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## 1.0 INTRODUCTION

### 1.1 General Background

The area to the east and north of Lake Winnipeg is one of the last major areas in Manitoba not served by an all-season road. The size of the communities in this area, their remoteness, and the lack of major economic enterprises has resulted in a high cost transportation system that provides marginal and uncertain service to local residents.

The East Side Planning Initiative (ESPI) was launched in 2000 to bring together local communities, First Nations, industry and environmental organizations to develop a vision for the East Side of Lake Winnipeg. The outcomes of the ESPI were documented in *Promises to Keep: Towards a Broad Area Plan for the East Side of Lake Winnipeg* (September 2004). This document, produced by the East Side Round Table and the First Nations Council, identified current land use in the area and provided recommendations on the focus of future planning on the East Side. The Manitoba Government and the Wabanong Nakaygum Okimawin (WNO) First Nations signed an accord confirming a commitment to develop a shared vision for the East Side of Lake Winnipeg and pursuit of the planning initiatives identified in *Promises to Keep*. One of the key recommendations was the improvement of transportation for East Side communities.

Currently, there is no permanent road on the east side of Lake Winnipeg. As a result, transportation within the region is severely limited with communities depending on air, marine or winter road service. All of these forms of transportation tend to have higher operational costs or are severely limited, thereby resulting in increased costs for goods and services.

The most widespread form of transportation throughout the region is air transportation. Most communities have an airport or have access to an airport in a nearby community. For some communities, such as the communities of Pauingassi, this means taking a boat to the airport. For most local residents, air transportation is very costly and is often not an option.

During summer months, some communities are also able to utilize marine transportation such as ferries and barges. For example, communities that are located on the shores of Lake Winnipeg, such as Berens River, Bloodvein and Poplar River First Nation, are able to bring goods into their communities across the lake. However, marine transport is restricted to summer months and is only an option for communities that have marine access.

During winter months, most communities are able to use winter roads to travel from one community to another or to travel to a larger centre such as Thompson or Winnipeg. It is during this time that many remote communities bring much of their supplies into their communities since road transportation is generally cheaper than air transportation.

The Government of Manitoba undertook a Large Area Transportation Network Study to identify transportation improvement opportunities and identify basic corridor concepts for all-season road development to service communities on the east side of Lake Winnipeg. An all-season road network was identified as a key means to help to improve the quality of life and standard of living, while providing employment and economic development opportunities for people living on the east side of Lake Winnipeg.

Some of the benefits include:

- Greater reliability of the transportation network;
- Reduced transportation costs for goods and services;
- Enhanced access to emergency, health and social services;
- Improved linkages between isolated and remote communities;
- Construction employment and economic opportunities for local people; and
- Enhanced opportunities for sustainable economic development opportunities.

In April 2007, the Manitoba Government announced it would move ahead with the first leg of the all season road development to upgrade the existing Rice River Road and extend it to Bloodvein and construct an all-season road from Bloodvein to Berens River (PR 304 to Berens River). The East Side Road Authority (ESRA) was established, as a provincial Crown Agency, to manage the East Side Transportation Initiative (ESTI), starting with this initial project. The development of an all season road between PR 304 and Berens River First Nation is part of this larger strategic initiative to provide improved, safe and more reliable transportation service between all of the communities on the East Side of Lake Winnipeg. ESRA is the Agency tasked with the design and construction of the road of the all-season road from Provincial Road 304 to Berens River (the Project), including completion of an Environmental Impact Assessment (EIA). Throughout the Project ESRA is and will continue to work closely with provincial and federal government departments and communities throughout the East Side planning area.

## 1.2 Project Objective and Scope

The PR 304 to Berens River All-Season Road (ASR) will provide improved, safe and more reliable transportation between all communities on the east side of Lake Winnipeg and will be achieved through the following:

- upgrade the existing 76 km Rice River forestry road north towards Bloodvein;
- extend/construct the Rice River road by 12 km to Bloodvein, utilizing the winter road or the hydro alignment; and
- construct the ASR and extension from Bloodvein to Berens River.

The scope of the project includes the identification and comparison of various route options considering the financial, transportation, environmental and socio-economic aspects; to select the preferred alignment and to prepare an Environmental Impact Assessment for the preferred route.

The EIA may be reviewed under the provisions of the March 2007 Canada-Manitoba Agreement on Environmental Assessment Cooperation which ensures coordination and harmonization between the Manitoba Environment Act and the Canadian Environmental

Assessment Act, removing the need to prepare separate and parallel EAs for each level of government independently.

The purpose of the coordinated environmental assessment process is to ensure a cooperative environmental assessment is undertaken that generates the type and quality of information required by both levels of regulation. Consultation with the First Nations and federal authorities is an important component of both EA processes and has been initiated early in the planning process.

In order to achieve the objectives of the project, the following activities have been undertaken:

- Engagement to be focussed on engagement with local communities which are comprised of First Nations, Aboriginal and non-aboriginal residents as well as other stakeholders and the public in general;
- Aboriginal Traditional Knowledge studies (TK Studies);
- Consultation with provincial and federal government agencies;
- Identification of opportunities and benefits created by an all-season road;
- Identification and comparison of various route options to select the preferred alternative;
- Description of the existing environmental setting;
- Identification of environmental and socio-economic effects and mitigation measures; and,
- Preparation of an EIA Report for the preferred route, consistent with the requirements of the Manitoba Environment Act and the Canadian Environmental Assessment Act.

Community engagement is an important aspect of the Project. Community meetings have been held in the communities within the Project study area that are interested in and/or potentially affected by the Project and its facilities.

Multi-disciplinary environmental impact assessment is also an important component of the Project. Valued ecological components (VECs) have been studied by qualified analysts with the assistance and guidance of community members through community meetings and community traditional knowledge studies (TK Studies).

This EIA provides a summary of all activities undertaken during the Project, and is intended as a vehicle for continued engagement of the public and government agencies, ensuring comments and concerns are addressed at an early stage in Project planning.

### **1.3 Project Location and Study Area**

The Context Map (Figure 1-1) details the study area for the East Side of Lake Winnipeg Large Area Transportation Study. The study area for PR304 to Berens River is also included on this figure.

The study area for this Project has been identified through the EIA process, and includes communities, traditional lands and bio-physical features with the potential to be affected by construction and/or operation of the road. The overall study area extends from the east shoreline of Lake Winnipeg, and includes all First Nations traditional lands starting at the southern limit of the Hollow Water traditional lands, going north to the Poplar River plus lands east of Bloodvein to Pauingassi and Little Grand Rapids First Nation to the Ontario border.

The road segment between Manigotagan and Bloodvein, will follow the existing Rice River Road alignment and the existing seasonal winter road. The segment of the road between Bloodvein and Berens River follows the preferred route option described in Section 4.0 of the EIA, which maximizes the use of the existing winter road and distribution line corridors to minimize environmental disturbance.

In the early stages of the Project, baseline information was assembled for the entire project area for all disciplines to gain an understanding of the environmental features and attributes of the area. As the Project proceeded through the EIA process it was determined to refine the focus of the study area investigations by specific disciplines. The following sub-sections briefly outline the differences in study area adopted by the key disciplines.

#### **Study Area – Socio-Economic**

The socio-economic study boundary includes all the traditional lands of the First Nations within the study area, from Hollow Water in the south to the Poplar River First Nation in the north. It also includes the traditional lands of the Pauingassi and Little Grand Rapids First Nations extending to the Ontario border in the east. It effectively covers the full extent of the Project Study area shown on Figure 1–2.

#### **Traditional Ecological Knowledge (TEK) Study Area**

The TEK study area includes the traditional lands of the aboriginal communities located in the Project Study area. The incorporation of the TEK survey information for the community of Poplar River results in a TEK study boundary that extends north of the Poplar River which was defined as the northern limit of the Project area (see Figure 1-3).

#### **Study Area – Biophysical (Aquatic and Terrestrial)**

In the early stages of the project the study area was identified as being contained entirely with the Lac Seul Upland Ecoregion of the Boreal Shield Ecozone in the Province of Manitoba for the purposes of collecting background biophysical information. The Lac Seul Upland Ecoregion is located on the east side of Lake Winnipeg and encompasses all three proposed alignments for PR 304 to Berens River. Background information was collected on the Lac Seul Upland Ecoregion and it provided the basic characteristics of the general project area for the route selection process and ensuing work on the preferred alignment.

**Figure 1 - 1: Context Map**

**Figure 1 - 2: Project Study Area**

**Figure 1 - 3: Traditional Ecological Knowledge Study Area**



### **Terrestrial Study Area Boundary**

The Project study area for the terrestrial discipline, as shown on Figure 1 – 4, was based upon the original three proposed alignments including an additional corridor up to 50 km on the east side. Available information on caribou areas on the east side of Lake Winnipeg (provided by Manitoba Conservation) and Manitoba Conservations HSI (Habitat Suitability Index) model included upland areas extending from the east shoreline of Lake Winnipeg to approximately 50 km east of the proposed central route.

Vegetation and forestry information was collected for the area from the shoreline of Lake Winnipeg to approximately 50 km east of the proposed central route complimenting the information from the caribou data. This block was bounded on the south by PR304 and the north by the Berens River.

### **Aquatic Study Area Boundary**

The aquatics (fish and fish habitat) study area, as shown on Figure 1 – 4, was based on the watersheds of the rivers crossed by the ASR alignments and included Lake Winnipeg. This area was determined based on the rationale that the fish populations supporting local fisheries (commercial, domestic and recreational) are continuous from Lake Winnipeg to the lakes in the upper reaches of the headwaters. The aquatics study area loosely represents the Lac Seul Upland Region, but excludes a number of water bodies in the Manigotagan and Winnipeg River watersheds containing stocked and/or native fish species that are not found in Lake Winnipeg or the watersheds along the ASR alignment.

As shown on Figure 1-1, the project study area encompasses the First Nations and Northern Affairs Communities listed below:

### **First Nations**

- Berens River First Nation
- Hollow Water First Nation
- Bloodvein First Nation
- Little Grand Rapids First Nation
- Pauingassi First Nation
- Poplar River First Nation

**Northern Affairs Communities (NAC Communities)**

- Manigotagan
- Loon Straits
- Princess Harbour
- Seymourville
- Aghaming
- Berens River
- Pine Dock
- Little Grand Rapids

Three alternative route options were considered for the new road segment between Bloodvein and Berens River and are shown on Figure 1 - 5:

- the **shoreline route**, following the existing winter road alignment;
- the **inner shoreline route**, similar to the shoreline route, but located further to the east to take advantage of soils conditions and provide crossings of major watercourses at narrower locations; and,
- the **central route**, identified further to the east of the inner shoreline route to take advantage of soils conditions.

The shoreline route was selected as the preferred route alignment. Details of how these route options were identified and compared are provided in Section 4.0 of this EIA.

**Figure 1 - 4: Terrestrial and Aquatic Study Area Boundary**

**Figure 1 - 5: Route Alternatives / Project Components**

## 1.4 Background Information

### 1.4.1 Existing Documents

The *Promises to Keep* document that was prepared by East Side Planning Initiative (ESPI, 2004), identifies priorities and recommendations regarding a potential all-season road network to service remote communities on the east side of Lake Winnipeg, including the Project study area.

The *East Side of Lake Winnipeg All Weather Road Justification and Scoping Study* (Dillon Consulting, 2000), previously concluded that an all-weather road on the east side of Lake Winnipeg could be justified on the basis of long-term transportation cost savings alone. In 2001, the Final Report presented a planning approach and overall work plan to design and service the east side of Lake Winnipeg communities with an all-weather road network.

*Promises to Keep* states that, “while roads can have both positive and negative implications relative to economic, social and environmental considerations, it can generally be concluded that there is support for upgrading the existing Rice River Road and its extension to the community of Bloodvein”. As well, there appears to be initial support from most communities for a regional all-weather road network beyond Bloodvein. A letter dated July 30, 2002, to the Chair of the East Side Round Table, from the Berens River First Nation Chief and Council, states that the construction of an all-season road is the highest priority in terms of developing the east side of Lake Winnipeg.

Consistent with the recommendations of *Promises to Keep*, the Manitoba Government initiated a planning process to examine the recommendations of the Regional Transportation Network Study in more detail. In that study, they considered a variety of transportation modes including rail, dirigibles, hovercraft and ferries, in addition to an all-season road system. These various modes of transportation are designed to provide an efficient and reliable all-season transportation system to other communities on the east side of Lake Winnipeg. Also included in the transportation design is an upgrade of the Rice River Road and extension to the community of Berens River. The Manitoba Government presented the selected route alignment from Hollow Water to Bloodvein to the Manitoba Clean Environment Commission in 2007.

This EIA document presents the culmination of the studies undertaken in support of the all-season road alignment between Hollow Water/Manigotagan and Berens River (the Project).

### 1.4.2 Project Planning

The EIA study for the Project has been planned and scheduled according to the following milestones:

- Start of the EIA study, January 2009;
- 1st Round of community meetings, March to June 2009;
- Traditional Knowledge Studies, April to July 2009;
- Identification and comparison of the route options and selection of the best route, May/June 2009;

- Assessment of environmental, social, cultural and economic benefits and impacts, May to July 2009;
- Preparation of EIA document, July/August/September 2009;
- Submission of the EIS for government and community review, October 2009;
- 2nd Round of community meetings to discuss the EIA in following submission of the EIA
- Detailed design, Winter/Spring of 2010;
- Construction contract tender, Spring/Summer 2010; and
- Beginning of Construction, Fall 2010.

## 1.5 Contents of this Environmental Impact Assessment (EIA)

The EIA for the Project starts with **Section 1.0**, presenting the study area, the project objectives and scope, a brief justification of the study and a summary of the supporting historical documents related to the project.

**Section 2.0** includes a description of the Legal and Institutional framework describing the requirements of the Canadian Environmental Assessment Act (CEAA) and the Manitoba Environment Act (MEA); and an explanation of the Canada-Manitoba Agreement on the Environmental Assessment Cooperation. This is followed by an introduction to the Area Plan for the East Side of Lake Winnipeg Promises to Keep and the Protocols of Agreement, The Northern Affairs Act, The Planning Act, The Wildlife Act, The Parks Act and Ecological Reserves Act.

**Section 3.0** presents the project description including a detailed explanation of the project location, the existing road and the new alignment from Bloodvein to Berens River. This section provides details of the activities taking place during the construction and operations phase.

**Section 4.0** presents a summary of the process undertaken to select the recommended route alignment between Bloodvein and Berens River, including a description of the alternatives considered; the methodology used to identify and compare the route alternatives; and the rationale for selection of the recommended route alignment.

**Section 5.0** presents the Environmental Assessment Engagement Program, including an overview of engagement activities undertaken in the communities within the study area; engagement activities with provincial and federal government agencies; and engagement of other stakeholder groups. Issues raised and responses are provided.

**Section 6.0** discusses the Aboriginal Traditional Knowledge studies undertaken in First Nations communities within the study area, including methodology and results, and incorporation of the Traditional Knowledge information into the EIA.

**Section 7.0** provides a summary of the existing environment within the study area, including the physical environment (soils, geology, water, climate), aquatic ecology, terrestrial ecology; socio-economic aspects; and archaeological and heritage characteristics.

**Section 8.0** provides a description of the analysis of environmental effects, including a summary of the methodology applied, mitigation measures considered to minimize or eliminate potential environmental effects, cumulative effects analysis and the significance of net or residual environmental effects.

**Section 9.0** provides a summary of environmental commitments in design, construction and operation of the Project that are made in the interest of environmental protection.

**Section 10.0** discusses follow-up monitoring programs to be undertaken during construction and operation; an emergency response plan; a closure plan for winter roads; and an implementation plan for the EIA commitments.

**Section 11.0** provides a summation of the EIA findings with a sustainability assessment of the project activities.

**Section 12.0** presents the references considered in the preparation of the EIA documentation.

## **Technical Appendices**

A number of supporting technical documents (TSDs) are presented in Appendices, as a separate volume(s), including the following:

### **Appendix 1 - Route Alternatives - Supporting Documents**

- 1.1 - Excerpts of Project Alternatives for Rice River Road Segment
- 1.2 - Preliminary Route Alternatives - Terrain Evaluation Bloodvein to Berens River
- 1.3 - Terrain Mapping of Proposed Route and Terrain Related EIA Consideration
- 1.4 - Revised Shoreline Route Options - Summary of Water Crossings

### **Appendix 2 - Preferred Route - Route Mapping**

- Full-size Route Alignment Drawings

### **Appendix 3 - Biophysical Inventories**

- 3.1 - Fish Habitat Assessment
- 3.2 - Terrestrial Report

### **Appendix 4 - Community Profiles**

**Appendix 5 - Environmental Assessment Engagement Program – Community Engagement Materials**

**Appendix 6 - Traditional Knowledge Documentation**

6.1 - Traditional Knowledge Technical Report

6.2 - Traditional Knowledge Supporting Documentation

6.3 - Traditional Knowledge Maps

**Appendix 7 - Environmental Protection Guidelines and Best Management Practices**

7.1 - Environmental Protection Guidelines

7.2 - Best Management Practices

7.3 - Emergency Response Plan

**Appendix 8 - Consolidated Figures and Drawing portfolio**

Appendix 8 presents 11 x 17 maps of the preferred route in a separately bound technical atlas. This document is provided for convenience of presentation and allows the reader to cross-reference other various figure while reading the various documents other volumes of the EIA.