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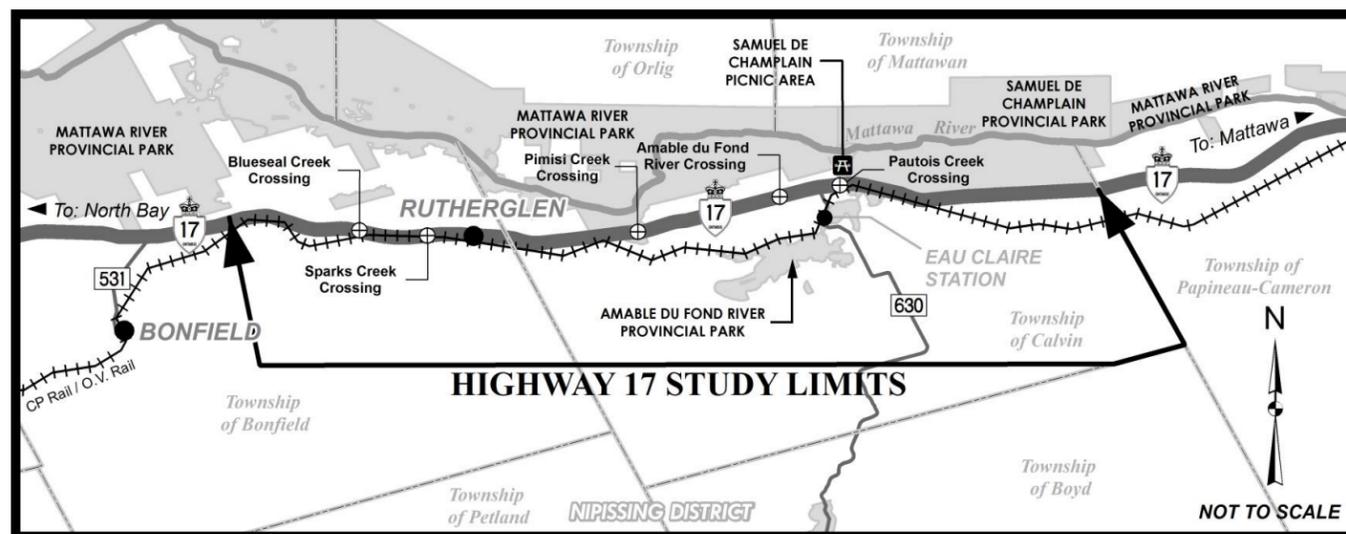
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## 1. Project Overview

### 1.1 Introduction and Study Area

The Ministry of Transportation Ontario (MTO) has completed a Planning, Preliminary Design and Class Environmental Assessment (EA) Study to identify a preferred plan for Highway 17 from Bonfield easterly through the Municipality of Calvin to improve future traffic operations and enhance highway safety. The study limits are shown in **Exhibit 1.1** and extend from approximately 2.0 km east of Highway 531 to the boundary road between the Municipality of Calvin and the Township of Papineau-Cameron, a distance of approximately 23 km, passing through parts of the Township of Bonfield, the Municipality of Calvin and the Township of Papineau-Cameron.

**Exhibit 1.1: Study Limits**



The study followed the approved environmental planning process for Group 'A' projects under the *Class Environmental Assessment (EA) for Provincial Transportation Facilities* (2000), which is approved under the *Ontario Environmental Assessment Act (OEAA)* for the planning and design of provincial highway projects. The EA planning process complied with provincial and federal environmental legislation and included consideration of the natural, socio-economic and cultural environment.

A range of reasonable alternatives, including improvements to the existing highway, highway realignments and combinations of the two as well as interchange alternatives, were developed and evaluated to identify the preferred plan. Engineering, environmental and property requirements were established, including mitigation measures to avoid, reduce or negate environmental effects.

This Transportation Environmental Study Report (TESR) has been made available for public review for a minimum 30-day period. The report provides a description of the:

- Project and its purpose;
- Study process, including stakeholder consultation and engagement;
- Existing environmental conditions and constraints;
- Generation, assessment and evaluation of alternatives;
- Preferred plan; and
- Anticipated environmental effects and proposed mitigation measures and commitments to future work with regard to implementation of the project.

This study is one of three separate Highway 17 planning studies being undertaken by MTO between North Bay and the Nipissing District/ Renfrew County boundary as described in **Section 1.3**. There was ongoing coordination between this project and the adjacent studies throughout the study process.

### 1.2 Background and Study Purpose

Highway 17 traverses northern Ontario, providing a strategic link in the Trans-Canada Highway. Besides providing for basic travel needs for residents as well as visitors to the area, the subject section of Highway 17 provides a transportation corridor for long haul trucks between Northern Ontario/ Western Canada and Southeastern Ontario/ Eastern Canada. Within the study limits, Highway 17 is primarily a two lane highway with limited access restrictions and access in both directions provided via private driveways and local roadways.

MTO is committed to provide and maintain a safe and efficient transportation system throughout Ontario. Highway 17 within the study limits has been characterized as having several issues/ concerns that require the attention of MTO. These issues/ concerns are defined in general terms as including the need to improve highway safety and provide the additional highway traffic capacity that will be required for the long range (20-year) planning horizon. The transportation needs are defined in greater detail in **Section 3** of this report.

The need for improvements to the major highways in Northern Ontario is driven by both the policy direction and the anticipated future demand. It is reasonable to expect that the overall transportation demand on Highway 17, despite moderate historical growth, will intensify significantly as a result of the Growth Plan for Northern Ontario justifying the potential need for additional capacity within the corridor. In addition, an improved corridor will itself be a significant economic stimulant for development.

As part of the province's long term planning vision, Highway 17 is to be converted to a fully access controlled facility adequate for meeting the anticipated future transportation demand and maintaining its provincial and interprovincial role and function.

The purpose of the study was to identify a preferred plan for a four-lane controlled access Highway 17 within the study limits to ensure that future traffic needs on the highway are met and the future function of the highway is appropriately protected. The study included the development and evaluation of a range of reasonable alternatives, including improvements to/ widening of the existing highway, highway realignments and/ or combinations of the two. A preferred plan was selected and will be designated at the completion of the study to assist municipalities, landowners and businesses with planning and development in the study area.

### 1.3 Related / Adjacent Studies and Projects

The following studies include improvements to the highway network in the vicinity of the study area and are either underway or were recently completed.

#### 1.3.1 Highway 17 Planning Study, from Highway 11 South Junction easterly to 2.7 km east of Highway 531 (GWP 5105-09-00)

MTO recently completed a Planning Study for Highway 17 from Highway 11 easterly to 2.7 km east of Highway 531 to improve future traffic operations and enhance safety. The study limits are shown in **Exhibit 1.2**.

The Preferred Plan includes:

- 24 km realignment of Highway 17 from Highway 11 easterly to 2.7 km east of Highway 531 constructed to freeway standards;
- Freeway-to-freeway interchange at the future Highway 11/ Highway 17 junction, located approximately 3 km south of the existing Highway 11/ Highway 17 interchange;
- Arterial interchanges at Highway 94 and secondary Highway 531;
- Grade separations at existing Highway 17 (two locations) and Line 3 South; and
- Bridges at all interchanges and grade separations, a pair of structures spanning the La Vase Portage Route, the Kaibuskong River, the existing CP/ Ottawa Valley Railway track and a number of potential wildlife crossings.

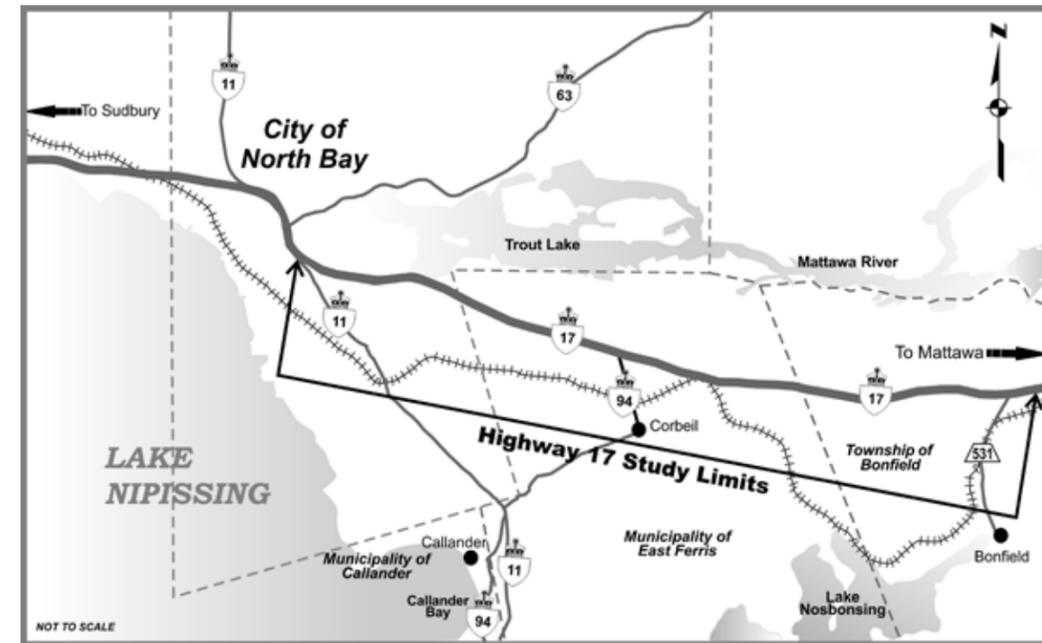
The study followed the Group 'A' study process under the Class Environmental Assessment for Provincial Transportation Facilities (2000). A Transportation Environmental Study Report was submitted for a 30-day public review period on February 18, 2014. The TESR is on file at the Ministry.

#### 1.3.2 Highway 17 Planning Study, from 8.0 km west of Highway 630 to Nipissing District/ Renfrew County Boundary (GWP 507-07-00)

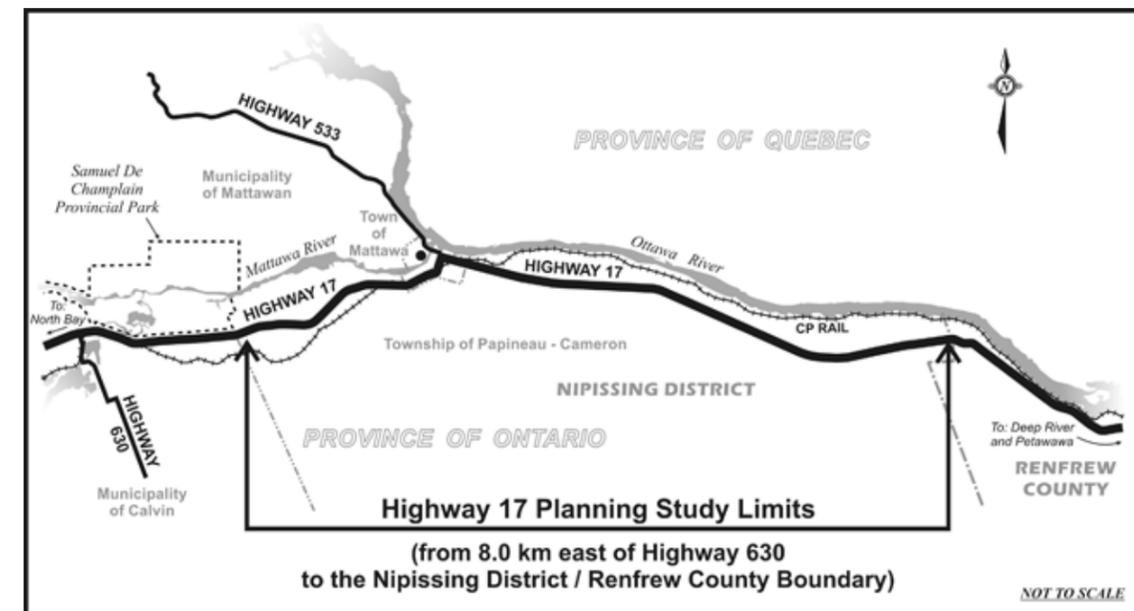
MTO is currently undertaking a Planning Study for Highway 17 from 8.0 km east of Highway 630 to the Nipissing District/ Renfrew County boundary to improve future traffic operations and enhance highway safety. The study limits are shown in **Exhibit 1.3**.

The study is following the Class Environmental Assessment process for a Group 'A' project as defined in the *Class Environmental Assessment for Provincial Transportation Facilities (2000)*. Upon completion of the study, a Transportation Environmental Study Report will be prepared and made available for public review. The project is anticipated to be completed in 2015.

**Exhibit 1.2: Highway 17 Planning Study, from Highway 11 South Junction easterly to 2.7 km east of Highway 531 – Study Limits (GWP 5105-09-00)**



**Exhibit 1.3: Highway 17 Planning Study, from 8 km east of Highway 630 to the Nipissing District / Renfrew County Boundary – Study Limits (GWP 507-07-00)**



#### 1.4 General Description of the Undertaking (Preferred Plan)

The study involved the development and evaluation of a range of alternatives which could address the transportation needs of the study area. The recommended alternative includes segments of widening/improving the existing highway and segments of realigned highway. Specifically, the preferred plan for the highway includes:

- Realignment of Highway 17 from Highway 531 to east of Rutherglen;
- Widening and realignment of Highway 17 from east of Rutherglen to west of Highway 630;
- Realignment of Highway 17 from west of Highway 630 to west of Pautois Creek;
- Widening of Highway 17 from west of Pautois Creek to the east study limit (just east of Boundary Road);
- Closure of existing Highway 17 from east of Highway 630 to west of Pautois Creek;
- Retention of existing Highway 17 as a service road at all other locations;
- Interchanges at Rutherglen Line, Highway 630 and Boundary Road;
- Grade separations at Trout Pond Road and Trunk Road; and
- A cul-de-sac at McNutt Road.

The cross section for the highway is a freeway with two lanes in each direction. The freeway will include a 30m median within a typical right-of-way width of 110m and have access restricted to interchanges.

Potential environmental impacts associated with the implementation of the preferred plan include:

- 21 watercourse crossings with 14 crossings having potential for impacts to direct and/or indirect fish habitat and 1 crossing having potential to impact aquatic species at risk;
- Approximately 295 ha of vegetation is displaced, including 18 ha of Provincially Significant Wetlands, 34 ha of unevaluated wetland, 110 ha of deer wintering area and 185 ha of forest with 1 vegetative SAR present;
- Property acquisition is required from 80 properties and 33 buildings are impacted;
- Approximately 12 ha of provincial parkland is impacted;
- Approximately 61 ha of Canada Land Inventory (CLI) Class 1, 2 and 3 soils is impacted; and
- Approximately 160 ha of land with archaeological potential is affected.

Preliminary mitigation measures have been developed to address potential impacts associated with the preferred plan and are discussed in **Section 8** with additional details provided in the Appendices to this document.

## 2. Environmental Assessment Process

This section provides an overview of the Environmental Assessment (EA) process which was used to carry out the study.

### 2.1 Ontario Environmental Assessment Act

An Environmental Assessment, or EA, is a decision-making process used to promote good environmental planning by assessing the potential effects of certain activities on the environment. In Ontario, this process is defined and finds its authority in the *Ontario Environmental Assessment Act* (OEAA), RSO 1990. The purpose of the OEAA is to provide for the:

- protection;
- conservation; and
- wise management of Ontario's environment.

To achieve this, the OEAA ensures that environmental problems or opportunities are considered and their effects are planned for, before development or building takes place.

The *Environmental Assessment Act* (EA Act) provides for the preparation of a Class Environmental Assessment (EA) for submission to the Minister of the Environment (MOE) for review and a decision by the provincial cabinet regarding approval through order-in-council. A Class EA is an approved planning document that defines groups of projects and activities and the environmental assessment (EA) processes which the proponent commits to following for each of these undertakings. The process provides a decision making framework allowing the requirements of the EA Act to be met in an effective manner.

The Ontario Ministry of Transportation developed the *Class Environmental Assessment for Provincial Transportation Facilities* (Class EA), which provides, in part, the following:

- classification of projects and activities;
- study stages and phases;
- transportation engineering and environmental protection principles;
- consultation principles and processes;
- documentation and “bump-up” principles and processes; and
- environmental clearance process.

This Highway 17 study complied with the Class EA process for Group ‘A’ projects, which are undertakings that involve new facilities. Accordingly, it does not require formal review and approval under the OEAA. The study was initiated as a Group ‘B’ project, but because it was determined there are viable highway realignment alternatives that are not as closely tied to the existing highway as originally anticipated, the project was reclassified to Group ‘A’ under the Class EA.

An overview of the Class EA Process for Group ‘A’ projects is provided in **Exhibit 2.1**. This study addressed the Planning and Preliminary Design phases of the process and included the submission of a Study Design Report and a Transportation Environmental Study Report.

### 2.2 Canadian Environmental Assessment Act

The new *Canadian Environmental Assessment Act, 2012* (CEAA 2012) and associated regulations came into effect on July 6, 2012. The new regulations prescribe:

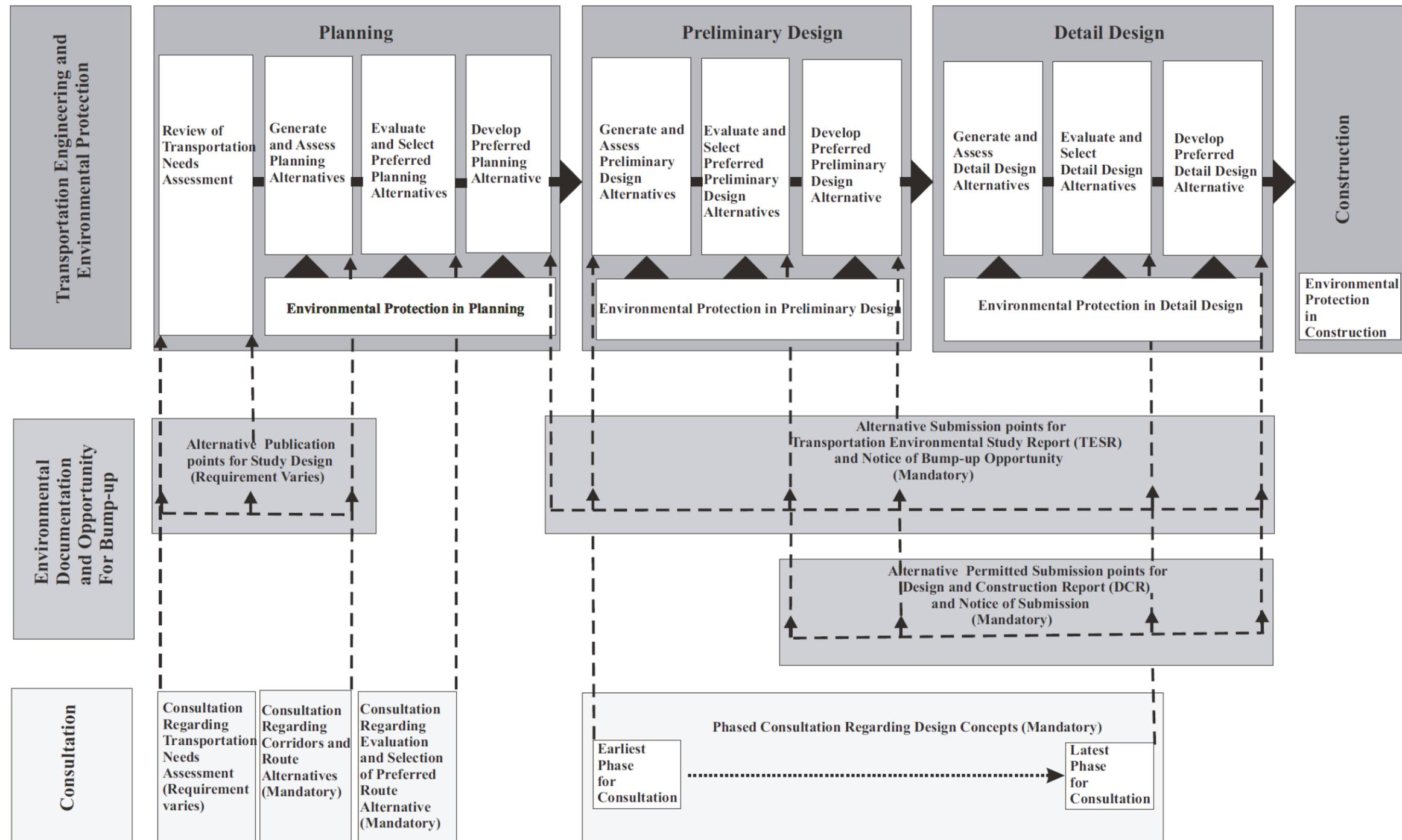
- The list of designated activities that may require a federal environmental assessment be conducted and for which participant funding would be made available;
- The information to be included in a project description; and
- The services and amounts for which the Canadian Environmental Assessment Agency can recover costs from the proponent of a project that is subject to an environmental assessment by a review panel.

Under CEAA 2012, an environmental assessment is required of “designated projects”. A designated project is one that includes one or more physical activities that are set out in the regulations. In addition, the federal Ministry of the Environment, by order, may designate a project for federal environmental assessment.

The Highway 17 Planning Study was reviewed by the Project Team against the designated projects list contained in the new regulation. For highway undertakings, CEAA 2012 requires an environmental assessment for “the construction and operation of an all-season public highway that will be more than 50 km in length and either will be located on a new right-of-way or will lead to a community that lacks all-season public highway access”. Since the entire length of this project is approximately 24 km, and since the preferred plan includes segments of realignment as well as highway widening, a federal environmental assessment is not required under CEAA.

Non-designated projects may still require federal permits and/ or approvals (e.g. Navigable Water Protection Act or Fisheries Act). However, the need for these approvals does not require a federal EA process.

**Exhibit 2.1: Overview of Class EA Process for Group 'A' Projects**



Source: Class Environmental Assessment for Provincial Transportation Facilities (2000)

## 2.3 Study Process

The study has followed the Class EA process for a Group 'A' project as defined in the *Class Environmental Assessment for Provincial Transportation facilities (2000)* which is approved under the *Ontario Environmental Assessment Act (OEAA)*.

The Class EA study process is based on a sequence of decision-making in which alternatives are assessed at an increasing level of detail as they become more focused, starting with a broad perspective, and narrowing to a more focused perspective as the study progresses. The process of collecting additional environmental data as the project becomes more focused ensures that current information is sought and used throughout the study process. Stakeholders and stakeholder groups will be consulted/ engaged during the assessment and evaluation of alternatives, and to refine issues/ concerns in an attempt to develop measures for resolving them.

Key steps in the overall EA planning process for this study are illustrated in **Exhibit 2.2** and are detailed below. The study process was documented in the Study Design Report (SDR) which was released for a 30-day public review period in August 2012. The SDR was finalized in March 2013, taking into consideration input received during the 30-day review period.

- **Transportation Needs Assessment:**
  - Undertake a transportation needs assessment to identify the problem and opportunity, and the need for improvements to Highway 17.
  - Commence secondary source data gathering/ investigations to support assessment of transportation system alternatives, highway corridor alternatives and highway planning alternatives.
- **Transportation System Alternatives to the Undertaking:**
  - Assess alternatives to the undertaking and identify those that will be carried forward for further study.
- **Alternative Methods for Carrying Out the Undertaking**
  - Highway Corridor Alternatives:
    - Identify a preferred corridor alternative, for stakeholder review and comment.
  - Issue Study Design Report to document the above.
  - Highway Planning Alternatives:
    - Issue Summary of Existing Environmental Conditions and Constraints Report to provide highlights of the information obtained through secondary sources.
    - Generate and assess highway planning alternatives within the preferred corridor alternative, including highway realignments, highway widenings, interchanges and service roads.
    - Comparatively evaluate highway planning alternatives (using natural, social and cultural environment criteria, and transportation criteria) and select a preferred highway planning alternative.

- Highway Preliminary Design Alternatives:
  - Generate and assess preliminary design alternatives for the preferred highway planning alternative.
  - Comparatively evaluate preliminary design alternatives (using natural, social and cultural environment criteria, and transportation criteria) to select a preferred preliminary design (the Preferred Plan).
- **Impact Assessment and Environmental Protection/ Mitigation for the Proposed Highway Improvements (as part of Preliminary Design):**
  - Identify and assess potential environmental impacts of the preferred highway planning alternative through environmental field investigations.
  - Develop mitigation measures to address the identified environmental impacts associated with the preferred highway planning alternative, to be an integral part of the Preferred Plan.
- **Ongoing Stakeholder Consultation for the above:**
  - Consult with stakeholders (landowners; area residents; municipal, provincial, and federal representatives; etc.) on the above.
  - Public Information Centres (PIC's) at key decision points.
- **Study Documentation:**
  - Prepare a Transportation Environmental Study Report (TESR) to document the study at the completion of Preliminary Design.
- **Project Environmental Clearance**
  - It is anticipated that stakeholder comments will be received in response to the release of the TESR on the public record for government agency and public review and comment. Provided such comments can be satisfactorily addressed, project environmental clearance will be issued to permit designation of the preferred highway right-of-way on title of the affected properties.

**Exhibit 2.2: Study Process**



## 2.4 Purpose of the Transportation Environmental Study Report

This Transportation Environmental Study Report (TESR) has been prepared in accordance with the requirements of the *Class Environmental Assessment for Provincial Transportation Facilities (2000)* for a Group 'A' project, which are undertakings that involve major realignments and bypasses. This TERS is being made available for a minimum 30-day public review period commencing **Monday August 25, 2014**. The TERS includes a description of the study and its purpose, the existing natural, social, economic and cultural environmental factors, the analysis/ evaluation of alternatives that were considered, the preferred plan, the anticipated environmental effects and proposed mitigation measures, and commitments to further work, consultation, and monitoring associated with Detail Design and implementation of the project.

Interested persons are encouraged to review this document and provide comments. If, after consulting with the Ministry's consultants and staff, a person has serious unresolved concerns, they have the right to request that the Minister of the Environment (MOE) "bump-up" (i.e. make a Part II Order for) this project. A Part II Order may lead to the preparation of an individual environmental assessment. A copy of the "bump-up" request should also be forwarded to MTO at the address below.

Minister of Environment  
11<sup>th</sup> Floor, Fergus Block  
77 Wellesley Street West  
Toronto, ON M7A 2T5

Mr. Dheera Kantiya, M.Eng., P.Eng.  
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447 McKeown Avenue, 4<sup>th</sup> Floor  
North Bay, Ontario P1B 9S9

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Consultant Project Manager  
AECOM  
300 Water Street  
Whitby, ON L1N 9J2

If there are no outstanding concerns upon completion of this public review period, the project receives environmental clearance and may proceed to Detail Design and construction subject to the resolution of commitments documented in this TERS and the receipt of any outstanding environmental approvals.

Once environmental clearance is provided for the TERS, MTO is able to designate the required right-of-way on title of property. The current study does not include Detail Design, which may be undertaken separately for sections of the preferred plan when the need dictates and funds become available to fund construction. Detail design for each section, which will be undertaken in accordance with the TERS commitments, will include development of environmental requirements and prohibitions required to be implemented during construction. The outcome of the Detail Design phase, including any minor refinements to the preferred plan and the resolution of commitments documented in this TERS, will be documented in a Design and Construction Report which will be released for public review during a future detail design project.