## HIGHWAY 17

Section 1: Four-Laning from the Manitoba / Ontario Border to Highway 673 ( 6.5 km )
CLASS ENVIRONMENTAL ASSESSMENT FOR PROVINCIAL TRANSPORTATION FACILITIES GROUP ‘B’ PROJECT

TRANSPORTATION ENVIRONMENTAL STUDY REPORT FINAL


July 2021
HIGHWAY 17
SECTION 1: FOUR-LANINGFROM THE MANITOBA /ONTARIO BORDER TOHIGHWAY 673 ( 6.5 KM )CLASS ENVIRONMENTALASSESSMENT FORPROVINCIAL TRANSPORTATIONFACILITIESGROUP 'B’ PROJECT
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Design recommendations given in this report are applicable only to the project and areas as described in the text and then only if constructed in accordance with the details stated in this report. The comments made in this report on potential construction issues and possible methods are intended only for the guidance of the designer. The number of testing and/or sampling locations may not be sufficient to determine all the factors that may affect construction methods and costs. We accept no responsibility for any decisions made or actions taken as a result of this report unless we are specifically advised of and participate in such action, in which case our responsibility will be as agreed to at that time.

This limitations statement is considered an integral part of this report.

## GLOSSARY OF TERMS, ABBREVIATIONS AND ACRONYMS

| ANSI | Areas of Natural and Scientific Interest |
| :--- | :--- |
| COS | Contamination Overview Study |
| COSEWIC | Committee on the Status of Endangered Wildlife in Canada |
| COSSARO | Committee on the Status of Species at Risk in Ontario |
| DFO | Fisheries and Oceans Canada |
| EA | Environmental Assessment |
| END | Endangered |
| HADD | Harmful Alteration or Disruption or Destruction |
| IAA | Impact Assessment Act |
| LCVs | Long Combination Vehicles |
| MBCA | Migratory Birds Convention Act |
| MECP | Ministry of the Environment, Conservation and Parks |
| MHSTCI | Ministry of Heritage, Sport, Tourism, Culture Industries |
| MMAH | Ministry of Municipal Affairs and Housing |
| MNRF | Ministry of Natural Resources and Forestry |
| MTO | Ministry of Transportation Ontario |
| NHIC | Natural Heritage Information Centre |
| OEAA | Ontario Environmental Assessment Act |
| SARA | Species at Risk Act |
| SC | Special Concern |
| TESR | Transportation Environmental Study Report |
| THR | Threatened |

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## APPENDICES

## A CORRESPONDENCE

B ONTARIO GOVERNMENT NOTICES \& SAMPLE LETTERS
C DESIGN PLATES

## 1 THE ENVIRONMENTALASSESSMENT PROCESS

### 1.1 THE ONTARIO ENVIRONMENTAL ASSESSMENT ACT

The Ministry of Transportation's Class Environmental Assessment for Provincial Transportation Facilities (MTO Class EA) was approved under the Ontario Environmental Assessment Act (EA Act) in the fall of 1999 and amended in 2000. This planning document defines groups of projects and activities, and the environmental assessment processes that MTO has committed to follow for these projects. Provided that the MTO Class EA process is followed and its requirements are met for a project, the requirements of the Ontario Environmental Assessment are fulfilled so a separate, individual approval under the EA Act is not required. The MTO Class EA process follows a principle based approach.

This project is following the Class EA process for Group 'B' projects. Group ‘B' projects are major improvements to provincial transportation facilities and generally include:

- Improvements to existing highways and freeways providing a significant increase in capacity;
- New interchanges or modifications to existing interchanges;
- Major realignments;
- New or modified water crossings or watercourse alterations; and
- New highway service facilities.

The Class EA process for Group 'B' projects is shown in Exhibit 1-1.
The Class EA process for a Group 'B' project includes submission of a Transportation Environmental Study Report (TESR). This TESR will be filed for a 30-day comment period. Interested persons may provide written comments to our project team by August 30, 2021. All comments and concerns should be sent directly to the Project Team (project-team@4LaneHighwayKenora.ca) at the Ontario Ministry of Transportation.

In addition, a request may be made to the Ministry of the Environment, Conservation and Parks for an order requiring a higher level of study (i.e. requiring an individual/comprehensive EA approval before being able to proceed), or that conditions be imposed (e.g. require further studies), only on the grounds that the requested order may prevent, mitigate or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. Requests on other grounds will not be considered.

Requests should include the requester contact information and full name for the ministry.

Requests should specify what kind of order is being requested (request for additional conditions or a request for an individual/comprehensive environmental assessment), how an order may prevent, mitigate or remedy those potential adverse impacts, and any information in support of the statements in the request. This will ensure that the ministry is able to efficiently begin reviewing the request.

The request should be sent in writing or by email to:
Minister of the Environment, Conservation and Parks
Ministry of Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto ON M7A 2J3
minister.mecp@ontario.ca
and
Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto ON, M4V 1P5
EABDirector@ontario.ca
Requests should also be sent to the MTO Project Manager in writing or by email to:

## MTO, Northwestern Area Manager

Mr. Steve Sutch
615 James St. S
Thunder Bay, ON P7E 6P6
Phone: (807) 630-1720
Toll free: 1-800-465-5034
Fax: (807) 473-2168
E-mail: project-team@
4LaneHighway17Kenora.ca


### 1.2 IMPACT ASSESSMENT ACT, 2019

The Impact Assessment Act, 2019 (IAA 2019) and associated regulations came into effect on August 28, 2019. Under IAA 2019, a federal environmental assessment is required for "designated projects." A designated project is one that includes one or more physical activities that are set out in the regulations under IAA 2019 or by order of the Federal Minister of the Environment and Climate Change.
This Class Environmental Assessment Study was reviewed by the Project Team against the Federal Regulations Designating Physical Activities, and the Project Team determined that the study is not "designated" and therefore will not require a federal environmental assessment.
More information about the Impact Assessment Act (2019) is available at the following link: https://www.canada.ca/en/impact-assessment-agency.html.

### 1.3 OTHER APPROVAL REQUIREMENTS

### 1.3.1 Navigation Protection Act

Navigable waters have not been identified by Transport Canada, therefore approvals under the Canadian Navigable Waters Act are not anticipated.

### 1.3.2 Federal Fisheries Act

The design of this project spanned over the transition between the old Fisheries Act and the revisions that came into effect in 2013.Subsequentlty the study and impact assessment considered two separate versions of the MTO/DFO/MNRF Protocol for Protecting Fish and Fish Habitat on Provincial Transportation Undertakings (2006, 2016). As a result, the Fisheries Act process changed from determining whether the project resulted in harmful alteration or disruption, or destruction (HADD) of fish habitat to whether the project is likely to result in serious harm to fish. During the this review the Ministry has determined it has met obligations under these protocols, and the Fisheries Act, with regards to impact assessment and design requirements. As part of the design phase discussions had occurred with DFO (2010) and with MNRF throughout the design phase of this project.

### 1.4 PURPOSE OF THE TRANSPORTATION ENVIRONMENTAL STUDY REPORT

This TESR documents the environmentally significant aspects of the planning, design and construction for the improvements to a 6.5 km section of Highway 17 from the Manitoba / Ontario border easterly to Highway 673, as a Group 'B' project as defined in the MTO Class EA (2000).

The TESR includes a description of the project and its purpose; the existing, natural, social, economic and cultural environmental factors; the analysis / evaluation of alternatives that were considered, the anticipated environmental effects and proposed mitigation measures; and commitments to further work, consultation, and monitoring associated with the implementation of the project.
Additional information about the Class EA process for Group 'B' projects is contained in the MTO Class EA (2000).
This TESR is being made available to the public, Indigenous communities, other interested parties and external agencies for a 30-day review. Interested persons may provide written comments to our project team by August 30, 2021. All comments and concerns should be sent directly to the Project Team (projectteam@4LaneHighwayKenora.ca).

In addition, a request may be made to the Ministry of the Environment, Conservation and Parks for an order requiring a higher level of study (i.e. requiring an individual/comprehensive EA approval before being able to proceed), or that conditions be imposed (e.g. require further studies), only on the grounds that the requested order may prevent, mitigate or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. Requests on other grounds will not be considered. Requests should include the requester contact information and full name for the ministry.

Requests should specify what kind of order is being requested (request for additional conditions or a request for an individual/comprehensive environmental assessment), how an order may prevent, mitigate or remedy those potential adverse impacts, and any information in support of the statements in the request. This will ensure that the ministry is able to efficiently begin reviewing the request.

The request should be sent in writing or by email to:
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and
Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
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## EABDirector@ontario.ca

Requests should also be sent to the MTO Project Manager in writing or by email to:
MTO, Northwestern Region Project Manager
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Toll free: 1-800-465-5034
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4LaneHighway17Kenora.ca

## 2 PROJECT SUMMARY

### 2.1 PROJECT BACKGROUND

The Route Planning and Preliminary Design Study for Highway 17 Four-Laning between the Manitoba / Ontario Border and Kenora was initiated in 2009. As part of the 2009 study, existing conditions were documented, alternatives were developed and evaluated, and a preferred alternative was selected for Sections 1 and 2. Extensive consultation was undertaken including:

- Correspondence with external agencies, stakeholders and interested members of the public at key milestones;
- Public Information Centres (PICs) 1 to 3; and
- Engagement with interested Indigenous communities.

TESRs were filed for Sections 1 and 2. During the 30 -day period, concerns were received and a decision was made by MTO to put the project on hold until a resolution was reached.
In 2018, MTO placed the Highway 17 Four-Laning between the Manitoba / Ontario Border and Kenora Route Planning Study on a list of priority projects.
In re-commencing the study, MTO continues to work with stakeholders to resolve any concerns to move forward with the project. As part of the study re-commencement notice issued on November 6, 2018, MTO has withdrawn the previously issued Notice of Completion dated November 10, 2009 and re-commenced the EA process.
In order to coordinate their shared experiences and interests as part of the consultation and engagement process with MTO, the Niiwin Wendaanimok Partnership has undertaken a community engagement process to better understand potential social, environmental and cultural impacts associated with the Project. The Niiwin Wendaanimok have prepared a Harmonized Impact Assessment report that documents their engagement process. Under a separate Notice, NWP is filing the Harmonized Impact Assessment concurrently with the Notice of Submission of this TESR.
The Harmonized Impact Assessment was independently conducted by the Niiwin Wendaanimok Partnership. The products, reports, opinions, views and findings resulting from this assessment or any follow-up or ongoing Harmonized Impact Assessment are not, and are not intended to be, binding on MTO or Ontario and do not, and are not intended to, reflect the position of MTO or Ontario.

### 2.2 PROJECT LOCATION AND HIGHWAY CLASSIFICATION

The Highway 17 study area is located between the Manitoba / Ontario border and the Municipality of Kenora, as shown in Exhibit 2-1.

The limits of the Section 1 study area are from the Manitoba / Ontario border to Highway 673 ( 6.5 km ).

## Exhibit 2-1: Highway 17 Study Area Location



In this area, Highway 17 is a two-lane highway, and is part of the Trans-Canada Highway. Highway 17 is classified as a rural arterial undivided highway, and has a posted speed limit of $90 \mathrm{~km} / \mathrm{h}$.

### 2.3 STUDY SECTIONS

The Highway 17 study area is comprised of the following three project sections, as shown in Exhibit 2-2.
Section \#1: From the Manitoba / Ontario border to Highway 673 ( 6.5 km );
Section \#2: From Highway 673 to Rush Bay Road ( 8.5 km ); and
Section \#3: Between Rush Bay Road and Highway 17A (24 km).

## Exhibit 2-2: Highway 17 Study Sections



This TESR focuses on the initial improvements for Section 1. Initial improvements for Sections 2 and 3 and ultimate improvements for all three sections will be reviewed in subsequent TESRs. Long range, ultimate improvements will include reviewing options for Highway 17 being further upgraded to a controlled-access highway in the future. Exhibit 2-3 provides an overview of the Highway 17 process and timelines.


### 2.4 SELECTED ROUTE

Route alternatives were evaluated based on a comprehensive review and analysis of alternatives for the improvements to Highway 17 within the project limits, and comments received from external agencies, stakeholders, local communities and the public. The selected route for Section 1 is shown in Exhibit 2-4 and described below. In addition, Appendix C contains detailed Design Plates of the Selected Route.

Exhibit 2-4: Highway 17 Selected Route


From the Manitoba border easterly, Highway 17 will be constructed as a four-lane Highway with a 30 m (minimum) open median to connect with the proposed four-laning of Highway 17 in Manitoba as applicable. Two new westbound lanes will be constructed on the north side of Highway 17, while the two existing lanes will be used as the eastbound lanes.
The north-side twinning continues approximately 1 km to just east of the existing Rest Area at which point the twinning transitions to the south; this transition avoids a lengthy crossing of a large swamp to the east. In this section the existing Highway 17 lanes will become the westbound lanes, and the new lanes to the south will be the eastbound lanes.

The south-side twinning continues easterly to the end of the Section 1 project area, where the alignment will extend into the proposed twinning at the west limit of Section 2.

### 2.4.1 Related/Adjacent Studies and Projects

Improvements to Highway 17 Class Environmental Assessment for Provincial Transportation Facilities Group 'B' Project (2006) - Between the Ontario/Manitoba boundary and Rush Bay Road (Contract 2008-6011, G.W.P. 48-96-00)
A Class EA study was completed in 2006 for improvements of Highway 17 from the Manitoba / Ontario border 16 km easterly. The original proposed improvements included the following:

- Improvements to the vertical alignment;
- New snow plough turnarounds;
- Left and right turn lanes at Gundy Lake Road, Highway 673/Shoal Lake Road, Royal Lake Road, and Rush Bay Road;
- Drainage improvements including ditching and culvert replacements, as required;
- Guide rail replacement;
- Pavement rehabilitation for the length of the project.

Passing lanes were proposed in the study area, and were partially constructed; however, in light of the current study, these features were not completed. This project was completed by the time of the submission of this TESR.
The former Ontario Travel Information Centre has also been recently modified to a rest area with expanded parking availability.

Improvements at selected locations to Highway 673 are also currently being developed to address roadway geometry/curve improvements.

## Manitoba Trans-Canada Highway

At the Manitoba/Ontario border, Manitoba's Highway 1 (part of the Trans-Canada Highway) has a two-lane cross section that transitions to a four-lane cross section approximately 600 m west of the border, in order to accommodate a median truck inspection station. Immediately to the west of the inspection station, the highway transitions back to two lanes for approximately 14 km . West of this, Highway 1 is a fourlane divided highway.

Discussions are ongoing with MTO and Manitoba Infrastructure regarding the coordination of the four-laning works and timeframes, to provide a continuous four-lane divided highway at the border.

## 3 TRANSPORTATION NEEDS AND OPPORTUNITIES

### 3.1 PROJECT JUSTIFICATION

Highway 17 is the only east-west highway link between Kenora and the Manitoba border. It serves long-distance commercial and tourist traffic, local community traffic, and provides access to the lands surrounding the highway. As such, Highway 17 is an essential component of the regional and provincial economies.
As part of the Growth Plan for Northern Ontario (2011), Kenora has been identified as a Northern Ontario Growth Plan Area. Background documents recommend the improvement of northwestern Ontario highways for road safety and economic benefits. Northwestern Ontario highways are mostly two-lanes, and have infrequent passing lanes and rest areas. Accidents or natural disasters may lead to highway closures, which in many cases result in lost time and money, especially where the highway is the only east-west highway link.
More specifically, Enhancing the Economy of Northwestern Ontario and the Northwestern Ontario Economic Facilitator Report call for the four-laning of Highway 17 between the Manitoba border and White River, and between the Manitoba border and Kenora, respectively.
Most recently, the Ministry of Energy, Northern Development and Mines' Northern Highways Program 2017-2021 includes the planned four-laning of Highway 17 from the Manitoba/Ontario border easterly, west of Kenora in the time horizon of beyond 2021.
By 2029, daily traffic is expected to grow by approximately $12-18 \%$ from 2016 levels. This would bring the annual average daily traffic to 5,480 vehicles, and the summer average daily traffic to 7,810 vehicles. A four-lane highway would provide adequate capacity to accommodate the future traffic increase.

### 3.2 PROJECT OBJECTIVE

The project objective is to four-lane Highway 17 from the Manitoba / Ontario border 6.5 km easterly, to Highway 673.
The purpose of this study is to:

- Identify a preferred solution that meets short-term and long-term needs.
- Investigate all significant issues, concerns and deficiencies within the project limits.
- Develop, assess and evaluate a complete range of alternatives that address the operational and safety concerns along Highway 17 within the project limits, utilizing the alternatives developed in the 2009 study.


## 4 EXISTING ENVIRONMENTAL FEATURES

### 4.1 NATURAL ENVIRONMENT

WSP undertook initial field reviews June 25 to 27, 2009 to develop a general understanding of aquatic and terrestrial conditions. WSP also met with DFO and MNRF on-site on June 26, 2009, to review the highway project and discuss potential implications in relation to the agencies' local knowledge base. Detailed aquatic field investigations were conducted on July 27 to 30, August 24 to 29 and September 23 to 24, 2009 on the preferred route alternative. Habitat assessment and fish community sampling were conducted at all watercourses/water bodies along the preferred route. Vegetation and wildlife habitat field inventories (including vegetation mapping, vegetation inventories and general wildlife observations) were conducted on August 24 to 29, 2009 along the preferred route. Investigations included vegetation mapping, vegetation inventories and general wildlife observations.

Terrestrial field surveys were also conducted by WSP from December 3 to 6, 2018 to identify any changes to vegetation communities along the proposed twinning and otherwise confirm the prior community classification and general boundaries, document any additional natural heritage information and note any wildlife observations or sign / evidence.

The MTO met with MNRF in October 2018 to update them on the project and previous commitments. A field visit was undertaken to review existing conditions and gather input.

Existing features within the project area are described in the following sub-sections and illustrated in Exhibit 4-1, which was developed in 2009 and is consistent with field observations from 2018.

### 4.1.1 Designated Natural Areas

Background information was reviewed for the presence of designated areas within the vicinity of the project area. For the purposes of this document, 'designated natural heritage areas' include evaluated wetlands (including both Locally Significant and Provincially Significant Wetlands), Environmentally Sensitive Areas, Significant Wildlife Habitat and Areas of Natural and Scientific Interest.

Based on information available in the Natural Heritage Information Centre (NHIC) website database, information provided by the MNRF Land Information Ontario (LIO) database, the MNRF Kenora District species at risk (SAR) list and input from Kenora District MNRF (November 26, 2018, and January 13, 2019), findings indicate that there are:

- No regionally or provincially significant Areas of Natural and Scientific Interest;
- No identified Provincially Significant Wetlands and or Locally Significant Wetlands;
- No Environmentally Sensitive Areas; and
- No Provincial Parks, Conservation Reserves.


### 4.1.2 Vegetation

The vegetation communities present in the project area are a mosaic of wetlands (including deciduous swamps, marshes and thicket swamps), rock barrens, and coniferous, deciduous and mixed forests. Even though forested communities dominate the landscape, these communities have been influenced by timber harvest and natural disturbance (e.g., insect infestation or to a lesser extent, fire). These factors have transformed the historically conifer-dominated forest communities into mixed forest with early successional and pioneer tree species dominating many forest units.
Along and in proximity to Section 1, vegetation communities have been culturally influenced by previous highway construction, construction of related facilities (rest area and associated parking) and creation of access roads. In these areas the vegetation communities are of varying maturity and continuity and typically have low botanical diversity. However, these communities are generally contiguous with the expanse of adjacent habitat and therefore do provide wildlife habitat, as well as a 'buffering' influence for the highway and other locally disturbed areas to adjacent natural habitats. The majority of vegetation communities directly adjacent to the highway consist of cultural meadow (dominated by grasses and herbs) and cultural thicket.
Vegetation communities mapped in 2009 were verified in the field during December 2018 site investigations. Only minor changes in vegetation communities were noted during the recent surveys with the most significant change being the removal of vegetation for the expansion of the rest area, east of the Manitoba/Ontario border. Other changes were noted in the wetland units which is described in more detail below.
Due to the timing of the 2018 site investigations, it was difficult to provide an updated vascular plants list. However, given the minor changes in the vegetation communities it can be assumed that species listed in 2009 remains representative of the current vegetation conditions. In addition, no plant SAR were previously documented along the route, no new SAR have been reported along the route (NHIC, MNRF), and there is very low likelihood that any would have colonized the site since the previous field investigations. Therefore, an updated vascular plant list would not be expected to alter the proposed design or mitigation requirements and no subsequent field investigations were considered to be required. One floral change that was evident was the increase in the presence of the invasive wetland plant Common Reed (Phragmites australis). It was recorded during 2009 site investigations in five units but is now present in eleven units. Vegetation classification for the study area is outlined below.

## Forested Vegetation Communities

Forest types were classified using the Field Guide to Forest Ecosystem Classification (FEC) of Northwestern Ontario (NWST 1997).
The dominant forest type in the project area is Conifer Mixedwood; characterized by conifer species such as White Spruce, Jack Pine and Balsam Fir with a large hardwood component, typically Trembling Aspen and White Birch. The shrub layer in these forests is relatively dense, dominated by Beaked Hazel (Corylus cornuta), Mountain Maple (Acer spicatum) and regenerating Balsam Fir (Abies balsamea).
The second dominant forest type is Mainly Hardwood; characterized as being forest with less than $2 \%$ of conifer. This forest type is dominated by Trembling Aspen with associated Balsam Fir, Jack Pine, White Birch and White Spruce. Again, the shrub layer is usually very dense consisting of Mountain Maple and Beaked Hazel with an abundance of regeneration and large woody debris. This forest type occupies sites with deeper, richer soils. This forest type has become more dominant on the landscape as a result of timber harvest (removing the conifer component) and insect infestation (e.g., Spruce Budworm).
The remaining forest communities are pure Coniferous. This forest type is less frequent and associated with drier or wetter sites with Jack Pine dominant on upland, shallow soils and Black Spruce dominant in lowland areas.

## Wetland Vegetation Communities

Wetland types were classified using the Field Guide to Wetland Ecosystem Classification for Northwestern Ontario (NWST 1996).
A variety of wetland communities occur within the project area including: Cattail Marsh, Meadow Marsh, Conifer Swamp, Swamp Thicket, and Black Ash dominated Hardwood Swamp. In most cases a single wetland community type is relatively small but combined with other wetland community types to extend over larger areas (e.g., Cattail Marsh will transition into Swamp Thicket, Meadow Marsh etc.). The rugged landscape of the area greatly influences the location of wetlands that tend to occur in low depressions between rock outcrops or along stream corridors. Many of the wetland communities along the highway have been influenced by the construction of the existing highway and the remaining wetlands have been influenced by beaver activity.
Based on the 2018 field surveys, minor changes were noted in wetland communities. These changes consisted of slight community shifts from cattail dominated Marsh (W11) communities to Bluejoint Grass Meadow Marsh (W13) and vise versa. These changes are likely due to moisture regime changes and are expected over time. As well, there was one wetland community change from the treed swamp that was documented in 2009 to a marsh community; a Black Ash Swamp (W33) underwent a process of blowdown, likely following die-back, and is now best characterised as a Bluejoint Meadow Marsh (W13) community.

## Rare Vegetation Communities

MNRF indicated during a site meeting in 2009 that Black Ash Hardwood Swamp communities are considered locally rare and that this community was present in several locations within Section 1. The presence of this community along Section 1 was verified during the 2018 site visits. The majority of these communities continue to be located in the existing highway right-of-way (ROW) where wetlands have been modified or created from changes in drainage patterns related to previous highway construction. Efforts will be made to restrict the clearing and general impacts to Black Ash communities throughout the preferred road corridor.

### 4.1.3 Wildlife

## Wildlife and Wildlife Habitat

The region supports an extensive mosaic of forest, wetlands, lakes and watercourses. Together these habitat features support a diverse array of inter-connected high-quality habitats and a diverse assemblage of wildlife typical of the boreal and Great Lakes Transitional area landscapes. The large, continuous expanse of varied habitats provides conditions suitable for a wide variety of wildlife species that utilize forests, forest edges, wetlands and aquatic habitats. This general characterisation continues to be representative of the region and the general project area.
During 2018 site investigations, no new observations of avifauna or mammal species were noted compared to those recorded in 2009. Herpetofauna observations were not possible in 2018 given the timing of the surveys, but like the 2009 field work, observations of other wildlife continue to be representative of the project area as expected given the habitat conditions remain essentially the same. The species assemblage reflects the characteristics of the habitat, with generally tolerant, common species being recorded during the surveys in the habitats exposed to the highway corridor, and the expectation that the surrounding habitat mosaic further from the highway supports a more diverse array of more sensitive species. Many of these species likely use the highway vicinity for incidental foraging or movement to other habitat but are unlikely to use the highway corridor for sensitive life history functions. No stick nests, evidence of overwintering raptors or colonial nesting sites were observed within Section 1 during the 2018 site investigations, and no bird nests were found in any of the culverts inspected during the 2018 survey. Only two of the culverts that could be accessed along this section were considered large enough to support potential nesting.

MNRF did not indicate any new concerns with any bird species in their project update replies in 2018 and 2019.

Abundant track and sign of White Tail Deer was recorded during the 2009 field work, consistent with MNRF's comments at the time that the population was high. Several relatively heavily used trails were observed, and evidence of over-wintering concentration was recorded in several locations. Some tracks of Moose were also noted. During the 2018 site investigations, tracks of White Tail Deer were recorded, although not nearly in the abundance evident in 2009. Despite specific efforts to locate
any heavily used trails that might reflect movement corridors, none were noted in 2018, nor were any areas of high use (e.g., overwintering areas or important browse areas) observed during the 2018 site visit. Large mammal collision information obtained from MTO was reviewed prior to the field work and sites of road mortality inspected for evidence of movement/trails; none were noted. No Moose tracks were recorded in 2018.

The field findings are not sufficient to draw any conclusions about the relative populations of the large animals or changes between 2009 and 2018, although as noted by MNRF, these populations cycle over time.
Findings of the 2009 field survey program and reporting, consistent with the 2018 observations, are outlined below.
Mammals: The following mammals were observed within the project area: Red Squirrel (Tamiasciurus hudsonicus), Least Chipmunk (Tamias minimus), Snowshoe Hare (Lepus americanus), Raccoon (Procyon lotor), Beaver (Castor canadensis), Ground Hog (Marmota monax), Red Fox (Vulpes vulpes), White-tailed Deer (Odocoileis verginianus), Black Bear (Ursus Americana) and Grey Wolf (Canis lupus). Additional mammals that are common in the general area but were not directly observed by WSP include: Lynx (Lynx Canadensis), Mink (Mustela vison), Ermine (Mustela erminea), Striped Skunk (Mephitis mephitis), Otter (Lutra Canadensis) and Moose (Alces alces).
Birds: The following birds were observed within the project area: Mallard Duck (Anas platyrhynchos), Common Loon (Gavia immer), Blue Jay (Cyanocitta cristata), Gray Jay (Perisoreus Canadensis), Hairy Woodpecker (Picoides dorsalis), Belted Kingfisher (Megaceryle alcyon), Pileated Woodpecker (Dryocopus pileatus), Chickadee (Poecile atricapillus), Vulture (Cathartes aura), Raven (Corvus corax), Yellow Warbler (Dendroica petechia), Broad-winged Hawk (Buteo platypterus), Bald Eagle (Haliaeetus leucocephalus) and Osprey (Pandion haliaetus) (outside of project area). Bald Eagles were observed feeding on carrion along the side of the highway and in flight above the highway. No stick nests or colonial nesting sites were observed within the project area. MNRF also noted the presence of the following raptors within the general area: Great Grey Owl, Goshawk, Merlin, Harrier, Saw-whet Owl, Boreal Owl, Hawk Owl and Sparrow Hawk.
Amphibians and Reptiles: A total of 6 amphibians and 1 reptile were observed in Sections 1 during field surveys. Amphibians observed were American Toad (Bufo americanus), Wood Frog (Rana sy/vatica), Green Frog (Rana clamitans), Gray Treefrog (Hyla versicolor), Northern Leopard Frog (Rana pipiens) and Blue Spotted Salamander (Ambystoma taterale). Garter Snake (Thamnophis sirtalis sirtalis) was also observed. Remnants of a turtle shell (road mortality) were also observed, and presumed to be that of a Snapping Turtle.

Area Sensitive Wildlife: Of the incidental wildlife observations made during field surveys, three of the bird species are considered Area Sensitive according to the Significant Wildlife Habitat Technical Guide (OMNR 2000). These are: Pileated Woodpecker, Hairy

Woodpecker and Broad-winged Hawk. This is not unexpected given the limited size and fragmentation of habitats within the project area.

## Significant Wildlife Habitat

Wildlife habitat significance is identified by MNRF using the Significant Wildlife Habitat Technical Guide (OMNR 2000), in which "significant wildlife habitat" is broadly categorized as:

- Seasonal concentration areas (e.g. conifer forests for deer wintering);
- Rare vegetation communities or specialized habitats for wildlife;
- Habitats of species of conservation concern, excluding the habitats of endangered and threatened species; and
- Animal movement corridors.

Moose Aquatic Feeding Areas were identified in three areas throughout Section 1, outside of the study area (but within 500 m ) as outlined on Exhibit 4-1. No other Significant Wildlife Habitat including seasonal concentration areas, rare vegetation communities or specialized habitats for wildlife were identified by MNRF or observed by WSP during 2009 or 2018 field surveys. Based on the minimal amount of change to habitat conditions observed during the 2018 site investigation and given that neither MNRF databases or consultation with MNRF identified any additional Significant Wildlife Habitat features, the assessment presented in 2009 remains representative.

A mineral lick was observed during the 2009 field review and verified by MNRF staff within the existing ROW at approximately Sta. 11+900. This mineral lick was discussed with the MNRF who determined that removing this feature would be beneficial to remove this source of wildlife attraction to the highway vicinity with associated elevated mortality risk.

As outlined above, large mammals appear to move, with freedom and regularity, throughout Section 1 and the project vicinity, with no defined preferential or regional level corridors. White-tailed Deer were by far the most common. Although some concentration of tracks into trails was evident in the 2009 field work, no well-defined trails were noted in 2018. As also noted above, some evidence of over-wintering concentration of deer was noted during the 2009 work but not in 2018. The 2009 survey timing was likely slightly early in the winter to assess overwintering concentration, especially for Moose.
No stick nests, evidence of overwintering raptors or colonial nesting sites were observed within Section 1 during the 2018 site investigations.



IIS|)
Highway 17 - Manitoba Border to Kenora Vegetation Communities


Date: August 2019



### 4.1.4 Fisheries and Aquatic Habitat

The project area traverses the Whiteshell River Watershed which encompasses Royal Lake, Moth Lake the Whiteshell River and Baubee Lake. The majority of the watercourses and waterbodies throughout the project area and along the proposed alignment, are small, warmwater tributaries or wetlands that ultimately drain to these larger systems. A large number of these features are modified by Beaver Activity. Within the study limits Baubee Lake is located south of the existing highway. Immediately adjacent to the project Moth Lake, Royal Lake, and the Whiteshell River are west of the study limits.

The MNRF identified that limited fisheries and aquatic ecosystem information currently exists within the area. Within the project limits and vicinity, no fish spawning areas were identified through the MNRF's Natural Resource Values Information System (NRVIS) database. Furthermore, discussions with Kenora MNRF staff in 2008 and 2018 indicated that there are no known areas of critical fish habitat (i.e. spawning sites, etc.) within or adjacent to the highway ROW.
However, young-of-the-year Northern Pike were found at a tributary to Baubee Lake in 2009, and potential spawning habitat was identified at two other locations, and it is generally recognized that several of these connecting streams may potentially support important habitats (i.e. spawning, rearing and migration) for this species, and possibly others. Within Section 1, a total of 12 existing culverts cross Highway 17. In addition, there are 2 open waterbodies that lie adjacent to the existing highway (draining to culverts via the highway ditchline) and three wetland/open water features, which lie outside of the ROW but also ultimately drain to the existing culvert crossings. Exhibit 4-1 illustrates the existing culverts and the wetland/open water features within the project area. Five sites support direct fish use, 1 site (C10) supports some potential for direct fish use and the remaining sites convey localized or highway drainage only.
A list of the sites where sampling was conducted and a list of the species caught has been included in Exhibit 4-2 below. Fish sampling was conducted by North-South Consultants Inc. between July 27-30 and September 23-24, 2009. Also included in this table are incidental fisheries observations from 2009 surveys and fisheries surveys conducted by Cook Engineering in 2005 as part of the Highway 17 Road Improvements Study. No significant changes to fisheries habitat were identified by the MNRF during the 2018 field surveys.

All 12 of these direct fish use watercourses found in Section 1 support warmwater forage and baitfish communities. Within Section 1 a tributary to Baubee Lake (C9) has been confirmed as supporting a warmwater fish community with sportfish (Northern Pike). Overall, 7 species recorded in Section 1. No coldwater species or aquatic species of concern or at risk were observed or reported for these watercourses and drainage features. Furthermore, no direct spawning areas or critical habitat was observed and only select areas identified have the potential to contribute spawning however this is not limiting within the watercourse or watershed.

Exhibit 4-2: Summary of Fish Sampling Results for Watercourses/Waterbodies within the Highway 17 Section 1

| Fish Captured |  | Culvert Crossing - Sampling Site Location |  |  |  |  |  |  | Total \# of times species is represented |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Common Name | Scientific Name | WB1 | C4 | C5 | C9 | C10 | WB4 | WB6 (east of C12) |  |
| Central Mudminnow | Umbra limi | $1^{+}$ | 29 | 4 | 5 |  |  |  | 4 |
| Fathead Minnow | Pimephales promelas |  |  |  |  |  |  | 9 | 1 |
| Finescale Dace | Phoxinus neogaeus |  | 1 |  |  | $\stackrel{\rightharpoonup}{5}$ | $\stackrel{\rightharpoonup}{5}$ | 2 | 2 |
| lowa Darter | Etheostoma exile |  |  |  |  | $\underset{J}{\overleftarrow{J}}$ | $\underset{J}{ভ}$ |  |  |
| Northern Pike | Esox lucius |  |  |  | $\mathbf{1}^{++}$ | $\underline{\mathbf{\top}}$ | $\xrightarrow[\underline{\top}]{\underline{\top}}$ |  | 1 |
| Brassy Minnow | Hybognathus hankinsoni |  |  | $2 *$ | 2* | $\begin{aligned} & \text { II } \\ & \text { O } \end{aligned}$ | $\begin{aligned} & \text { 픔 } \\ & \text { 은 } \end{aligned}$ |  | 2 |
| Spottail Shiner | Notropis hudsonius |  |  |  | 4* |  |  |  | 1 |
| Total number of species for each site |  | 1 | 2 | 2 | 4 | 0 | 0 | 2 |  |
| Total Count of fish caught |  | 1 | 30 | 6 | 12 | 0 | 0 | 11 |  |

*Cook Engineering fishing results (2005)

+ Dipnetted by WSP (formerly Ecoplans) in August 2009 (no formal sampling completed)
++ Observed by North-South Environmental/Ecoplans in June 2009 (YOY)

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### 4.1.5 Species of Conservation Concern

The term species of conservation concern is used herein to describe species that are "designated" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and/or listed under the Species at Risk Act (SARA); species "designated" by the Committee on the Status of Species at Risk in Ontario (COSSARO), species that are listed as endangered, vulnerable, special concern and regulated under Ontario's Endangered Species Act (ESA); and provincially rare species (S-rank of S1 to S3) and locally rare species listed in the Checklist of Vascular Plants of Thunder Bay District (2003).

During the 2018 site investigations an effort was made to identify and locate any flora and fauna species that are were known to either occur or have potential to occur in the study area where feasible given the survey timing. In the January 13, 2019 information request, MNRF noted that they have uncertainties regarding the Golden-eye Lichen observation, and they have no further concerns regarding this species in the study area.

## Vascular Plants

No federally or provincially sensitive vascular plant species were identified during the field surveys or in the background database. This remains the case based on site investigations and background surveys and MNRF consultation conducted in 2018.
One "S ranked" (the NHIC provincial ranking system) species of S3 or higher was observed and documented in 2009. Vasey Rush is ranked as S3 by the MNRF, meaning it is uncommon throughout its range or in the province. Vasey Rush was observed at two locations within Section 1, in Units 6 and 14. Due to the timing of the 2018 site investigations, verifying the presence of this species was not possible. However, since the vegetation communities where this species was documented are still present there is no reason to assume this Vasey Rush is not present. This species was also found in other portions of the project area and is assumed to be relatively common given its habitat conditions are also well represented generally in the area.
As also documented in 2009, MNRF indicated that Flooded Jellyskin was potentially present in the general area. It was not found during field surveys in 2009. Since 2009, Flooded Jellyskin has been delisted and is no longer considered a species of conservation concern.

Although not defined as a SCC, Bur Oak and American Elm were identified in 2009 as a species of interest to MNRF. Several locations of these trees were observed in 2009 and their numbers and coordinates recorded during the 2018 surveys. Sixteen (16) Bur Oak and nine (9) American Elm were recorded with more trees being documented than in 2018. The size and health of the trees were recoded and seem to be consistent with 2009 observations.

## Wildlife

The 2009 Ecoplans report documents Franklin's Ground Squirrel as being recorded within the rest area in Section 1. This species is ranked by NHIC as Vulnerable (S3)
provincially, but not designated federally by COSEWIC or provincially by COSSARO, and is not protected under the Endangered Species Act. Ideal habitat for this species is tall and short grassed prairie but there have been reports that the Franklin's Ground Squirrel will den along forest edges in proximity to wetlands, riverbanks and ditches. Franklin's Ground Squirrel was not observed by Ecoplans during the 2009 field investigations or by WSP during the 2018 investigations.
Additional species noted in 2009 as being potentially present in the vicinity of the project area include: Bald Eagle (Haliaeetus leucocephalus), Eastern Cougar (Puma concolor), Eastern Wolf (Canis lupus lycaon) and Snapping Turtles (Chelydra serpentina).
Bald Eagle was observed during the 2009 field surveys feeding on carrion along the side of the highway and in flight above the highway. MNRF noted that this feeding activity along the highway is common, and often results in mortality of the eagles. Bald Eagle is designated by COSSARO as Special Concern and considered as Not at Risk by COSEWIC. No stick nests were noted in 2009 or observed by WSP during the 2018 site investigations, nor were any / many large trees with suitable for nesting observed. This species would likely nest away from the highway corridor and usually close to larger bodies of water.
Sightings of 'cougar' were noted in 2009 as not being an uncommon occurrence in northern Ontario. Eastern Cougar is designated as Endangered by COSSARO and ranked by NHIC as Possibly Extirpated [SH]. Not unexpectedly given the general illusiveness of this animal, none was observed in 2009 or 2018, and no local reports provided by MNRF.
Wolf sightings were noted as being common in the study area and adjacent lands and a wolf carcass was seen along the highway edge during 2009. Eastern Wolf, is designated as Endangered by COSEWIC and COSSARO. During the 2018 surveys tracks that likely belonged to Eastern Wolf were observed.
Snapping Turtles has the potential to utilize wetland habitat in Section 1 and possibly nest along the sandier south facing highway shoulders, however no sightings or evidence of nesting was recorded in 2009 (or 2018). Snapping Turtles are designated by COSEWIC as Special Concern, by COSSARO as Special Concern and by NHIC as Vulnerable (S3) provincially. Nesting habitat is typically comprised of soft soil or clean dry sand on south-facing slopes. Shoulders of the highway often provide ideal nesting habitat for the Snapping Turtle and are frequently used. This species was recorded nesting along the highway shoulder further east.
All of these species continue to have potential to utilize habitat present in the habitat system surrounding Section 1. Other than Snapping Turtle, which frequents wetlands and highway shoulders regularly, and Bald Eagle, which feeds on road carrion, these species are expected to use the highway ROW and immediate vicinity only incidentally, most likely as they move along or across it to reach other habitat.
During the 2018 field surveys, accessible culverts were checked for evidence of Barn swallow (Hirundo rustica). No indication of nesting was observed.

### 4.2 SOCIO-ECONOMIC ENVIRONMENT

### 4.2.1 Project Location

The study area is located just west of the City of Kenora, and approximately 160 km east of Winnipeg, Manitoba. This section of the study area is not densely populated, and dwellings are divided between permanent and seasonal residences.
The population of the City of Kenora is 15,096 ( 2016 Census). The population in the District of Kenora, which covers an area of $407,268.65$ square km, is 65,533 (2016 Census).
This project is located within the MTO's Northwestern Region.

### 4.2.2 Adjacent Land Uses

Adjacent land uses are presented from West to East.

## TransCanada Pipelines Road Access

This road, located approximately 600 m east of the Manitoba/Ontario border, provides access to a TransCanada Pipelines pumping station, located approximately 1 km south of the existing Highway 17.

## Logging Industry

Weyerhaeuser Company Limited has been granted a Sustainable Forest License, to harvest all tree species in the Kenora forest, surrounding Highway 17 in the project area. Weyerhaeuser has advised that the TransCanada Pipelines access road is used for logging operations.

## Rest Area

The former Ontario Travel Information Centre located approximately 1.25 km east of the Manitoba/Ontario Border was converted into a Rest Area in 2018. There are some planned improvements to the existing structure including enhanced lighting, renovations to washrooms, improved insulation/heating, providing wifi and new information kiosks. The Rest Area accommodates parking for passenger vehicles, heavy trucks, combination vehicles and recreation vehicles. A second entrance was provided to improve the overall circulation by minimizing the mixing of large vehicles and cars.

## Fire Roads 47 and 48

These roads provide access to Baubee Lake waterfront residential dwellings on the south side of Highway 17.

## Highway 673

This road is east of the study area and provides access to Shoal Lake 39 First Nation.

## Traditional Land Uses

The study area is within traditional territory of Indigenous communities. Traditional land uses exist within and in proximity to the study area, accessed by adjacent Indigenous communities. Traditional land use studies are underway, and findings will be incorporated into this study when available.

### 4.2.3 Property Waste and Contamination

A Contamination Overview Study (COS) was carried out in 2009 to identify areas or properties with actual and/or potential site contamination within the Highway 17 project area and to identify appropriate future work and mitigation measures. Since the land use did not change, the findings of the COS are assumed to be consistent with the 2009 findings.

Based on the findings of this report, broad Areas of Potential Environmental Concern (APECs) have been identified and are described below.

## Areas of High Contamination Potential

No areas of high contamination potential were identified within the project area.

## Areas of Moderate Contamination Potential

The potential for road salt impacts to the soil along the Highway 17 right of way (ROW) represents a moderate potential for contamination in the event that any future road construction is to occur along the ROW. Appropriate management of salt impacted soil (and groundwater) will be required with due regard to environmental regulations.

## Areas of Low Contamination Potential

All other land use features not highlighted above are considered to have a low potential for site contamination. These areas are generally classified as open space, residential or commercial that are not suspected of using chemical compounds harmful to the environment or human health. No additional environmental investigations are recommended for these areas.

### 4.2.4 Noise

In order to determine noise impact, a comparison was made between the predicted future noise levels with the proposed undertaking in place (10 years after construction) and the predicted future noise levels associated with the "do nothing" alternative at the same date. The significance of a noise impact is calculated by comparing these two sound levels, qualified by using the objective of 55 dBA in addition to the change in noise level above the ambient sound level. This study was completed in 2009, however, since there have been no changes to the surrounding land use and traffic volumes have not changed significantly, noise impacts are anticipated to be the same, as follows.

Adjacent land uses through Section 1 of the Highway 17 corridor are mainly logging/industrial, dispersed residential and open space. The adjacent Noise Sensitive Area (NSA) is as follows:

- Baubee Lake waterfront residential dwellings, on the south side of Highway 17 (NSA 1).

The review of potential noise impacts of the proposed Highway 17 Four-Laning takes into consideration the following:

- Highway 17 is considered to be the dominant noise sources within the project area given the higher traffic volumes on Highway 17 in comparison to other local roads.


### 4.3 CULTURAL ENVIRONMENT

### 4.3.1 Archaeology

A Stage 1 Archaeological Assessment was carried out in 2009 to identify and assess the known and potential archaeological heritage resources within the Highway 17 project area. Assessment activities were performed in accordance with the provisions of the Ontario Heritage Act (R.S.O. 1990, C.O. 18) and in compliance with the Archaeological Assessment Technical Guidelines (MCL 1993).
There are a relatively large number of registered archaeological sites located in and near the project area. The majority of these sites are located on islands and rivers near Kenora. Their discovery is likely a result of cottage development in the Kenora area as well as the fact that a Provincial Archaeologist maintained an office in Kenora until the late 1990s. Additional findings of the Stage 1 Archaeological Assessment are summarized in Section 7.10.
A Stage 2 Archaeological Assessment was carried out during fall 2009 because of the high potential for archaeological findings as recommended by the Stage 1 Assessment. There were no significant archaeological impacts identified as part of the Stage 2 Archaeological Assessment. No additional archaeological work is required, and the Stage 2 Archaeological Assessment report was filed with the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI).

### 4.3.2 Built and Cultural Heritage

A Built Heritage and Cultural Heritage Landscapes Existing Conditions Report was prepared to identify heritage resources present within the project area. The report was prepared based on a desktop survey of the project corridor.
Based on the desktop survey the following principal, person-made cultural heritage landscapes 40 years and older located were identified within and adjacent to Section 1 and Section 2:

- King's Highway 17;
- Abandoned sections of Highway 17; and,
- Local roadscapes.

No built heritage resources were identified from the desktop survey.

### 4.4 TRANSPORTATION AND UTILITIES

### 4.4.1 Road Network

The project area is serviced almost exclusively by Highway 17, with one signed road, Gundy Road (a.k.a., Gundy Lake Road) intersecting the highway. There are also a few accesses to Crown land, utilities, and private properties. A recently reconstructed rest area (formerly an Ontario Travel Information Centre) is also located in the project area, with access directly from the highway.

Unsigned accesses located along Highway 17 in this area include two abandoned highway/forest accesses, a utility road to Trans-Canada Pipelines (also used for logging access), and two accesses to private properties (Fire Roads 47 and 48).

Highway 17 is part of the Trans-Canada Highway in this area, and is classified rural, arterial, undivided with a design speed of $110 \mathrm{~km} / \mathrm{h}$ (i.e., RAU 110) and a posted speed of $90 \mathrm{~km} / \mathrm{h}$. The existing highway right-of-way varies from 45.7 to 75 m within the project area.

In 2009, resurfacing and other improvements were completed on Highway 17 as part of Contract 2008-6011, G.W.P. 48-96-00. As part of this work, the travel lanes were widened to 3.75 m , shoulders were widened to 2.5 m (where possible), and 1.0 m of rounding was provided where possible (minimum 0.5 m ). Passing lanes were proposed, and were partially constructed; however, in light of the current study, these features were not completed. Exhibit 4-3 illustrates the typical cross-section of the existing Highway 17 within the project area.

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\text { Exhibit 4-3: Existing Highway } 17 \text { - Typical Cross-Section }
$$



## Abandoned Highway/ Forest Access

This access is situated on the north side of the highway, approximately 300 m east of the Manitoba border. This access is primarily used as a snow plough turnaround by the Province of Manitoba and as a forest access; the site appears to be lightly used.

## Rest Area (Former Ontario Travel Information Centre)

Formerly the site of an Ontario Travel Information Centre, the access to this rest area is located on the south side of Highway 17, approximately 1.25 km east of the Manitoba
border. The site provides a place for drivers to rest, along with picnic and dog-walking opportunities. The rest area's parking area previously accommodated 31 passenger vehicles, but has been recently expanded to provide parking for 15 heavy trucks, 4 long combination vehicles, and 4 recreational vehicles; a second entrance onto Highway 17 was also provided during expansion work to improve vehicle flow on the site (i.e. by minimizing the mixing of larger vehicles/trucks and cars).

## Private Property Access

Access to all identified private properties in this section will be maintained.
Some accesses to Crown land are to be closed, including some connections to abandoned highway; these closures will be in addition to those closed as part of recent highway improvements.

It is noted that a subsequent MTO planning process will consider the ultimate access along the highway and further road closings may be considered at that time. As part of the 2008-6011 contract the following roadways were closed:

- Roadway at E11+550 (north side of Highway 17);
- Roadway at E13+150 (north side of Highway 17); and
- Forest access at E14+280 (north side of Highway 17).


### 4.4.2 Rail Network

A Canadian Pacific (CP) Rail line runs east-west approximately 5 km north of Highway 17 and a Canadian National (CN) Rail line runs east-west approximately 20 km north of Highway 17 outside the project area. There are no railway conflicts within the project area.

### 4.4.3 Recreational Facilities and Trails

Snowmobile trails are located on each side of Highway 17, but outside of the project area. No recognized snowmobile trail crosses Highway 17 within the project area.

Within the study area there is a proposed on-road cycling facility that will form part of Ontario's Provincial Cycling Network. There are also existing Trans-Canada Trails in Manitoba near the Ontario border.

A canoe trail runs east-west approximately 40 km north of Highway 17 and is part of the Blueway, a link within The Trans-Canada Trail network.

### 4.4.4 Emergency Services

All emergency services access the project area from the east. A volunteer fire station is located in Clearwater Bay, with police, ambulance, and additional fire services based in Kenora. Highway 17 is the only route that accesses the project area from the east.

Being the only east-west roadway in this area, Highway 17 is an important link for emergency services. No emergency service facilities are situated within the project area.

### 4.4.5 Illumination and Traffic Signals

There are no MTO owned/operated roadway illumination within the project limits. There is existing parking lot illumination within the rest area.

There are no traffic signals within the project limits.

### 4.4.6 Drainage

A review of the local drainage conditions was carried out to determine the physical characteristics and conditions of the existing transverse culverts and side road culverts along the existing highway and to characterize the related drainage features within the project limits including potential need for creek realignments.

The land surrounding the highway within the project area is primarily comprised of woodland areas. The topography of the project area consists of rolling terrain with rocky outcrops, with several lakes, streams, and swamps. The Ontario Soil Survey indicates that the predominant soil types within the project area fall within the hydrologic soil group 'C'.
Exhibits 4-4 to 4-5 show the existing culvert locations within the project area. Highway drainage is achieved through roadside ditches and transverse culverts. There is a total of 12 transverse culverts located within the project limits that were inspected. The existing transverse culverts have been numbered consecutively from the west project limit (Manitoba / Ontario border) to the east limit of the project.
Of the 12 existing transverse culverts crossing Highway 17 within the project area, Culverts 4,5 and 6 are concrete box culverts, and all other culverts are CSPs. Culvert 9 on an unnamed watercourse has a catchment area of 243 hectares.



### 4.4.7 Utilities

The following utilities and their approximate locations have been identified:

## Exhibit 4-6: Existing Utilities

| Utility | Type/Location |
| :--- | :--- |
| TransCanada <br> Pipeline | $-\quad$Approximately 1.5km south of Highway 17, two existing <br> TransCanada Pipelines run generally east-west along <br> independent corridors.$\quad$- An existing pumping station that services both corridors is <br> located approximately 800m east of the Manitoba / Ontario <br> border. Access to the station from Highway 17 is located <br> approximately 600m east of the Manitoba / Ontario border. |
| Bell Canada | A Bell Canada underground fibre line runs east-west within <br> the existing Highway 17 right-of-way on the north side of the <br> highway, from the Ontario/Manitoba border to approximately <br> 600 m east where it crosses under the highway and <br> continues east and then south towards the TCPL right-of-way <br> as an underground line. |
| Hydro One | A Hydro One distribution line runs east-west within the <br> existing Highway 17 ROW on the south side of the highway <br> from the Manitoba / Ontario border easterly to the rest area |

## 5 ALTERNATIVES AND EVALUATION

This section summarizes the generation analysis and evaluation of alternatives for the improvements to Highway 17. Consistent with the 2009 study, alternatives were considered to address the following transportation needs for Highway 17:

- Expansion of Highway 17 to provide more through capacity;
- Improvements to safety through introducing a median separating the eastbound and westbound traffic movements;
- Reconfiguration of some existing intersections to provide a median crossover;
- Modifications to some highway entrances to provide improved sight distance and allowing only right-in right-out access; and,
- Closing of some entrances to reduce intersection frequency and yet retain access to private property.

The analysis and evaluation process for the improvements to Highway 17 has been separated into two components:

- Generation and Assessment of Planning Alternatives (described in Section 5.1);
- Generation and Assessment of Route Alternatives (described in Section 5.3);


### 5.1 PLANNING ALTERNATIVES

The MTO Class EA requires that "alternatives to the undertaking" be considered to ensure that there is reasonable and adequate justification to proceed with the improvements and that the need for the project is clearly demonstrated. The alternatives are assessed against their ability to reasonably address the identified transportation needs and opportunities, which are documented in Section 3.0.

The alternatives to the undertaking associated with the identified transportation needs are:

- Do Nothing;
- Transportation Demand Management (Reduce Peak Demand);
- Non-Roadway Improvements (Rail, Air, Transit);
- Localized Operational Improvements (Existing Highway 17); and,
- Highway 17 Corridor Capacity Improvements.

Exhibit 5-1 shows the advantages and disadvantages of each alternative.

| CRITERIA | ALTERNATIVES |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | DO NOTHING | Transportation Demand Management <br> (Reduce Peak Demand) | Non Roadway Improvements (Rail, Air, Transit) | Localized Operational Improvements (Existing Highway 17) | Highway 17 Corridor Capacity Improvements |
| LONG TERM NEEDS |  |  |  |  |  |
| Congestion Decreased | Congestion will increase as traffic volumes increase over long term | Congestion will not decrease significantly | May result in small decrease in congestion over short term as alternates modes are used | Congestion will increase as traffic volumes increase | Congestion reduced with significant capacity improvements |
| Road Safety Improved | Potential for collisions will increase as traffic volumes increase | Safety will not improve | Will not improve safety in existing highway corridor | Minor safety improvements | Safety improved with design / capacity changes |
| Accessibility Improved | Area access more difficult as traffic volumes increase | Area access may not improve, may be more difficult | May improve regional access. May not improve local access. | Minor effect on accessibility | Area access improved with capacity improvements |
| Serve Local Needs | Will not service local needs due to higher congestion | Will not service local needs due to higher congestion | Will not service local needs due to higher congestion | Will not service local needs due to higher congestion | Will serve local needs. Access changes may be required |
| Can be Staged | Not applicable | Can be staged | Cannot be effectively staged | Can be staged | Can be staged |
| MINIMIZE NEGATIVE IMPACT |  |  |  |  |  |
| Minimize Economic Impact | Economic potential may be limited with existing highway | Shifting travel patterns may cause economic impact | Minimal impact on highway businesses. Does not support area tourism focus | Economic potential may be limited with existing highway | Regional mobility is a positive impact however potential change to local business access |
| Minimize Environmental Impact | No impact | Minimal impact | Minimal impact if existing corridors used | Minimal impact | Some impacts, most of which can be mitigated |
| Minimize Socio/Cultural Effects | Minimal impact | High Impact Potential (ie. Staggered work hours / caps on development | Minimal impact | Minimal impact | Some impacts, most of which can be mitigated |
| CONSISTENT WITH EXISTING SYSTEMS |  |  |  |  |  |
| Existing Corridor Available | The existing highway corridor is available | The existing highway corridor is available | Existing rail corridor and existing highway, air and marine corridors are available | The existing highway corridor is available | The existing highway corridor is available |
| Required Different Modes | Possible modes include cars, trucks and buses | Possible modes include cars, trucks and buses | Requires other modes to access rail/marine/air facilities | Possible modes include cars, trucks and buses | Possible modes include cars, trucks and buses |
| Cost Effective | The most cost effective solution considering capital cost | The most cost effective solution considering capital cost | Not cost effective since significant additional infrastructure required to achieve local access | A cost effective solution considering capital cost | More costly solution. Economic benefits to the area and improved highway safety and operation offset captial costs |
| COMMENTS |  |  |  |  |  |
|  | Will not meet the area's future needs. Minimal impact. Consistent with existing systems | Will not meet the area's future needs. Potential impact on development. Consistent with existing systems | Will not meet the area's future needs. Not consistent with existing systems. Does not adequately address long term needs as highways are the major means of transportation | Will not meet the area's future needs. Minimal impacts. Consistent wih existing systems | Will meet the area's future needs. Some impact requiring mitigation. Consistent with existing systems |
| RECOMMENDATION |  |  |  |  |  |
|  | Eliminate from further consideration | Eliminate from further consideration | Eliminate from further consideration | Eliminate from further consideration | Carry forward for further analysis |

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Highway 17 Four-Laning between the Manitoba/Ontario Border and Highway 673

### 5.2 PREFERRED ALTERNATIVE

The Highway 17 Corridor Capacity Improvement alternative listed in Exhibit $5-1$ will address the identified transportation needs by providing an opportunity to improve the roadway capacity, improve the safety through provision of an open median, modify the existing entrances to accommodate only right-in right-out movements and improve the design of existing intersections. This alternative was therefore selected as the preferred planning alternative and was carried forward for further study.

### 5.3 GENERATION AND EVALUATION OF ROUTE ALTERNATIVES

The previous section described the alternative methods of addressing the identified capacity and safety needs within the project area, and identified the Highway 17 Corridor Capacity Improvement as the preferred alternative. This section describes the preliminary design concepts for the route alternatives for Highway 17.
The following sections describe the generation and evaluation of the route alternatives. Route alternatives for this section are reviewed for the entire section.

The alternatives for the above have been subjected to an analysis and evaluation process, leading to the identification of a selected alternative. The criteria used by the Project Team to evaluate the alternatives for the above elements include, but are not limited to:

- Natural Environment, including watercourses, habitats, vegetation, and wildlife;
- Socio-Economic Environment, include property requirements, impacts on existing and future land uses, utilities, emergency response, site contamination and noise;
- Cultural Environment, including archaeological, built heritage, and cultural landscape resources;
- Transportation Considerations, including traffic operations, geometrics, access management, continuity of local road access, safety, and staging flexibility; and
- Construction Cost, including construction and constructability costs.

The analysis and evaluation of the alternatives is based on a qualitative comparative analysis for each of the factors noted above.

### 5.3.1 Route Alternatives

Alternative 1A

Alternative 1A is a south twinning of Highway 17 with a constant median width in all of Section 1. Major impacts include the relocation of the rest area, and the infilling of a watercourse feature. Exhibit 5-2 shows Alternative 1A.

Alternative $1 B$
Alternative 1B is a south twinning of Highway 17 in Section 1, with an increased median width along the same watercourse feature. Major impacts include the relocation of the rest area and the crossing of a wetland in a larger area than in Alternative 1A. Exhibit $5-3$ shows Alternative 1B.

## Alternative 2

Alternative 2 is a north twinning of Highway 17 with a constant median width in all of Section 1. The major impact of this alternative is a long wetland crossing, incurring major construction challenges. Exhibit 5-4 shows Alternative 2.

## Alternative 3A

Alternative 3A is a north twinning on the west portion and a south twinning on the east portion of Highway 17, with a transition approximately half-way in Section 1. The median width is constant in all of Section 1. The major impact of this alternative is a long wetland crossing. Exhibit 5-5 shows Alternative 3A.

## Alternative 3B

Alternative 3B is a north twinning on the west portion and a south twinning on the east portion of Highway 17, with a transition close to the rest area. Median width is not constant, with a large median around a watercourse feature, allowing for reduced impacts due to a short wetland crossing. Exhibit 5-6 shows Alternative 3B.

Exhibit 5-7 shows the evaluation summary table for alternatives of Section 1.






| Criteria <br> Key features | Alternatives |  |  |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1A | 1B | 2 | 3A | 3B |  |
| Natural Environment Watercourse | 0 | 0 |  | 0 | $0$ | Alternatives 1A has high impacts on key natural environment features. <br> Alternatives 1B, 3A and 3B have moderate impacts on natural environment features that can be mitigated. <br> Alternative 2 has the least impacts on natural environment features. |
| Socio-Economic <br> Environment <br> Travel Information <br> Centre | O | O |  |  |  | Alternatives 1A and 1B have high impacts and result in displacing the Ontario Visitors Travel Information Centre. Alternatives 2, 3A and 3B have low impacts on key socio-economic features. |
| Cultural Environment | $0$ | $0$ |  |  | $0$ | Alternatives have similar potential impacts to cultural environment features. |
| Transportation Considerations Wetland Crossing | 0 |  | O | $0$ |  | Alternatives 1A and 1B avoid impacts to wetland crossing east of the Ontario Visitors Travel Information Centre. Alternative 1B has fewer constructability challenges. Alternative 2 results in constructability challenges due to high impact to wetland crossing west of the Travel Information Centre. Alternatives 3A and 3B avoid impact to wetland crossings. Alternative 3B allows for improved constructability. |
| Construction Cost | 0 | 0 | O | 0 |  | Alternatives 1 A and 1 B result in moderate costs due to the relocation of the Ontario Visitors Travel Information Centre. Alternative 3 results in moderate costs due to constructability challenges of infilling a wetland crossing. Alternative 2 results in high costs due to constructability challenges of infilling a wetland crossing west of the Travel Information Centre. Alternative 3B results in the least costs. |
| Overall Summary | O | 0 | $0$ | $0$ |  | Alternative 1A was not chosen due to high impacts on the natural and socio-economic environments, and technical considerations. Alternative 1B was not chosen due to impacts on natural and socio-economic environments, although it has fewer constructability issues. <br> Alternative 2 has less impact on natural and socio-economic environments, but was not chosen due to constructability and cost considerations. <br> Alternative 3A was not chosen due to its impacts on natural environment and some constructability challenges. <br> Alternative 3B is the selected alternative, as it has relatively few direct socioeconomic and natural environment impacts and has fewer constructability challenges, resulting in lower costs. |
| Recommendation | Not Selected | Not Selected | Not Selected | Not Selected | Selected |  |

Note: The evaluation of alternatives was carried out based on project specific criteria, taking into consideration the Team's knowledge of existing conditions.

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Highway 17 Four-Laning between the Manitoba/Ontario Border and Highway 673

### 5.4 SUMMARY OF THE SELECTED ROUTE

The selected route is shown in Exhibit 2-4 and described below. In addition, Appendix C contains detailed Design Plates of the Selected Route.

West of the Ontario/Manitoba border, the existing two-lane Highway 17 transitions to a four-lane divided highway with a 30 m or wider open median. East of the Ontario/Manitoba border two new westbound lanes will be constructed on the north side of Highway 17, while the two existing lanes will be used as the eastbound lanes.

The north-side twinning continues approximately 1 km to just east of the Rest Area at which point the twinning transitions to the south; this transition avoids a lengthy crossing of a large swamp on the north side of the highway. After the transition to the south, the existing Highway 17 lanes will become the future westbound lanes, and the new lanes to the south will be the future eastbound lanes.

The south-side twinning continues easterly to the end of the Section 1 project area. This four-lane alignment will ultimately tie in to a four-lane configuration in Section 2. The four-lane alignment in Section 2 will be identified in a subsequent study.
At the Rest Area, a median crossover intersection will be provided to allow access to the site from both directions of Highway 17, and to facilitate U-turn movements. Leftand right-turn lanes will be provided at this intersection. All other accesses will be configured as right-in/right-out intersections, with no median crossover. As noted in
Section 4.4.1, recent improvements to the rest area were made to accommodate long combination vehicles (LCVs) in the future. In order to provide adequate rest area access for LCVs at the associated median crossover intersection, a wider ( 36 m ) median will be provided. This will only service LCVs in the eastbound direction however, as westbound LCVs cannot be accommodated within the 36 m median. It should be noted that LCVs are currently not permitted to use Highway 17 in this area.
A median turnaround for emergency/maintenance vehicle use is provided between the rest area and Gundy Road.

East of the rest area, a wide (maximum 76 m ) median is proposed; this is due to a relatively deep swamp crossing that requires additional roadway platform for stability.

The design speed for proposed new construction is $120 \mathrm{~km} / \mathrm{h}$. The proposed highway has been designed to RFD 120 (rural, freeway, divided) standards, which provides flexibility for a possible future upgrade to the highway. The posted speed will remain 90 km/hr.

The following table outlines the side roads and entrances along Highway 17 within the project area and the proposed access.

Exhibit 5-8: Side Roads and Entrances

| Township | Description | Location <br> $\#$ | Side of Hwy | Access |
| :--- | :--- | :--- | :--- | :--- |
| Ewart | Abandoned <br> Highway/ Forest <br> Access | E10290 | N | Access Not <br> Provided |
|  | Utility Road, also <br> used for logging, <br> and old dump <br> access | E10600 | S | Retained, right in - <br> right out |
|  | Trails | E10650 | N | Access Not <br> Provided |
|  | Rest area | E11050 | S | Retained, right in - <br> right out |
|  | Rest area | E11250 | S | Retained, median <br> intersection <br> provided with EB <br> and WB lanes |
|  | FR48, Entrance | E13120 | S | Retained, right in - <br> right out |
|  | FR47, Entrance | E13790 | S | Retained, right in - <br> right out |

Retained as part of existing Highway 17

### 5.4.1 Typical Section

The typical cross-section of Highway 17 will include a minimum 30 m median, with a minimum right-of-way width of 110 m . Travel lanes will be 3.75 m wide, with paved shoulders of 1 m median and 3 m outside on the newly constructed lanes. The paved outside shoulders will accommodate active transportation users per the Provincial Cycling Network plan. Turning lanes will be 3.5 m wide. Exhibit 5-9 shows a typical cross section.

## Exhibit 5-9: Typical Cross-Section for Highway 17



The rest Area intersection will be provided with a median cross-over to allow access from both directions on Highway 17, and to provide U-turn opportunities. Exhibit 5-10 illustrates the typical cross section for the private access roads; these will typically be 5 $m$-wide unpaved roads.
Turning lanes will also be provided where needed. Exhibit $\mathbf{5 - 1 1}$ shows a typical fourlane intersection.


## Exhibit 5-11: Typical Four-Lane Intersection at Highway 17



Minor intersections and accesses will be provided with right-in/right-out movements only. To access these intersections from the opposite side of the highway, drivers would be required to turn around at the closest intersection allowing full turning movements and 'double-back' to the access. Exhibit 5-12 shows a typical local access and required movements through a typical intersection.

Exhibit 5-12: Typical Local Access and Intersection


### 5.5 Four-to-Two Lane Transitions

Four-laning of Highway 17 is proposed throughout the study area. It is assumed that the four-laning of Highway 17 through Section 1 will be completed in advance of improvements to Section 2 to the east and may be completed in advance of the fourlaning of Manitoba's Highway 1 to the west. As a result, an interim transition of Highway

17 from a four-lane divided cross-section to the existing two-lane, undivided crosssection near the east Section 1 study limit and west study limit (Manitoba border) may be required as shown in Appendix C.
Transition locations must be carefully selected, as it is important for drivers to be aware of the changing roadway environment. Roadway features such as vertical profile can affect drivers' sightlines to the transition, and must be taken into account. Proximity to intersections can increase drivers' cognitive workload and lead to conflicts between through traffic and vehicles using the intersection.
It must also be noted that there are traffic safety and operational benefits associated with four-lane divided highways versus two-lane undivided highways; thus, the length of four-laning must be considered when identifying transition locations.
In order to identify a location for the east transition, the following three locations (illustrated in Exhibit 5-13) were considered:

- Option 1: This option has the transition located between the Highway 673 and Gundy Lake Road intersections.
- Option 2: This option locates the transition approximately 200 m west of the Gundy Lake Road intersection.
- Option 3: This option locates the transition furthest to the west in the vicinity of the Fire Road \#47 intersection.
An assessment of these options was completed to identify a preferred transition location. Safety performance, as it pertains to traffic operations and geometrics, and potential impacts to drainage features was considered.
While Option 1 maximizes the length of initial four-laning, it was the least preferred from a safety perspective due to its location between the Gundy Lake Road and Highway 673 intersections; thus, it was not carried forward for further consideration. Option 2 and Option 3 provided better safety performance than Option 1. From a drainage perspective, Option 2 has the least impact on existing and proposed drainage features. Therefore, Option 2 was identified as the most desirable 4-lane to 2-lane transition design at the east study limit of Section 1.
A detailed plan and profile of Option 2 are provided in Appendix C: Supplemental Design Plates 18B to 24B.
Note: As part of the detail design process, Option 2 was refined and moved 300 m farther west to provide more distance between the transition and Gundy Lake Road. This change will enhance driver decision time and provide more favourable vertical profile and sight distance.
At the west study limit, Highway 17 will transition from a four-lane to two-lane cross section west of the Rest Area and east of the Manitoba border, as shown in design plates in Appendix C.

Discussions are ongoing with MTO and Manitoba Infrastructure regarding the coordination of the four-laning works and timeframes to provide a continuous four-lane divided highway at the border.


## 6 CONSULTATION PROCESS

As part of the 2009 study, consultation and engagement was initiated with agencies, the public, and Indigenous communities in the Kenora area who had an interest in the planned twinning due to their proximity to the study area. Three Public Information Centres (PICs) were held for all three sections, one of which addressed Section 1 on July 28, 2009. The July 2009 PIC provided a study overview for all three sections and for Sections 1 and 2, the assessment and evaluation of highway improvement alternatives and the recommended improvements for review and comment. In addition, meetings were held with the interested Indigenous communities to share information and identify potential concerns and impacts associated with the project.

Additional consultation and engagement was undertaken following the study recommencement in November 2018, as outlined below.

### 6.1 EXTERNAL AGENCY PARTICIPATION

Review agencies, interest groups, and utility companies were notified at the recommencement of the study by letter on November 5, 2018, informing them of the study re-commencement, notifying of the Public Information Centre and soliciting their comments. Individuals and groups that expressed an interest in the project were kept informed throughout the project. The agencies that were contacted are as follows:

## Federal \& Provincial Government Agencies

- Impact Assessment Agency of Canada
- Environment and Climate Change Canada
- Indigenous and Northern Affairs Canada
- Transport Canada
- Fisheries and Oceans Canada
- Destination Ontario
- Infrastructure Ontario
- Manitoba Infrastructure
- Manitoba Water Stewardship
- Ministry of Agriculture, Food and Rural Affairs
- Ministry of Community Safety and Correctional Services
- Ministry of Education
- Ministry of Energy, Northern Development and Mines
- Ministry of Environment, Conservation and Parks
- Ministry of Indigenous Affairs
- Ministry of Municipal Affairs and Housing
- Ministry of Natural Resources and Forestry
- Ministry of Heritage, Sport, Tourism and Culture Industries
- Ontario Provincial Police
- Local Member of Provincial Parliament

Municipality

- City of Kenora
$\underline{\text { Utilities }}$
- Hydro One Inc.
- TransCanada Pipelines
- Bell Canada

Local Elected Representatives

- Member of Parliament, Kenora
- Member of Provincial Parliament, Kenora - Rainy River

Other Agencies / Stakeholders

- District of Kenora Unincorporated Areas Ratepayers Association
- Keewatin - Patricia District School Board Kenora Office
- Kenora and District Chamber of Commerce
- Kenora Catholic District School Board
- Kenora District Services Board
- Lake of the Woods District Property Owners Association
- McKenzie-Clearwater Fire Department
- Ontario Cycling Association
- Royal Lake Resorts
- Sunset Trail Riders
- The Manitoba Teachers' Society
- Tourism Kenora
- Weyerhaeuser Company Limited
- Tannis Lake Local Roads Board

Relevant External Agency correspondence is provided in Appendix A.

MTO sent an additional letter to each of the above listed agencies to inform of the filing of the Transportation Environmental Study Report. A sample of the letter is included in Appendix B.

### 6.2 INDIGENOUS COMMUNITY ENGAGEMENT

In 2018, MTO restarted discussions with Indigenous communities in the Kenora area regarding plans to four-lane Highway 17 between Manitoba and Kenora. In addition, the Project Team was involved in the engagement process at key milestones throughout the study. The communities in close proximity to the study area listed below were determined to have an interest in the project:

- Iskatewizaagegan No. 39 Independent First Nation
- Shoal Lake No. 40 First Nation
- Washagamis Bay First Nation
- Niisaachewan Anishinaabe Nation
- Wauzhushk Onigum Nation
- Metis Nation of Ontario and representatives of the Northwestern Ontario Metis Community - Region 1 Consultation Committee


## - Grand Council Treaty 3

In the early stages of engagement in 2018, MTO staff held meetings with community representatives to inform them of the overall study re-commencement and to begin discussions on the engagement process. Letters were also sent to Indigenous communities to notify them of Study Re-Commencement and the PIC in November 2018. A copy of the letter is provided in Appendix B. The Notice of Study ReCommencement and PIC was advertised in the Wawatay News newsletter, a monthly publication serving the First Nation Peoples of northwestern Ontario.
Initial key meetings held between MTO and Indigenous communities relating to the Section 1 Study were as follows:

- July 20, 2018 and September 25, 2018 - MTO met with Iskatewizaagegan No. 39 Independent First Nation to provide an overview of the scope of work, project phases (i.e. planning, preliminary design, detail design, construction) and schedule. The meeting also provided an opportunity for Iskatewizaagegan No. 39 Independent First Nation to provide initial comments and input into the project.
- September 26, 2018 - MTO met with representatives from Shoal Lake No. 40 First Nation, Washagamis Bay First Nation, and Niisaachewan Anishinaabe First Nation, to provide an overview of the scope of work, project phases (i.e. planning, preliminary design, detail design, construction) and schedule. The meeting also provided an opportunity for the communities to express their expectations for engagement and consultation.
- September 27, 2018 - MTO met with Wauzhushk Onigum Nation to provide an overview of the scope of work, project phases (i.e. planning, preliminary design, detail design, construction) and schedule. The meeting also provided an opportunity for Wauzhushk Onigum to provide initial comments and input into the project.
- October 29, 2018 - MTO met with community representatives from Shoal Lake No. 40 First Nation, Washagamis Bay First Nation, Wauzhushk Onigum Nation and Niisaachewan Anishinaabe First Nation to further discuss the engagement process for the project.
- The four communities (Shoal Lake No. 40 First Nation, Washagamis Bay First Nation, Wauzhushk Onigum Nation, and Niisachewan Anishinaabe First Nation) advised MTO that for the purpose of consultation, they chose to form a partnership and consult with MTO as one collective group. The communities refer to this partnership as the Niiwin Wedaanimok Partnership (NWP) or Four Winds Group.
- November 21, 2018 - Project Team members attended a community information session at Iskatewizaagegan No. 39 Independent First Nation to present the PIC display boards and answer any questions members of the community had. The First Nation was provided with a plan of the four-lane highway and the public display material for their review which was posted in the community centre for the week of the lunch and learn event. Approximately 40 community members were in attendance. General support of the project was received from community members and some comments were raised including questions around timing for future sections, any changes to Highway 673 and proximity of project activities to the lake. Information was also shared with the project team regarding traditional uses within the study area which were noted by the project team.
- Consultation with MNO was initiated in late 2018 and initial meetings were held with the Region 1 Consultation Committee representing the Northwestern Ontario Metis Community in February 2019 to provide project information.

Since the initial meetings, separate engagement processes have been taking place with Iskatewizaagegan No. 39 Independent First Nation, the Niiwin Wedaanimok Partnership, and MNO. The consultation processes were guided by separate Process Agreements signed between MTO the three Indigenous groups. In addition, in February 2020, a Relationship Memorandum of Understanding was signed between Ontario and the Niiwin Wendaanimok Partnership that acknowledged NWP perspectives are based on Treaty 3 customs and protocols.
As part of these engagement processes, MTO has had ongoing discussions with Iskatewizaagegan No. 39 Independent First Nation, the Niiwin Wedaanimok Partnership, and MNO through in person monthly meetings or zoom meetings, and email and letter correspondence.

MTO was informed of any issues, comments or concerns associated with the project through existing traditional land use information available within communities and/or
information collected through separate studies and internal community engagement processes.
Customary with community protocols, the Niiwin Wendaanimok Partnership conducted a community impact assessment process to better understand potential social, environmental and cultural impacts associated with the Project. The results of this process are documented in a Niiwin Wendaanimok study referred to as a Harmonized Impact Assessment report. Under a separate Notice, NWP is filing the Harmonized Impact Assessment concurrently with the Notice of Submission of this TESR.
The Harmonized Impact Assessment was independently conducted by the Niiwin Wendaanimok Partnership. The views expressed within the Harmonized Impact Assessment report are those of the Niiwin Wendaanimok Partnership and not necessarily those of the MTO.
MTO sent an additional letter to each of the above listed Indigenous communities to inform of the filing of the Transportation Environmental Study Report. A sample of this letter is provided in Appendix B. MTO will continue to meet with and seek involvement from Indigenous communities throughout construction and in subsequent sections of the project.

### 6.3 CONSULTATION WITH PROPERTY OWNERS AND THE PUBLIC

Consultation with adjacent property owners and the public is described in this section.
The Notice of Study Re-Commencement and Public Information Centre was published at the beginning of the study in the following newspapers:

- The Kenora Daily Miner and News: Tuesday, November 6, 2018
- Kenora Lake of the Woods Enterprise: Thursday, November 15, 2018
- Sioux Lookout Wawatay News:

Thursday, November 15, 2018
The principles of consultation requiring notification at the beginning of the study and notification to those stakeholders most directly affected are achieved through this notification method.

A study mailing list was created and updated throughout the study. This list includes individuals or interest groups who contacted the Project Team throughout the study, including those who attended the PIC and property owners adjacent to the study area on Baubee Lake.

A PIC was held during the study to ensure that the consultation plan provided timely, user-friendly opportunities for input by the public. The PIC that was held is discussed in greater detail in the following subsection.
The Notice of Submission of the Transportation Environmental Study Report was published at the end of the study in the following newspapers:

- The Kenora Daily Miner and News:
- Sioux Lookout Wawatay News (Online Newspaper):


## https://wawataynews.ca/list-newspaper

In light of COVID-19 and associated physical distancing requirements for the foreseeable future, this Transportation Environmental Study Report will only be available for online review on the project website at www.4lanehighway17kenora.ca.
Copies of the Ontario Government Notices are included in Appendix B.

### 6.3.1 Public Information Centre

PICs are informal meetings where area residents and other interested parties are provided the opportunity to review planning and design plans. The PIC was part of the overall consultation program for this project and designed to involve stakeholders in the study to identify public concerns and assist in the selection of the preferred plan. The PIC also addresses the overall consultation principles identified in Chapter 5 of the MTO Class EA (2000).
The PIC was held on Tuesday, November 20, 2018 at the Clarion Inn Lakeside and Conference Centre in Kenora. External agencies were invited to an agency preview session from 3:00 p.m. to 4:00 p.m., and local property owners and the general public were invited to attend the PIC held from 4:00 p.m. to 7:00 p.m. This location was universally accessible as per the requirements of the Accessibility for Ontarians with Disabilities Act, 2005.

MTO representatives along with their consultant were available to answer questions and discuss any aspect of the study. The purpose of the PIC was to present:

- An overview of the study including the purpose, project history, and Class Environmental Assessment process;
- A high-level schedule showing the anticipated timelines (for all three sections)
- Study background including alternatives to the undertaking and existing conditions;
- Alternatives that were considered and evaluation criteria that were used for the evaluation;
- Results of the evaluation showing rationale for the recommended preferred alternative; and
- An opportunity for the public / stakeholders to review, discuss and provide any input on the study with the Project Team.
Section 6.3 provides an overview of the dates the joint Notice of Study ReCommencement and Public Information Centre (Ontario Government Notice) was advertised. A copy of the Ontario Government Notice is found in Appendix B.

A joint Notice of Study Re-Commencement and PIC notification letter was distributed on Monday, November 5, 2018 to all representatives on the External Agencies List (see Section 6.1). In addition, a copy of the notice was sent to adjacent property owners.
The project website www.4lanehighway17kenora.ca provided details of the time and location of the PIC and provided a means to directly contact the project representatives via email. Following the PIC, display materials were also made available on the project website.

It was estimated that approximately 86 people attended the PIC and signed the registration sheets. Attendance was a mix of permanent and seasonal residents.
An extensive amount of relevant and valuable project information was presented and feedback received. In addition, preferences for the alternatives under consideration were received. Overall, most people were pleased with the Public Information Centre. The four-laning of Highway 17 is welcomed in the community. There was general support for the selected route shown for Section 1. Significant interest was expressed for the planning and timeline for Section 3.
The most frequent comments that were provided from the PICs included the following:

- Positive comments on the selected route for Section 1 and frustration regarding the lag in the study.
- Concerns that the twinning should extend further westerly into Manitoba to fully address congestion in the area.
- Interest in raising the posted speed limit from 90 to $100 \mathrm{~km} / \mathrm{hr}$.
- Concerns regarding impacts to the natural environment, air quality and noise as a result of the proposed expansion.
- Questions regarding access in certain areas once Highway 17 is twinned.
- Comments highlighting opportunities for local labour (local companies and Indigenous communities).
- Many questions were received regarding timelines for future sections, specifically Section 3 as well as overall construction schedule.


### 6.3.2 Integration of External Consultation

The intent of holding the Public Information Centre (PIC) for this project was to ensure the public had an opportunity to identify their concerns on the outcome of the preferred plans while also addressing the consultation principles identified in the Class EA document. One of the consultation principles relates to showing how the input received in earlier stages affected the project.

Exhibit 6-1 highlights some of the key comments and concerns provided by the public and how they were addressed throughout the study.

Exhibit 6-1: Summary of Key Public Comments and Concerns

| SUMMARY OF KEY COMMENTS | MTO RESPONSE |
| :--- | :--- |
| $\begin{array}{l}\text { Concerns of maintaining access to } \\ \text { Baubee Lake properties. }\end{array}$ | $\begin{array}{l}\text { The Highway } 17 \text { widening will be on the } \\ \text { south side of the existing Highway 17 } \\ \text { alignment. Fire Road \#48 will remain open } \\ \text { with a right-in/right-out access. }\end{array}$ |
| $\begin{array}{l}\text { Positive comments on the selected } \\ \text { route for Section 1. }\end{array}$ | $\begin{array}{l}\text { Please note you are on the project mailing } \\ \text { list and will be advised of future study } \\ \text { notifications as this project proceeds. In } \\ \text { addition, the project website } \\ \text { (www.4lanehighway17kenora.ca) will } \\ \text { continue to be updated as the study } \\ \text { progresses. } \\ \text { During the next several months we will } \\ \text { incorporate any refinements into the }\end{array}$ |
| preliminary design of the selected route for |  |
| Sections 1 and 2 based on public and |  |
| external agency input. Route planning and |  |
| preliminary design for Section 3 will be |  |
| initiated with the development and |  |$\}$| evaluation of route alternatives, in |
| :--- |
| consultation with the public and external |
| agencies. |
| A Transportation Environmental Study |
| Report (TESR) will be prepared separately |
| for each section. Notices will be published |
| in local newspapers when each TESR is |
| completed to explain the 30-day review |
| process and identify the locations where |
| the TESR is available for viewing. |


| SUMMARY OF KEY COMMENTS | MTO RESPONSE |
| :--- | :--- |
|  | accommodate only 90 km/h; therefore, the <br> four-lane divided facility will have a posted <br> speed of 90 km/h. Future planning may <br> incorporate improvements to increase the <br> posted speed limit to 100 km/h. |
| Concerned with the impact of <br> construction on traffic delays along the <br> Highway. | Construction staging will be finalized during <br> the subsequent phase. It is anticipated <br> that traffic will be generally unaffected <br> during construction through the use of <br> construction staging and minor detours. <br> From time to time, there may be lane <br> closures but these will be infrequent and <br> will be minimized to the extent possible. |
| Concerns that the twinning should <br> extend further westerly into Manitoba <br> to fully address congestion in the area | MTO is currently working with Manitoba to <br> coordinate an efficient and safe connection <br> of their respective highways in the border <br> area. As this progresses, updates to the <br> public will be provided. |
| Concerns regarding impacts to the <br> natural environment, air quality and <br> noise as a result of the proposed <br> expansion | Assessment of project effects are key <br> components of these environmental <br> assessment studies. Where negative <br> impacts may be anticipated during <br> construction and/or operations, mitigation <br> measures will be implemented to minimize <br> the effect to nearby property owners. |
| Comments highlighting opportunities <br> for local labour (local companies and <br> Indigenous communities) | employment opportunities to the local <br> communities in the area for large <br> construction projects and will be providing <br> updates on this at future PICs. |

## 7 POTENTIAL ENVIRONMENTAL EFFECTS, MITIGATION AND COMMITMENTS TO FURTHER WORK

### 7.1 EROSION \& SEDIMENT CONTROL

Without the implementation of appropriate mitigation measures, creation of erosion and generation of sediment during excavation and grading activities associated with the construction of the proposed improvements may impact the watercourses within the project area.
Erosion and sediment control practices will focus on two separate targets: minimizing site erosion and keeping any eroded materials on site. General measures such as erosion control blanket, silt fence barriers, rock flow checks and quickly treating exposed earth surfaces with stabilizing cover material (seed and mulch, sod, etc.) are governed by special provisions (i.e. Ontario Provincial Standard Specification (OPSS) 805. All relevant erosion and sediment control measures are identified on the contract documents.

Relevant mitigation measures include the following:

- Vegetation removal will be limited to only what is required for grading and ditching operations;
- Erosion and sediment control practices will be implemented throughout construction to prevent migration of sediment to the watercourses within the project area and all other natural features;
- All appropriate temporary erosion and sediment control measures such as: silt fence barriers, erosion control blanket, and rock flow checks will be used to contain the construction area and prevent any migration of sediment. The silt fencing and other containment measures will be regularly inspected and maintained as necessary;
- New or re-constructed ditches will be properly stabilized using vegetation or rock protection depending on slope;
- Rip rap or other stabilizing systems will be installed at outlets and spillways;
- All disturbed surfaces will be stabilized with the most appropriate treatments available;
- Stabilization and re-vegetation of all disturbed surfaces will be established as soon as possible following excavation and construction to protect against erosion and sedimentation of local drainage.


## Erosion and Sediment Overview Risk Assessment

The majority of the project area is characterized as low risk with some areas characterized as medium and isolated areas of high risk. The general low overall risk is predominately a combination of: silty clay till veneers (low soil erodibility rating); relatively gentle slopes (predominately less than $10 \%$ ); and the general absence of sensitive aquatic habitat. The high-risk areas are considered to be isolated sand pockets around some water bodies.

### 7.2 MANAGEMENT OF EXCESS MATERIAL AND PROPERTY CONTAMINATION

There is potential to encounter contaminated material from undertaking improvement works to Highway 17, which will require removal of existing pavement, site excavation and grading, and application of new pavement.

Surplus materials will be generated during construction, such as old pavement, guiderail materials, and concrete. These materials will be sorted and either reused if feasible, recycled, or disposed of at an approved landfill facility in accordance with OPSS 180 (Management of Excess Materials). In addition, implementation of the contingency plan measures provides a mechanism for dealing with soil contaminant issues if they arise during construction.

One Excess Material Management Area (EMMA) has been identified, shown in the design plates approximately 2 km west of Gundy Road. Correspondence received from MNRF, dated February 10, 2020, confirms there are no concerns regarding the location of the EMMA and that the MNRF are amenable to the placement of the EMMA through a Permission to Enter agreement between the MTO and MNRF.

Standard mitigation will be used for dust control (i.e., water, calcium chloride) during construction.

Sand, gravel and crushed rock are a vital construction material required for MTO projects. The Aggregate Resources Act ensures that environmental concerns associated with aggregate activities (i.e., extraction, transportation, site rehabilitation and processing) are addressed. In accordance with these Acts, environmental concerns are identified and appropriate mitigation is determined for site specific aggregate activities.
The recommendations of the Contamination Overview Study (COS) are summarized below. An overview of the COS findings is outlined in Section 4.2.3.

## Areas of High Contamination Potential

No areas of high contamination potential were identified within the project area.

## Areas of Moderate Contamination Potential

The potential for road salt impacts to the soil along the Highway 17 right of way (ROW) represents a moderate potential for contamination in the event that any future road construction is to occur along the ROW. Appropriate management of salt impacted soil (and groundwater) will be required with due regard to environmental regulations.

## Areas of Low Contamination Potential

All other land use features not highlighted above are considered to have a low potential for site contamination. These areas are generally classified as open space, residential or commercial that are not suspected of using chemical compounds harmful to the environment or human health. No additional environmental investigations are recommended for these areas.

### 7.3 TERRESTRIAL ECOSYSTEMS

The proposed works for the twinning of Highway 17, will result in varying levels of intrusion or edge removal of natural vegetation, including forest, wetland, and cultural vegetation communities. General management and mitigation measures are recommended to reduce direct and indirect effects associated with vegetation removal. Direct and indirect effects and mitigation strategies are discussed below.

### 7.3.1 Indirect Effects

The proposed highway twinning and associated works may result in indirect or secondary impacts to the vegetation features that are retained adjacent to the highway.
Typical potential indirect impacts to wetland, forest and other adjacent vegetation that can occur during and following the construction period are outlined below:

- Release of construction-generated sediment to adjacent vegetation areas.
- Vegetation clearing/damage beyond the working area.
- Damage of right-of-way vegetation from tree felling and/or grubbing.
- Damage from excessive or improper application of herbicides and pesticides for right-of-way maintenance requirements.
- Salt runoff and salt spray into vegetated areas causing loss of vegetation vigour and in extreme cases, vegetation dieback, spread of salt tolerant flora (halophytes) and mortality.
- Changes in drainage patterns (groundwater and/or surface runoff flow) that can affect dependent vegetation/wetland areas located either upgradient or downgradient of the right-of-way.
The majority of the affected vegetation is located along the existing highway and already influenced to some degree and communities are generally relatively young and tolerant. However, some indirect impacts may be unavoidable and can only be partially
mitigated. For example, the potential loss of vegetation vigour along the new edge areas due to salt-spray cannot be completely mitigated. Furthermore, there is elevated potential for indirect effects to retained vegetation features along the newly created edges thought the off-corridor section as a result of fragmentation, as discussed above. Of note, wetland communities in Section 1 will be sensitive to changes in hydrology, although for the most part, these features are relatively tolerant marshes. The most sensitive features are the Black Ash Swamp. Potential indirect impacts to vegetation and habitat features can generally be managed through implementation of standard mitigation measures, as outlined in Section 7.3.3.


### 7.3.2 Direct Effects

Based on the 2018 site investigations and the Recommended Plan, potential direct impacts to vegetation and vegetation communities along the proposed alignment remain consistent with 2009 findings. As outlined, the majority of the twinning will occur along / immediately adjacent to the existing disturbed ROW and therefore, direct impacts to vegetation features in this area will be limited to edge effects on features that already exhibit some level of disturbance or cultural modification. The communities are all common and well represented locally, and support generally common tolerant species.
The standard mitigation measures outlined in Section 7.3 .3 will address the majority of the anticipated effects to vegetation features. However, there are several sites where additional site-specific mitigation is recommended as summarized in Section 7.3.4.
Vasey Rush, ranked S3 by MNRF, is located in Unit 6 and Unit 14, and will potentially be directly affected by the proposed twinning alignment. However, habitat is located throughout the study area and is potentially in other wetlands along the highway corridor to the east. Additional investigations in areas beyond the preferred corridor would be expected to yield more observations. The requirement for removal requires verification based on the final grading limits. Since Vasey Rush habitat is observed at numerous other locations within the study area, no additional mitigation is needed.

Sixteen (16) Bur Oak and nine (9) American Elm were recorded in 2018. Based on the proposed alignment it is anticipated that six (6) Bur Oak and nine (9) American Elm will require removal.

### 7.3.3 General Mitigation Measures

Recommended mitigation measures to minimize effects to the local vegetation communities and their associated habitat functions include:

- Install temporary erosion and sediment control measures prior to construction, and maintain throughout construction (See OPSS 805).
- Routinely inspect sediment and erosion control structures, including after storms, and repair and / or augment as required as quickly as possible.
- Re-stabilize exposed surfaces as soon as possible and re-vegetate them using Standard seed mixes per OPSS 804, supported or replaced by appropriate
supporting physical re-stabilization techniques where conditions warrant (e.g., gravel sheeting in high erosion potential areas).
- Clearly delineate right-of-way vegetation clearing zones and vegetation retention zones on both the construction drawings and in the field to confirm with the contractor prior to clearing and grading. Equipment, materials and other construction activities will not be permitted in these zones.
- Conduct vegetation removal and implement protection measures in accordance with OPSS 201 (tree clearing and grubbing) and OPSS 801 (tree protection).
- Fell trees to be removed into the highway right-of-way (and away from watercourses, wetlands and sensitive vegetation edges) to avoid disturbance to vegetation outside the right-of-way as well as aquatic areas.
- Restrict tree grubbing to the required activity zone.
- Avoid unnecessary traffic, dumping and storage of materials over tree roots.
- In dust-sensitive areas, control dust using water or approved chemical suppressants, in accordance with MTO's general conditions. Advance notifications will also be provided to Indigenous Communities to limit disruption to hunting activities during any blasting activities.
- Dust from construction operations will also be monitored by the Contract Administrator, on an ongoing basis, to ensure that dust does not cause a nuisance or is entering a watercourse or environmentally significant area.
- Carry out vehicle maintenance and fueling at the defined maintenance areas in the works yards (contained and well removed from any natural areas) or at commercial garages whenever possible.
- The Contractor will retain an Environmental Inspector to inspect and ensure proper implementation and maintenance of the mitigation measures.


### 7.3.4 Site-Specific Mitigation Measures

For the most part, the general mitigation measures will minimize impacts to the features affected along the existing highway corridor as outlined above.
Site-specific mitigation measures for vegetation units are recommended for a few features, where warranted, as outlined below. The site-specific mitigation measures that are recommended to protect and enhance retained vegetation features include the following:

- Install vegetation protection fencing to restrict unnecessary clearing and filling of Black Ash swamp removed and protecting the retained edges (e.g., Units 3,6,9).
Otherwise, since the majority of the impacted vegetation and habitat is upland forest or generally marsh communities that extend well beyond the proposed ROW which are commonly represented throughout the general area, additional site-specific mitigation beyond the standard mitigation measures are not warranted. There are a few small
wetlands and open water features that will be completely removed; these features are also common. Therefore, no site-specific mitigation measures are relevant for these features. In addition, no site-specific mitigation measures are warranted for the cultural meadows or second growth deciduous forest communities affected due to their cultural origin and / or minor natural heritage function.


### 7.4 WILDLIFE AND WILDLIFE MOVEMENT

Based on the characterization and sensitivity of the impacted terrestrial features and the Recommended Plan, the general mitigation measures outlined in Section 7.3 .3 will minimize direct impacts to vegetation and associated habitat features within / along the ROW as much as possible, as well as protect adjacent vegetation / habitat features during and following construction. Measures to protect wildlife generally and migratory bird nesting from potential impacts during construction are also outlined in Section 7.4.3.

### 7.4.1 Indirect Effects

Similarly, although wildlife in the area is already adapted to the presence of the existing highway, the construction of the new highway facility is expected to have some additional indirect impacts on wildlife. Potential construction disturbances and noise will tend to displace wildlife temporarily during the construction period, however these effects are temporary. Increased traffic and associated noise may also increase local disturbance of wildlife such as breeding birds and amphibians, however, these effects are already present along the existing highway.
Potential for other indirect effects to habitat occurs in relation to potential changes such as alteration of drainage patterns that would alter wetland and associated local amphibian breeding habitats. Many of the wetlands are common marsh communities and those that would support herpetofaunal habitat are generally tolerant of water level changes and have undergone them over time, including as a result of beaver activity.

### 7.4.2 Direct Effects

Based on the 2018 site investigations Recommended Plan, potential direct impacts to wildlife and wildlife habitat along the proposed alignment remain consistent with those outlined in 2009. The potential effect of the proposed highway works on wildlife habitat is associated with the effects on vegetation features. Therefore, effects are generally limited to removal of edges of the existing typically culturally influenced forest communities and wetlands along the highway. In general, removals are not anticipated to have a significant impact on habitat given the habitat types are well represented in the area, which supports vast intact tracts of habitat.
In general, some increase in wildlife mortality can be expected to occur as a result of the proposed highway twinning and potential for increased traffic flow, although this may
be in part offset by general improvements in visibility and expansion of the ROW, which may deter some movement across the highway.

Other potential direct effects to wildlife are considered to be relatively minor relative to the existing highway, and can be minimized through the standard mitigation measures.
No impacts to SAR are anticipated, as discussed further below, however, provisions will be incorporated in the Contract to address any incidental encounters with SAR (or any wildlife) during construction.
Bald Eagle was observed in Section 1 during the 2009 site investigations feeding on highway carrion. Habitat of the Bald Eagle consists of mature to old-growth hardwood and conifer forest stands that are in close proximity to large bodies of water, which will not be affected by the proposed twinning. The opportunistic feeding on carrion that occurs presently along the highway is likely to persist. Feasible means of reducing this activity are very limited, beyond the improved driver visibility incorporated in the twinning design.
Direct impacts to Eastern Cougar and Eastern Wolf or their habitat are not expected beyond ongoing potential for incidental road mortality of animals that might move across the highway. These species are likely to utilize the extensive intact habitat mosaic away from the highway corridor especially for more sensitive life history functions.

Although not recorded in wetlands or nesting along Section 1, Snapping Turtle is potentially present and unlike mammals and most birds, this species does not exhibit any intolerance to anthropogenic activities and frequently nests along south-facing road shoulders (as was recorded to the east of Section 1).

In general, the existing highway will already have impacts on small, slow moving animals such as turtles (and particularly turtles, which are attracted to the shoulders for nesting). Therefore, while significant incremental impacts are not expected, on-going impacts will persist. Mitigation opportunities for Snapping Turtle are discussed further below.

There are also no direct removals of any of the Moose Aquatic Feeding areas identified in the broader study area.

### 7.4.3 General Mitigation Measures

The mitigation measures outlined above to minimize effects to vegetation and protect adjacent vegetation areas will in turn protect the associated wildlife habitat functions. However, it is also necessary to ensure the protection of breeding birds, as well as wildlife generally that may nest or otherwise use areas where construction is proposed. Specifically, nesting migratory birds are protected under the Migratory Birds Convention Act (MBCA 1994). No work is permitted to proceed that would result in the destruction of active nests (nests with eggs or young birds), or the wounding or killing of birds, of species protected under the MBCA and / or Regulations under that Act.
In order to protect nesting migratory birds, in accordance with the MBCA, the following guidance is provided, and should be utilized in the Operational Constraint wording:

- Ensure that timing constraints are applied to avoid vegetation clearing (including grubbing) and/or structure works (construction, maintenance) during the breeding bird season (approximately April 15th to August 15th). It should be noted that occasionally bird species will precede (e.g. mid-April nesting) or exceed (e.g. September) the approximate breeding bird season window.
- If a nesting migratory bird (including a SAR protected under ESA 2007) is identified within or adjacent to the construction site and the construction activities are such that continuing construction in that area would result in a contravention of the MBCA, the Contractor will cease all activities that could harm the bird and will notify the Contractor Administrator immediately.
For the protection of wildlife in general, the contractor will ensure that:
- In the event that an animal encountered during construction does not move from the construction zone, the Contract Administrator will be notified. In particular, the contractor will notify the Contract Administrator immediately if any turtles or other reptiles are found in the construction area.
Although specific impacts to SAR or important habitat for them are not anticipated based on the existing conditions assessment and given the nature of these species and the impacted habitat conditions, some incidental encounters during construction and impacts during or following construction are possible as outlined above. In relation to the protection of SAR:
- While none was confirmed and presence is generally considered unlikely in the vicinity of the preferred alignment, there is some potential for SAR to be using or moving through some areas impacted by the highway works (e.g., SAR Woodland Bats, Snapping Turtle). Potential habitat for woodland bats is very limited since forest communities are young and only a small area of larger trees is located within the project area. Good quality cavity trees and snags were not identified during site investigations.
- The Contractor will be advised of the potential to encounter SAR. In the event a SAR or potential SAR is encountered during construction, the Contractor will notify the Contractor Administrator immediately and all activities that could potentially harm the animal will cease until it has moved away.
- Beaver dams will be removed where necessary using standard methods and in consultation with MNRF if appropriate, and will be done before the fall so as not to strand over-wintering animals.


### 7.4.4 Site-Specific Mitigation Measures

The following additional site-specific measures will address potential impacts to specific features or functions regarding wildlife.

- The salt lick - if it is still present - will be removed as discussed with MNRF in 2009, removing this source of attraction for animals to the highway vicinity.
- The highway edge grading will be designed and constructed to avoid creation of any temporary pooling areas that could collect salt-laden runoff and attract animals.
- Specific measures to reduce on-going wildlife highway mortality are not feasible in this section (e.g., there are no low draws or valleys that might support larger structures for an underpass). However, the design of the highway is being developed to improve driver visibility which should help reduce conflicts. The wider highway cross section may in itself help reduced wildlife crossing attempts to come degree.
- Opportunities to design larger highway culverts with overbank areas that may facilitate movement of small animals will be reviewed and incorporated if appropriate.
- As identified in Section 7.5 .3 (Natural Channel Design Mitigation Measures) riparian vegetation lost for channel realignments will be replaced and diversified by increasing the woody component and specifically planting vegetation to provide bank stability, overhead cover (shading) and a source for woody debris. Only native species compatible with the existing habitat will be used.


### 7.5 FISHERIES AND AQUATIC HABITAT

Fish and Fish Habitat Impact Assessments have been previously completed during the 2009 study. During the update of this project the review of the potential for serious harm to fish as a result of the project's activities has been updated by the Ministry. This was undertaken to ensure requirements of the current Fisheries Protocol (2016) were met and also to confirm compliance with the Fisheries Act (2013).

### 7.5.1 Potential Effects

Under the proposed conditions, the existing highway will consist of two eastbound lanes and two westbound lanes divided by a typical 30 m to 36 m wide median. The existing highway will be retained as either the east or westbound lanes, or a combination of both. The proposed works for the twinning of Highway 17 will include the installation of new culverts under the new set of lanes, or the temporary extensions of existing culverts at the tie-in median crossover points at the west and east ends of the project limits. Within the twinned sections, the culverts under the existing highway will be replaced if:
a the culvert is noted as being undersized (for 'rural-collector road', conveying the 25 year storm) or
b if the culvert is in poor condition and in need of repair.
Culvert replacements required under the existing highway will be sized using the MTO criteria and standards applicable for Freeways. Out of 12 existing centreline culverts within the Section 1 Study Limit, nine culverts will be replaced due to poor condition and/or inadequate conveyance capacity and three existing culverts (Culverts C2, C10
and C11) will be retained. Culvert C2 requires clean out. A total of 19 new mainline crossing culverts are required, ranging from 825 mm diameter concrete pipe to a 2.40 m $\times 1.80 \mathrm{~m}$ concrete box culvert, out of which 10 culverts are associated with fisheries.
In some cases, watercourses will require realignment where the channel flows parallel to the existing highway, within the footprint of the new lanes, or is sharply skewed to the highway alignment. Also, some of the wetland areas supporting open water or shallow aquatic conditions and supporting confirmed fish use within the project limits will be partially or completely infilled to accommodate the new highway lanes. The open water pockets that will be impacted are influenced by beaver activity.
Channel realignments at the watercourses supporting fish use are anticipated at C10 and C12, and at the watercourse reaches connecting the following culverts/systems C4 and C 5 . The list above includes proposed localized and major channel realignments within the project area.
A summary of the fisheries and aquatic habitat existing conditions are described previously in Section 4.1.6. Construction in or near water may result in various potential impacts to the aquatic environment. These may occur due to factors such as sedimentation, modification of fish habitat, changes to fish passage etc. Upon review of the project's activities it has been determined by the Ministry that serious harm will not occur to fish as a result of the design of the project. However, in order to ensure that during construction impacts the aquatic environment do not occur, and serious harm to fish can be avoided, the following site-specific mitigation measures are outlined below for relevant watercourses to address these main direct or footprint impacts.

### 7.5.2 Culvert Design Mitigation Measures

The new box culverts will be specifically designed to maintain fish movement, where relevant, and minimize impacts to fish habitat. The culverts that convey 'watercourses' that support fish or potential fish use up and downstream of the highway, will be properly embedded so that the new culvert elevation doesn't result in a barrier to fish passage. Select watercrossings and channel realignments will include the provision for substrate and creation of a low flow channel. The substrate will be sized to stay in place under large storm events, and include a mix of smaller sand and gravel materials. The substrate mix will diversify the existing predominantly fine substrate materials. The low flow channels were designed as a collaborative effort with the project hydrologists to be compatible and transition smoothly with the existing channel sections up and downstream. Culvert sizing will meet Ministry Standards.
Headwalls and wingwalls will be used in conjunction with the new culverts in order to minimize aquatic impacts (reduce culvert length) where practical. Measures to minimize culvert length and potential habitat infill have been specifically targeted where potential pike spawning habitat may be present (i.e. C9 [Baubee Lake Tributary]), where reducing culvert encroachment will be particularly important.
Modifications adjacent to the new watercrossings will be done to provide additional habitat and ensure proper connection to facilitate fish passage.

### 7.5.3 Natural Channel Design Mitigation Measures

Naturalized channel design principles are proposed where realignments are required, to maintain channel length, and maintain or enhance where possible, stream form, habitat elements and associated productivity. As outlined further above, the need to realign sections of channel to accommodate the proposed twinning has been identified at C10 and C12, and at the watercourse reaches connecting the following culverts/systems C4 and C5. General design principles for channel realignments are outlined below:

- The re-aligned channel sections will be shifted as far as possible from the existing highway, although within the ROW, in order to maximize opportunities for filtration of highway runoff prior to the watercourse.
- Riparian vegetation will be replaced and diversified by increasing the woody component and specifically planting vegetation to provide bank stability, overhead cover (shading) and a source for woody debris. Only native species compatible with the existing habitat will be used.
- Morphology will be enhanced as much as feasible by incorporating small bends and creating small pools at these bends, as well as creating larger pools at the culvert outlet and main bends up and downstream.
- The 'channel' designs were developed by the project hydrologists in consultation with the fisheries biologists.
- The new channel sections will be fully stabilized prior to opening and transfer of flow. The transition zones will be carefully constructed and inspected to ensure a 'seamless transition' with the upstream channel section.


### 7.5.4 Construction-Related Mitigation Measures

Construction-related mitigation measures include:

- All instream works will be conducted during the coolwater construction timing window (from July 16 to March 30) to protect the resident and migratory fisheries and functions (as confirmed by MNRF Kenora).
- Sediment and erosion control measures will be implemented during all phases of construction, clean-up and restoration to prevent sediment laden runoff from entering any of the watercourses directly from the construction zone.
- The channel re-alignments will be constructed 'in the dry', and then opened to flow and transitioned with the up and downstream channel sections.
- Protection of fish and fish habitat shall be in accordance with the Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters (OPSS 120).
- During all temporary dewatering required for works, appropriate energy dissipation and settling/filtration measures will be used for discharge of dewatering water to ensure no erosion or sediment release occurs in the
watercourses or drainage features. The dewatering plan will include properly sized, designed and sited temporary filtration facilities. Discharge points for release of dewatering discharge will be sited and designed to prevent erosion and ensure only clean flow is released to the watercourses.
- All hoses drawing water from a watercourse supporting fish use will be screened to prevent potential entrainment of fish.
- The isolated work zones for the culvert replacements and new installations will be searched and 'fished' using appropriate techniques to capture and transfer unharmed any stranded fish to a downstream location.
- Fish rescues will be conducted within the footprint of the proposed infill zones, prior to construction.
- The embedded culverts will also be inspected carefully prior to release of flow through the new culverts, to ensure the substrates and low flow channels have been properly installed, are stable and transition smoothly with the up and downstream channel sections, and there are no potential barriers to fish movement.
- Only clean materials free of fine particulate matter will be placed in the water for temporary construction measures (e.g. coffer dams will be constructed of 'pea gravel' bags, geotextile fabric, sheet pile or other clean material) or permanent works (e.g. substrate material or scour protection).
- No equipment shall cross or otherwise enter the watercourses except as specified herein or unless authorized by the appropriate environmental agency/permit.
- Any temporarily stockpiled soil, debris or other excess materials, and any construction-related materials, will be properly contained (e.g. within silt fencing) in areas separated at 30 m from the watercourses.
- All construction materials, excess materials and debris will be removed and appropriately disposed of following construction.
- All activity will be controlled so as to prevent entry of any petroleum products, debris or other potential contaminants/deleterious substances, in addition to sediment as outlined above, to the watercourses. Storage, maintenance or refueling or maintenance of equipment will be conducted at least 30 m away from the watercourses. The Contractor will have an appropriate spills management/response plan in place throughout construction, including spill control and absorbent materials, instructions regarding their use and notification procedures.
- Every effort will be made to retain as much of the natural vegetation as reasonably possible to help ensure bank stability and control erosion, and to expedite the re-colonization of native plant species.
- Specific woody riparian vegetation cleared for construction access and culvert works on watercourses that support fish habitat will be replaced using a mix of native species.
- Where beaver dam removal will or may be required (C13) MTO's Best Management Practice for Beaver Dam Removal will be followed.


### 7.6 DRAINAGE AND SURFACE WATER

The required drainage improvements associated with the proposed highway twinning include provision of culverts under new highway lanes; side roads and median crossovers; replacement and/or rehabilitation of some of the existing culverts under existing highway to be retained; watercourse realignments where the proposed highway works will encroach onto existing watercourses; and provision of new ditches.
Three existing culverts $\mathrm{C} 2, \mathrm{C} 10$ and C 11 will be retained. Culvert C 2 requires clean out. Due to poor condition and/or inadequate conveyance capacity, several culverts will require replacement. Due to the alignment of the proposed highway, Culverts C 4 will be eliminated and a new culvert will be installed at different location.
Out of 12 existing centreline culverts within the Section 1 Study Limit, nine culverts will be replaced and three existing culverts will be retained. A total of 19 new mainline crossing culverts are required, ranging from 825 mm diameter concrete pipe to a $2.40 \mathrm{~m} \times 1.80 \mathrm{~m}$ concrete box culvert. Two new culverts are also required on median ditch to allow the flow path of channels. Exhibit 7-1 to 7-2 illustrate the proposed conditions drainage patterns and culvert locations.
Exhibit 7-3 provides the list of the required new culverts

Exhibit 7-3: List of New Culverts required within Section 1

| Culvert <br> ID | Location | Station | Fisheries <br> (Y/N) | Material, Type |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Depth of Substrate <br> within Culvert |  |  |
| E1 | EBL | $10+020$ | N | Concrete, Pipe | 1050 mm diameter | None |
| W1 | WBL | $10+025$ | N | Concrete, Pipe | 1200 mm diameter | None |
| W2 | WBL | $10+420$ | N | Concrete, Pipe | 1200 mm diameter | None |
| E3 | EBL | $10+970$ | N | Concrete, Box | $1.83 \mathrm{~m} \times 0.91 \mathrm{~m}$ | None |
| CR1 | Median | $11+260$ | N | Concrete, Box | 1200 mm diameter | None |
| W4 | WBL | $11+645$ | Y | Concrete, Box | $2.40 \mathrm{~m} \times 1.80 \mathrm{~m}$ | 0.30 m |


| Culvert ID | Location | Station | Fisheries (Y/N) | Proposed Culvert |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Material, Type | $\begin{gathered} \text { Size } \\ \text { (span x rise) } \end{gathered}$ | Depth of Substrate within Culvert |
| E4 | EBL | 11+745 | Y | Concrete, Box | $2.40 \mathrm{~m} \times 1.50 \mathrm{~m}$ | 0.35m |
| W5 | WBL | 11+910 | Y | Concrete, Box | $2.40 \mathrm{~m} \times 1.50 \mathrm{~m}$ | 0.30m |
| E5 | EBL | 11+925 | Y | Concrete, Box | $1.80 \mathrm{~m} \times 1.20 \mathrm{~m}$ | 0.30m |
| E6 | EBL | 12+110 | N | Concrete, Box | $1.80 \mathrm{~m} \times 1.20 \mathrm{~m}$ | None |
| W6 | WBL | 12+130 | N | Concrete, Box | $1.80 \mathrm{~m} \times 1.20 \mathrm{~m}$ | None |
| W7 | WBL | 12+480 | N | Concrete, Pipe | 825mm diameter | None |
| W8 | WBL | 12+875 | N | Concrete, Pipe | 825 mm diameter | None |
| E9 | EBL | 13+445 | Y | Concrete, Box | $2.40 \mathrm{~m} \times 1.50 \mathrm{~m}$ | 0.35 m |
| W9 | WBL | $13+450$ | Y | Concrete, Box | $2.40 \mathrm{~m} \times 1.50 \mathrm{~m}$ | 0.35m |
| CR2 | Median | 13+650 | N | CSP | 800 mm diameter | None |
| E10 | EBL | 14+175 | Y | Concrete, Box | $1.80 \mathrm{~m} \times 1.20 \mathrm{~m}$ | 0.30m |
| W12 | WBL | 14+790 | Y | Concrete, Box | $2.40 \mathrm{~m} \times 1.20 \mathrm{~m}$ | 0.30m |
| E11 | EBL | 14+790 | $N$ | Concrete, Pipe | 1200 mm dia. | None |
| E12 | EBL | 14+995 | Y | Concrete, Box | $2.40 \mathrm{~m} \times 1.20 \mathrm{~m}$ | 0.30m |
| E13 | EBL | 15+440 | Y | Concrete, Box | $2.40 \mathrm{~m} \times 1.50 \mathrm{~m}$ | 0.35 m |

In addition, 600 mm diameter CSP culvert is recommended for Fire Road 47 and Fire Road 48 to maintain the drainage flow path of on the southside ditch of EBL.
Drainage mitigation measures include:

- Implementation of stormwater management practices (SWMPs) for drainage protection and to minimize environmental degradation such as management of water quality drainage to off-site; and
- Erosion and sediment control measures will be implemented to protect the watercourses and drainage channels within the project area.




### 7.7 ADJACENT LAND USES/PROPERTY

The selected route does not directly impact any adjacent private properties.

### 7.8 SOCIO-ECONOMIC

As discussed in Section 5.4, access approaches will be regraded and / or realigned as necessary.
Some accesses to Crown land will be closed; all others will be maintained, and configured as right-in/right-out intersections with no median crossover. Closed accesses are illustrated on the Design Plates in Appendix C.
There are no additional anticipated socio-economic impacts within the project area.

### 7.9 HIGHWAY AND CONSTRUCTION NOISE

The predicted increases in future noise levels are less than 5 dBA for all receiver locations as a result of the proposed Highway 17 four-laning. Additionally, all receiver locations are predicted to experience absolute noise levels of less than 65 dBA with the proposed Highway 17 Four-Laning. Given this, the consideration of noise mitigation is not required based on MTO/MECP criteria.

## Construction Noise

During construction of the improvements, the contractor will be required to abide by the Contract Operational Constraints. The Contractor will be required to keep idling of construction equipment to a minimum and to maintain equipment in good working order to reduce noise from construction activities.
Construction may occur outside of normal working hours and on weekends for certain activities along Highway 17.
If complaints regarding construction noise arise from construction, they will be investigated according to the provisions of the MTO Noise Guide (October 2006). The Protocol requires that any initial complaint from the public requires verification by MTO that the general noise control measures agreed to be in effect. If not, MTO will warn the contractor of any problems and will take steps to enforce the contract provisions.

### 7.10 ARCHAEOLOGICAL RESOURCES

There were no significant archaeological impacts identified as part of the Stage 2 Archaeological Assessment. No additional archaeological work is required, and the Stage 2 Archaeological Assessment report has been filed with the MHSTCI. As a result, no archaeological impacts are anticipated as a result of this project.

In the event that previously undocumented archaeological remains are found during land clearing, the proponent or person discovering the archaeological resource will cease alteration of the site immediately and the licenced consultant archaeologist and the MHSTCI will be immediately notified.

### 7.11 HERITAGE RESOURCES

No built heritage resources were identified from the desktop survey, therefore, no impacts are anticipated.

### 7.12 CONSTRUCTION STAGING

In general, construction will be staged such that traffic will be maintained on the existing Highway 17 lanes while the new lanes are built. In locations where twinning transitions from one side of the existing highway to the other, or where upgrades are proposed for the existing highway, temporary transitions will be employed as necessary in order to maintain traffic flow.

### 7.13 EMERGENCY VEHICLE RESPONSE

In general, emergency vehicles will respond to the project area from the east. Vehicles responding to accesses on the north side of Highway 17 will incur no out-of-way travel, and the proposed improvements to the highway should decrease response times somewhat.

Vehicles responding to accesses on the south side of Highway 17 would have to use one of the two proposed crossover intersections. In some cases, this will require some out-of-way travel as vehicles 'double-back' to right-in/right-out accesses to the south.

To help reduce out-of-way travel for emergency vehicles, a median crossover will be provided midway between the two aforementioned intersections (approximately 2.1 km west of Gundy Lake Road). This crossover is shown on the Design Plates in Appendix C.

The maximum out-of-way travel to existing accesses with the above noted proposed crossover locations is approximately 4600 m , and this additional travel will be offset somewhat by expected decreased response times due to the proposed highway improvements.

### 7.14 ILLUMINATION AND TRAFFIC SIGNALS

Continuous illumination is not proposed for Highway 17 within the project limits. Partial illumination is proposed at the one proposed intersection with median crossovers, located at the rest area. Typically, partial intersection illumination consists of two poles per intersection.

Transition lighting will be provided at the divided/undivided highway transitions (i.e. between Manitoba and Ontario at the western limits, and between Sections 1 and 2 at the eastern limits). A flashing amber beacon is also recommended at transitional areas. No traffic signals are proposed; all intersections will be two-way-stop-controlled.

### 7.15 UTILITIES

Relocation of a Bell underground fibre line will be required due to conflicts with the selected route as outlined in Section 4.4.7. A 1.8 km extension of the Hydro One line approximately 350 m east of Hwy 673 will be required to provide power to the $4-2$ lane transition lighting west of Gundy Road.
An existing access to a Trans-Canada Pipelines pumping station, located to the south of Highway 17 approximately 600 m east of the Manitoba/Ontario border, will be maintained as part of the selected route.

### 7.16 SUMMARY OF IDENTIFIED AGENCY CONCERNS AND PROPOSED MITIGATION

## Legend

| MTO: Ministry of Transportation | MHSTCI: Ministry of Heritage, Sport, Tourism <br> and Culture Industries |
| :--- | :--- |
| MNRF: Ministry of Natural Resources <br> and Forestry | Mun: Municipality of Kenora |
| DFO: Fisheries and Oceans Canada | UTL: Utility Providers |
| MECP: Ministry of the Environment, <br> Conservation and Parks | ES: Emergency Service Providers |

Exhibit 7-4: Summary of Identified Concerns and Proposed Mitigation

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| :--- | :--- | :--- |

Erosion and Sediment Control (Section 7.1 of TESR)

- Excavation and grading activities associated with the construction of the proposed improvements may result in erosion and generation of sediment

MNRF

DFO

- Vegetation removal will be limited to only what is required for grading and ditching operations, and will be clearly identified on the drawings;
- Erosion and sediment control practices will be implemented throughout construction to prevent

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| :---: | :---: | :---: |
| carried into the watercourses within the project area. |  | migration of sediment to the watercourses within the project area and all other natural features; <br> - All appropriate temporary erosion and sediment control measures such as: silt fence barriers, erosion control blanket, and rock flow checks will be used to contain the construction area and prevent any migration of sediment. The silt fencing and other containment measures will be regularly inspected and maintained as necessary; <br> - New or re-constructed ditches will be properly stabilized using vegetation or rock protection depending on slope; <br> - Rip rap or other stabilizing systems will be installed at outlets and spillways; <br> - All disturbed surfaces will be stabilized with the most appropriate treatments available; and <br> - Stabilization and re-vegetation of all disturbed surfaces will be established as soon as possible following excavation and construction to protect against erosion and sedimentation of local drainage. |
| Management of Excess Material and Property Contamination (Section 7.2 of TESR) |  |  |
| - Surplus materials will be generated during construction and require proper management/disposal. <br> - Property contamination may be encountered during construction and | MECP | - Excess materials generated during construction will be managed in accordance with OPSS 180. <br> - Opportunities to minimize excess material generation through salvage and reused (such as earth material for slope flattening) have been integrated into the design. |


| ENVIRONMENTAL ISSUE / <br> CONCERN | AGENCIES | PROPOSED MITIGATION |
| :---: | :--- | :--- |
| require proper <br> management/ disposal. |  |  |

## Terrestrial Ecosystems (Section 7.3 of TESR)

- Release of constructiongenerated sediment to vegetation areas.
- Direct removal of vegetation features (including any rare vegetation communities and species conservation concern) required for the grading and construction of the new highway lanes and interchange areas

MNRF

- Clearly delineate right-of-way vegetation clearing zones and vegetation retention zone on both construction drawings and in the field confirm with the contractor prior to clearing and grading, Equipment, materials and other construction activities will not be permitted in these zones.
- In dust-sensitive areas, control dust using water or approved chemical suppressants, in accordance with MTO's general conditions. Advance notifications will also be provided to limit disruption to hunting activities during any blasting activities.
- Dust from construction operations will also be monitored by the Contract Administrator, on an ongoing basis, to ensure that dust does not cause a nuisance or is entering a watercourse or environmentally significant area.
- Conduct vegetation removal and protection measures in accordance with OPSS 201 (tree clearing) and OPSS 801 (tree protection)
- Exposed surfaces will be stabilized and re-vegetated as soon as possible using a combination of plantings and the application of an appropriate seed mix.


## ENVIRONMENTAL ISSUE / CONCERN

## AGENCIES PROPOSED MITIGATION

## Wildlife and Wildlife Movement (Section 7.4 of TESR)

| - Loss of wildlife during construction. <br> - Localized impacts due to removal of common vegetation / habitat <br> - Localized potential for nesting by some species in adjacent vegetation that may be disturbed by the construction activities. | MNRF | - Timing constraints are included to avoid vegetation clearing during the breeding bird season <br> - Ensure that no active nests will be removed / disturbed in accordance with the MBCA. <br> - Ensure that any wildlife incidentally encountered during construction will not be knowingly harmed. <br> - Culvert structures at small tributaries/drains along the alignment and where cross-drainage is required will provide additional wildlife movement and where possible will be upgraded to enhance passage of small to medium sized wildlife (both terrestrial and aquatic). |
| :---: | :---: | :---: |

Fisheries and Aquatic Habitat (Section 7.5 of TESR)

| - Impact on fish habitat due to culvert extensions, new culverts and potential realignments. | $\begin{aligned} & \text { MNRF } \\ & \text { DFO } \end{aligned}$ | - Re-aligned sections of channel will be re-instated using 'naturalized channel design principles', to maintain channel length and maintain or enhance the existing habitat functions. <br> - The new channel sections will be fully stabilized prior to opening and transfer of flow. The transition zones will be carefully constructed and inspected to ensure a 'seamless transition' with the upstream channe section. <br> - Protection of fish and fish habitat shall be in accordance with the Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters (OPSS 120). |
| :---: | :---: | :---: |


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## ENVIRONMENTAL ISSUE / CONCERN

## AGENCIES PROPOSED MITIGATION

## Adjacent Land Uses / Property (Section 7.7 of TESR)

| $\bullet$The selected route does <br> not encroach on any <br> adjacent private <br> properties. | N/A | $\bullet$ None anticipated |
| :--- | :--- | :--- |

## Socio-Economic (Section 7.8 of TESR)

| - Access approaches will |  |  |
| :--- | :--- | :--- |
| be regraded and / or <br> realigned as necessary. | MTO | Some accesses to crown land will be <br> closed; all others will be maintained, <br> and configured as right-in/right-out <br> intersections with no median <br> crossover. |

## Highway and Construction Noise (Section 7.9 of TESR)

- The predicted increase in noise levels are < 5 dBA

MECP $\quad \bullet$ Construction may occur outside of normal working hours and on at all receiver locations, thus, noise mitigation is not warranted based on the change in noise levels.

- Construction noise issues
weekends for certain activities along Highway 17.
- If complaints regarding construction noise arise from construction, they will be investigated according to the provisions of the MTO Noise Guide.

Archaeological Resources (Section 7.10 of TESR)

- Stage 2 Archaeological Assessment triggered, due to water being located within 150 m .

| MHSTCI | - There were no significant archaeological impacts identified as part of the Stage 2 Archaeological Assessment. <br> - No additional archaeological work is required and the Stage 2 <br> Archaeological Assessment report has been filed with the Ministry of Tourism, Culture and Sport. |
| :---: | :---: |


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| :--- | :--- | :--- | :--- | :--- |


| ENVIRONMENTAL ISSUE / <br> CONCERN | AGENCIES | PROPOSED MITIGATION |
| :--- | :--- | :--- |
|  |  | • Vehicles responding to accesses on <br> the south side of Highway 17 would <br> have to use the one proposed <br> crossover intersection. In some <br> cases, this will require some out-of- <br> way travel as vehicles 'double-back' <br> to right-in/right-out accesses to the <br> south. <br> Additional travel will be offset <br> somewhat by expected decreased <br> response times due to the proposed <br> highway improvements. |
| - Utilities (Section 7.15 of TESR) | -Impacts to / relocation of the existing <br> utilities is ongoing through <br> consultation with the affected utility <br> providers. <br> Impacts / relocation of the <br> existing utilities are <br> anticipated to be minor. |  |

## 8 MONITORING

### 8.1 MONITORING DURING CONSTRUCTION

The MTO has an internal process to identify and address updates to the Ontario Provincial Standard Specifications, and MTO Standard Provisions and Non-Standard Special Provisions. This includes ongoing review of unanticipated events that occur during construction contracts and incorporation of required updates into future contract provisions. This helps to assess the effectiveness of the contract provisions to ensure that the $y$ providing the expected control and / or protection.
On-site construction administration / inspection staff (retained by MTO) will ensure that the environmental protection measures outlined in this report are carried out. In the event that issues are identified, the MTO Environmental Planner and appropriate external agency representatives will be contacted to provide additional input.
If the impacts of construction are different than anticipated, or if the method of construction is such that there are greater than anticipated impacts, the Contractor's methods of operation will be changed or modified to reduce those impacts.

## APPENDIX



## CORRESPONDENCE



SUMMARY OF AGENCY COMMENTS AND RESPONSES (SECTION 1)

| Agency / Participant | Comment | Response / Action Taken |
| :---: | :---: | :---: |
| Jennifer Paetz <br> Initiatives Coordinator <br> Ministry of Energy, <br> Northern Development and <br> Mines (MNDM) | Comment received November 5, 2018 indicated interest in reviewing the proposal. Inquired if the plan is to expand the existing highway or develop new route options. Requested shapefiles or kmz files that could be shared to help facilitate their review. <br> Response received requesting minutes/summary of discussion from the November PIC, a tentative EA / project schedule, and a summary of outreach/consultation with First Nations. | Response sent March 18, 2019 indicated that the Section 1 study is underway, from the Manitoba/Ontario Border to Highway 673, and that the preferred alternative for Section 1, as presented at the Public Information Centre in November 2018, consists entirely of twinning the existing Highway 17. <br> Available draft digital files were provided for MNDM review of the project, as requested. <br> Response noted that the studies for Sections 2 and 3 will be commencing in 2019 where the route options will be developed and may consist of twinning and/or segments of new highway alignment. Once these route options are developed, they can be shared with MNDM. <br> Summary of the November PIC was sent. Response indicated that a revised schedule is being prepared and will be shared once available. A list of past meetings with First Nations was sent. |
| Jenny SEO <br> Hydro One Networks Inc. | Comment received November 5, 2018 confirming that Hydro One has high voltage transmission \& distribution facilities within the study area. A Hydro One contact person was provided to receive more details of the plans once they are known and it is established that the project will affect Hydro One facilities including the rights of way. A map of existing transmission facilities was provided. | Response sent on February 4, 2019 indicated that Hydro One will be kept involved in this study to ensure a coordinated approach that addresses requirements of both the Ministry of Transportation and Hydro One. Indicated that as part of Section 1 work (Manitoba border to Highway 673), no impacts to existing transmission (Tx) facilities were anticipated, per the map provided. It is possible that an existing distribution (Dx) facility immediately to the east of Highway 673 could be impacted as part of Section 1 work. <br> In the next phase of work, Section 2 (Highway 673 to Rush Bay Road), impacts are anticipated to existing distribution facilities near Highway 17, and Hydro One will be contacted regarding these impacts. |
| Jessica Epp-Martindale <br> Fisheries and Oceans Canada | Comment received November 7, 2018 providing contact information if the project team determines that the project needs Fisheries and Oceans Canada review. | No response required. |
| Jim Antler <br> Ministry of Tourism, Culture and Sport | Comment received November 7, 2018 requesting engagement with existing tourism operations in proximity to the highway route and local/regional tourism organizations to ensure their interests and input are factored into studies and decision-making. Inquired how the project can facilitate additional tourism-related travel into Northwestern Ontario. | Response sent on January 29, 2019 indicating that Clearwater Bay and the Lake of the Woods District are within the Section 3 study area, which contains a large volume of seasonal residents and significantly contributes to the tourism industry. Confirmed that the project team has been consulting with The Lake of the Woods District Property Owners Association and Tourism Kenora. <br> Indicated that the project will facilitate additional tourism-related travel into Northwestern Ontario as Highway 17 is a strategic link in the Trans-Canada Highway System and provides access to many tourist and recreational areas in both Manitoba and Ontario. The purpose of four-laning Highway 17 is to provide increased passing opportunities, reduce congestion and travel time, and minimize impacts during maintenance activities. |
| Alex Lye <br> Infrastructure Ontario (IO) | Comment received November 20, 2018 with attached Comment Form and a drawing that shows MOI lands that may be affected by the proposed project. Indicated that follow-up with IO would be required. | Response sent on March 18, 2019 indicating that the project team is aware of the parcel of land owned by the Ministry of Infrastructure, and that we do not anticipate that additional property will be required from MOI. |
| Sean Magee <br> Transcanada Pipelines Limited | Comment received with attached information and photo of the only access road Transcanada utilizes in the Section 1 part of the twinning project. | Response sent on March 18, 2019 indicating that access to the maintenance road will be maintained; however, it will be reconfigured as a right-in/right-out intersection, accessible only to and from eastbound Highway 17. Full intersections with median crossovers will be located approximately $1,200 \mathrm{~m}$ west, and 600 m east of the access road. |


| Agency / Participant | Comment | Response / Action Taken |
| :---: | :---: | :---: |
| Cathy Debney <br> Ministry of the Environment, Conservation and Parks <br> Kenora Area/Thunder Bay District | Comment received November 28, 2018 indicated that mobile processing equipment such as crushers and screenings as well as asphalt and concrete plants require an Air Environmental Compliance Approval prior to their operation at any pit/quarry or other location. Requested clarification on the "Wood Disposal Site" presented at the PIC to determine if it will trigger any requirements for a waste disposal site under the Environmental Protection Act and associated regulations. Inquired about the distance of the proposed work in relation to the Shoal Lake Waste Disposal Site and its attenuation zone. | Response sent on March 21, 2019 indicating that Environmental Compliance Approvals for construction are the responsibility of the contractors completing the work. A commitment will be made in the Transportation Environmental Study Report (TESR) for contractors to submit an ECA application, where required. <br> Indicated that the Wood Disposal Site is a firewood drop-off area to prevent the spread of pests. The project team was advised of this site during the initial study in 2009, however, it appears that it is likely no longer in use and similar service is available inside Manitoba border. <br> Indicated that the former Shoal Lake Waste Disposal Site is located approximately 460 m south of Highway 17 and 120 m east of Shoal Lake Road. During the previous study in 2010, a Landfill Gas Assessment was completed in accordance with the Ministry of the Environment, Conservation and Parks (formerly Ministry of Environment) Guideline D-4, Land Use on or Near Landfills and Dumps (1994). The assessment report was attached. |
| John M. McDougall <br> North West Region Highway Safety Division Ontario Provincial Police | Comment received December 3, 2018 indicating that any additional crossovers between eastbound and westbound directions would be appreciated. These crossovers provide opportunities for police and first responders to get across to the opposing direction more quickly should a call for service occur. It also will provide the police with locations which enforcement can be done from. Suggested that the eastbound lane transition back to single lane each way be carefully planned out. <br> Similar to passing lanes in the area, OPP experience is that drivers often increase their speeds significantly speeds when they are nearing the end of passing lanes passing as many vehicles as they can. Speeds are routinely 130 to $145 \mathrm{~km} / \mathrm{h}$ in these areas and there is lane changing and heavy braking that occurs as the two lanes merge together. <br> Expressed concern that the end of this area should not occur at the intersection of Hwy 673 as the potential exists for drivers turning off of Hwy 673 onto Hwy 17 to misjudge the speeds of moving vehicles which might be travelling at significant speeds. Consideration should be given to the width of the shoulders of the road. A specification may exist for shoulder width, however, it is becoming more and more common for drivers to stop on the shoulders anywhere for making phone calls, texting and emailing, in both large commercial vehicles and passenger vehicles. | Response sent on March 18, 2019 indicating that the project team is proposing an emergency median turnaround to be located approximately half-way between the future rest area and Gundy Lake Road full-move intersections. This will reduce out-of-way travel for emergency vehicles responding to incidents on the opposite side of the highway. <br> The project team has reviewed the easterly two-lane/four-lane transition location, and is recommending that the transition be shifted to the west of Gundy Lake Road. This will reduce conflicts with intersection operations compared with the transition being located between the Gundy Lake Road and Highway 673 intersections. The eastbound lane drop location will be reviewed in detail design to ensure that the lane drop will occur sufficiently in advance of the merge point to provide vehicles with an opportunity to reduce speed prior to joining the undivided highway. <br> For new construction, outside (right) shoulders will be 3.0 m wide, and will be fully paved. Median (left) shoulders for new construction will be 1.0 m , and will be fully paved. Where existing lanes are retained, the existing 2.5 m fully paved shoulders will be retained on both sides. Shoulder specifications will be further considered in the detail design phase. |
| Environmental Assessment Program, Ontario Region <br> Transport Canada / Government of Canada | Comment received December 5, 2018 indicating that Transport Canada does not require receipt of all individual or Class EA related notifications. Requested to self-assess if project impacts and to advise if additional information is needed. | Response sent on January 29, 2019 indicating that this Section 1 study does not interact with a federal property or waterway, nor will it require approval or authorization under any Acts administered by Transport Canada. <br> Transport Canada will be kept on the contact list as Sections 2 and 3 may require Transport Canada involvement. |
| Caitlin Cafaro <br> Canadian Environmental Assessment Agency / Government of Canada | Comment received on December 14, 2018 indicated that based on the information provided, the project does not appear to be described in the Regulations. Requested that the project team review the requirements of CEAA 2012, including the Regulations. If the project team believes that the project is not subject to a federal environmental assessment, and will not submit a project description, CEAA kindly requests to be removed from the distribution list. | Response sent on March 18, 2019 confirming that this undertaking is not subject to a federal environmental assessment. As such, the Canadian Environmental Assessment Agency has been removed from the project distribution list. |
| Derek Durant, P. Eng. <br> Manitoba Infrastructure | Comment received December 19, 2018 indicating that Manitoba Infrastructure has concerns regarding the transition section within the province of Manitoba from Ontario's proposed four- lane | Response sent on December 2, 2018 indicating that the project team will provide a formal response in the near future. Requested additional detail on your concerns about the transition section at the |


| Agency / Participant | Comment | Response / Action Taken |
| :---: | :---: | :---: |
|  | divided cross-section to Manitoba's four-lane divided cross-section in the vicinity of the weigh scale site west of the Manitoba/Ontario border. Manitoba Infrastructure is interested in having discussions with MTO in the near future regarding the coordination of works and timeframes, so that options for funding and necessary approvals can be explored. | border. If concerns are related to the design itself, the project team would like to hear from Manitoba Infrastructure as soon as possible. |
| Jocelyn Beatty <br> Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) | Comment received December 20, 2018 indicating that the Ministry has no concerns as there are no significant agricultural resources in the study area. | Response sent on March 18, 2018 indicating that since OMAFRA has no concerns with this study they will be removed from the study contact list unless otherwise directed. |
| Kimberly Livingstone <br> Ministry of Tourism, Culture and Sport (MTCS) | Comment received on December 28, 2018 indicating that MTCS's interest in this Environmental Assessment (EA) project relates to its mandate of conserving Ontario's cultural heritage, which includes: <br> - Archaeological resources, including land and marine; <br> - Built heritage resources, including bridges and monuments; and, <br> - Cultural heritage landscapes. <br> Indicated that this EA project may impact archaeological resources. Please confirm that the study areas have been screened for archaeological potential and/or the subject of archaeological assessments. <br> Indicated that this EA project may impact built heritage resources and cultural heritage landscapes. Please confirm that the study areas have been screened for the potential for these resources and/or the subject of a cultural heritage resource assessment or cultural heritage evaluation. <br> Requested that the previous studies undertaken be sent and advise MTCS whether any further technical cultural heritage studies will be completed for this EA project. <br> All technical cultural heritage studies and their recommendations are to be addressed and incorporated into EA projects. If further technical cultural heritage studies will be undertaken, please provide them to MTCS before issuing a Notice of Completion or commencing any work on the site. If screening has identified no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file. | Response sent on March 18, 2019 confirming that the following archaeological investigations have been completed for the Highway 17 four-laning between the Manitoba/Ontario border and Kenora, and were previously filed with the MTCS: <br> - Stage 1 Archaeological Impact Assessment of Hwy 17 Between the Manitoba/Ontario Border and Kenora, (Woodland Heritage Services Limited, 2009) <br> - Stage 2 Archaeological Impact Assessment of Proposed Hwy 17 Four-Laning, Manitoba/Ontario Boundary to Rush Bay Road, (Woodland Heritage Services Limited, 2009) <br> The Stage 2 Archeological Assessment concluded that the area assessed was cleared of archaeological potential. The project team is looking at new alignments in Section 2 that are outside of the previously assessed footprint. Should a route outside of the previously assessed footprint be carried forward, additional archaeology work will be undertaken to determine archaeological potential. <br> A Built Heritage \& Cultural Landscapes Existing Conditions Report was completed in 2009 by Unterman McPhail Associates, where the following cultural heritage landscapes were identified within and adjacent to Section 1 and Section 2: <br> - King's Highway 17; <br> - Abandoned sections of Highway 17; and, <br> - Local roadscapes. <br> No built heritage resources were identified. <br> As requested, attached for reference is the previously filed Stage 1 and Stage 2 AAs, as well as the Built Heritage \& Cultural Landscapes Existing Conditions Report. <br> As previously noted, further archaeology reporting may be required if routes outside of the previously assessed footprint are carried forward for Sections 2 and/or 3. The project team does not anticipate the need for any further technical studies pertaining to built/cultural heritage resources. Summaries of these findings will be incorporated into the appropriate EA documentation. |
| Jessica Malone-Daniher <br> Ministry of Natural Resources and Forestry | Comment received January 13, 2019 indicating that the ministry is supportive of this project. Noted that a site visit was also completed with MTO staff and all water crossings were generally low risk for Phase 1. <br> The preferred route appears to be contained to MTO property for section 1 , no transfer of crown land is necessary <br> It appears that areas previously harvested and renewed will be taken up by the additional highway, there will be a reduction in productive land base on the Kenora Forest, the area is small. <br> There are harvest blocks both north and south of the highway that may have slightly increased haul distances as some intersections will be "right in right out". <br> There are currently no Areas of Interest identified along the identified sections of Hwy 17 associated | Response sent on March 18, 2019 indicating that the project team will incorporate these comments where appropriate in the supporting EA documentation for this study. |


| Agency / Participant | Comment | Response / Action Taken |
| :--- | :--- | :--- |
|  | with current Treaty Land Entitlement claims <br> however it is unknown whether sites may be <br> identified in the future along this corridor. <br> The Hwy in this area marks the boundary between <br> two general use areas G2613 - Shoal Lake to the <br> south and G2602 - Pelicanpouch Lake to the north. <br> New roads are a permitted use in both these areas. | Jim Antler <br> Ministry of Tourism, Culture <br> and Sport |
| Comment received on January 29, 2019 inquiring <br> whether the Sunset Country Travel Association has <br> been engaged. | Response sent on March 18, 2019 indicating that theSunset <br> Country Travel Association was not initially included in the study <br> contact list, but has been added and will receive all future project- <br> related notifications. |  |

## APPENDIX



ONTARIO GOVERNMENT NOTICES \& SAMPLE LETTERS

November 5, 2018

To Whom It May Concern:

## RE: NOTICE OF STUDY RE-COMMENCEMENT \& PUBLIC INFORMATION CENTRE HIGHWAY 17 FOUR-LANING BETWEEN THE MANITOBA/ONTARIO BORDER AND KENORA (GWP 6053-03-00), PLANNING AND PRELIMINARY DESIGN

In 2009, the Ontario Ministry of Transportation (MTO) undertook Planning, Preliminary and Detail Design Studies related to the proposed twinning of Highway 17 within the above location. WSP Canada Group Limited, on behalf of the Ontario Ministry of Transportation (MTO), is re-commencing the studies to review options for the four-laning of Highway 17 between the Manitoba / Ontario border and Kenora. The studies will identify a preferred option for a four-lane divided highway corridor based on an evaluation of alternatives. Separate studies are being carried out for the three sections as shown in the attached notice.

The studies are being carried out in accordance with the approved environmental planning process for Group 'B' projects under the MTO Class Environmental Assessment (Class EA) for Provincial Transportation Facilities (2000) and each section will be documented in a Transportation Environmental Study Report (TESR).

The purpose of this letter is to notify you of the study re-commencement and an upcoming Public Information Centre (PIC) for Section 1: Between the Manitoba/Ontario Border and Highway 673 (PIC 1.S1). This PIC has been arranged to provide a study overview and present the preferred twinning alternative to agencies, interested groups, business representatives and members of the general public.

The PIC will be held on Tuesday, November 20, 2018 at the Clarion Lakeside Inn and Conference Centre - Cascade Room located at $4701^{\text {st }}$ Ave. S, Kenora, Ontario. There will be a one-hour preview session from 3:00-4:00 pm, followed by the PIC from 4:00-7:00 pm. Members of the Project Team will be available at the PIC to discuss the project and answer any questions you may have.

A copy of the notice is attached for your information.

If you are unable to attend the PIC but wish to obtain additional information, or to submit comments, please feel free to contact the undersigned at the address below, or visit the project website at www.4LaneHighway17Kenora.ca. An agency comment form is attached to facilitate your response.

Mr. Neil Ahmed, P.Eng.
Consultant Project Manager WSP Canada Group Limited 610 Chartwell Rd., Suite 300 Oakville, ON L6J 4A5 Phone: (905) 829-6241
Toll-free: 1-877-562-7947
Fax: (905) 823-8503
E-mail: project-team@
4LaneHighway17Kenora.ca

Mr. J.A. (Sandy) Nairn, MCIP, RPP Senior Environmental Planner WSP Canada Group Limited 610 Chartwell Rd., Suite 300
Oakville, ON L6J 4A5
Phone: (905) 829-6264
Toll-free: 1-877-562-7947
Fax: (905) 823-8503
E-mail: project-team@
4LaneHighway17Kenora.ca

Dr. Yolibeth Mejias, P.Eng.
Senior Project Engineer Ministry of Transportation Northwestern Region $3^{\text {rd }}$ Flr, 615 James St. S Thunder Bay, ON P7E 6P6
Phone: (807) 473-2130
Toll free: 1-800-461-9547
Fax: (807) 473-2168
E-mail: project-team@
4LaneHighway17Kenora.ca

Under the Freedom of Information and Protection of Privacy Act (FOIPPA) and the Access to Information Act, comments and information regarding this project, with the exception of personal information, will become part of the public record. If you have accessibility requirements in order to participate in this project, please contact the undersigned.

Yours truly,


Neil Ahmed, P. Eng.
Consultant Project Manager
cc: Dr. Yolibeth Mejias, P.Eng, MTO Project Manager - MTO Northwestern Region
J.A. (Sandy) Nairn, MCIP, RPP, Consultant Environmental Planner - WSP Canada

## Ministry of Transportation

Planning and Design Section 615 South James Street
Thunder Bay, Ontario P7E 6P6
Tel.: 807-473-2130
Fax: 807-473-2168
<<Date>>
<<Agency>>
<<Address 1>>
<<Address 2>>
<City, Province>> <<Postal Code>>
Attention: <<Name>>
<<Job Title>>

## RE: NOTICE OF STUDY RE-COMMENCEMENT \& PUBLIC INFORMATION CENTRE HIGHWAY 17 FOUR-LANING BETWEEN THE MANITOBA/ONTARIO BORDER AND KENORA (GWP 6053-03-00), PLANNING AND PRELIMINARY DESIGN

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The studies are being carried out in accordance with the approved environmental planning process for Group 'B' projects under the MTO Class Environmental Assessment (Class EA) for Provincial Transportation Facilities (2000) and each section will be documented in a Transportation Environmental Study Report (TESR).

The purpose of this letter is to notify you of the study re-commencement and an upcoming Public Information Centre (PIC) for Section 1: Between the Manitoba/Ontario Border and Highway 673 (PIC 1.S1). This PIC has been arranged to provide a study overview and present the preferred twinning alternative to your community, as well as agencies, interested groups, business representatives and members of the general public.

The PIC will be held on Tuesday, November 20, 2018 at the Clarion Lakeside Inn and Conference Centre - Cascade Room located at 470 1st Ave. S, Kenora, Ontario. There will be a one-hour preview session from 3:00-4:00 pm, followed by the PIC from 4:00-7:00 pm. Members of the Project Team will be available at the PIC to discuss the project and answer any questions you may have.

Please be advised that the Ontario Government Notice (OGN) advertising the Study Re-Commencement and PIC (attached for your information) will be published in the Wawatay News on Thursday, November 15, 2018 in addition to publication in the Kenora Daily Miner \& News and Lake of the Woods Enterprise.

If you wish to have a separate meeting and/or Community Information Session (CIS) within your community, or if you'd like to obtain additional information, or submit comments, please feel free to contact the undersigned at the address below, or visit the project website at www.4LaneHighway17Kenora.ca.

Dr. Yolibeth Mejias, P.Eng
Senior Project Engineer
Ministry of Transportation
Northwestern Region
3rd FIr, 615 James St. S
Thunder Bay, ON P7E 6P6
Phone: (807) 473-2130
Toll free: 1-800-461-9547
Fax: (807) 473-2168
E-mail: project-team@4LaneHighway17Kenora.ca

Under the Freedom of Information and Protection of Privacy Act (FOIPPA) and the Access to Information Act, comments and information regarding this project, with the exception of personal information, will become part of the public record. If you have accessibility requirements in order to participate in this project, please contact the undersigned.

Sincerely,

Dr. Yolibeth Mejias, P.Eng
MTO Senior Project Engineer
cc: $\quad$ Neil Ahmed, P.Eng, Consultant Project Manager - WSP Canada
J.A. (Sandy) Nairn, MCIP, RPP, Consultant Environmental Planner - WSP Canada

## Ministry of Transportation

Planning and Design Section

Tel.: 807-473-2130
Fax: 807-473-2168
Monday, October 29, 2018
«Company»
«Address1», «Address2»
«City», «Province» «PostalCode»
E-mail: «Eaddress»
Attention: «Title» «FirstName»«LastName» «JobTitle», «Branch»

## RE: NOTICE OF STUDY RE-COMMENCEMENT \& PUBLIC INFORMATION CENTRE HIGHWAY 17 FOUR-LANING BETWEEN THE MANITOBA/ONTARIO BORDER AND KENORA (GWP 6053-03-00), PLANNING AND PRELIMINARY DESIGN

In 2009, the Ontario Ministry of Transportation (MTO) undertook Planning, Preliminary and Detail Design Studies related to the proposed twinning of Highway 17 within the above location. WSP Canada Group Limited, on behalf of the Ontario Ministry of Transportation (MTO), is re-commencing the studies to review options for the four-laning of Highway 17 between the Manitoba / Ontario border and Kenora. The studies will identify a preferred option for a four-lane divided highway corridor based on an evaluation of alternatives. Separate studies are being carried out for the three sections as shown in the attached notice.

The studies are being carried out in accordance with the approved environmental planning process for Group 'B' projects under the MTO Class Environmental Assessment (Class EA) for Provincial Transportation Facilities (2000) and each section will be documented in a Transportation Environmental Study Report (TESR).

The purpose of this letter is to notify you of the study re-commencement and an upcoming Public Information Centre (PIC) for Section 1: Between the Manitoba/Ontario Border to Highway 673 (PIC 1.S1). This PIC has been arranged to provide a study overview and present the preferred twinning alternative to agencies, interested groups, business representatives and members of the general public.

The PIC will be held on Tuesday, November 20, 2018 at the Clarion Lakeside Inn and Conference Centre - Cascade Room located at $4701^{\text {st }}$ Ave. S, Kenora, Ontario. There will be a one-hour preview session from 3:00-4:00 pm, followed by the PIC from 4:00-7:00 pm. Members of the Project Team will be available at the PIC to discuss the project and answer any questions you may have.

Please be advised that the Ontario Government Notice (OGN) advertising the Study Re-Commencement and PIC (attached for your information) will be published in local newspapers as follows:

Kenora Daily Miner \& News
Lake of the Woods Enterprise
Wawatay News

Tuesday, November 6, 2018
Thursday, November 15, 2018
Thursday, November 15, 2018

If you wish to schedule a meeting and/or presentation to Council in advance of the upcoming PIC please contact the undersigned below.

In addition, if you are unable to attend the PIC but wish to obtain additional information, or to submit comments, please feel free to contact the undersigned at the address below, or visit the project website at www.4LaneHighway17Kenora.ca.

## Dr. Yolibeth Mejias, P.Eng

Senior Project Engineer
Ministry of Transportation
Northwestern Region
3rd Flr, 615 James St. S
Thunder Bay, ON P7E 6P6
Phone: (807) 473-2130
Toll free: 1-800-461-9547
Fax: (807) 473-2168
E-mail: project-team@4LaneHighway17Kenora.ca

Under the Freedom of Information and Protection of Privacy Act (FOIPPA) and the Access to Information Act, comments and information regarding this project, with the exception of personal information, will become part of the public record. If you have accessibility requirements in order to participate in this project, please contact the undersigned.

Sincerely,

Dr. Yolibeth Mejias, P.Eng
MTO Senior Project Engineer
cc: $\quad$ Neil Ahmed, P.Eng, Consultant Project Manager - WSP Canada
J.A. (Sandy) Nairn, MCIP, RPP, Consultant Environmental Planner - WSP Canada

November 13, 2018

Jacqueline Shannon
23 Vincent Massey Blvd
Winnipeg MB

## Subject: NOTICE OF STUDY RE-COMMENCEMENT \& PUBLIC INFORMATION CENTRE HIGHWAY 17 FOUR-LANING BETWEEN THE MANITOBA/ONTARIO BORDER AND KENORA (GWP 6053-03-00), PLANNING AND PRELIMINARY DESIGN

Dear Ms. Shannon:

In 2009, the Ontario Ministry of Transportation (MTO) undertook Planning, Preliminary and Detail Design Studies related to the proposed twinning of Highway 17 within the above location. WSP Canada Group Limited, on behalf of the Ontario Ministry of Transportation (MTO), is re-commencing the studies to review options for the four-laning of Highway 17 between the Manitoba / Ontario border and Kenora. The studies will identify a preferred option for a four-lane divided highway corridor based on an evaluation of alternatives. Separate studies are being carried out for the three sections as shown in the attached notice.

The studies are being carried out in accordance with the approved environmental planning process for Group 'B' projects under the MTO Class Environmental Assessment (Class EA) for Provincial Transportation Facilities (2000) and each section will be documented in a Transportation Environmental Study Report (TESR).

We recently obtained property ownership information and are writing to notify you of the study recommencement and upcoming Public Information Centre (PIC) for Section 1: Between the Manitoba/Ontario Border and Highway 673 (PIC 1.S1). This PIC has been arranged to provide a study overview and present the preferred twinning alternative to agencies, interested groups, business representatives and members of the general public. Members of the Project Team will be available at the PIC to discuss the project and answer any questions you may have.

The PIC will be held as follows:

Date: Tuesday, November 20, 2018
Time: 4:00 to 7:00 pm
Location: Clarion Lakeside Inn and Conference Centre - Cascade Room, $4701^{\text {st }}$ Ave. S, Kenora, Ontario

A copy of the notice is attached for your information.

If you are unable to attend the PIC, or if this letter arrives after the PIC, but wish to view the display materials, please visit the project website after the event at www.4LaneHighway17Kenora.ca. If you have any questions or wish to submit comments, please feel free to contact the undersigned at the address below, or alternately feel free to submit comments through the project website.

Yours sincerely,


Neil Ahmed, P.Eng.
Consultant Project Manager
cc: Dr. Yolibeth Mejias, P.Eng, MTO Project Manager - MTO Northwestern Region J.A. (Sandy) Nairn, MCIP, RPP, Consultant Environmental Planner - WSP Canada

Encl. Notice of Study Re-Commencement and Public Information Centre

# NOTICE OF STUDY RE-COMMENCEMENT Highway 17 Four-Laning between the Manitoba / Ontario Border and Kenora AND <br> NOTICE OF PUBLIC INFORMATION CENTRE for the Re-Commencement of SECTION 1: between the Manitoba / Ontario Border and Highway 673 

WSP Canada Group Limited, on behalf of the Ontario Ministry of Transportation (MTO), is undertaking Planning, Preliminary Design and Class Environmental Assessment (Class EA) Studies to review options for the four-laning of Highway 17 between the Manitoba / Ontario border and Kenora. The studies will identify a preferred option for a four-lane divided highway corridor based on an evaluation of alternatives. Separate studies are being carried out for the three sections as shown on the key plan.

## BACKGROUND

Following the start of planning and preliminary design work in 2009, Transportation Environmental Study Reports (TESRs) for Sections 1 and 2 were filed for public review and comment. However, the studies were not completed and the projects did not move forward. By way of this notice, MTO is withdrawing its previous Notices of Completion for Sections 1 and 2 issued November 10, 2009 and re-commencing the EA process.

## THE PROJECT

The first proposed project is Section 1 extending from the Ontario/Manitoba border easterly 6.5 km to Highway 673. The previously considered alternatives from the 2009 study were carried forward for this project.


## THE PROCESS

The studies will follow the Class EA for Provincial Transportation Facilities (2000) process for a Group 'B' project, with the opportunity for public input throughout. Public Information Centres (PICs) will be held to provide opportunities to discuss the studies with members of the project team. Three PICs were previously held between 2009 and 2011.

A PIC for Section 1 between the Manitoba / Ontario Border and Highway 673 has been arranged to provide a study overview and present the preferred twinning alternative. Following the PIC, a TESR will be prepared and made available for public review.

Future notices will be published to advise of PICs for Sections 2 and 3.

## PUBLIC INFORMATION CENTRE (Section 1 from Manitoba to Highway 673)

The PIC will be held as a drop-in, open house session and representatives from MTO and WSP will be in attendance to answer questions and receive feedback. We encourage you to attend the PIC and to provide the Project Team with your views and comments so that they may be considered as the study progresses. The display material presented at the PIC will be posted on the project website after the PIC. The PIC will be held as follows:

Date: $\quad$ Tuesday, November 20, 2018
Time: $\quad$ 4:00 p.m. to 7:00 p.m.
Location: Clarion Lakeside Inn and Conference Centre - Cascade Room $4701^{\text {st }}$ Ave. S
Kenora, Ontario

## COMMENTS

To obtain additional information, provide comments or to be placed on the study mailing list, please contact:

Mr. Neil Ahmed, P.Eng.
Consultant Project Manager
WSP Canada Group Limited
610 Chartwell Rd., Suite 300
Oakville, ON L6J 4A5
Phone: (905) 829-6241
Toll-free: 1-877-562-7947
Fax: (905) 823-8503
E-mail: project-team@
4LaneHighway17Kenora.ca

Mr. J.A. (Sandy) Nairn, MCIP, RPP
Senior Environmental Planner
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4LaneHighway17Kenora.ca

If you have any accessibility requirements to participate in this project, please contact one of the Project Team members listed above.
Comments and information are being collected to assist the MTO in meeting the requirements of the Ontario Environmental Assessment Act. Information will be collected in accordance with the Freedom of Information and Protection of Privacy Act and the Access to Information Act. With the exception of personal information, all comments will become part of the public record.

Please visit us at 4LaneHighway17Kenora.ca for more information.

# Ford shuffles cabinet 

## PAOLA LORIGGIO

The Canadian Press
TORONTO - Ontario Premier Doug Ford shuffled his cabinet Monday just months after taking the reins of the province, a significant and unexpected restructuring that followed the resignation of one of his top ministers.
The move - which saw six Progressive Conservative legislators reassigned - was announced in a release Monday morning, prompting suggestions from critics that Ford's government was struggling, and calls for the premier to explain his decision.
Ford did not give reasons for the new appointments but said in the statement that the shuffle would help his government achieve its goals.
"After four months of unprecedented action, we are taking this opportunity to calibrate our cabinet assignments to ensure we continue to deliver on our commitments to the people," he said.
Ford said Progressive Conservative House Leader Todd Smith will take on the additional role of minister of economic development, job creation and trade to replace Jim Wilson, who stepped down on Friday.
John Yakabuski, who served as transportation minister, will become minister of natural resources and forestry. Jeff Yurek, who held the natural resources portfolio, will take on the transportation file. Sylvia Jones will take over the job of community safety and correctional services minister from Michael Tibollo, who will become minister of tourism, culture and sport.

Bill Walker will join cabinet by succeeding Smith as minister of government and consumer services.
Some caucus positions are also shifting, with Lorne Coe appointed government caucus whip and Doug Downey deputy whip. Ford said all other ministerial, parliamentary assistant, and government caucus and committee roles will remain unchanged. Many ministers who have been in the spotlight since the Tories formed government in June, including Health Minister Christine Elliott, Finance Minister Vic Fedeli and Education Minister Lisa Thompson, are staying in their current roles.
Critics voiced concerns about the suddenness of the shuffle, saying Ford needs to provide reasons for making such significant changes so soon into his mandate.

NOTICE OF STUDY RE-COMMENCEMENT
Highway 17 Four-Laning between the Manitoba / Ontario Border and Kenora
AND

## NOTICE OF PUBLIC INFORMATION CENTRE

## for the Re-Commencement of SECTION 1: between the Manitoba / Ontario Border and Highway 673

WSP Canada Group Limited, on behalf of the Ontario Ministry of Transportation (MTO), is undertaking Planning, Preliminary Design and Class Environmental Assessment (Class EA) Studies to review options for the four-laning of Highway 17 between the Manitoba / Ontario border and Kenora. The studies will identify a preferred option for a four-lane divided highway corridor based on an evaluation of alternatives. Separate studies are being carried out for the three sections as shown on the key plan.

## background

Following the start of planning and preliminary design work in 2009, Transportation Environmental Study Reports (TESRs) for Sections 1 and 2 were filed for public review and comment. However, the studies were not completed and the projects did not move forward. By way of this notice, MTO is withdrawing its previous Notices of Completion for Sections 1 and 2 issued November 10, 2009 and re-commencing the EA process.

## THE PROJECT

The first proposed project is Section 1 extending from the Ontario / Manitoba border easterly 6.5 km to Highway 673. The previously considered alternatives from the 2009 study were carried forward for this project.

## THE PROCESS

The studies will follow the Class EA for Provincial Transportation Facilities (2000) process for a Group 'B' project, with the opportunity for public input throughout. Public Information Centres (PICs) will be held to provide opportunities to discuss the studies with members of the project team. Three PICs were previously held between 2009 and 2011.

A PIC for Section 1 between the Manitoba / Ontario Border and Highway 673 has been arranged to provide a study overview and present the preferred twinning alternative. Following the PIC, a TESR will be prepared and made available for public review.
Future notices will be published to advise of PICs for Sections 2 and 3.
PUBLIC INFORMATION CENTRE (Section 1 from Manitoba to Highway 673)

The PIC will be held as a drop-in, open house session and representatives from MTO and WSP will be in attendance to answer questions and receive feedback. We encourage you to attend the PIC and to provide the Project Team with your views and comments so that they may be considered as the study progresses. The display material presented at the PIC will be posted on the project website after the PIC. The PIC will be held as follows:
Date: Tuesday, November 20, 2018
Time: 4:00 p.m. to 7:00 p.m.
Location: Clarion Lakeside Inn and Conference Centre - Cascade Room 470 1st Avenue South, Kenora, ON

## COMMENTS

To obtain additional information, provide comments or to be placed on the study mailing list, please contact:

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Consultant Project Manager
WSP Canada Group Limited
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## Three

 busted in meth raid
## ENTERPRISE STAFF

Three Dryden residents are facing trafficking charges following a police raid at a residence in the city on Nov. 6.
Dryden detachment OPP assisted by officers from the Organized Crime Enforcement Bureau, Community Street Crime Unit and the Dryden Police Service executed a search warrant Tuesday evening at approximately 9:00 p.m.
Police seized 284 grams of Methamphetamine with a street value of approximately \$56800.00, drug trafficking materials and Canadian currency.
Charged under the Controlled Drugs and Substances Act are:
Renee Robichaud, 41, possession of a schedule I substance for the purpose of trafficking and possession of property obtained by crime over \$5,000; Ryan Bedford, 33, possession of a schedule I substance for the purpose of trafficking and fail to comply with a recognizance; Kaitlyn Miller, 24, possession of a schedule I substance for the purpose of trafficking.

All three accused appeared in Bail Court at the Ontario Court of Justice in Dryden on Wedneday, Nov. 7.

## Contraband tobacco seized

A routine traffic stop for a Highway Traffic Act offense turned up a shipment of illegal tobacco being transported by two residents of Manitoba.
Ignace detachment OPP seized 75,000 unmarked cigarettes with a total estimated value of $\$ 44000$ as a result of the traffic stop.
Police charged the suspects with possession of unmarked cigarettes for the purpose of sale.
Charged with the offenses under the Tobacco Tax Act are: Michael Medwid, 52, of Dauphin, MB and Philip Mekish, 45 , of Camperville, MB.

Both of the accused are scheduled to appear in the Ontario Court of Justice on Jan. 8, 2019.

## NOTICE OF STUDY RE-COMMENCEMENT

## Highway 17 Four-Laning between the Manitoba / Ontario Border and Kenora

AND

## NOTICE OF PUBLIC INFORMATION CENTRE

## for the Re-Commencement of SECTION 1: between the Manitoba / Ontario Border and Highway 673

WSP Canada Group Limited, on behalf of the Ontario Ministry of Transportation (MTO), is undertaking Planning, Preliminary Design and Class Environmental Assessment (Class EA) Studies to review options for the four-laning of Highway 17 between the Manitoba / Ontario border and Kenora. The studies will identify a preferred option for a four-lane divided highway corridor based on an evaluation of alternatives. Separate studies are being carried out for the three sections as shown on the key plan.

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## THE PROJECT

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## THE PROCESS

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Date: Tuesday, November 20, 2018
Time: $\quad$ 4:00 p.m. to 7:00 p.m.
Location: Clarion Lakeside Inn and Conference Centre - Cascade Room 470 1st Avenue South, Kenora, ON
COMMENTS
To obtain additional information, provide comments or to be placed on the study mailing list, please contact:

Mr. Neil Ahmed, P.Eng.
Consultant Project Manager WSP Canada Group Limited 610 Chartwell Rd., Suite 300 Oakville, ON L6J 4A5 tel: 905-829-6241 toll-free: 1-877-562-7947 fax: 905-823-8503 e-mail: project-team@4LaneHighway17hKenora.ca


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## Arts and Bntertainment

## Tanya Talaga Massey Lectures a hit in Thunder Bay

## Rick Garrick

Wawatay News
CBC Massey Lectures Tour speaker Tanya Talaga's lecture on What Are the Keys to Healing a Community was a hit in Thunder Bay.
"She talked a lot about equity, that there be equity in our communities for the children for them to succeed and or them to live," says Grand Chief Alvin Fiddler. "So that was I thought a very powerful message for everyone to hear." Fiddler says it was important
for Talaga to begin her CBC Massey Lectures Tour in Thunder Bay because it is "ground zero for many of the issues she talked about." Nishnawbe Aski Nation sponsored Talaga's lecture so it was a free event for the community at the Thunder Bay Community Auditorium. "For far too long Thunder Bay has been in the national spotlight for all the wrong reasons," Fiddler says. "There is an opportunity for all of us to come together and to start changing things around and creating the change that is so desperately
needed here."
NAN also provided information at the Auditorium about its Choose Life initiative that promotes the mental, emotional youth
"We wanted to showcase this evening some of the work that our communities are doing," Fiddler says. "We know there are many challenges in our communities but at the same time there is lots of good work going on, and Choose Life is a really good example of what is being done in our communities
to not only keep our children alive but to equip them with the skills they need to make it through life."

Talaga, a Toronto Star journalist who wrote the awardwinning book Seven Fallen Feathers about seven high school students from across Nishnawbe Aski Nation who died while pursuing their high school studies in Thunder Bay, says community citizens from across NAN territory also have to leave their communities to access mental health care.
"You have to get on a plane
and you have to leave your family, everything you know, your language, your parents, your community," Talaga says. "You have to leave, take a plane, just to access a doctor or a psychologist or a mental health expert (or a) psychiatrist."

Kiiwetinoong MPP Sol Mamakwa says Talaga's lec tures will bring the issue of First Nations suicide to the forefront of all Canadians.
"A lot of families are faced with these issues," Mamakw says. "It just heightens the conversation for all people

## NOTICE OF STUDY RE-COMMENCEMENT

Highway 17 Four-Laning between the Manitoba / Ontario Border and Kenora

## AND

## NOTICE OF PUBLIC INFORMATION CENTRE

## for the Re-Commencement of SECTION 1:

 between the Manitoba / Ontario Border and Highway 673WSP Canada Group Limited, on behalf of the Ontario Ministry of Transportation (MTO), is undertaking Planning, Preliminary Design and Class Environmental Assessment (Class EA) Studies to review options for the four-laning of Highway 17 between the Manitoba / Ontario border and Kenora. The studies will identify a preferred option for a four-lane divided highway corridor based on an evaluation of alternatives. Separate studies are being carried out for the three sections as shown on the key plan.

## BACKGROUND

Following the start of planning and preliminary design work in 2009, Transportation Environmental Study Reports (TESRs) for Sections 1 and 2 were filed for public review and comment. However, the studies were not completed and the projects did not move forward. By way of this notice, MTO is withdrawing its previous Notices of Completion for Sections 1 and 2 issued November 10, 2009 and re-commencing the EA process.
THE PROJECT
The first proposed project is Section 1 extending from the Ontario / Manitoba border easterly 6.5 km to Highway 673. The previously considered alternatives from the 2009 study were carried forward for this project.

## THE PROCESS

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## COMMENTS

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it heightens the knowledge of what is really happening in the backyard of Ontario, the backyard of Canada. I believe it is going to bring change, it's going to bring a different conversation to the people all ove Canada."

Mushkegowuk
Counci Grand Chief Jonathan Solomon also noted Talaga's reference to the issue of suicide.

I'm hoping that Canadians will be able to have an open mind and open heart when they read her book and also hear her stories, from what she learned from other societies and other tribes in this world like in Aus tralia and the United States, Solomon says. "(These issues are) all linked to the oppression of our people (and) coloniza tion, they're all linked.
Norma Kejick, executive director of Northern Nishnawbe Education Council, says Talaga's lecture was "very power ful."
"They say it takes one person to make a difference, and that is exactly what Tanya is doing - I just hope that the rest of Canada follows," Kejick says. "Losing a nephew to suicide, you know when something like that happens it changes your life forever. And those stories need to be told. I know a lot of people think that it is taboo and we shouldn't talk about it, but we need to talk about it because the youth, the children, they need to know there are people out there who care and who love them and that suicide is a permanent solution to a tempo rary problem."

The War Amps returns nearly 13,000 sets of lost keys every year!
"I want to thank the person who found my keys and called the number on the back of my key tag. I received my keys back from The War Amps today by courier. You guys are fast!" - War Amps supporter


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## APPENDIX



DESIGN PLATES













[^0]:    Highway 17 Four-Laning, Section1: Manitoba / Ontario Border to Highway 673
    Project No. 17M-01992-00
    Ministry of Transportation, Northwestern Region

