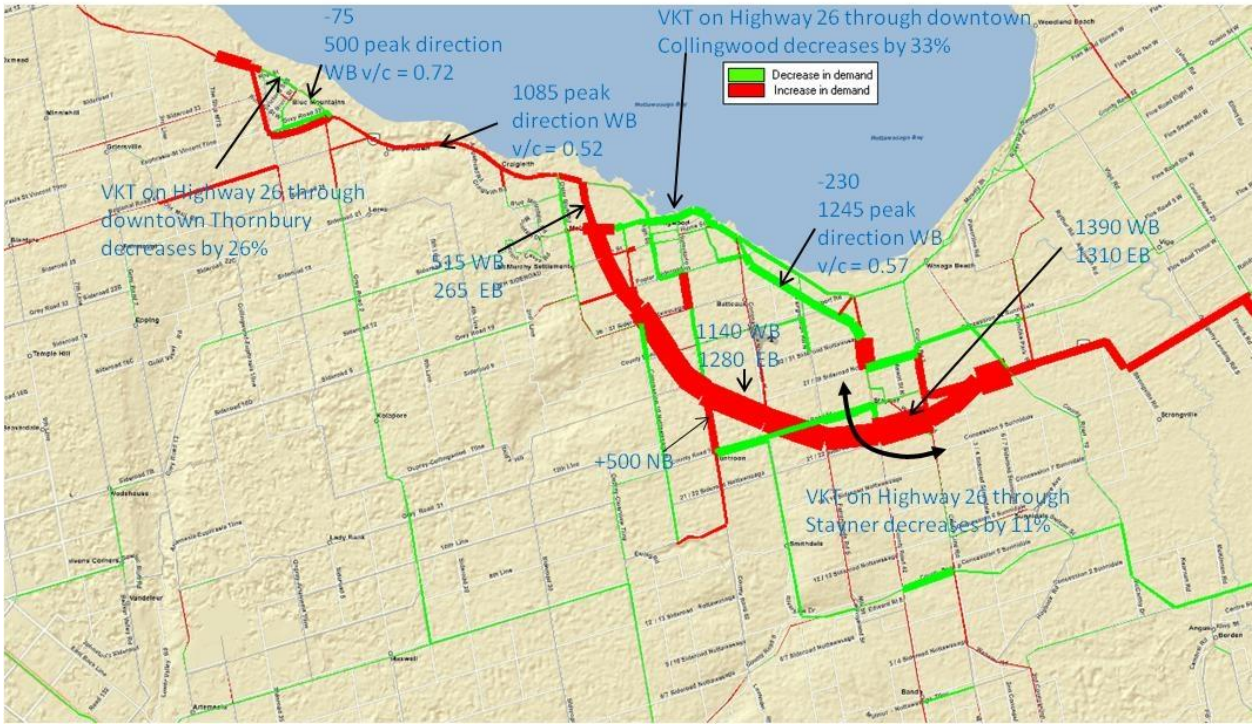


Figure 56: Alternative 4-1B Change in Modelled 2031 Summer PM Peak Traffic Volumes (Alternative 4-1B vs. 2031 Base Case)



4.1.4.4 Alternative 4-2

Alternative 4-2 provides a new Highway 26 corridor constructed from immediately east of Collingwood westerly to immediately west of Thornbury. This alternative provides a bypass of Collingwood, Craigleith and the Blue Mountain resort area, along with Thornbury, but would require a new crossing of the Niagara Escarpment.

Figures 57 and **58** present a schematic overview of the roadway improvements associated with Alternative 4-2 and the modeled change in 2031 peak hour traffic volumes versus the Base Case 2031 forecast.

From **Figure 58**, it is evident that the new highway corridor is moderately used between Collingwood and Thornbury and well utilized between Collingwood and locations to the east. The new corridor attracts traffic from parallel roads that were formerly used as bypasses between Stayner and Collingwood. As a result of the new corridor, VKT through downtown Collingwood and Stayner decrease by 33% and 2%, respectively. These results are very similar to the results obtained for Alternative 4-1.

This alternative leads to higher traffic volumes on the Highway 26 New corridor, between Collingwood and Wasaga Beach (in comparison to Alternatives 4-1A and 4-1B), causing this facility to operate at 92% of capacity during the PM peak in 2031.

To the west of Collingwood, the new highway corridor across the escarpment attracts between 450-650 veh/hr, with half diverting from Highway 26 and half being diverted from other local roads. The modest reduction in traffic on the existing section of Highway 26 sufficiently relieves the capacity deficiency through the Town of The Blue Mountains to avoid the need for widening. This alternative provides the greatest reduction in traffic through downtown Thornbury, resulting in a 53% reduction compared to Base Case conditions.

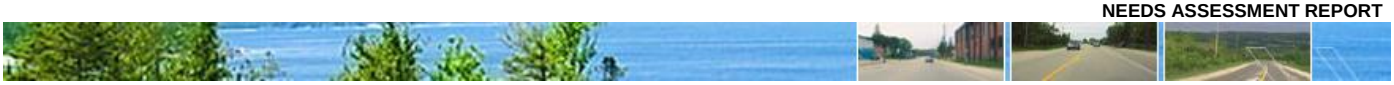
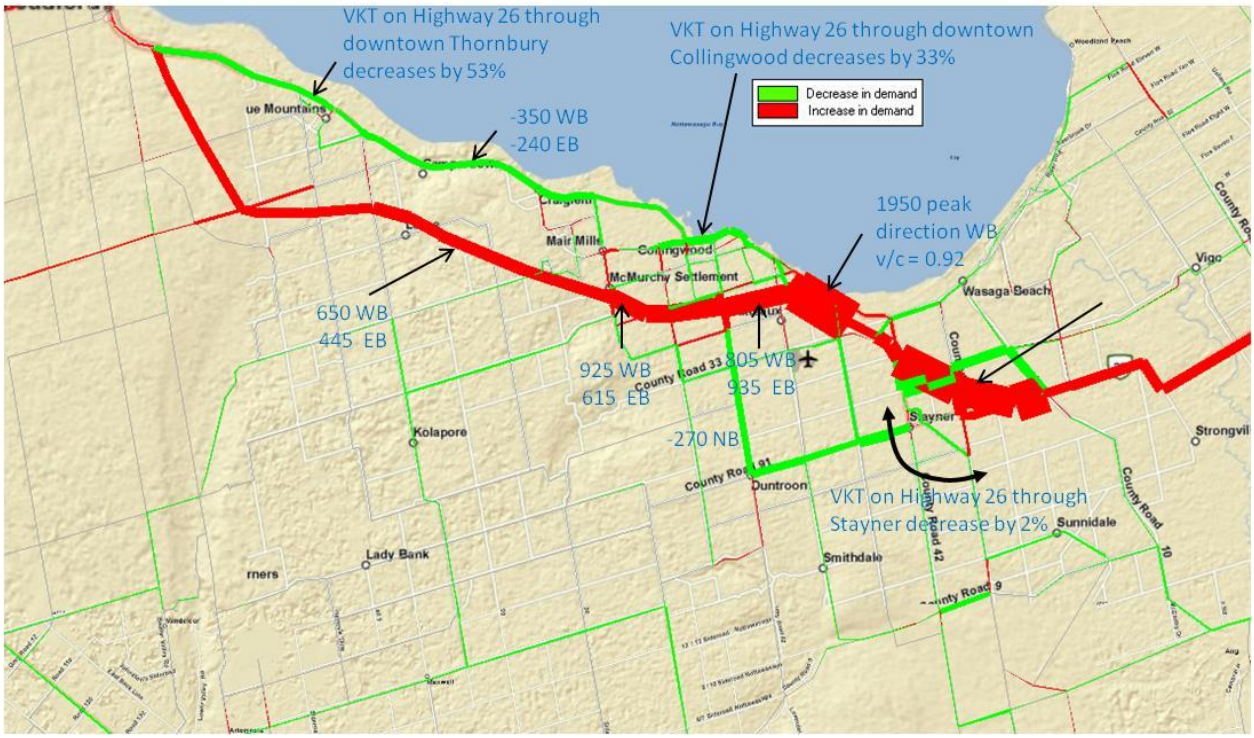


Figure 57: Alternative 4-2 "New Highway 26 Corridor"

Figure 58: Alternative 4-2 Change in Modelled 2031 Summer PM Peak Traffic Volumes (Alternative 4-2 vs. 2031 Base Case)



4.2 Summary of Modeling Results

The initial transportation assessment of alternatives focused on the performance of each alternative in terms of addressing future travel demands in the Study Area. The assessment considered the ability of each alternative to reduce future volumes through the downtown areas within Thornbury, Collingwood and Stayner, as these areas were found to be operating at/over capacity in the 2031 Base Case Scenario. Increased congestion is not consistent with the planning objectives for these downtown areas within the respective municipal Official Plans.

The assessment also considered quantitative measures of total vehicle delay and system wide vehicle-kilometres-traveled (VKT) which are two important factors that link to transportation user benefits that would be expected for each alternative.

Table 4-1 summarizes the reduction in VKT for each of the Group 3 and Group 4 alternatives. The Group 1 and 2 alternatives, which included TDM, enhanced Transit, and localized traffic signal improvements were found to reduce travel demand and delays to a small degree, however, significant congestion will continue to occur (particularly in downtown Collingwood) during peak periods. As a result, these alternatives do not significantly reduce traffic through the downtown areas.

The Group 4 new corridor alternatives all result in significant reductions in downtown traffic, particularly in Collingwood and Thornbury, where peak hour VKT is reduced by 25% or more. Alternative 4-2 provides the largest reduction in traffic in Thornbury, reducing peak period VKT by up to 53%. Despite lower reductions in Stayner, the Group 4 alternatives also perform better than the local road improvements and widening featured in Group 3. The alignment to the south of Stayner yields the highest reduction in VKT through the downtown area; approximately 11% lower than base case conditions.

The Group 3 alternatives do not generally perform as well. Widening Highway 26 alone (Alternative 3-1) results in a significant increase in traffic through the downtown areas, although this can be reduced to some degree through improvements to local roads, as tested in Alternative 3-2 and 3-3.

Table 4-2 compares the Group 1, 2, 3, and 4 alternatives to each other and the 2031 Base Case with respect to system VKT and total system-wide vehicle hours of delay during the 2031 summer PM peak.

Table 4-1: Alternative Summary: Reduction in Downtown Travel

Alternative	Reduction in Downtown Travel (VKT) Thornbury	Collingwood	Stayner
3-1	+22%	+6%	+103%
3-2	+2%	-13%	+1%
3-3	n/c	-14%	-3%
4-1	-26%	-29%	-4%
4-1A (south of Airport Rd.)	-27%	-31%	-6%
4-1B (south of Stayner)	-26%	-33%	-11%
4-2	-53%	-33%	-2%

Table 4-2: Alternative Summary: Summer Peak Hour Travel and Delay

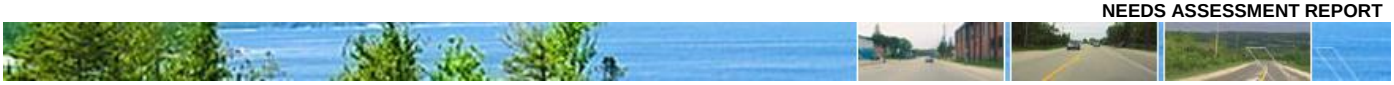
Alternative	System VKT	Compare to Base	veh-hours delay	Compare to Base	Compare to Previous
2031 Base	451,892		1,288		
Group 1 &2	444,024	-1.7%	1,217	-6%	-6%
3-1	445,790	-1.4%	847	-34%	-30%
3-2	446,675	-1.2%	811	-37%	-4%
3-3	446,619	-1.2%	885	-31%	9%
4-1	441,402	-2.3%	755	-41%	-15%
4-1 A (south of Airport Rd.)	447,125	-1.1%	597	-54%	-21%
4-1B (south of Stayner)	448,592	-0.7%	532	-59%	-11%
4-2	445,234	-1.5%	765	-41%	44%

The new corridor alternatives (Group 4) result in the lowest vehicle-hours of delay, with these alternatives reducing delays by 41% to 59% compared to the 2031 Base Case. Alternatives 4-1A and 4-1B, which feature a more southern alignment to bypass Stayner and Collingwood, result in the lowest peak hour delays but also result in higher VKT levels than Alternative 4-1, due to the fact that these alignments create a faster but slightly less direct path between the communities of Collingwood and Stayner.

Other key findings of the assessment of the alternatives are summarized below:

- Widening Highway 26 through the Town of The Blue Mountains (Alternative 3-1) will increase traffic VKT through downtown Thornbury by up to 22%. There is limited space to widen the highway through the village, and impacts to buildings in the downtown would be significant.
    - These increases can be mitigated to some degree by improving local roads to bypass the downtown (Alternative 3-2, 2% increase), although this needs to be a high order arterial to attract traffic from Highway 26.
    - A provincial highway bypass (Group 4 alternatives) would further relieve traffic through Thornbury by 26-53%.

- Widening Highway 26 (Alternative 3-1) will increase traffic through Collingwood by up to 6%, further aggravating forecasted congestion at key intersections in the 2031 Base Case.
    - Upgrading or widening local roads (e.g. Poplar Side Road and Grey Road 19) can reduce traffic through downtown Collingwood by 13-14%.
    - Upgrading Grey Road 19 across the Escarpment was found to have limited benefit as a bypass.
    - A new provincial highway bypass (Group 4 Alternatives) can reduce traffic through downtown more significantly. All four bypass alternatives result in a similar reduction in downtown traffic through Collingwood (29-33%).
    - Alternatives that make use of the New Highway 26 corridor between Wasaga Beach and Collingwood (Alternatives 3-1, 3-2, 3-3, 4-1, and 4-2) to connect to new bypass routes around Collingwood and Stayner will cause this corridor to approach capacity during peak periods by 2031.
- A new highway corridor across the Escarpment would not be very well utilized and is only forecast to carry about 600 veh/hr in the peak direction.
    - Through traffic within Thornbury is significantly reduced (-53%) with the new corridor but similar benefits (-26%) may be obtained with a more limited highway bypass.
    - There is no additional benefit in terms of vehicle delay compared to the other alternatives and only a modest reduction in VKT.
- Widening Highway 26 will increase traffic VKT very significantly through Stayner by up 103% further aggravating congestion at key intersections.
    - Upgrading / widening local roads (Simcoe CR 7) can reduce traffic through downtown by only 3%.
    - A new provincial highway bypass can reduce traffic through downtown by 2-11%.
- To the east of the Study Area, Highway 26 will require widening to 4 lanes. This widening may need to extend all the way to County Road 27; however this should be confirmed as part of the Simcoe Area Transportation Strategy.



5. Evaluation of the Alternatives

In total, seven alternative solutions were carried forward to the more detailed comparative evaluation process, including:

1. Do Nothing
2. Alternative 3-1
3. Alternative 3-2
4. Alternative 3-3
5. Alternative 4-1A
6. Alternative 4-1B
7. Alternative 4-2

The Do Nothing Alternative does not address the transportation needs in the Study Area and therefore it does not address the problem statement identified in Section 3.5. It has been included with the evaluation process to provide a benchmark to assess the advantages and disadvantages of the other alternatives.

The assessment of the alternatives utilized both qualitative and quantitative techniques to describe the potential impacts and benefits of each alternative across a series of evaluation factors and criteria. Data to support the assessment was derived from the following sources:

- Secondary source information and mapping of significant or sensitive environmental features (as described in Section 3.3);
- Government legislation, policies and guidelines (as discussed in Section 3.1.1 and 3.1.2);
- Municipal policy from County/Municipal Official Plans (as discussed in Section 3.1.3)
- Transportation model outputs; and
- Study team expertise and judgement.

5.1 Methodology Used for the Evaluation of the Alternative Corridor Solutions

5.1.1 Reasoned Argument Assessment

The study team utilized a ‘reasoned argument” method of evaluation to select a preferred alternative. The reasoned argument method highlights the differences in net effects associated with the various alternatives. Based on these differences, the advantages and disadvantages of each alternative are identified according to the assessment of tradeoffs between the various evaluation factors and criteria. The relative significance of potential impacts or benefits is examined to provide a clear rationale for the selection of a preferred alternative over all others. The reasoned argument method compares each alternative to others in each criterion and provides an overall assessment of each alternative for each factor group.

5.1.2 Factors and Criteria

A series of evaluation factors and criteria were used to assess the alternatives which were grouped into the following five categories (consistent with requirements of the MTO Class EA process):

- Natural Environment;
- Socio-Economic Environment;
- Cultural Environment;
- Transportation; and
- Engineering.

A brief discussion highlighting key considerations and the specific factors used in the evaluation process is provided below:

Natural Environment

Natural Heritage features are key elements that are recognized throughout the Study Area. Transportation alternatives that minimize impacts to the natural environment are preferred, where possible. A detailed desktop review of the natural environment was completed by the study team to understand the potential impacts of each alternative and the potential to mitigate impacts, where necessary. Current Species at Risk (SAR), terrestrial and aquatic habitats, designated areas and water features were identified based on available secondary source data provided by the Ministry of Natural Resources, as well as information provided by local and/or regional municipalities and conservation authorities.

Specific Natural Environment factors used in the evaluation process include:

- Fish and Fish Habitat;
- Terrestrial Ecosystems;
- Groundwater;
- Surface Water; and
- Designated Natural Areas

Socio-Economic Environment

The alternatives were assessed based on their compatibility with federal, provincial, regional and local municipal planning policies, goals and objectives. The ability to contribute to the economic health and prosperity of the South Georgian Bay Region was also considered, recognizing the importance of tourism, agriculture and resources in supporting the local economy. Community impacts and benefits were assessed as a whole and relative to the potential effects on individual property owners and businesses. A Business Assessment Study (see **Appendix F**) was undertaken to establish an understanding of the general characteristics of the local business community, their current dependence on Highway 26 and the relative potential effects and opportunities presented as part of each of the corridor alternatives.

Specific socio-economic factors used in the evaluation process include:

- Land Use Planning Policies, Plans, Goals and Objectives;
- Land Use/Community;
- Agriculture;
- Noise;
- Air Quality;
- Resources; and
- Major Infrastructure and Facilities.

Cultural Environment

Given the rich cultural heritage within the Study Area, the significance of archaeological and heritage resources were considered and identified, where possible. A heritage impact assessment and archaeological assessment were carried out to identify built heritage and cultural heritage landscapes in the Study Area, as well as the potential for the recovery of archaeological resources in association with each of the alternatives. In addition, available online data related to heritage resources and Aboriginal peoples was reviewed and considered as part of the evaluation.

Specific cultural environment factors used in the evaluation process include:

- Built Heritage and Cultural Heritage Landscapes;
- Archaeological Resources; and
- Aboriginal Peoples.

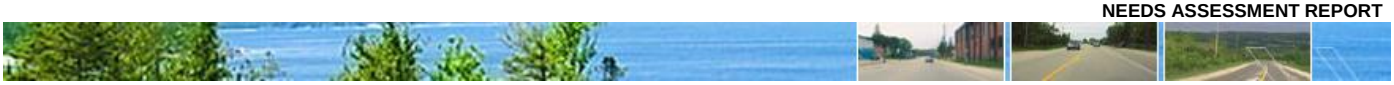
Transportation

The transportation performance of each alternative was assessed to compare how well each addressed the problems and opportunities identified in this study and supported the efficient movement of people and goods. System reliability and redundancy, user safety, and emergency services are also important transportation considerations. Recognizing the significant benefits derived in the community from tourism, the ability to accommodate peak seasonal traffic flows was also considered. Based on these considerations, the specific transportation factors used in the evaluation process included:

- Efficient Movement of People and Goods;
- System Reliability and Redundancy;
- Safety;
- Emergency Services; and
- Recreation and Tourism Travel.

Engineering Considerations

The recommended alternative solution must be cost effective, constructible and have the ability to meet the necessary geometric design standards required for a provincial highway. Alternatives that provide the ability to control access to new and/or improved provincial highways and reduce the number of conflicts with through vehicles are preferred.



For the purposes of the evaluation, a 45 m ROW was assumed for each of the alternative solutions where a new provincial highway was introduced and/or an existing rural highway was widened to 4 lanes. For existing local roadways through developed and planned development areas, a 36 m ROW was assumed. With the exception of new roadways, the existing alignment was assumed to be retained, assuming that widening would be required on both sides of the road. During future Class EA studies, alternative methods of widening may be considered in more detail.

Specific engineering factors used in the evaluation process included:

- Relative Costs (expressed in 2012 dollars);
- Constructability;
- Ability to Control Access; and
- Ability to Achieve Design Standards

5.2 Summary of Evaluation

Alternative 3-1

While consistent with local land use designations, this alternative does not address local and provincial planning goals associated with the most efficient movement of people and goods and/or the intent to preserve cultural (including architectural) heritage resources.

This alternative has the potential to displace the highest number of residences, businesses and community/institutional facilities. Given that the existing Highway 26 corridor traverses the highest number of historic settlement communities, Alternative 3-1 also has the potential to displace the highest number of heritage structures and/or features. It is recognized that there is potential to avoid and/or mitigate impacts in some cases, however the widening of an existing roadway may limit the potential to avoid impacts.

Alternative 3-1 traverses approximately 138 watercourses. While new watercourse crossings are not required, the proposed improvements would require improving or lengthening the existing culverts or structures. Mitigation measures, including potential compensation for impacts, may be required to permit in-water construction activities to accommodate the improvements. Alternative 3-1 is in proximity to the highest number of current Species at Risk areas (6 areas), and widening an existing roadway may limit the ability to avoid impacts in some cases.

Widening the existing Highway 26 corridor is also anticipated to increase traffic in some areas resulting in potential safety implications for vehicles, pedestrians and cyclists due to conflicts with driveways/entrances and through downtown areas. As a result, Alternative 3-1 has not been selected as the recommended alternative.

Alternative 3-2

Similar to Alternative 3-1, Alternative 3-2 traverses approximately 165 watercourses, all of which may require improvements to existing structures or culverts. Alternative 3-2 has the potential to disrupt portions of designated areas including future developments, wooded areas, Locally Significant Wetlands and specialty crop areas. There is potential to avoid and/or mitigate impacts in some cases, however the widening of existing roadways may limit the ability to avoid impacts.

Alternative 3-2 was considered to be inconsistent with some local planning goals and policies. In particular, Alternative 3-2 has the potential to displace approximately 152 ha of CLI 1, 2 or 3 class soils. Given that this alternative involves widening of existing roads there is less ability to avoid these impacts during design..

This alternative has the potential to displace a high number of residential dwellings and businesses. In addition, this alternative may disrupt the existing resort community located in proximity to County Road 19.

The use of the existing Highway 26 corridor and local roadways would also limit the ability to restrict new entrances in some of the improved areas. In addition, the geometry of some portions of the route (i.e., along Grey Road 19) precludes the ability to meet the desired design speed for a provincial highway (i.e., 100 km/hr). This alternative is also expected to introduce conflicts between entrances and non-auto traffic. As a result, Alternative 3-2 has not been selected as the recommended alternative.

Alternative 3-3

Alternative 3-3 traverses approximately 177 watercourses, all of which may require improvements to existing structures or culverts. In addition, this alternative has the potential to disturb portions of designated areas (i.e., Locally Significant Wetlands (LSWs) and Natural Heritage Linkage area). A significant encroachment of approximately 30 ha of the Niagara Escarpment Plan area may be required due to the widening of Grey Road 19 across the Escarpment.

Alternative 3-3 has the potential to displace approximately 194 ha of CLI 1, 2 or 3 class soils and 19 ha of specialty crop areas. Given that this alternative involves widening of existing roads there is less ability to avoid these impacts during design.

Alternative 3-3 is further anticipated to displace several residences, businesses and commercial/institutional facilities. This alternative traverses 4 historic settlement communities and may impact and/or displace structures designated under Part IV of the Ontario Heritage Act.

Alternative 3-3 is further anticipated to increase traffic demands along the existing Highway 26 corridor and on some local roadways. As such, conflicts

between entrances/driveways and non-auto traffic are anticipated. The ability to restrict new entrances may be difficult to implement in the vicinity of planned development areas or along current municipal roads. Improvements in some areas are not anticipated to meet highway design standards, and the current Grey Road 19 escarpment crossing does not meet maximum grade requirement for provincial highways, making it unsuitable for heavy trucks. As a result, Alternative 3-3 has not been selected as the recommended alternative.

Alternative 4-1

Alternative 4-1, 4-1a and 4-1B perform similarly in terms of transportation criteria. All of these alternatives provide for the most efficient movement of local and long distance traffic throughout the Study Area. This group of alternatives is consistent with the Town of Collingwood's intent to direct through-traffic beyond its boundaries and reduce the need to improve local roadways.

This alternative provides the ability to prohibit new entrances along the new bypass routes and develop the new routes in accordance with provincial highway design standards. As such, this alternative best supports transportation system reliability and redundancy by providing an alternate route around urban areas for long distance/local traffic in the event of incidents or winter closures.

While Alternative 4-1 traverses approximately 111-131 watercourses, the majority of these watercourses would require the introduction of new crossings (structures or culverts) to accommodate the proposed improvements. Impacts to water features can be avoided and/or mitigated using standard design techniques.

This alternative also impacts other natural features including up to 2 ha of Provincially Significant Wetlands, 20-22 ha of Locally Significant Wetlands, and 27-48 ha of wooded areas, and may traverse through 2-3 areas noted for the presence of current Species at Risk. Alternative 4-1 has the potential to displace 164-203 ha of CLI 1, 2 or 3 class soils and up to 25 ha of specialty crop areas depending on the route that is considered. However, there is an opportunity to avoid these features through route planning and design. Importantly, this alternative avoids encroachment onto the Niagara Escarpment Plan area.

Alternative 4-1, and the various sub alternatives to it have the potential to displace the lowest number of residential dwellings and businesses as compared to other alternatives, and avoids the highest number of heritage resources, including the bridge designated under Part IV of the Ontario Heritage Act within Clarksburg.

Alternative 4-2

Alternative 4-2 was not selected as the recommended alternative because it is inconsistent with provincial policies related to growth and the Niagara Escarpment Plan. Due the location of the proposed bypass, this alternative has the potential to encouraging growth outside of designated growth centres which would be inconsistent with the provincial Growth Plan policies.

The proximity of the bypass was anticipated to hinder access to some urban and recreational and/or tourist areas and further discourage patron visits to businesses within communities.

Alternative 4-2 traverses 28 ha of the Niagara Escarpment Plan area and would require a significant cut to the Niagara Escarpment face to achieve minimum highway design standards and maximum grades. This alternative further impacts other natural features including 22 ha of Locally Significant Wetlands, up to 59 ha of wooded areas, and 7 ha of special policy areas. It is anticipated that there would be opportunities to avoid or reduce the extent of impacts in association with this alternative through route planning and design.

Alternative 4-2 has the potential to displace approximately 218 ha of CLI 1, 2 or 3 class soils and 33 ha of specialty crop areas however there is an opportunity to avoid these features through route planning and design.

This alternative best supports Collingwood's intent to direct through-traffic beyond its boundaries and reduce the need to improve local roadways. This alternative is also expected to improve transportation system redundancy, however the proposed corridor traverses an area of high snow drift potential and a long grade would be required as part of the introduction of the bypass across the Niagara Escarpment . Lastly, this alternative is anticipated to incur the highest capital construction costs.

Figure 59 provides a summary of the evaluation results for each factor group in graphical format. **Appendix I** presents the detailed assessment of each of the alternatives.

Figure 59: Evaluation Summary

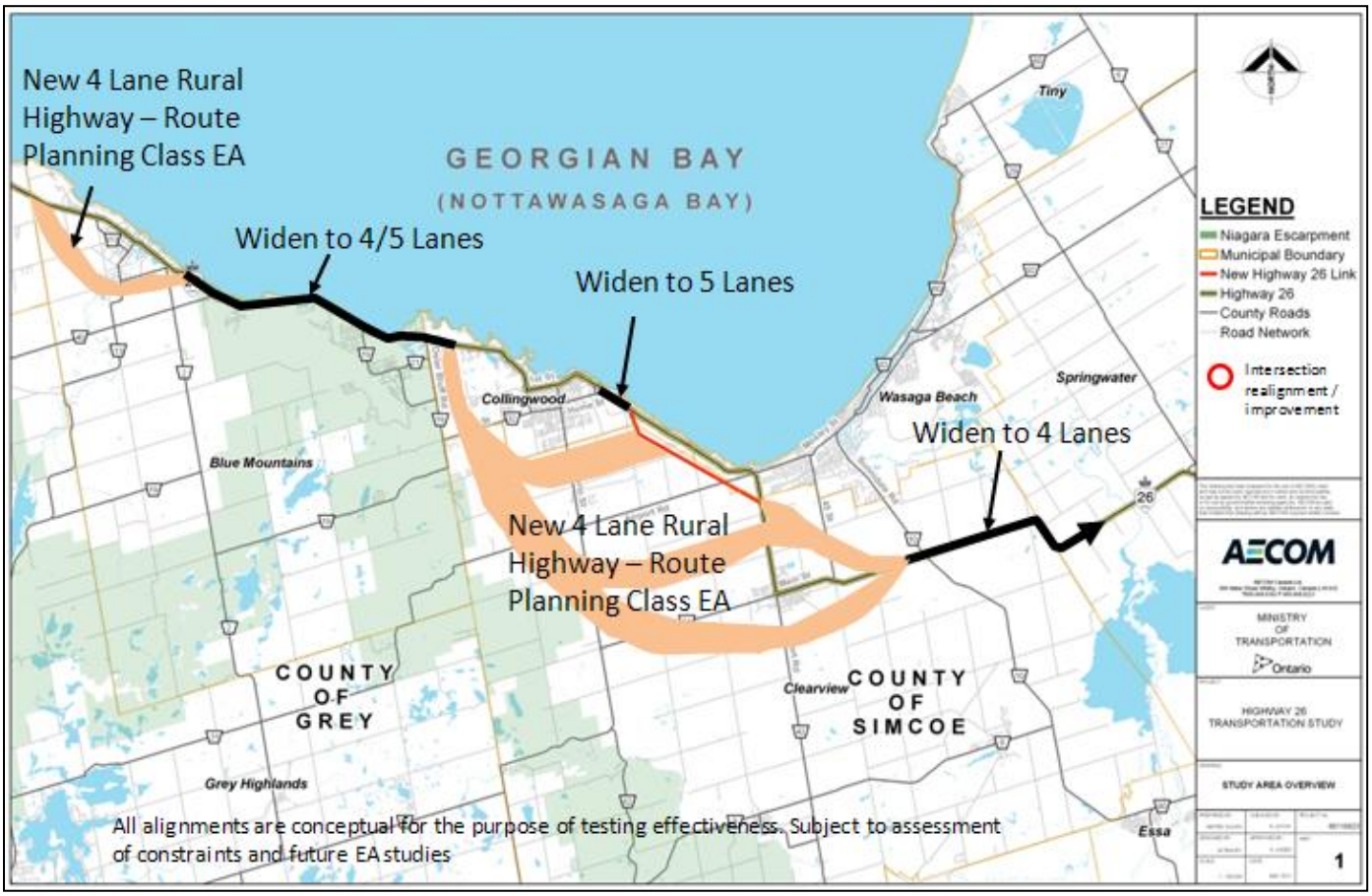
Category	Do Nothing	Alternative 3-1	Alternative 3-2	Alternative 3-3	Alternative 4-1 / 4-1A	Alternative 4-1B	Alternative 4-2
		Widen Highway 26	Widen Highway 26 & Improve Local Roads	Widen Highway 26 & Local Road Bypasses	Widen Highway 26 & Highway Bypasses (North or South of Airport Road)	Widen Highway 26 & Highway Bypasses (South of Stayner)	New Highway 26 Corridor
Natural Environment							
Socio-Economic Environment							
Cultural Environment							
Transportation							
Engineering							
Summary	Does not address the problem						

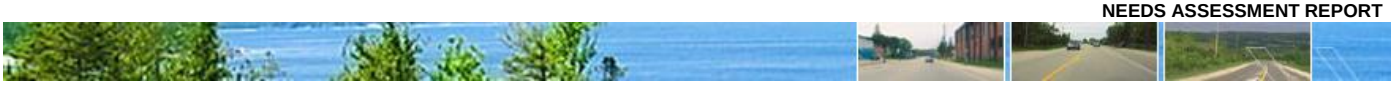
5.3 The Recommended Group 3-4 Alternative

Based on the assessment of the alternative solutions, Alternative 4-1 was selected as the recommended alternative solution. This alternative, illustrated in **Figure 60**, consists of widening portions of the existing Highway 26 corridor and new highway bypasses of Stayner, Collingwood and Thornbury.

Alternatives 4-1A and 4-1 B represent reasonable variations of the recommended alternative with similar impacts and benefits, and should also be carried forward for further study.

Figure 60: Recommended Alternative





6. Conclusions and Recommendations

Section 6 incorporates the final study conclusions and recommendations.

6.1 Transportation Development Strategy

A comprehensive Transportation Development Strategy is the end result of the "building block" alternative analysis approach that was employed in this study. The strategy provides a series of recommended roadway capacity and operational improvements, transit improvements, and transportation demand management measures. Each component has a complementary role in addressing the Study Area's transportation problems and opportunities, while supporting future economic growth and minimizing impacts on the natural environment. Each of the individual components of the transportation development strategy is summarized in the sub-sections below.

6.1.1 Group 1: Optimize Existing Networks

This study has found that carpooling and Transportation Demand Management (TDM) measures can result in modest and cost effective reductions in auto travel demand by encouraging motorists to travel together in groups (typically co-workers) and by increasing telecommuting / working at home and the usage of active transportation modes (i.e. walking and cycling).

It is recommended that carpooling in the Study Area be encouraged through the planning and development of commuter carpool parking lots. As a next step, a study should be undertaken to identify and protect for additional commuter parking lot locations.

Promotion of Transportation Demand Management (TDM) in the Study Area should be encouraged to build upon the existing initiatives that have been implemented by Metrolinx and local municipalities in the Study Area.

Opportunities to implement operational improvements at key Study Area intersections should be explored. In particular, the following key operational intersection improvements are envisioned along Highway 26:

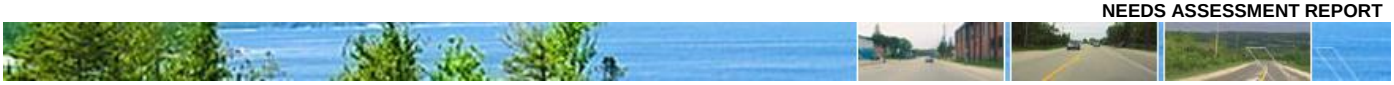
- Hume Street / Pretty River Parkway (Collingwood)
  - Investigate opportunities for dual SB left and dual WB right turn lane or roundabout.
- High Street / First Street (Collingwood)
  - Investigate opportunities to revise the current lane arrangement to provide for dual exclusive SB left turn lanes and dual WB right turn lanes.
- Osler Bluff Road / Grey Road 21 (Blue Mountains)
  - Monitor traffic volumes and signal warrants and implement signals as necessary.

- Investigate opportunities for WB and EB left turn lanes in conjunction with signalization.

- Bruce Street (Thornbury)
  - Investigate opportunities to construct a WB left turn lane.

Figure 61 depicts the location of each of the recommended operational improvements listed above.

Figure 61: Recommended Operational Improvements



6.1.2 Group 2: New/Expanded Non-Road Infrastructure

The Study Area currently has limited public transportation options and this study has demonstrated that there is an opportunity to encourage more non-auto trips through modest investments in new inter-regional and local transit services.

It is recommended that the introduction of GO Bus service between Collingwood and Barrie be studies, to build upon the service that already exists between Barrie and the Greater Toronto Area (GTA). From the preliminary analysis of this study, it is expected that this new GO Bus service would be limited to peak period operations with no more than 1-2 buses in operation, although a midday bus may provide some additional benefit in terms of serving discretionary demands to and from Barrie as well.

Colltrans Bus

It is also recommended that existing local transit services be expanded to better connect Collingwood, Wasaga Beach, Stayner, and the Town of The Blue Mountains. The feasibility of such expansions in service should be studied with the participation of local municipalities and Simcoe County. The Collingwood-Wasaga Beach transit link may represent a natural starting point for expansion.

In addition to serving local needs, expanded local transit in the Study Area can also further support the aforementioned inter-regional GO Bus service between Collingwood and Barrie by providing important connections to other area communities.

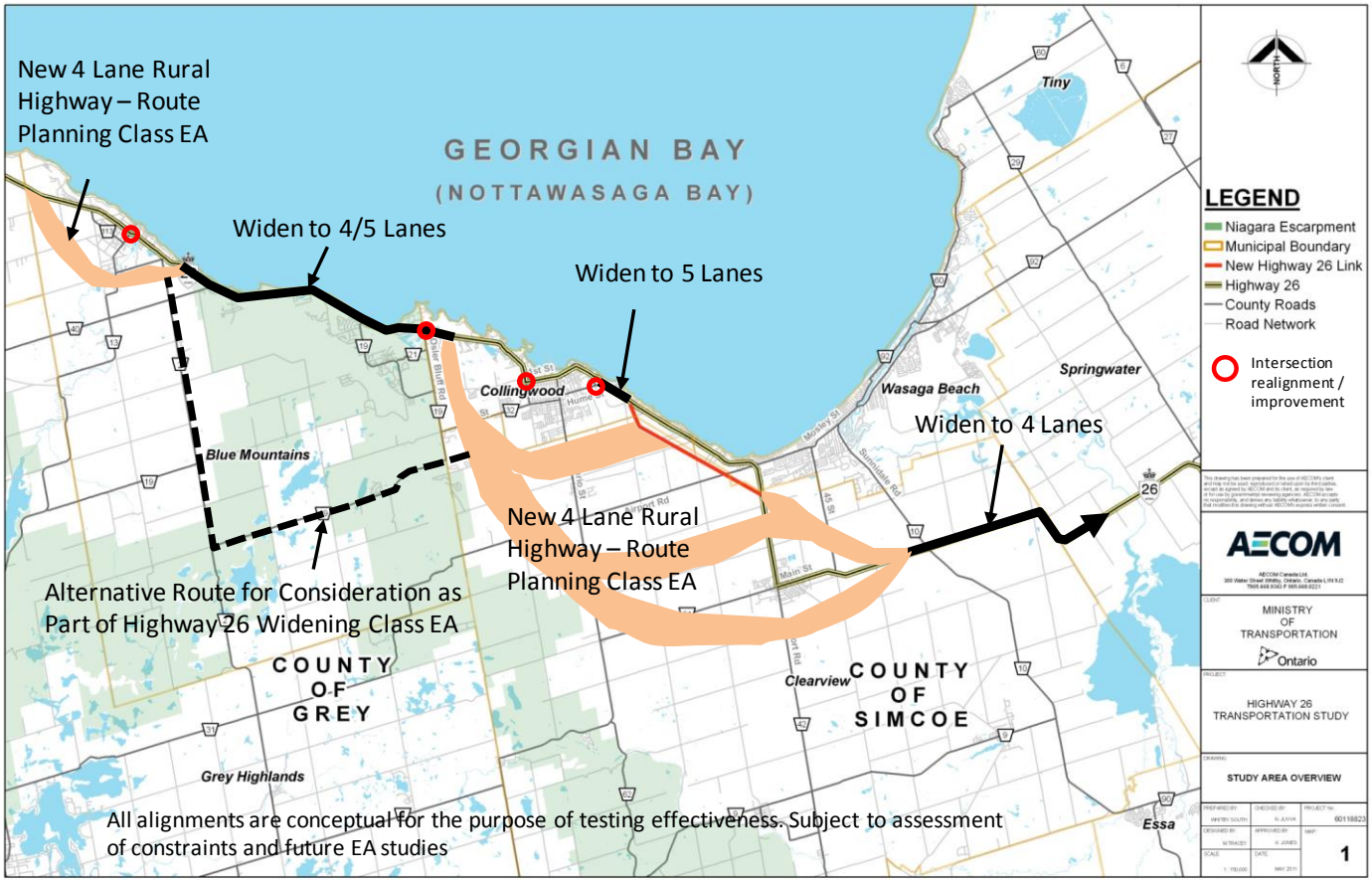
In addition to new trails and bike lanes within local municipalities, the County of Simcoe, Grey County, and MTO[15] should review their current policies and legislation with respect to the provision of and use of paved shoulders on provincial highways / major roadways to provide improved safety and accessibility for cyclists, particularly in high tourist / recreation areas.

6.1.3 Group 3 – 4: Widen/Improve Roadways and New Transportation Corridors

In addition to the Group 1 and 2 initiatives discussed above, this study has determined that new roadway capacity is required in order to serve Study Area travel demands in 2031. The locations of each of the roadway improvements and new transportation corridors recommended by this study are presented in
Figure 62

[15] *MTO may also need to consider changes to the Highway Traffic Act to permit bicycles to ride on paved shoulders*

Figure 62: Recommended Roadway Improvements and New Corridors



Widening Projects

- **Widen Highway 26 to four (4) lanes to the east of Stayner.**
  - The eastern extent of this widening is subject to the results of the broader Simcoe Area Transportation Study that is currently underway. Preliminary results from this study indicate that widening may be required as far as Midhurst (County Road 27) in the east.
  - It is recommended that a Class EA study be initiated for this widening project following the completion of the Simcoe Area Multi-modal Transportation Study.
- **Widen Highway 26 to five (5) lanes between Hume Street / Pretty River Parkway and the western limits of Highway 26 New.**
  - MTO has an approved EA for this improvement and detail design is complete. The timing of construction of this widening project is subject to funding availability.
- **Widen Highway 26 to 4-5 lanes between Thornbury Bypass and the proposed Collingwood Bypass.**
  - It is recommended that a Class EA study be initiated for widening this section of Highway 26 to 4/5 lanes. The limits

for the widening will be dependent on the preferred route for the bypasses at either end of this corridor.

<u>New Bypasses</u>

- **Highway Bypass of Thornbury**
  - It is recommended that a Route Planning Class EA study be initiated for a new four (4) lane rural highway with at-grade intersections and/or roundabouts to provide a bypass of Thornbury.
- **Highway Bypasses of Collingwood and Stayner**
  - It is recommended that a Route Planning Class EA study be initiated for a new four (4) lane rural highway with at-grade intersections and/or roundabouts to provide a new bypass of Stayner and Collingwood.
  - All three of the alternatives tested and examined in this study perform with similar levels of benefits and have similar types of impacts based on this initial stage of evaluation. All three alternatives should be carried forward for more detailed assessment and evaluation as part of the recommended Class EA and Route Planning study.

Additional road improvements on municipal / county roads connecting to the proposed new highway by-passes may also be required for connectivity to the road network, local destinations and tourist activity areas. Specific locations for these improvements will depend on the selection of a recommended route for the provincial highway corridor, and the details would need to be considered during subsequent Class EA studies.

6.2 Implementation of Proposed Improvements

The timing for implementation of each of the recommended roadway improvements presented in the previous section is dependent on when the facility to be widened or the facility that is to be bypassed is forecasted to reach capacity (i.e. volume/capacity ratio of 0.9 or above). Based on the growth in traffic volumes forecasted by the Summer PM peak hour travel demand model, it was determined that all but one of the proposed roadway improvements would be required in the 10-20 year time horizon.

The widening of Highway 26 to five (5) lanes between the west limit of Highway 26 New and the east limit of Collingwood is required in the 0-5 year time horizon. MTO has completed the Class EA for this widening project with the timing of implementation subject to funding availability.

In the 10-20 year horizon, the capacity issues at the Highway 26 intersection with First Street in Collingwood will be one of the first triggers to indicate the need for a Collingwood bypass. The recently completed Collingwood Transportation Study found that the SB left turn movement of this intersection is expected to fail within the 5-10 year horizon. With the construction of dual SB left turn movement, the intersection would continue to operate but will again reach capacity between 2020 and 2031. The 2031 left turn demand is approximately 1,600 vph and the capacity of the dual left configuration is less than 1,000 vph.

In the vicinity of Stayner, on the other hand, Highway 26 is expected to reach capacity beyond 2021. However, improvements to local roads (i.e. County Road 7 and Sideroad 27 & 28 Nottawasaga) together with supporting bypass signage can likely defer the need for the new Stayner bypass corridor until beyond 2025. The remaining recommended roadway improvements, namely, the Thornbury Bypass, Highway 26 widening between Thornbury and Collingwood, and Highway 26 Widening to the East of Stayner, are expected to be required between the midpoint and the end of the 10-20 year horizon.

It also should be stressed that the recommended timing of implementation for each roadway improvement in the 10-20 year time horizon is dependent on the selected alignment for the Collingwood and Stayner bypass.

For example, Alternative 4-1 that connects with the recently opened segment of Highway 26 New lends itself to a phased implementation according to local capacity deficiencies (e.g. the Collingwood bypass leg can be constructed before the Stayner one to coincide with the Highway 26 / First Street intersection reaching capacity). Other routing alternatives may require the entire Collingwood-Stayner bypass being constructed at the same time to provide good network connectivity and avoid interim connections to local roads.

Tables 6-1 and **6-2** summarize the range of estimated costs and assumptions for the proposed roadway improvements, allowing for a separate cost for the north and south alignments of the Stayner-Collingwood Bypass. The estimated costs for the widening and new corridor improvements range from $469 – 565 million excluding property costs. Additional savings could be generated if Alternative 4-1 is selected, due to the use of the newly constructed portion of Highway 26 New which reduces the length of new corridor.

The cost estimates were developed using the Ministry of Transportation's Parametric Cost Estimating Guide (2011), which provides unit costs estimates for various types of projects based on a sampling of historical Ministry contracts. Key assumptions are noted in **Table 6-2**.

This high level cost estimate is suitable for broad budgeting purposes; however more detailed cost estimates would be developed during a subsequent route planning and Class EA study to refine these costs based on the design of the various alternatives being examined and actual field data from the site.

Table 6-1: Range of Cost Estimates

Alternative 4-1A	Quantity	Unit	Unit Cost	Total Cost
Major Widening 2 Lane Rural (45m ROW)	18	km	$ 4.0 M	$ 72.0 M
Major Widening 2 Lane Urban (36m ROW)	6	km	$ 8.0 M	$ 48.0 M
New Construction 4 Lane Divided (45m ROW)	29	km	$ 7.0 M	$ 203.0 M
Large Watercourse Crossing (Structure)	70	each	$0.72 M	$ 50.4 M
Small Watercourse Crossing (Culvert)	35	each	$0.04 M	$ 1.4 M
Subtotal				**$ 374.8 M**
Contingency @ 25%				**$ 94.0 M**
Total (2012$)				**$ 468.8 M**
Alternative 4-1B (South of Stayner)	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**
Major Widening 2 Lane Rural (45m ROW)	18	km	$ 4.0 M	$ 72.0 M
Major Widening 2 Lane Urban (36m ROW)	6	km	$ 8.0 M	$ 48.0 M
New Construction 4 Lane Divided (45m ROW)	39	km	$ 7.0 M	$ 273.0 M
Large Watercourse Crossing (Structure)	80	each	$0.72 M	$ 57.6 M
Small Watercourse Crossing (Culvert)	40	each	$0.05 M	$ 1.6 M
Subtotal				**$ 452.2 M**
Contingency @ 25%				**$ 113.0 M**
Total (2012$)				**$ 565.2 M**

Table 6-2: Cost Estimate Assumptions

Major Widening - Unit costs include - grading, drainage, paving, granular material, pavement markings, landscaping, traffic control and roadside safety improvements.
Major Widening - Unit costs DO NOT include electrical work, structural work, ATMS, loop detectors or traffic counting stations and property. Separate costs for structures and culverts at water crossings have been estimated.
New Construction - Unit costs include: grading, drainage, granular base, hot mix paving, roadside safety, traffic control, illumination, high mast lighting, ATMS, tall wall barrier (if applicable), noise barrier and traffic signals. Also includes re-alignment and reconstruction to local and service roads.
New Construction - Unit costs DO NOT include: structural work or property acquisition. Separate costs for structures and culverts at water crossings have been estimated.
Small Watercourse Crossing - CSP 1m (dia.) x 18m (length) x $850/m = $15,300/ culvert
Large Watercourse Crossing - Assumed new twin structures 20m (span) x 12m (width) x $3000/m2 = $720,000/structure – 2 per crossing assuming median divided roadway.

6.3 Recommendations for Future Studies

Implementation of the proposed roadway portion of the Transportation Development Strategy will require a number of future more detailed Environmental Assessment Studies. **Table 6-3** provides a summary of the recommended future studies required to implement the provincial components of this plan. Additional measures, noted in the Group 1 (Optimization) and Group 2 (Non-road infrastructure) may need to be implemented in conjunction with Metrolinx or municipalities under their respective planning and Environmental Assessment Processes.

Given ongoing planning work being completed as part of the Simcoe Area Multi-Modal Transportation Study, the recommendations of this study should be referred to the Simcoe Area study team, for consideration and prioritization amongst the multi-modal transportation strategies and improvement needs for the entire Simcoe County area.

Table 6-3: Recommendations for Future Studies

Project	Transportation Problem / Opportunity	Study Area	Proponent	Next Steps	EA Process
Thornbury Bypass	Downtown Thornbury capacity deficiency and space constraints.	See **Figure 64**	MTO	EA / Route Planning, TESR	Class EA Provincial
Hwy. 26 Widening (Town of The Blue Mountains) *	Capacity deficiency between Collingwood and Thornbury.	Collingwood Bypass to Thornbury Bypass Eastern Limit	MTO	EA, TESR	Class EA Provincial
Hwy. 26 Widening (Hwy. 26 New – Collingwood E Limit)	Capacity deficiency in vicinity of new Hwy. 26.	Sixth Line to Pretty River Parkway	MTO	Construction (pending funding availability)	Complete
Collingwood-Stayner Bypass	Downtown Collingwood and Stayner capacity deficiency and space constraints.	See **Figure 63**	MTO	EA / Route Planning, TESR	Class EA Provincial
Hwy. 26 Widening (East of Stayner)	Capacity deficiency between Stayner and Barrie.	East of County Road 7 to Midhurst / Barrie	MTO	EA, TESR	Class EA Provincial

* During the Class EA, Upgrades to Grey Road 2 and Grey Road 19 will be considered as a potential alternative route. This improvement could also be initiated under a municipal class EA.

Completion of a Provincial Class EA / Route Planning Study for the new highway alignments will be required so that a route can be protected, property can be purchased, and preliminary and detailed design work can proceed as the need for new capacity arises. **Figures 63** and **64** present the preliminary Study Areas that are recommended for the future route planning studies for the New 4 Lane Highway Bypasses of Collingwood, Stayner, and Thornbury. The option also exists for road improvements to be undertaken under the municipal Class EA process.

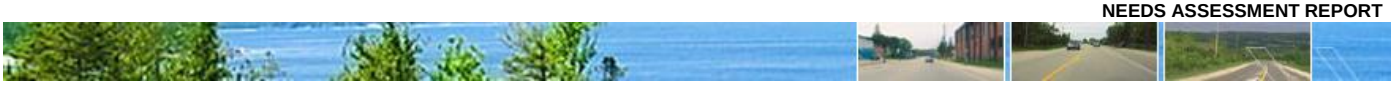


Figure 63: Preliminary Study Area for New 4 Lane Rural Highway Bypass of Collingwood and Stayner

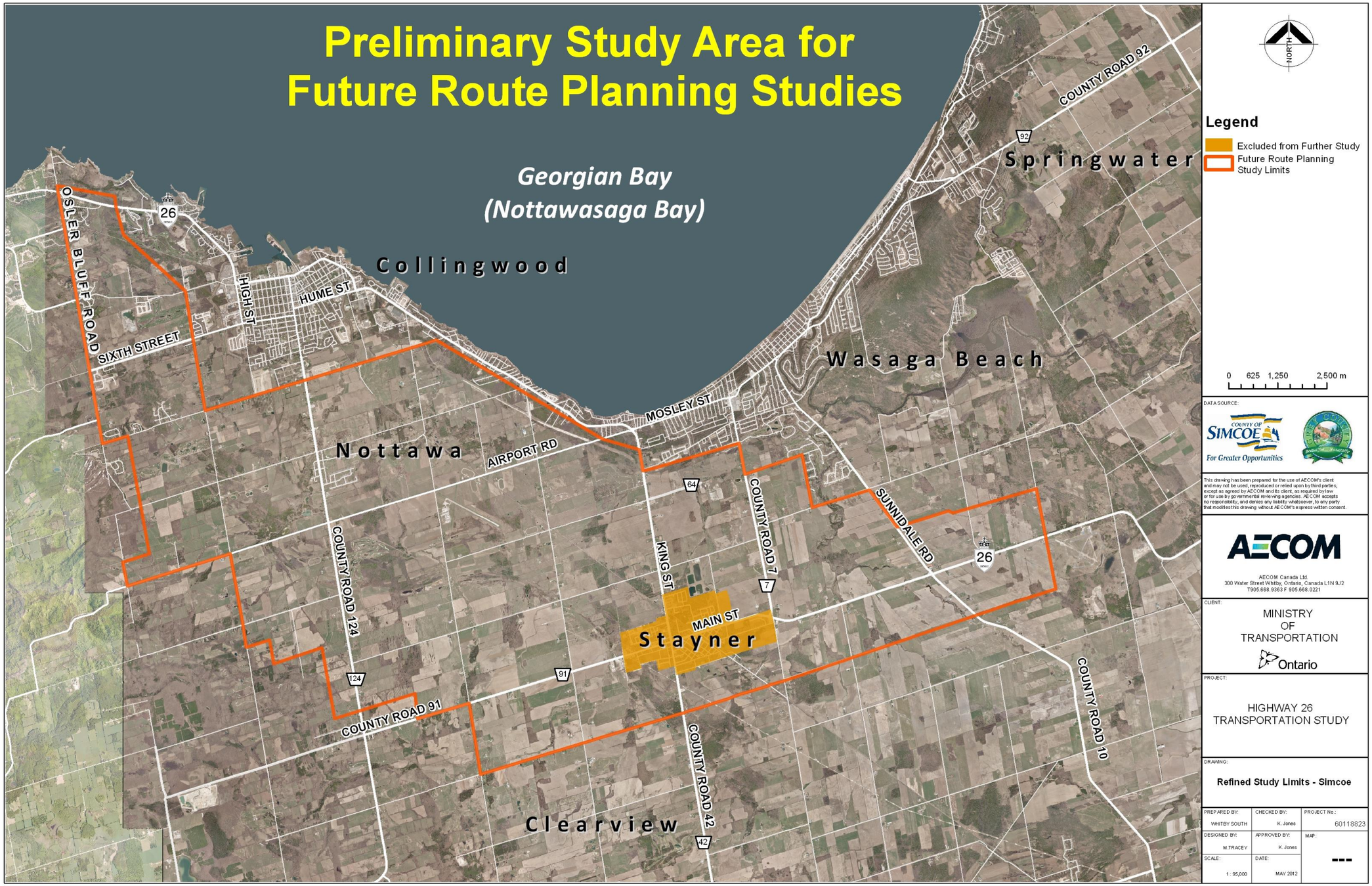
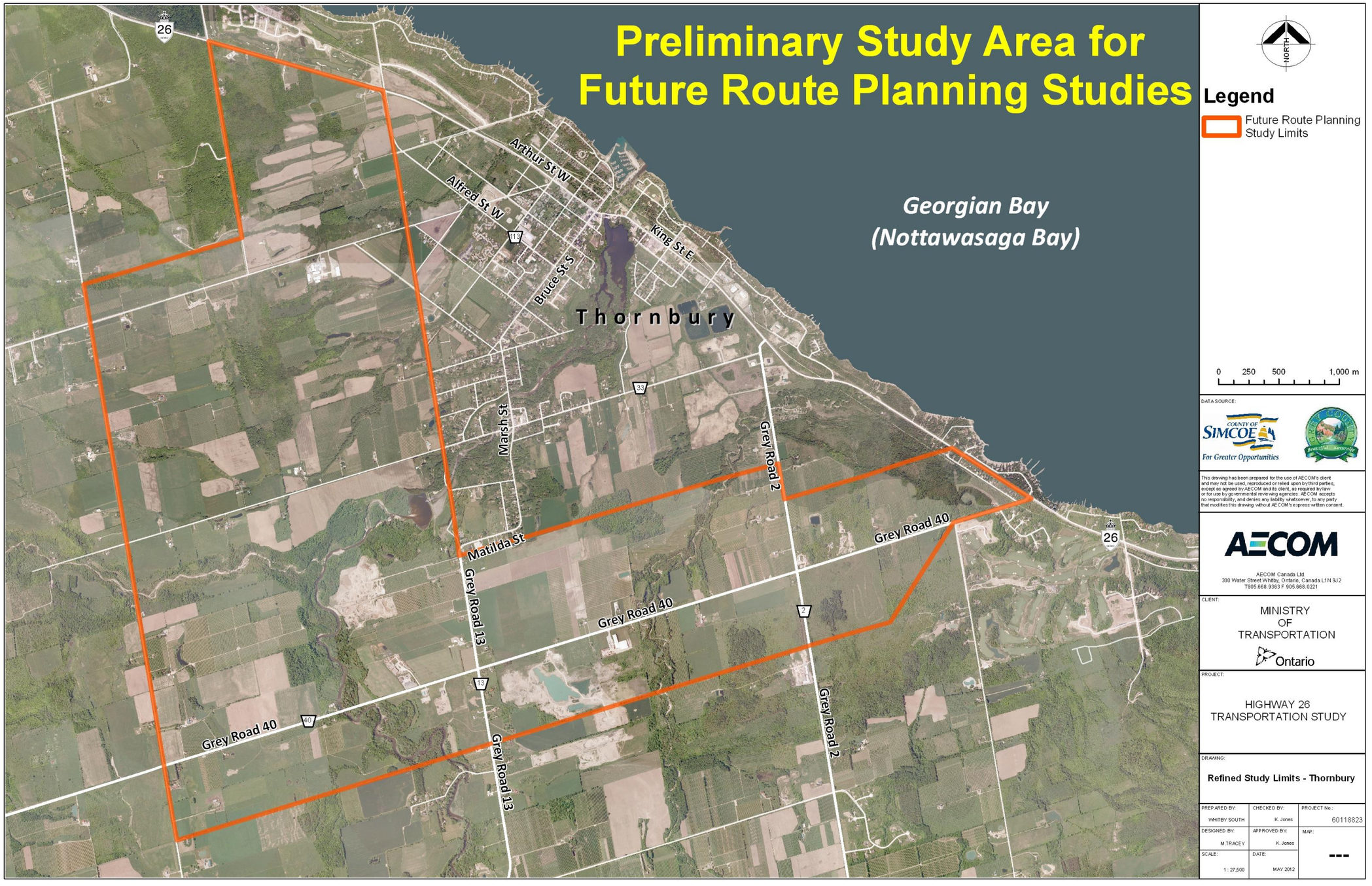


Figure 64: Preliminary Study Area for New 4 Lane Rural Highway Bypass of Thornbury



6.4 Municipal Comments on Needs Assessment Recommendations

At the conclusion of the Needs Assessment Report, presentations were made in May-June 2013 to the municipal councils for each of the municipalities in the Study Area. The council presentations provided an overview of the purpose of the study, the process followed, key findings and recommendations for future improvements and next steps. A summary of the key comments received are included in **Table 7-1**, below. Correspondence from municipalities is included in **Appendix A**.

Table 6-4: Summary of Municipal Comments

Municipality	Comments	Response
Grey County	The following comments were provided at the Council presentation:	
	Going forward, will there be any opportunity for Grey County to comment on the study?	The draft Needs Assessment report has been distributed to the County for review and comment.
	Council commended MTO on Highway 26 New, and then asked whether the same sort of study would be done for Grey County and went on to describe numerous bottlenecks and transportation problems within Grey County. – Councillor Wright replied that they will request a meeting at AMO.	MTO is aware that Grey County is currently undertaking a Transportation Master Plan study. Once the study is complete and problem areas are identified, Grey County could request that MTO West Region undertake a transportation study for Grey County to address regional and provincial transportation concerns for other areas of the County.
	Is the survey data is available to share with the County.-	Yes, the Travel Survey reports are currently available for viewing on the study website and the data can be shared with Grey County.
	Will increased congestion on Highway 26 push traffic onto the county roads to use as alternate routes?	Yes, there is potential that congestion on the Highway 26 corridor could result in some traffic using local roads to avoid congested areas of the highway network. This was one of the issues identified as part of the problem statement for this study.
	Were demographics taken into account in the study since there is an aging population in Grey County and, by 2031, the estimated vehicles may not be as great as projected.	Yes, demographics were taken into account in the travel demand forecasting process which included trip making for both work and non-work purposes.
Town of The Blue Mountains	Recently, the Ministry of Transportation (MTO) closed vehicular access to Fish-Barrel Beach, enjoyed by the public for numerous years for swimming, fishing and leisure. With the closing, it has placed a severe parking burden on municipal roads giving access to the Bay and other Town waterfront lands. Solutions to MTO vehicular access/egress concerns at Fish-Barrel Beach need to be found in the short term and implemented.	The Ministry has initiated a project for the rehabilitation of Highway 26 between Thornbury and Collingwood. As part of the design and environmental assessment for this project, MTO will be investigating strategies and options for access and controlled parking for the area known as Fish Barrel beach. The Ministry is committed to working with Town and MNR to develop a long term plan for Fish Barrel beach.
	The widening of Highway 26 to 4/5 lanes will create obstacles to the Town's vision of access to the waterfront and creating a more pedestrian focussed village within the Craigleith Area. The Town's Official Plan anticipates a more pedestrian based community within the area known as Craigleith (easterly portion of the municipality). A corridor where vehicles are provided with unlimited priority (4/5 lanes) over pedestrian needs will be extremely problematic, especially if public sidewalks and appropriate pedestrian crossings are not part of the mix.	A series of alternatives were considered to address the long term mobility needs of Highway 26 through the Town of The Blue Mountains, including updating existing roads across the Niagara Escarpment, providing a new provincial highway across the escarpment and widening the existing Highway 26 corridor. The recommendation for widening Highway 26 to 4/5 lanes through Craigleith represents the best overall balance of transportation, environmental, social, and economic factors. Concerns about future pedestrian access to the waterfront areas are noted and measures to address these concerns will be considered during the subsequent Class EA study for the widening of Highway26.
	In addition to access from the Barrie Area via Highway 400, significant trips are generated out of the GTA West Area to The Blue Mountains area via Highway 410/10. The Town encourages MTO to move forward with improvements to this important corridor as soon as practical	The Ministry notes the comments regarding the need for improved access to the Town of The Blue Mountains from the West GTA area via Highway 410 and Highway 10. These will be passed along to MTO West Region for consideration in future network planning studies.
	Concerned with lack of an interim improvement recommendation for the existing transportation deficiencies through Thornbury.	The Needs Assessment study has recommended that a westbound left turn lane be considered at Highway 26 and Bruce Street within Thornbury as one of the Group 1 recommendations to optimize existing infrastructure. The feasibility of implementation of this improvement would need to be confirmed through more detailed engineering design studies. The Ministry will work with the Municipality to undertake the work to confirm feasibility and is willing to consider a joint initiative given the connecting link status of this portion of Highway 26.
	The Town feels that Alternative 3-3 should be carried forward as an alternative to be considered within a future Class EA study for the Highway 26 corridor between Collingwood and Thornbury. The mapping designating the Preliminary Study Area for Future Route Planning Studies should be expanded to include Grey Road 19 and Grey Road 2 corridors.	The Needs Assessment Report completed a thorough assessment and evaluation of range of alternatives and concluded that Alternative 3-3, with upgrades to County Road 19 and County Road 2, does not attract enough traffic to eliminate the forecasted capacity deficiencies on Highway 26. The report

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		noted that there are also impacts associated with the upgrades needed to improve County Road 19 across the Niagara Escarpment to provincial highway standards, as this route is unsuitable in its current configuration to accommodate longer distance truck traffic. The Needs Assessment Report also noted that upgrading this facility to provincial highway standards would result in a number of local impacts to adjacent properties and agricultural uses. Recognizing the concerns raised by the Town, the Ministry will include these comments in the final Needs Assessment Report and will include a recommendation to consider the Grey Road 19 / Grey Road 2 route as an alternative in any future Class EA study for the Highway 26 widening. This will allow for members of the public, review agencies, and other stakeholder groups to review and provide comments on this alternative relative to the Highway 26 widening alternative. The Ministry is proposing to indicate this through a note on Figure 62: Recommended Roadway Improvements and New Corridors map in the Needs Assessment Report rather than the broader study area mapping illustrated in Figures 63 and 64. In addition the text of the report will include a recommendation to consider this alternative in the future Class EA study. This approach will avoid any perception that the Ministry is considering a new highway alignment crossing the Niagara Escarpment, which would have much more significant Provincial Policy implications.
Meaford	No Comments were received	
Simcoe County	The following comments were provided at the Council presentation:	
	Concerns regarding local farmland being potentially severed by a future bypass in the Clearview Area. How would the MTO interact with the Agricultural community during the follow-up EA study? We're having a difficult problem with loss of agricultural lands throughout the province as a result of development. How much consideration do you give to the loss of agricultural lands during your study? Concern was also expressed regarding the movement of farm equipment if a bypass were to be built.	MTO recognizes the importance of agricultural land and it is one of several criteria we use during the evaluation of alternatives. Through the route planning process, we will also look at ways to minimize the impact to agricultural lands and reduce land fragmentation (i.e. following lots lines, providing underpasses for farm vehicles, etc). During the follow-up EA studies, there will be extensive consultation with the agricultural community, including 1 on 1 meetings with farmers, to work together to find the best solutions.
	Request for clarification on timing of the follow up Class EA Study(s).	The timing of construction is determined by when the improvements are needed and funding availability and these two things don't always align. It is important to start the planning process as soon as funding becomes available to protect future bypass opportunities. The EA study will typically take 2 years to complete. While the planning study needs to occur in the near-term to protect future bypass opportunities, MTO recognizes that implementation of a potential bypass would be a long-term plan. The recent investments made to improve local roads around Stayner will continue to benefit motorists and serve the function of an interim bypass for some time.
	The bypass must function as a bypass so motorists don't get delayed with traffic signals, entrances, close-up development etc.	MTO recognizes the importance of well functioning transportation system, and this was one of the factors that led us to recommend the Group 4 Alternatives (new corridors) which have an advantage over improving existing roads since they allow for the control of entrances so they can function as a higher speed bypass.
Town of Collingwood	Collingwood requests that the Ministry reconsider the recent Ministry policy change to no longer fund municipal improvements on Connecting Link roadways (existing Highway 26).	The Ministry routinely reviews infrastructure funding programs and recommends changes to align with provincial priorities and broader funding availability.
	Need to proceed with Highway 26 widening to 5 lanes between Highway 26 New and the east limit of Collingwood.	Class EA and Detailed Design studies for this widening have already been completed and construction is ready to proceed subject to funding availability.
	It is imperative that the bypass study be completed as soon as possible so that the route can be preserved now. Currently the municipality has no way of preserving the route.	The Ministry recognizes the importance of long term planning to protect corridors for critical infrastructure. The Simcoe Area Multi-modal Transportation Strategy is reviewing transportation policies and infrastructure needs for the entire Simcoe Area to support implementation of the Growth Plan. The findings of the Highway 26 Transportation Study have been referred to this study to consider priorities for funding subsequent studies.
	Collingwood and Wasaga Beach have an expanded transit service between	The Ministry supports local initiatives to implement needed

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	the two communities and there are ongoing discussions with the other two communities for possible service expansions. The County of Simcoe and Grey County are also part of these discussions.	transportation services and infrastructure to provide mobility to residents. Additional recommendations on policies to support all modes of transportation in the Simcoe Area are anticipated as part of the recommendations of the Simcoe Area Multi-modal Transportation Strategy.
	Highway 26 / High Street / First Street intersection is part of the Highway 26 Connecting link and recommended improvements should be provincially funded, although changes to Connecting Link program will impact ability to fund these improvements at the local level.	These comments are noted and will be considered during subsequent Class EA studies, as it relates to the timing of future improvement needs. The need for improvements to Highway 26 in the vicinity of this intersection will largely be driven by continued growth in the west end of Collingwood. As such, it is expected that municipal development charges would be collected to contribute to the improvement needs resulting from growth.
	Collingwood supports a future study to examine feasibility of future GO Bus service to Barrie.	The Ministry will consider opportunities to expand inter-regional transit services as part of the recommendations of the Simcoe Area Multi-modal Transportation Strategy.
	Route options for a by-pass in the western portion of Collingwood are limited. The location identified is part of the Silver Creek valley lands and could have some environmental constraints that may limit the actual by-pass location. Given these potential constraints we feel the recommended study area in figures ES-8 and ES-9 should be expanded to include some of the lands west of Osler Bluff Road.	The Ministry recognizes the importance of long term planning to protect corridors for critical infrastructure. The Ministry recognizes the environmental features and constraints in this portion of the study area and the current study area recommendation provides flexibility to use portions of Osler Buff Road to provide the link from the Highway 26 Bypass to existing Highway 26.
Town of Wasaga Beach	The following comments were provided at the Council presentation:	
	Since it took 12 years to build Hwy 26 New, would it not make good fiscal sense to make use of it and tie the new bypass into it rather than going around it? .	MTO recognizes the importance of maximizing the use of existing investments in provincial infrastructure. However, it is also recognized that there are a whole range of alternatives that should be examined during the Route Location/EA Study to address transportation needs. If the route were to tie into Hwy 26 New, modelling work undertaken suggests that this link may be over capacity by 2031. If we were to use Highway 26 New as a constraint, this may also create a new municipal boundary and constrain development. We therefore have suggested a range of potential alternate corridors which could be assessed in more detail during the subsequent route planning / EA studies.
	The Simcoe County Transportation Master Plan Update is focusing on moving traffic around Simcoe County and likewise the Town wishes to focus on moving traffic around Wasaga Beach. To do this, we would like traffic to be encouraged to make use of 12th Concession from Hillsdale and then tie into Highway 26 just before the bypass.	
	The growth projections to 2031 are rather shocking. Did you consider growth beyond 2031?	For this study 2031 was used as the planning horizon. Amendment 2 to the Growth Plan has provided growth forecasts to 2041 and the Simcoe Area Multi-Modal Transportation Strategy is using 2041 as their planning horizon year.
	There has been recent discussion regarding protecting the Barrie-Collingwood Rail corridor for a future rail system, supported by Metrolinx, and a desire to explore future rail opportunities.	MTO did look at potential ridership using rail between Barrie and Collingwood by 2031 and found that rail was not justified, however the potential demand could support regional bus service, and our study has recommended that this be considered further.
Township of Clearview	The following comments were provided at the Council presentation:	
	The preservation of farmland is very important to Clearview and members of our community are concerned with a future bypass that would sever Clearview Township and farmland that serves the world. A bypass would have a very big impact for 10 weeks of skiing. How are we going to engage the farming community and the UFA during the study?	MTO recognizes the importance of agricultural land and it is one of several criteria we use during the evaluation of alternatives. The routes included in the Needs Assessment Report are conceptual only. Options for widening existing corridors were also examined and there are a number of reasons why they didn't work as well (i.e. Community impacts) as new corridors. During the follow-up EA study, we will assess the impacts on the farming community and engage the public and stakeholders to obtain their feedback on the various options.
	The projected population growth may not be that realistic.	The growth forecasts are based on the Provincial Growth Plan. A 2011 review showed that the Greater Golden Horseshoe is basically on track with the forecasts. The Province is not likely going to implement the planned improvements until the growth materializes and the transportation problems begin to appear on the existing road network.
	For the Group 3 Alternatives, why is traffic being directed along Poplar Sideroad to Osler Bluffs Road when the interim alternative route (implemented by municipalities) includes upgrades to 10th Line and Sixth Street to avoid the portion of Poplar Sideroad west of 10th Line.	The intent of the Group 3 Alternatives were to show how the local roads could act as an alternative to a new provincial highway route and did not reflect the interim bypass improvements by local municipalities. There are a lot of challenges in local roads fulfilling the role of a provincial highway (a lot of entrances etc.) and this is one of reasons why the Group

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		3 options were not recommended as part of the final study recommendations.
	What is the timeline for the Route Location/EA Study? The Province is always saying they have no money and local municipalities have been hearing about Highway 26 since 1969. After many years, the Province has completed Highway 26 New.	It is expected that a similar process will be followed in this case. The first step is to refer our study findings to the Simcoe Multi-modal Study which is underway with the results expected to be released later this year. This study will set the priorities and advise what strategies need to be put in place for the entire Simcoe Area. Following the completion of that study, the Province will be in a position to determine the funding priorities.
	Will the Simcoe Area Study take into account improvements to Highway 90?	We can't speak to specific improvements that will be recommended in the Simcoe Multi-modal study but the study will suggest a whole suite of improvements such as road upgrades, highway widening, transit improvements, HOV lanes etc.
	It is expected that a radical change to traffic patterns will occur in the future. The study's estimated 2% reduction to travel demand as a result of TDM, improved transit and active transportation seems low.	The 2% reduction is not reflective of total reduction in traffic as a result of TDM but is reflective of the potential reduction in traffic using the Highway 26 corridor. Highway 26 features a mixture of local, regional and longer distance provincial traffic, and the longer distance traffic is more difficult to divert to alternative modes of travel given the diversity of destinations being served.
	A bypass will avoid 4 laning Hwy 26 through downtown Stayner and wiping out all the parking spaces etc. It would appear that the new bypass should tie into Hwy 26 New to make use of this new corridor.	MTO recognizes the importance of maximizing the use of existing investments in provincial infrastructure. However, it is also recognized that there are a whole range of alternatives that should be examined during the Route Location/EA Study to address transportation needs. If the route were to tie into Hwy 26 New, modelling work undertaken suggests that this link may be over capacity by 2031. If we were to use Highway 26 New as a constraint, this may also create a new municipal boundary and constrain development. We therefore have suggested a range of potential alternate corridors which could be assessed in more detail during the subsequent route planning / EA studies.