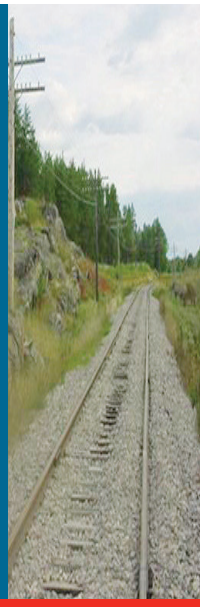
Environmental Impact Statement for the Slave Falls Tramway Conversion Project



Prepared for

Manitoba Hydro

Submitted by

MMM GROUP

41844.101
March 2008

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1.0 INTRODUCTION

1.1 BACKGROUND

The Slave Falls Generating Station is located on the Winnipeg River approximately 160 km northeast of Winnipeg. The station was constructed from 1928 to 1948, with the first unit entering service in 1931. In 2002, Manitoba Hydro acquired the generating station as part of its purchase of Winnipeg Hydro. The Station is currently accessed via a Manitoba Hydro owned rail line (tramway) running from Pointe du Bois.

The Slave Falls Tramway Conversion Project (the Project) involves the construction of an all-weather road from Pointe du Bois to the Slave Falls Generating Station.

The all-weather road will replace the existing tramway.

1.2 SCOPE OF THE ASSESSMENT

The Project is defined as a Class 2 Development under *The Environment Act* (Manitoba) and is subject to Environment Act licencing. Manitoba Hydro submitted an Environment Act Proposal Form (EAPF) on August 14, 2007 to Manitoba Conservation, Environmental Assessment and Licensing Branch, which served to initiate the environmental assessment review process pursuant to the Act. This Environmental Impact Statement is in support of the EAPF. An interdepartmental Technical Advisory Committee (TAC) was formed by Manitoba Conservation to guide the review of the Project (see Appendix A for TAC review comments on the EAPF).

After reviewing the EAPF and obtaining further information on the Project, the Canadian Environmental Assessment Agency has determined that the Project is not subject to assessment under the *Canadian Environmental Assessment Act*.

The environmental assessment for the Project includes consideration of the environmental effects of undertakings associated with:

- Site preparation
- Construction, operations and maintenance
- Abandonment and rehabilitation of the existing tramway line and ancillary developments (i.e., work staging areas and rock borrow areas)

Figure 1.1 shows the general study area.

The spatial boundaries of the assessment vary. The site-specific concerns related to rare flora, fauna, heritage resources, stream crossings, wildlife habitat, borrow pits, recreational use, etc., are addressed within a narrow spatial framework that centres on the length of the road from Pointe du Bois to Slave Falls, and varying buffer distances from the road alignment.

Socio-economic discussions are based upon a larger study area that encompasses the proposed road and is bounded by the northern limit of cottages at Pointe du Bois, the western shore of the Winnipeg River to the east, the Slave Falls Generating Station to the south and the Whiteshell Provincial Park boundary to the west. In some cases, discussion includes communities outside the study boundaries, such as Lac du Bonnet and Pinawa.

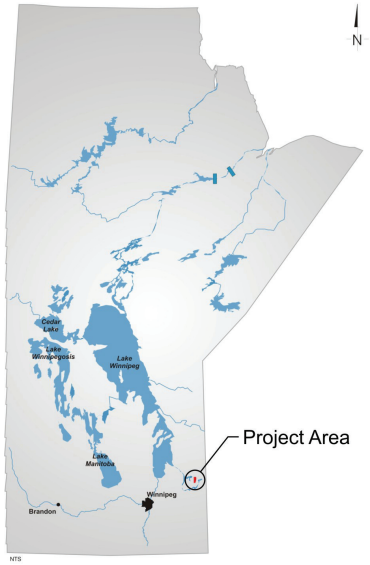
The Environmental Impact Statement addresses the following:

- Project Need, Purpose and Alternatives
- Project Description
- Existing Environmental Setting
- Environmental Assessment Consultation
- Effects and Mitigation
- Monitoring and Follow-up

2.0 PROJECT NEED, PURPOSE AND ALTERNATIVES

2.1 PROJECT NEED AND PURPOSE

The Slave Falls Generating Station is currently not accessible by road. As a result Manitoba Hydro has concerns regarding its ability to adequately and quickly respond to any emergency that might arise at the Station. Quick access in response to fire, environmental, health and safety emergencies is currently limited by the capabilities of the current tramway. In addition the operation and maintenance of the tramway system carries high costs to Manitoba Hydro, both in terms of the tramway itself, and in terms of inherent limitations it imposes on moving personnel and equipment to the Slave Falls Generation facilities.



Key Plan

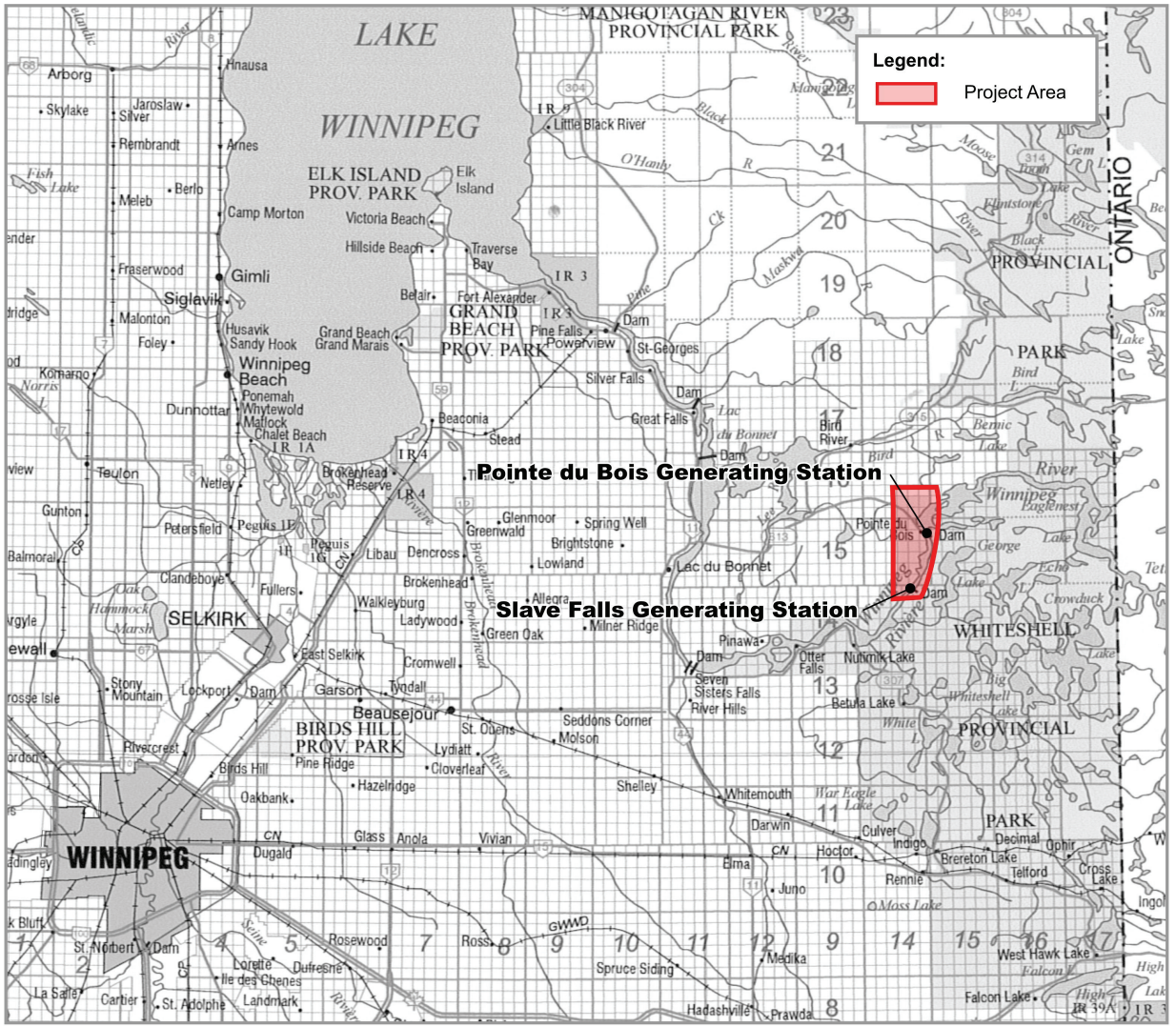


Figure 1.1: Map of the General Study Area

Conversion of the existing tramway to an all-weather road will reduce associated operation and maintenance costs, and will improve response times to emergencies. The all-weather road will support efficient vehicle access to the Slave Falls Generating Station and will increase the ability of Manitoba Hydro to safely operate and maintain the station.

2.2 ALTERNATIVE ALIGNMENTS CONSIDERED

In July 2007, Manitoba Hydro retained Earth Tech (Canada) Inc. to review alternative alignments for the all-weather access road to Slave Falls as part of a comprehensive Slave Falls planning study. The objectives of the planning study were to develop a functional design for the road connecting Pointe du Bois and Slave Falls, that would:

- Be economical to construct
- Maximize utilization of the existing railroad bed
- Meet Manitoba Transportation and Government Services criteria for Collector Road Class B
- Consider the 1982 Whiteshell Master Plan and the Park's Main Thoroughfares and Park Entrances
- Minimize environmental impacts and consider socio-economic issues

Three alignment options were evaluated by Earth Tech (Canada) during the course of the planning study. The alignments are shown on Figure 2.1 and are described as follows:

Alignment Option 1

Alignment Option 1 utilizes 34% of the existing tramway railway embankment. Option 1 has 17 curves.

Alignment Option 2

Alignment Option 2 is the same as Option 1 for the first 3500 metres but then diverges from Option 1 and proceeds in a south-westerly direction east of the existing tramline. Option 2 then crosses the Moose Creek inlet from the Winnipeg River approximately 800 metres west of the river and rejoins Option 1 just prior to the wye (turn-around) at Slave Falls.

Option 2 would make better use of the more suitable subgrade material found east of the existing railway alignment. The number of curves for Option 2 was minimized to produce a straighter alignment, with 13 curves.

Alignment Option 3

Alignment Option 3 is the same as Option 1 for the first 1900 metres and then diverges from Option 1 proceeding in a south-easterly direction away from the existing railway. Option 3 then parallels an existing transmission line right-of-way for approximately 450 metres, then follows a south-westerly direction for approximately 2500 metres where it becomes common with Option 2. Option 3 makes better use of the more suitable subgrade material found east of the existing railway alignment and is less curvilinear. Option 3 has 13 curves.

2.3 EVALUATION OF ALIGNMENT OPTIONS

The three alignment options were evaluated by Earth Tech (Canada) Inc. in the planning study in the following categories:

- Environmental Screening
- Operational Issues
- Implementation
- Cost

Criteria were developed for each category and each alignment was compared to the criteria to determine which alignment best satisfied the criteria. The criteria used for each category were as follows:

Environmental Screening

The environmental screening criteria used to compare each alignment option included consideration of the following factors:

- Terrestrial Fauna (includes impacts on ungulates, upland birds, bear and trapping)
- Aquatic/Riparian Fauna (includes the impact on beaver, fish, waterfowl and amphibians)