

Executive Summary

Introduction

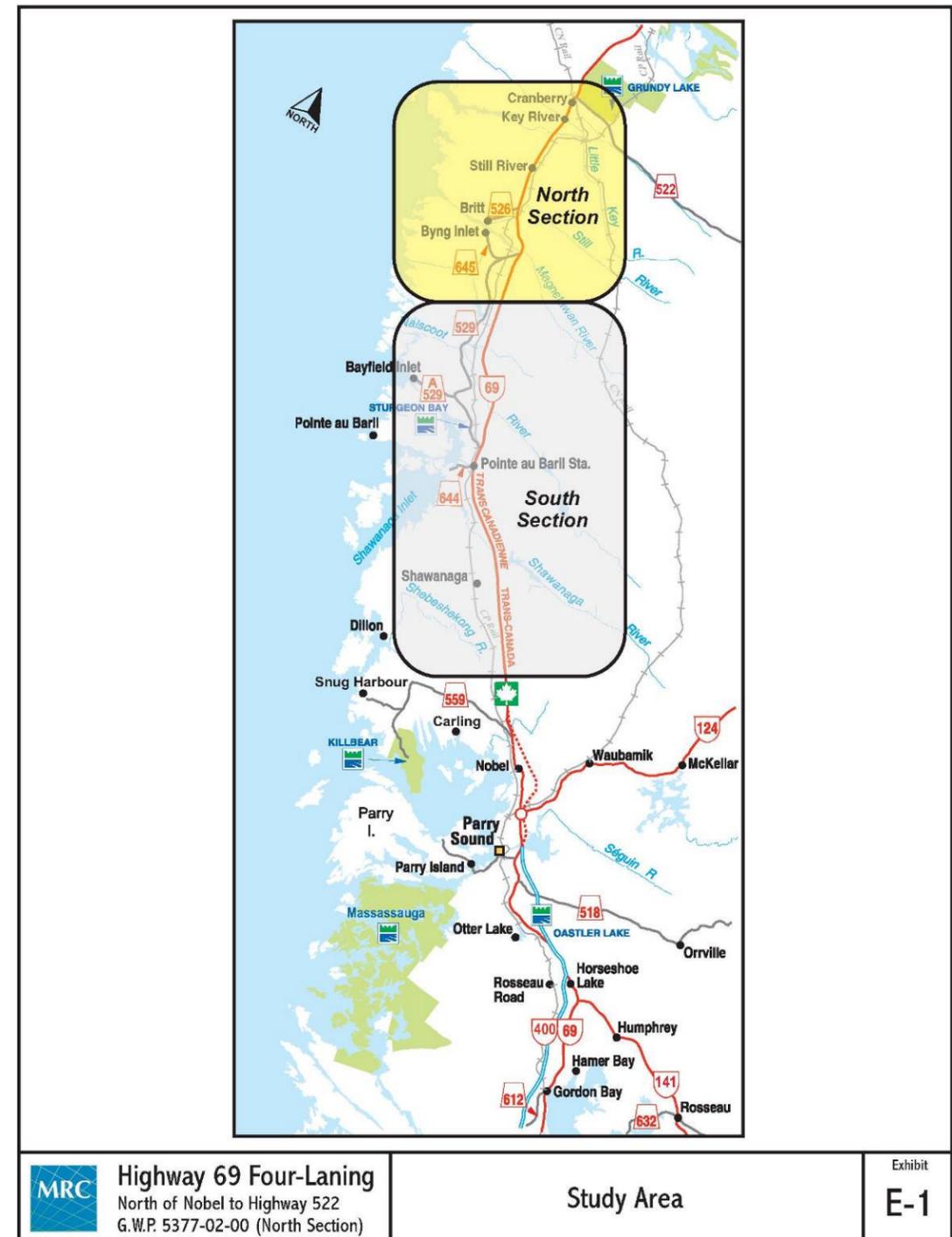
The Ontario Ministry of Transportation (MTO) is continuing with the Route Planning Study for Highway 69. Following study commencement in early 2003, this study encompassed the planning for a new four-lane Highway 69 from approximately Highway 559 (north of Nobel) to north of Highway 522. The study was later divided into a South Section (north of Nobel to north of Harris Lake Road) and a North Section (north of Harris Lake Road to north of Highway 522) to allow for the additional evaluation of information for the North Section, and the timely completion of the southern portion. This report addresses the North Section. The Route Planning and Environmental Assessment Report for the South Section has been completed and was approved subject to addressing MTO commitments in Detail Design. Exhibit E-1 identifies the South and North Study Sections.

The study meets the requirements of a Group “A” project under the *Class Environmental Assessment for Provincial Transportation Facilities (2000)*. The Ontario Ministry of the Environment (MOE) has established the Class Environmental Assessment (Class EA) process for groups of projects in order to ensure compliance with the *Environmental Assessment Act R.S.O. 1990*. Provided that the process is followed, projects and activities included under the Class EA do not require formal ministerial approval under the *Environmental Assessment Act*.

In addition to the environmental assessment component, the study includes an engineering component satisfying the requirements of MTO Northeastern Region’s traditional Preliminary Design Report process.

Environmental Assessment Process

The work on a planning study of this type must be carried out in accordance with the applicable environmental legislation and the current government policies and procedures. These are described on the following pages.



Ontario *Environmental Assessment Act*

The Ontario *Environmental Assessment Act* (EAA) governs the conduct of planning studies in the Province of Ontario. The purpose of the EAA is to ensure that:

- A reasonable and traceable planning process is followed;
- The need for the project is demonstrated;
- The public has input into the process and investigations;
- The study includes a review of a full range of alternatives; and
- The selected alternative minimizes any environmental impacts or provides mitigation strategies resulting from the improvements.

In accordance with the Class EA process this *Route Planning and Environmental Assessment Report* is available for a 30-day public review.

At the end of the 30-day review period, the project is considered to have met the requirements of the EAA, and MTO may proceed to tender for construction. Any commitments documented in this report will be addressed during the Detail Design phase and any other outstanding environmental approvals should be resolved and addressed prior to construction.

Canadian *Environmental Assessment Act*

The *Canadian Environmental Assessment Act* (CEAA) may be “triggered” by:

- Need for Federal funding
- Need for Federal lands (including First Nation lands)
- Issuance of a Federal approval identified on the Law List (as listed in CEAA)

This project is not currently eligible for Federal funding, therefore, the first “trigger” does not apply.

Lands required for this project include First Nation lands within the Magnetawan First Nation and Henvey Inlet First Nation, therefore the second “trigger” applies.

For the third “trigger”, there are three potential federal approvals that are anticipated to be required. In accordance with the Ministry of Natural Resources / Ministry of Transportation Fisheries Protocol, Department of Fisheries and Oceans (DFO) Authorization under the Section 35(2) of the Federal *Fisheries Act* is anticipated for new watercourse crossings at several locations. In addition, Transport Canada has confirmed navigable waters will be crossed at several locations within the study area, thereby requiring approvals under the *Navigable Waters Protection Act*.

The third possible trigger may result from a requirement to obtain approval from the Canadian Transportation Agency for authority to build railway crossings (at-grade crossings, grade separated crossings and track relocation). Approval from the Canadian Transportation Agency will only be required if an agreement cannot be reached with Canadian Pacific or Canadian National Railways.

Based on the triggers outlined above, approvals under CEAA are currently anticipated for this project. A copy of the CEAA Scoping Document for this project is provided in Appendix V.

Other Approval Requirements

Undertaking an Environmental Assessment also requires consideration of other approvals and review agencies. These include:

- Federal Review Requirements and Approvals;
- Department of Fisheries and Oceans (DFO) for fisheries habitat;
- Transport Canada for navigable water crossings;
- Canadian Pacific Railway and Canadian National Railway or Canadian Transportation Agency for approval/authority to build railway crossings;
- MOE for Permits To Take Water;
- Provincial Review/Policy Requirements;
- The Environmental Protection Act;
- Ontario Wetlands Policy/Ontario Fisheries Protocol/Noise Protocol/Archaeological Protocol;
- Ontario Municipal Board Road Closing Orders; and
- Controlled Access Designation.

Although MTO is not subject to municipal approval requirements, consideration is given to municipal governments’ responsibilities in the development of the route planning process as follows:

- Municipal Policy;
- Development Control, Official and Secondary Plans;
- Zoning Bylaws; and
- Transportation planning policy.

Study Approach

The study approach for the Highway 69 Route Planning Study and Environmental Assessment was to:

- Examine the study area in progressively refined stages from corridors, to routes, to the preferred alternative;
- Work with the travelling public, stakeholders and the residents of the study area to gain input regarding the future needs of the area;
- Define the need for transportation improvements in the corridor;
- Identify and evaluate a full range of alternative transportation improvements to meet future needs;
- Select a preferred alternative that addresses the future needs in an efficient, cost effective and environmentally sensitive manner;
- Identify the benefits of the proposed improvements and avoid or mitigate adverse environmental effects;
- Identify alignment alternatives and property needs; and
- Document the study process and recommendations.

The study approach vetted to the public, agencies and the Highway 69 Project Team was documented in a *Study Design* (August 2003). The report, as contained in Appendix B, describes the study approach and process.

Consultation Process

Public input was sought throughout the study process. Details of the consultation program, including input received and responses provided during each stage of the process, are described in the section of the report that describes that stage of the study.

The public consultation process provided an opportunity for the Project Team to discuss the study process or any other issues relating to the project with property owners, First Nation communities, external agencies, municipalities, interested members of the public, and other stakeholders.

The process was used to notify all interested parties of the project and to provide an opportunity for input to the study and decision-making processes. The opportunity for this input is through a communication process. The findings of each stage of work were communicated to the public, and

through ongoing discussions with the various government agencies and ministries, non-government interest groups and property owners.

Formal Points of Notification

The public was contacted several times formally throughout the study process and provided with opportunities for input to the Route Planning Study. Input was sought at four rounds of Public Information Centres (PICs) held during the study. For each round of consultation, Public Information Centres were held in Nobel, Pointe au Baril Station, Britt, and Toronto. For the fourth round of consultation PICs were held in Britt and the Toronto area for the North Section and Nobel, Pointe au Baril Station and Toronto for the South Section. To ensure that all interested members of the public were contacted, an extensive notification process was used. It consisted of:

- Announcements in newspapers at the commencement of the Route Planning Study;
- Mailings to property owners in the study area as well as members of the public that had indicated an interest in the study in previous study phases (i.e. requested to be added to project mailing list);
- Establishment of a Highway 69 project Website (www.highway69.ca) that provided continuous updated information on the study;
- Notification of Public Information Centres by contacting the people on the project mailing list (through direct correspondence), through advertisements in the local newspapers (and the Toronto Star) and on the project website; and
- Newspaper advertisements, direct mailings and use of the project Website to announce the study completion and the start of the public review period for final study documentation.

The consultation program was carried out in accordance with the *French Language Services Act*.

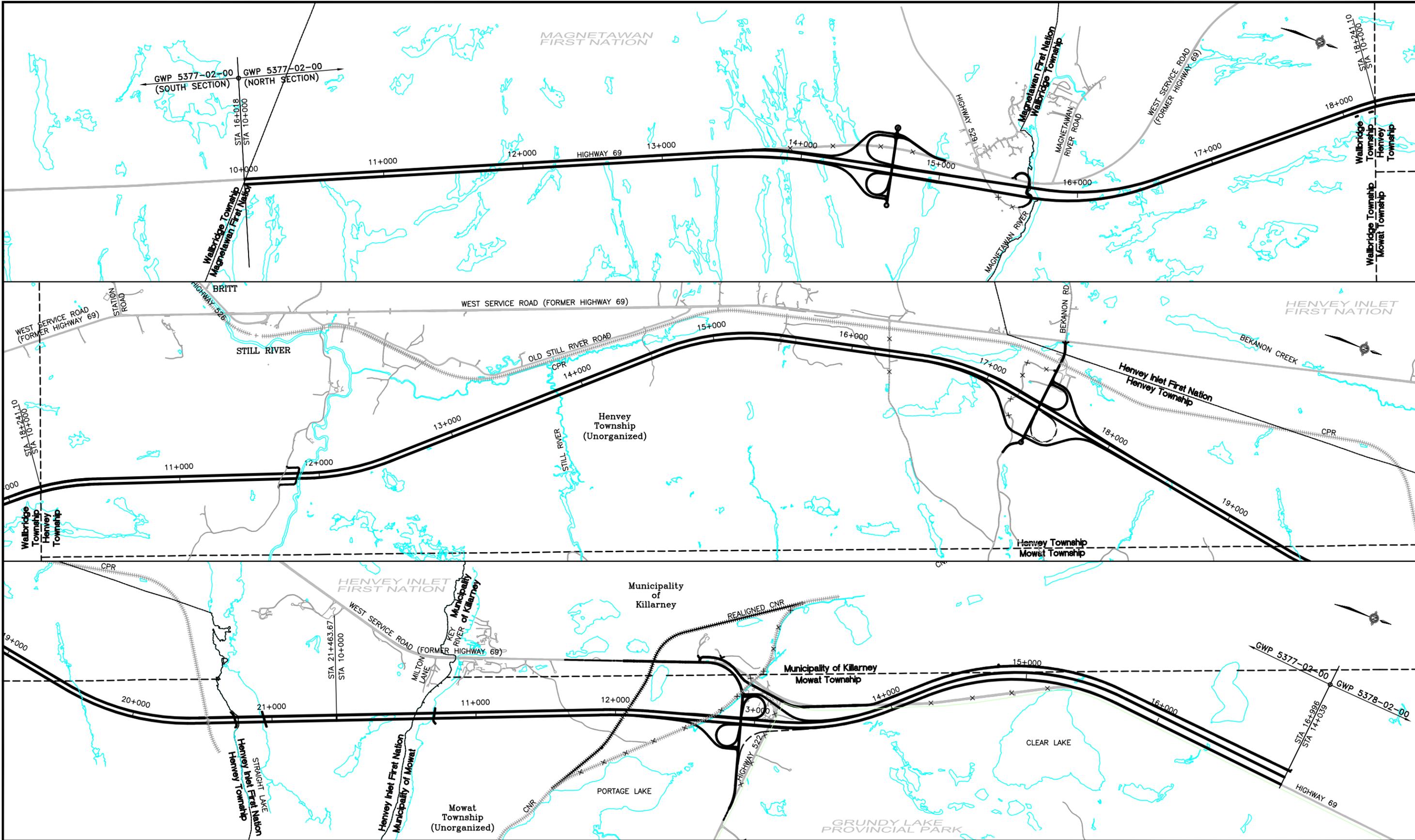
Newspaper notices and notification materials, Project Newsletters, Project Web Site information and Public Information Centre Summary Reports are contained in Appendix C, Appendix D, Appendix E and Appendix F, respectively. Summaries of input received and responses provided during each stage of the study are provided in the sections of the report that describe those stages of the planning process. Input received through correspondence is provided in Appendix G.

Recommended Plan Description

The Recommended Plan for a 26.7 km long section of four-lane, fully controlled access Highway 69 is illustrated in Exhibit E-2. It passes through the unorganized Townships of Wallbridge, Mowat and Henvey and the Municipality of Killarney. At-grade intersections will not be permitted

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and access will only be provided at interchanges. Interchange locations include: south of Magnetawan River, Bekanon Road and Highway 522. The alignment also passes through both Magnetawan First Nation and Henvey Inlet First Nation lands.



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At the south limit of the project the alignment matches the proposed completion of the adjacent Highway 69 four-laning (GWP 5377-02-00 South Section) with east side twinning. The east side twinning continues northerly 3.7 km through the Magnetawan First Nation lands. The alignment continues east of the existing highway for a maximum offset of 150m before crossing the Magnetawan River at the northern border of the Magnetawan First Nation.

The alignment continues north through Wallbridge Township for 2.5 km. The existing highway 69 swings west through this section while the new four-laning continues north and offsets from the existing highway approximately 1 km. The former highway will be retained as the West Service Road.

The alignment continues north through Henvey Township with an offset of 1 km and crosses the Still River 1.9 km into Henvey Township. Following the Still River the alignment continues 3 km northwest before continuing parallel to the existing highway at an offset of 250 m east of the existing highway. The alignment continues north on this offset from the existing highway for 1.5 km before deviating east of the existing highway by 1.4 km and then crossing Straight Lake.

The alignment continues north for 1.1 km through Henvey Inlet First Nation lands and crosses the Key River at a 400 m offset east of the existing highway.

The alignment continues north through Mowat Township for 2.3 km at an offset of approximately 400 m east of the existing highway. The alignment then crosses Highway 522 before curving northwest for 1 km and continuing to cross the existing Highway 69. From here the four-laning continues north for 1.5 km on an alignment west of the existing Highway 69. The alignment rejoins the existing Highway 69 for 1.5 km of west side twinning to match the proposed completion of Highway 69 four-laning (GWP 5378-02-00, 3.8 km north of Highway 522 to 4.5 km north of Highway 64).

The Recommended Plan also includes various grade separations, service roads and side road realignments that are required to maintain access to adjacent lands within the study area.

The Recommended Plan was developed through a process that included development of corridor alternatives, a Preferred Corridor, route and interchange alternatives within the Preferred Corridor and the development of the Preferred Route.

Highway 69 will be a four-lane Rural Freeway Divided highway. Each direction will consist of two 3.75 m wide lanes. The shoulder requirements are 3.0m wide on the right, 1.5m for the left shoulder, and a 1.0m rounding. The northbound and southbound lanes will be separated by a 30m open median that widens at the Magnetawan River. The basic right-of-way for the four-laning is 110 m.

Recommended Plan Interchanges

An interchange is proposed at Highway 69 south of Magnetawan River and 600 m south of Highway 529. The configuration is a Parclo B-2 on the west side of the highway and a Parclo A-2 on the east side. The B inner loop on the west side intersects the crossing road. Given current lack of access requirement on the east side of Highway 69 a direct E-N ramp is not required.

This interchange will provide access to Highway 529, the Magnetawan First Nation community and Byng Inlet. The interchange will also access the existing Highway 69 which will continue north to serve the communities of Britt and Still River. The design speed of the Magnetawan River Interchange crossing road is 80 km/h.

An interchange is proposed at Highway 69 and an extension of Bekanon Road to provide access to the Henvey Inlet First Nation lands. The interchange will also access the existing Highway 69 which will serve the communities of Britt and Still River south of the interchange.

The interchange consists of a Parclo A-2 configuration on the west side with a 75 m inner loop. The east side is a diamond configuration. The Parclo A inner loop on the west side will intersect with the Bekanon Road extension and not include an E-S ramp. Given current lack of access requirement on the east side of Highway 69 a direct E-S ramp is not needed to accommodate traffic. Provision is included for a future W-N loop ramp if required in the future. The design speed of the Bekanon Road Interchange crossing road is 60 km/h.

A Parclo A-2 interchange is proposed on a realigned section of Highway 522. The direct E-N northbound entrance ramp is to be protected for but not constructed initially. This interchange will provide access to Highway 522 westerly and the existing Highway 69 which will continue to act as a service road south. The interchange will also serve the residences and businesses at Key River. The design speed of Highway 522 through the interchange is 80 km/h.

Recommended Plan Structures

There are 17 new major structures within the north study area. These include four interchange structures, eight watercourse crossings, four rail crossing structures and a crossing road over rail structure.

A snowmobile crossing was identified and recommended though discussions with local snowmobile clubs and the Magnetawan First Nation. The snowmobile crossing is a concrete rigid frame open footing culvert and is located at station 15+050 in the Magnetawan First Nation.

There was not a strong ecological rationale to construct dedicated large mammal crossing structures removed from existing valley corridors. Specifically, there are no discrete, focused crossing points used by concentrations of large animals that warrant installation of dedicated

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large mammal crossing structures, the overall mortality is not excessive, and the large animal populations are 'secure'.

There are three larger watercourses/waterbodies and/or associated valleys that will be crossed by the new highway on structures that are large enough to accommodate large wildlife. These waterbody crossings are generally spaced along the length of the highway. These locations include the Magnetawan River, Straight Lake and Key River. Design provisions have been integrated into these bridge crossing locations to ensure large mammal movement can be accommodated.

Recommended Plan Sideroads

The Recommended Plan includes various service roads, side road realignments and extensions, and local access roads to maintain access to existing land uses within the study area.

A 20 km long service road will be provided from Magnetawan River interchange northerly to the Highway 522 interchange.

The south end of this service road begins as the Magnetawan River interchange crossing road and a 400 m realignment of the existing Highway 69 to intersect this crossing road at the N-EW ramp terminal on the west side of the proposed four-laning. The service road will then continue north for 18 km using the existing Highway 69 before tying into the Highway 522 realignment using 1.6 km of new roadway which will act as a crossing road for the Highway 522 interchange and will include a new crossing of the realigned CNR track.

This service road will provide an alternate route between these interchanges with the Bekanon Road interchange between them. This service road will also act as a connecting road to the four-laning interchanges for the Magnetawan and Henvey Inlet First Nations, the communities of Britt, Byng Inlet and Still River as well as the residences and businesses on Key River and Magnetawan River.

This service road will intersect with Highway 529, Magnetawan River Road and the realigned Spirit Road in the south end. The service road will maintain the existing intersections and entrances along the existing Highway 69 section including Highway 526 and Bekanon Road.

This service road will have an asphalt (high class bituminous) driving surface. The design and posted speed will be 80 km/h.

The existing Bekanon Road will be extended to intersect with the existing Highway 69 on the west side and continue as an 800 m crossing road under the four-laning for the Bekanon Road interchange.

A new grade crossing of the CPR track is proposed 200m east of the existing Highway 69 on the Bekanon Road extension.

The Bekanon Road extension will have an asphalt (high class bituminous) driving surface. The posted speed will be 60 km/h.

There are a number of local access roads also proposed to provide local property access and Crown Land access.

Recommended Plan Miscellaneous

A 2.4 km CNR rail relocation will be required to accommodate the new four-lane Highway 69 and interchange at Highway 522. The rail currently crosses under the existing Highway 69 250 m south of Highway 522 and Highway 69 intersection. The CNR track is proposed to be realigned to cross the existing Highway 69 1,000 m south of the existing Highway 522 and Highway 69 intersection and cross the four-laning at station 12+100 (Mowat). Two structures will be required at the four-laning to overpass the realigned track and a third structure will be required for the service road (existing Highway 69) to overpass the rail. In addition CNR buildings, signalling and communications plant will need to be relocated to the realigned rail and access will be provided off the existing Highway 69 which will be maintained as a service road. CNR has stated that it has no objection to this realignment.

The traffic management plan has been developed to provide access to local roads at all times during construction. Construction activities will be kept as far as possible from the travelling public.

The Recommended Plan is currently proposed to be separated into six contracts. The contract limits have been established based on the proposed staging and anticipated construction cost of each segment.

No road transfers are proposed. There is a significant length of former Highway 69 in unorganized townships that could be transferred; however, no changes to current maintenance or operation of roads are anticipated in these areas. Similarly former Highway 69 in the Township of Killarney – between the Key River and Highway 522, is not proposed for transfer.

Recommended Plan Cost

The estimated cost of the Highway 69 four-laning within the study area is approximately \$270 Million.

The preliminary cost estimate is based on major item quantities, which were determined from preliminary design plans, profiles and cross-sections. Other minor items including culverts and

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illumination were calculated as 30% of the major item costs. 3% was also added for utility relocations. A further 15% contingency was added to the structure costs and 12% for non structure item costs. Unit costs used in this calculation were up to date at the time of printing.

Staging costs were calculated as 10% of all items, including contingency. Engineering and Contract Administration was based on 15% of item costs including contingency.

Summary of Identified Concerns, Mitigating Measures and Future Commitments

The next phases of the study process are Detail Design and construction.

During Detail Design and prior to construction, a number of commitments for future consultation and environmental mitigation, as described in this Route Planning and Environmental Assessment Report, will be fulfilled. This section of the report describes those commitments.

A Design and Construction Report will be prepared near the end of Detail Design, to document how the commitments identified at the end of the Route Planning Study were given consideration.

A summary of identified concerns and future commitments are provided in Exhibit E-3.

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Exhibit E-3: Summary of Environmental Concerns and Commitments		
Issue/Concerns Potential Effects	Concerned Stakeholder(s)	Future Work or Mitigation (to be confirmed during Detail Design)
CEAA Review Process	CEA Agency and Federal Agencies MTO	<ul style="list-style-type: none"> • Input to CEAA documentation for Federal Triggers as required • Obtain all federal approvals
Navigability <ul style="list-style-type: none"> • Potential impacts to navigability during or after construction • Obtain approval under the <i>Navigable Waters Protection Act</i> 	Transport Canada MTO General Public	<ul style="list-style-type: none"> • Maintain or improve existing clearances for navigability • Obtain approval under the <i>Navigable Waters Protection Act</i>
Rail Crossings <ul style="list-style-type: none"> • Potential impacts to rail crossings during or after construction 	CPR CNR MTO General Public	<ul style="list-style-type: none"> • Agreements from CPR and CNR for at-grade, grade separated crossings and track relocation. If an agreement cannot be reached approval will be required from the Canadian Transportation Agency.
Groundwater <ul style="list-style-type: none"> • Increased soil erosion • Groundwater contaminants from disturbance of contaminated soils, leaks and accident spills • Changes in groundwater levels in aquifers and yields of wells due to dewatering, changed flow patterns that may disrupt the community or private groundwater supplies for drinking water, irrigation or commercial uses • Damage to groundwater wells from blasting and vibration 	MOE MTO Property Owners	<ul style="list-style-type: none"> • Prepare a Spill Prevention, Control and Countermeasures Plan for all construction contracts • If adverse effects are anticipated, develop and initiate a Groundwater Monitoring Program (well quality and quantity monitoring prior to contract initiation) • Obtain a permit to take water (PTTW)
Fisheries and Aquatic Habitat <ul style="list-style-type: none"> • Impacts to specialized aquatic habitats • Indirect or secondary impacts to watercourses and waterbodies • Fish passage 	MNR DFO MTO General Public	<ul style="list-style-type: none"> • Undertake more detailed fish and fish habitat impact assessments in relation to more specific project design (including more detailed field assessment and sensitivity analysis as required) and refine mitigation measures, in order to fulfill requirements of DFO/MTO/MNR Fisheries Protocol and required approvals • Refine siting and/or design of bridge structures to avoid specialized aquatic habitat • Design culverts and structures to minimize the length (e.g. culverts design using wing walls or head walls) • Median openings should be considered where feasible and use techniques to reduce fill footprint • Incorporate design measures to minimize the degree of encroachment of fills for abutments at new crossings • Minimize the length of stream disrupted for new culverts • Minimize the length of stream disruption and duration of disruption • Avoid or minimize realignment requirements by aligning new culverts along the existing channel wherever possible • Design culverts to avoid and minimize impacts to stream flow or velocity • Minimize the length of channel sections requiring realignment by incorporation of all reasonable measures to reduce the fill footprint • Design to avoid encroachment into a channel where a section of watercourse channel meanders within the right-of-way • Reconstruct realigned channel sections using a naturalized channel design to ensure existing habitat conditions are maintained and enhanced • Avoid 'hard engineering' approaches for watercourse realignment • Design realigned channels to be of similar length to the existing channel • Maintain channel dimensions and channel type along the new sections • Integrate design input by a hydrologist and/or fluvial specialist as required • Minimize encroachment into aquatic and wetland habitat, particularly those habitats identified as relatively more sensitive • Timing restrictions for instream work will be included in the contract packages • Include special provision for blasting near watercourses in the contract package, as well as other typical constraints used at watercourses with fisheries resources (i.e. prevention of debris from entering the waterway, no refuelling near water, etc.) • Where watercourses support potential direct fish use up and downstream of the highway and fish passage is a potential concern:

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Issue/Concerns Potential Effects	Concerned Stakeholder(s)	Future Work or Mitigation (to be confirmed during Detail Design)
		<ul style="list-style-type: none"> • Culverts should be embedded and substrate placed throughout the culvert – embedment should be sufficient such that substrate can be sized to stay in place under storm flows and not affect the required conveyance capacity • A low flow channel should be formed within the substrate to avoid creation of a barrier to fish movement under low flow conditions • In no case should a barrier to fish movement be created • Design transitions from culvert inlets and particularly the culvert outfall to avoid creation of erosive conditions • Where relevant, created outlet and inlet pools to provide potential refuge habitat as well as for energy dissipation
<p>Vegetation and Wetlands</p> <ul style="list-style-type: none"> • Direct impacts (e.g. loss of vegetation) • Indirect impacts (e.g. spills) 	<p>MNR MTO General Public</p>	<ul style="list-style-type: none"> • Develop vegetation protection measures in the contract package, including protection for the main portions of natural areas • Maintain the existing drainage regime over the short and long term; drainage should not be diverted or impounded • All trees should be felled and removed from the adjacent natural habitat • Appropriate clearing techniques should be used for all vegetation that must be removed. All vegetation cleared should be felled and removed away from the adjacent natural habitat. • Any temporary dewatering that may be required during construction through the wetland areas should be properly managed, and discharge filtered prior to release to the natural area to prevent erosion, siltation and/or temporary drawdown or flooding • All construction-related debris should be appropriately disposed of following construction • An environmental inspector should be retained to ensure all relevant mitigation measures are properly applied throughout construction • Site-specific mitigation measures: • Where appropriate, along the edges of the more sensitive natural features (e.g. deciduous swamps, coniferous swamps and shrub fens), temporary protection fencing will be installed prior to grading. This fencing will be maintained throughout construction. In many cases, it may be appropriate to integrate additional sediment and erosion control fencing with construction barrier fencing. • Specific edge management techniques will be applied in order to protect newly created edges of the more sensitive forested swamp communities. Techniques to be considered include native soil and seedbank retention (i.e. no root grubbing in a narrow transition zone to encourage rapid re-growth), and edge plantings. • Salvage of seedbanks for the small areas of sensitive wetland communities and communities supporting rare species (e.g. shrub fens, forested swamps, and Unit L14). Seedbank material can be re-instated in adjacent areas or temporarily disturbed areas that will be re-instated.
<p>Wildlife</p> <ul style="list-style-type: none"> • Potential for increased mortality • Migratory birds • Eco-passages • Species at Risk 	<p>MNR MTO General Public First Nation Communities</p>	<ul style="list-style-type: none"> • Create replacement habitat for species at risk reptiles • Explore various types of warning signage (e.g. mobile/seasonal signage, indicate target wildlife group) to increase driver awareness and minimize driver habituation. • Provide wildlife crossing opportunities (Eco-passages) under new structures. New crossing structures to allow large wildlife to cross under the preferred route are proposed at six locations: Magnetawan River, Still River, Straight Lake, Key River, the CPR line at Straight Lake and the CN Rail line at Highway 522. Evaluate fence options to direct wildlife at appropriate locations • Eco-passages to be naturalized to promote wildlife use • Install smaller, more numerous crossing structures/culverts across the length of the highway. Dedicated crossing structures specifically designed to facilitate the movement of species at risk may also be appropriate along the segment of the preferred route between the Little Still River and Straight Lake. • Provide low profile wildlife fencing along the segment of the preferred route north of the proposed Highway 522 interchange where the four lane highway will diverge from the existing Highway 69 corridor and extend through areas where Eastern Massasauga Rattlesnake (EMR) and Eastern Massasauga Rattlesnake habitat have been confirmed. • Employ a dedicated barrier along the western edge of the preferred route that abuts vegetation units BB3, BB5, BB6 and BB9. Specifically design the barrier to prevent Eastern Massasauga Rattlesnake and other species at risk herpetofauna from accessing the new roadway.

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Issue/Concerns Potential Effects	Concerned Stakeholder(s)	Future Work or Mitigation (to be confirmed during Detail Design)
		<ul style="list-style-type: none"> Employ a training program to address the identification and management (e.g. relocation from the construction zone) of species of conservation concern for the contract administrator, environmental inspector, and contractor staff Include timing restrictions for clearing activities to minimize impacts to breeding birds (no clearing May 1 to July 28 yearly, <i>Migratory Birds Convention Act</i>)
Surface Water <ul style="list-style-type: none"> Increased upstream/downstream flood levels and erosion Increase of pollutants to receiving watercourses Increase in surface erosion to receiving watercourses 	MNR MTO General Public	<ul style="list-style-type: none"> Design watercourse crossings to minimize flood risk and erosion Complete a Stormwater Management Study to identify water quantity and facilities to control peak flow and runoff and best management practices Use erosion and sediment control measures at all sensitive areas where the disturbance of construction must be contained between Magnetawan River and Highway 522.
Erosion and Sediment Control <ul style="list-style-type: none"> Impact to water quality and habitat quality 	MNR MTO General Public	<ul style="list-style-type: none"> Develop erosion protection and sediment control plan Employ appropriate sedimentation and erosion control measures throughout the construction phase, including erection of silt fencing and maintenance of these until all disturbed surfaces that drain to natural areas are re-stabilized and vegetated Schedule construction activities to occur primarily during low runoff periods where feasible Minimize equipment operation when ground conditions are such that extensive compaction and pooling occurs, and ruts from vehicles are evident Prior to construction, install control measures such as straw bale flow checks, rock flow checks, silt fence barrier and erosion control blankets on slopes and in the vicinity of watercourses to reduce the potential for erosion Install control measures prior to stripping of soils, and adjust as grading proceeds Inspect control measures daily during construction and repair as necessary Stabilize and re-vegetate exposed soils after grading Seeding of temporarily disturbed areas will incorporate appropriate mixes of locally adapted native plant species to accelerate re-vegetation Any temporary roads will be removed and restored to pre-existing conditions Minimize erosion by modifying the slope to flatten it or bench it, using retaining walls, using the least erodible fill materials in highly sensitive locations, implementing a landscape plan and controlling run-off
Aggregates <ul style="list-style-type: none"> Potential for sterilization of aggregate resources 	MNR MTO MNDM	<ul style="list-style-type: none"> Consult with MNR and MNDM regarding aggregate resources
Management of Excess Materials <ul style="list-style-type: none"> Potential impacts (e.g. site contamination) to sensitive areas and habitats a result of excess material storage or disposal 	MTO MNR MOE	<ul style="list-style-type: none"> Excess materials will be managed in accordance with OPSS 180 Stockpiles of excavated materials, equipment storage and parking will be managed in designated areas to avoid further degradation of adjacent habitat In consultation with MNR, identify appropriate locations for disposal of excess materials on Crown Lands
Potential Contamination <ul style="list-style-type: none"> Potential contaminated sites 	MTO MOE	<ul style="list-style-type: none"> Complete a Preliminary Site Screening for all properties prior to acquisition Complete an Environmental Site Assessment for all properties identified as having potential contamination issues. An active waste disposal site is located on the west side of Highway 69, 75 m south of the communications tower (near Cranberry). If waste deposition is identified to have occurred on the portion of the site to be impacted by the preferred route (access road) and CNR re-alignment, appropriate mitigation may include: <ul style="list-style-type: none"> Removal of waste and contaminated soil. Containment or relocation of waste and associated revisions to regulatory approvals, as necessary.
Community Structure – Residential <ul style="list-style-type: none"> Impacts and disruptions to the social fabric of the affected communities 	MTO Property Owners Residents Seasonal Residents	<ul style="list-style-type: none"> Provide owners compensation for the lands and buildings to be acquired. Provide advance notice of land acquisitions Conduct property negotiations with property owners in accordance with standard MTO property purchasing processes
Businesses <ul style="list-style-type: none"> Impacts and disruptions to business 	MTO Affected Owners	<ul style="list-style-type: none"> Conduct property negotiations with business/property owners in accordance with standard MTO property purchasing processes

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Issue/Concerns Potential Effects	Concerned Stakeholder(s)	Future Work or Mitigation (to be confirmed during Detail Design)
Forest Management <ul style="list-style-type: none"> • Access to lands • Impacts to Sustainable Forest Licence (SFL) 	MTO MNR Westwind Forest Stewardship	<ul style="list-style-type: none"> • Provide suitable access to lands currently enjoying access. (Extension of access through each area will be the responsibility of others.) • Design and construct forest access roads to sufficient structural standards as to accommodate heavy logging trucks (MNR Forest Access Road standards)
Recreational <ul style="list-style-type: none"> • Impacts to marina operations • Impacts to snowmobile trails and access 	MTO Affected Owners French River Snow Voyageurs	<ul style="list-style-type: none"> • Provide access to the marina at Key River via West Service Road (former Highway 69) • Provide a grade separated snowmobile trail crossing to connect the TOPS C Trail across Highway 69 just east of Highway 529 • During Detail Design, undertake additional consultation with the French River Snow Voyageurs towards determining appropriate snowmobile trail crossings along proposed Highway 69., including at the north shore of the Magnetawan River • Maintain access to recreational lodges, cottages and areas utilized for hunting and fishing via interchanges and the Service Road system to the extent possible
Noise <ul style="list-style-type: none"> • Changes in noise levels 	MTO MOE MNR General Public First Nation Communities	<ul style="list-style-type: none"> • Should there be excess material available from construction of the highway, consideration will be given to providing berms made from excess material within the future Highway 69 right-of-way adjacent to those receiver locations that are calculated to experience noise level increases of 5 dBA or greater. However, it is not technically feasible to provide berms at the Key River structures. • During construction, the contractor will abide by the Operational Constraints and municipal noise control by-laws • Employ SP199F33
Air Quality <ul style="list-style-type: none"> • Impacts to health, plant and crop damage or the deterioration of property cleanliness 	MTO MOE General Public	<ul style="list-style-type: none"> • Employ standard dust control measures during construction
Vistas and Aesthetics <ul style="list-style-type: none"> • Impact on the general visual environment of the roadway due to changes in the form of the roadway 	MTO General Public Grundy Lake Provincial Park	<ul style="list-style-type: none"> • Minimize vegetation removal, signage and entry features • Retain vegetation at the edge of the right-of-way (beyond clear zone) • Retain rock outcrops for visual interest (within the median and adjacent to the outside edge of the travelled highway) • Minimize the removal of vegetation as a result of the construction of access ramps and structures • Design proposed bridge structures to be aesthetically compatible with the landscape • During Detail Design a landscape architect will develop additional landscape elements to minimize impacts to the visual and aesthetic elements of the new highway • Examine options to create a berm at Clear Lake (Grundy Lake Provincial Park) on the old highway alignment.
Landscape <ul style="list-style-type: none"> • General Appearance • Scenic vistas 	MTO General Public	<ul style="list-style-type: none"> • Use native species to enhance the final design with the intent of reducing impacts to fisheries, vegetation, wetlands and wildlife resources • Promote scenic vistas and blending of the Highway into the landscape
Traffic Interruptions and Delay During Construction	MTO General Pubic Emergency Services	<ul style="list-style-type: none"> • Finalize a Traffic Management and Staging Plan • Monitor traffic conditions during construction to ensure that unreasonable delays and backups are not occurring • Maintain traffic flow during construction using standard MTO construction signage, flag persons to regulate traffic and reduced speed limits through construction zones • Notify emergency response agencies of the construction schedule
Construction Dust and Noise	MTO General Public	<ul style="list-style-type: none"> • Employ Contract Operational Constraints and municipal noise control by-laws • Complaints regarding construction noise will be investigated according to the provisions of the existing MTO/MOE Noise Protocol • The contractor will be required to conform to SP199F33 • Blasting and pile driving will normally be restricted to the period of 0700 to 1900 hours daily • The contractor will be required to conform to OPSS 120 (General Specification for the Use of Explosives) • Standard MTO special provisions will be included in the contract to mitigate dust

Executive Summary

Exhibit E-3: Summary of Environmental Concerns and Commitments		
Issue/Concerns Potential Effects	Concerned Stakeholder(s)	Future Work or Mitigation (to be confirmed during Detail Design)
Archaeology	MTO MCL	<ul style="list-style-type: none"> • Include provisions in contract package, in the event that either human remains or archaeological resources are discovered during construction • A special provision will be included to protect the burial (identified with a wooden marker) near the Key River. • If other archaeological materials are encountered during construction, work shall cease in the area and the Ministry of Culture Regional Archaeologist will be notified • In the event that human remains are encountered during construction, the Contractor will immediately cease operations, notify the Contract Administrator and contact the Ontario Provincial Police, the Ministry of Culture Regional Archaeologist and the Registrar of the Ministry of Government Services Cemeteries Regulations Unit. • Local First Nation communities will also be notified in the event that either human remains or archaeological resources are discovered during construction.
Built and Cultural Heritage <ul style="list-style-type: none"> • Displacement, disruption or indirect impacts to cultural landscape units and build heritage features 	MTO MCL General Public	<ul style="list-style-type: none"> • Complete documentation and site mapping of affected built and cultural heritage features
Median Crossovers	EMS MTO	<ul style="list-style-type: none"> • Median crossovers will be evaluated for emergency and maintenance purposes
Consultation	MNR / First Nations / Municipality of Killarney/French River Snow Voyageurs/ Forest Industry / CEA Agency	<ul style="list-style-type: none"> • Maintain communications to promote active participation and provide innovative solutions to comment interest elements (Crown land access, wildlife mitigation, snowmobile trails) • Advertise commencement of Detail Design assignments, PIC's and Design and Construction Report (DCR) completion
EA Act	MTO	<ul style="list-style-type: none"> • Complete DCR's for all Contracts
Cycling <ul style="list-style-type: none"> • Cycling is not permitted on Four-lane Highway 69 		<ul style="list-style-type: none"> • Cyclists are encouraged to use alternate parallel routes where available • Proposed four-laning maintains an alternate parallel route • Those sections where parallel routes are not available, options will be evaluated