

**Pointe du Bois
Modernization Project
Environment Act Proposal**



**Submitted By
Manitoba Hydro**

July 2007



P.O. Box 815 • Winnipeg Manitoba Canada • R3C 2P4
Telephone / N° de téléphone : (204) 474-4334 • Fax / N° de télécopieur : (204) 474-4974
rkustra@hydro.mb.ca

JUL 31 2007

Ms. Tracey Braun, B.Sc.
Director
Environmental Assessment & Licensing Branch
Manitoba Conservation
Suite 160-123 Main Street
Winnipeg MB R3C 1A5

Dear Ms. Braun:

Pointe du Bois Modernization Project

Enclosed is an Environment Act Proposal Form (EAPF) for the Pointe du Bois Modernization Project (the Project). As outlined in the EAPF, Manitoba Hydro plans to modernize the existing Pointe du Bois generating facilities by constructing new generating facilities adjacent to the existing facilities. The existing facilities would operate during the construction of the new facilities and would then be decommissioned. Generating capacity with the new facilities would be increased from 78 MW to approximately 120 MW.

As noted in the EAPF, the Project Description outlines our current concept for the new facilities. Following further evaluation and consultation in 2007, the Project design and location will be finalized and that information will be provided to you.

It is our interpretation that the new facilities will require a Class 3 Development Licence pursuant to *The Environment Act*, and a screening review pursuant to the *Canadian Environmental Assessment Act*. We also expect that authorization under the *Fisheries Act* and permitting under the *Navigable Waters Protection Act* will be required. Several other approvals will also be required, notably the renewal of *The Water Power Act* Licence.

We anticipate that you will implement a cooperative environmental assessment review of the Project pursuant to the *Canada/Manitoba Agreement on Environmental Assessment Cooperation*. Manitoba Hydro welcomes such a cooperative process.

Manitoba Hydro has initiated the conduct of an environmental assessment on the Project. The Draft Scoping Document outlines information that the Environmental Impact Assessment Report (EIS) would contain following the environmental assessment of the Project. Once the EIS is completed, scheduled for the latter part of 2008, it will be forwarded to you for review and comment.

It would assist our environmental assessment process if you could review our Draft Scoping

Ms. Braun
2007 07 20
Page 2

Document for the environmental assessment and provide any additional guidance for the EIS that you deem necessary. The establishment of a Federal/Provincial Technical Advisory Committee, with whom we could liaise with during the environmental assessment process, would also be of assistance.

Thank you for your cooperation and guidance in this matter. We are available to discuss this Project with you further as may be required.

Yours truly,

A handwritten signature in black ink that reads "Ryan Kustra". The signature is written in a cursive, flowing style.

R. Kustra
Manager
Major Projects Licensing Department
Power Project Development Division
Power Supply

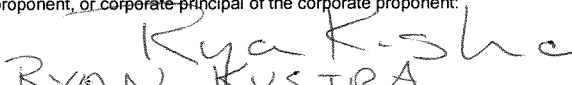
RK/bgs/2007-0710.1

Enc.

Environment Act Proposal Form



This form prescribes the nature and sequence of the information required to file a proposal for a development pursuant to subsections 10(3), 11(7), and 12(3) of *The Environment Act*.

Name of the development: Pointe du Bois Modernization Project		
Legal name of the proponent of the development: Manitoba Hydro		
Location of the development Street address: N/A	Municipality: Province of Manitoba	
City or Town: Pointe du Bois, Manitoba	Legal description: Whiteshell Provincial Park	
Name of proponent contact person for purposes of the environmental assessment: Ryan Kustra, Major Projects Licensing, Manitoba Hydro		
Mailing address: 820 Taylor Avenue, P.O. Box 815 Winnipeg MB		
Postal code: R3C 2P4	Telephone: (204) 474-4334	Fax: (204) 474-4974
Date: JUL 31 2007	Signature of the proponent, or corporate principal of the corporate proponent:  Printed name: RYAN KUSTRA	

- 1) NOTE: **APPLICATION FEE** - Refer to Schedule "A" on reverse side.
- 2) NOTE: The proponent should reproduce the underlined portions of each section as noted below, adding the required information following each section as it applies to the development. A response to all the sections is required.

DESCRIPTION OF THE DEVELOPMENT:

- i) Certificate of Title showing the owner(s) and legal description of the land upon which the development will be constructed; or (in the case of highways, rail lines, electrical transmission lines, or pipelines) a map or maps at a scale no less than 1:50,000 showing the location of the proposed development;
- ii) Name of the owner of mineral rights beneath the land, if not the same as that of the surface owner;
- iii) Description of the existing land use on the site and on land adjoining it, as well as changes that will be made thereto for the purposes of the development;
- iv) Land use designation for the site and adjoining land as identified in a development plan adopted pursuant to *The Planning Act* or *The City of Winnipeg Act*, and the zoning designation as identified in a Zoning By-Law, if applicable;
- v) A description of all previous studies and activities relating to feasibility, exploration, or project siting and prior authorization received from other government agencies;
- vi) A description of the proposed development (including site plans), and the method of operation and hours of operation;
- vii) An identification of any storage of gasoline or associated products (e.g. diesel fuel, used oil, heating oil, AV gas, solvents, isopropanol, methanol, acetone, etc.);
- viii) A description of the potential impacts of the development on the environment, including, but not necessarily limited to:
 - type, quantity and concentration of pollutants to be released into the air, water or on land;
 - impact on wildlife;
 - impact on fisheries;
 - impact on surface water and groundwater;

- forestry related impacts;
 - impact on heritage resources;
 - socio-economic implications resulting from the environmental impacts.
- ix) A description of the proposed environmental management practices to be employed to prevent or mitigate adverse implications from the impacts identified in viii) which will have regard to, where applicable: containment, handling, monitoring, storage, treatment, and final disposal of pollutants; conservation and protection of natural or heritage resources; environmental restoration and rehabilitation of the site upon decommissioning; and protection of environmental health.

SCHEDULE:

The proposed date of commencement of construction, commencement of operation, including staging of the development and termination of operation, if known.

FUNDING:

Name and address of any Government Agency (Federal, Provincial or otherwise) from which a grant or loan of capital funds have been requested, where applicable.

NOTE: *The Environment Act* requires that subject to the Confidential Information clause, Section 47, a proposal shall be filed in the public registry.

Proprietary information provided in this form should be clearly noted. A separate summary of the proposal excluding the proprietary information should accompany the proposal for the public registry file.

27 copies of any bound report or blueprints supporting the Proposal are required.

The completed Proposal form should be sent together with a covering letter to:

Director, Environmental Assessment and Licensing Branch
Manitoba Conservation
Suite 160, 123 Main Street
Winnipeg, Manitoba R3C 1A5

ENVIRONMENT ACT PROPOSAL FORM
POINTE DU BOIS MODERNIZATION PROJECT

DESCRIPTION OF THE DEVELOPMENT:

i) Certificate of Title

A certificate of title is not available. Use of lands has been granted to Manitoba Hydro pursuant to the Licence under *The Water Power Act*.

ii) Mineral Rights

The Province of Manitoba is the owner of the mineral rights.

iii) Description of Existing Land Use

The current Pointe du Bois generation station facilities, which began operating in 1911, are an existing land use within Whiteshell Provincial Park. Other hydroelectric power generation facilities also exist on the Winnipeg River in the region.

iv) Land Use Designation

Manitoba Hydro has been granted a Licence under *The Water Power Act* that includes use of designated lands for the Pointe du Bois hydro-electric generating facilities.

In accordance with the Provincial Park Lands Act (now The Parks Act) Whiteshell Provincial Park was established in 1961 and is classified as a Provincial Natural Park. Provincial Natural Parks are relatively spacious land and water areas that are capable of providing a wide range of outdoor recreational opportunities and which are generally adaptable to multiple-use management. Under the 1998 System Plan for Manitoba's Provincial Parks, the Pointe du Bois Area is categorized as *Recreational Development* which provides for a range of intensive recreational facilities. The *Recreational Development Category* also permits commercial resource use while recognizing the recreational values of the Park. The Pointe du Bois area is also used for traditional activities by Aboriginal peoples.

v) Previous Studies and Activities

A number of previous investigative and feasibility studies leading to the decision to rebuild the current facilities will be referenced in the EIS.

Current and ongoing studies/activities in support of the environmental assessment for the Project are outlined in the attached Draft EA Scoping Document. These studies will be finalized and used as technical appendices to the EIS.

vi) Description of the Proposed Development

Note: The following description outlines the current concept for the new generating station facilities. As final engineering and consultation proceeds, the components of the final development will be defined and provided for review.

The Proposed Development consists of:

- A new powerhouse constructed adjacent to the existing powerhouse;
- A new spillway constructed downstream of the existing spillway;
- New earthfill structures to complete the diversion of the river through the powerhouse and spillway;
- A channel cut-off dam to close the existing intake channel; and
- A new switching station.

An aerial view of the existing Pointe du Bois facilities outlining the area where the new structures will be located is enclosed as Figure 1.

Associated infrastructure with the Project construction will include a construction camp, a batch plant(s), storage areas, offices, water and wastewater treatment and disposal, borrow areas, and transportation route improvements.

Transmission Line improvements are required regardless of the modernization project. Separate approval of these improvements, as appropriate, will be requested in the future.

The new powerhouse will have a generating capacity of approximately 120MW. The new spillway will be designed to a discharge capacity capable of handling the probable maximum flood.

Manitoba Hydro is evaluating a number of general arrangements for the new powerhouse, spillway and other structures. It is intended that the final location of the new facilities will take into consideration the potential effect on fish and aquatic habitat in the immediate area of the facilities as well as technical, safety and economic factors. Once the evaluation of various possible arrangements is complete, the final general arrangement of the new facilities will be provided for review.

A layout for one possible arrangement of the new facilities is enclosed as Figure 2.

Long-term access to the new facilities will be via a road that follows the crest of the earth-fill dams to the powerhouse and spillway. During construction, a temporary vehicle access bridge will be required across the existing intake channel. There will be no public access to the facility or to the east side of the Winnipeg River.

The existing spillway, sluiceway, powerhouse and rockfill dam structures will be decommissioned. All water control gates, mechanical and electrical equipment will be removed. The extent of removal of the concrete components of the existing structures is currently being evaluated and will be provided for review and comment upon submission of a final general arrangement of the new facilities. The rockfill dam will be removed to satisfy hydraulic requirements of the new generating station. Decommissioning of the powerhouse will provide drainage of the current intake channel to tailwater level. The EIS will contain a full description and assessment of the final decommissioning plan for the existing facilities.

vii) Storage of Gasoline or Associated Products

The EIS will contain the details of gasoline or associated products storage and handling.

viii) Description of the Potential Impacts

Manitoba Hydro is conducting an environmental assessment for the Project. The attached Draft Scoping Document provides an outline of the subject areas that the environmental assessment will address including a description of the potential effects of the Project. The final scope of the environmental assessment will address any guidance provided by the regulatory authorities.

ix) Description of Proposed Environmental Management Practices

As part of the environmental assessment of the Project, Manitoba Hydro will provide a description of the proposed environmental management practices. The attached Draft Scoping Document provides an outline of the subject areas that the environmental assessment will address including areas on mitigation of Project effects, monitoring and follow-up actions. The final scope of the environmental assessment will address any guidance provided by the regulatory authorities.

SCHEDULE:

Manitoba Hydro is planning for an in-service date for the new facilities of 2015. To meet this in-service date, the environmental assessment is scheduled for completion with submission of an Environmental Impact Statement to regulatory authorities no later than the end of 2008, regulatory approvals are expected by the end of 2009 and construction beginning in 2010.

A detailed schedule will be included in the EIS.

FUNDING:

Manitoba Hydro will fund the Project.

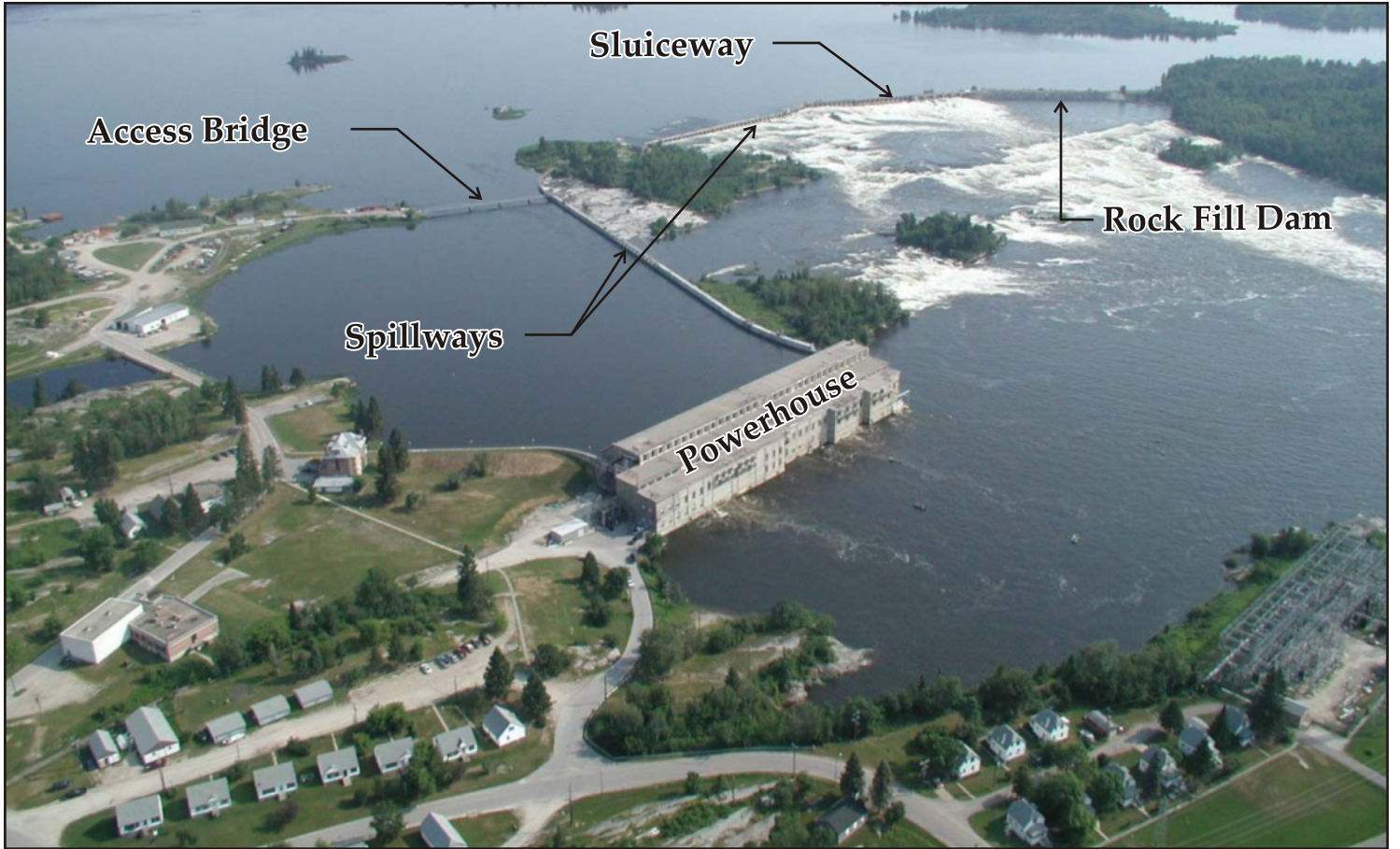
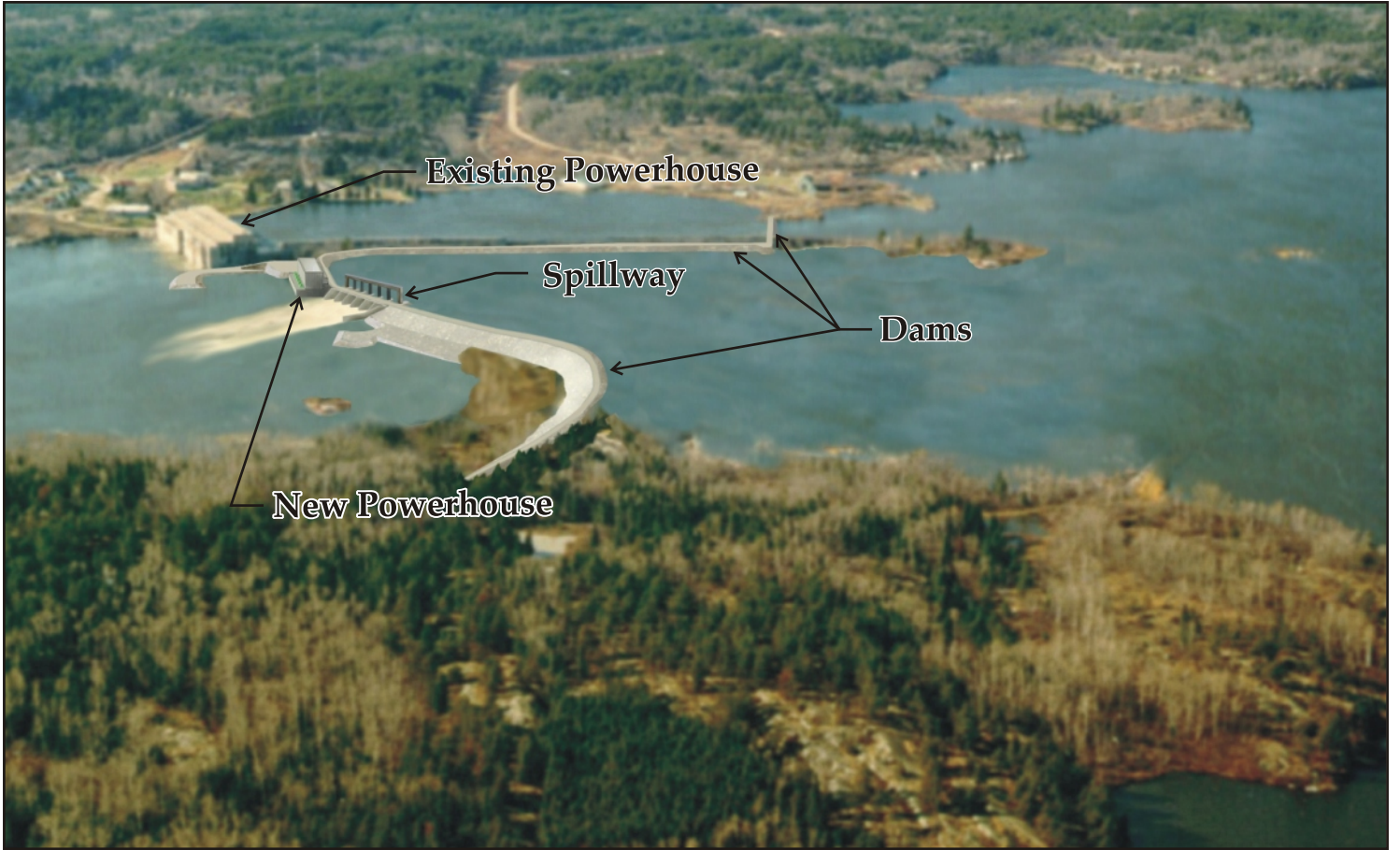


Figure 1: Existing Pointe du Bois Facilities



*Figure 2: Possible Arrangement of New
Pointe du Bois Facilities*

**Pointe du Bois
Modernization Project
Environmental Assessment
Draft Scoping Document**

**Submitted By
Manitoba Hydro**

July 2007

Table Of Contents

	Page No.
1.0 Introduction	1
1.1 Purpose of Scoping Document	1
1.2 Background.....	1
2.0 Regulatory Framework	3
3.0 Environmental Assessment Consultation	3
4.0 Aboriginal and Local Knowledge	4
5.0 Project Description	5
6.0 Modernization Alternatives	6
7.0 Existing Environmental Setting	6
7.1 Physical Environment	6
7.1.1 Climate/General Environment	6
7.1.2 Water Regime	6
7.1.3 Physiography and Landscape	7
7.2 Aquatic Environment	7
7.2.1 Water and Sediment Quality	7
7.2.2 Lower Trophic Levels	7
7.2.3 Fish Communities and Fish Habitat	7
7.3 Terrestrial Environment	7
7.3.1 Vegetation and Terrestrial Habitat	7
7.3.2 Invertebrates.....	7
7.3.3 Amphibians and Reptiles.....	8
7.3.4 Birds	8
7.3.5 Mammals.....	8
7.4 Socio-Economic Environment	8
7.4.1 Economy.....	8
7.4.2 Property Ownership	8
7.4.3 Infrastructure and Services.....	8
7.4.4 Personal, Family and Community Life	8
7.4.5 Aboriginal Resource Use	9
7.4.6 Commercial Resource Use	9
7.4.7 Recreational Resource Use and Tourism.....	9
7.4.8 Heritage Resources	9
8.0 Proposed Assessment Approach	10
8.1 Effects Assessment Principles and Objectives.....	10

8.2	Effects Assessment Process	11
8.2.1	Mitigation and Residual Effects.....	11
8.2.2	Determination of Significance.....	11
8.3	Cumulative Effects Assessment.....	12
8.4	Sustainability Assessment	12
9.0	Monitoring and Follow-Up	12
10.0	Report Format.....	13

1.0 Introduction

1.1 Purpose of Scoping Document

The purpose of this Draft Scoping Document is to provide information related to the scoping of the environmental assessment for the Pointe du Bois Modernization Project (the Project). The Project will consist of a rebuild of the current facilities at Pointe du Bois.

The Draft Scoping Document for the Project has been developed with consideration of recent approval, licencing, and guidance matters related to the following:

- Wuskwatim Generating Station;
- CEAA guidance given for two recent hydroelectric projects (i.e. Elizabeth Falls Hydroelectric Project and Lower Mattagami Hydroelectric Complex Redevelopment);
- The importance and need to include the use of Aboriginal¹ and local knowledge and public and stakeholder views in the assessment process; and
- Issues identified during initial public consultations in early 2007.

1.2 Background

The Pointe du Bois Generating Station, having first produced power in 1911, is the oldest hydroelectric plant operating in Manitoba. In 2002, Manitoba Hydro acquired the generating station as part of its purchase of Winnipeg Hydro. Despite extensive repairs and upgrades that have been conducted over the years, the facilities at Pointe du Bois now require major repair or replacement in order to maintain public and dam safety, provide a modern and safer working environment for staff, and ensure reliable power production. Equipment is approaching the end of its functional life, parts are increasingly difficult to replace, and technology is outdated and inefficient. The powerhouse has also experienced concrete deterioration that impacts its structural stability and generation reliability.

In the decision process for the Project, Manitoba Hydro reviewed three principal alternatives for the Project. These alternatives were the following:

- Rebuild

Rebuild involves the construction of a new generating station, spillway and dam with modern operating, safety and environmental standards in an area adjacent to the location of the existing facilities. The existing facilities would be decommissioned. Generating capacity would be increased from 78 MW to approximately 120 MW.

¹ Aboriginal refers to First Nation and Métis

- Renovate

Renovate involves the installation of new generators and replacement of systems within the existing powerhouse, rehabilitation of the powerhouse structure, and construction of a new spillway. The existing generating station would be brought up to modern operating and safety standards. Generating capacity would be increased from 78 MW to approximately 120 MW.

- Repair

Repair involves continued operation of the plant with replacement or repair of all structures and systems as necessary to bring the plant to minimum modern safety and operating standards. A new spillway would be constructed. Generating capacity would be increased to approximately 85 MW.

Two other alternatives were also considered, but were found to be unfeasible. These alternatives were as follows:

- Decommission

Decommission involves removing all structures and returning the site to the state of nature. This alternative was found to be unfeasible as the established water regime would be drastically altered and the loss of 78 MW of generating capacity would negatively impact energy security and reliability in southern Manitoba.

- Maintain Water Control Structure

Maintain Water Control Structure involves continued operation and maintenance of the water control structures. The established water regime would be generally maintained, but power would not be generated. This alternative was found to be unfeasible as the loss of 78 MW of generating capacity would negatively impact energy security and reliability in southern Manitoba.

As part of the Project decision process, Manitoba Hydro conducted initial public consultations on the three principal alternatives for the Project. Public open houses were held in Pointe du Bois, Lac du Bonnet and Winnipeg during February 2007. In addition, meetings were held with Sagkeeng First Nation and Manitoba Métis Federation representatives. Input and feedback were useful in helping Manitoba Hydro scope out the issues associated with the three principal alternatives under consideration. The consultations and meetings were also helpful in enhancing design and construction planning with respect to addressing potential effects of the Project.

Following internal analysis and feedback from the initial public consultation and Aboriginal meetings, Manitoba Hydro decided to proceed with the Rebuild alternative.

Accordingly, in support of the preparation of an Environmental Impact Statement for the Project, Manitoba Hydro is proceeding with an environmental assessment including physical, biological, and socio-economic studies and additional stakeholder² consultations.

2.0 Regulatory Framework

It is Manitoba Hydro's view that the Project constitutes a Class 3 development as an electrical generating facility with a generating capacity greater than 100 MW as defined by the Classes of Development Regulation under the *Manitoba Environment Act* (MEA). With respect to the *Canadian Environmental Assessment Act* (CEAA), it is Manitoba Hydro's view that a screening review (less than the 200 MW Comprehensive Study Review threshold) will be required and that at least two federal triggers may exist - under the *Fisheries Act* (FA) and the *Navigable Waters Protection Act* (NWPA). Further, it is Manitoba Hydro's understanding that the filing of an Environment Act Proposal Form (EAPF) under the MEA initiates the formal regulatory review process.

Manitoba Hydro anticipates that the Project may be reviewed under the provisions of the *March 2007 Canada/Manitoba Agreement on Environmental Assessment Cooperation*, and Manitoba Hydro would welcome such a cooperative process. Pursuant to that Agreement, it is expected that a Project Administration Team (PAT) and a Technical Advisory Committee (TAC) will be established to administer and to provide advice on the environmental assessment process and on the scope and content of the Environmental Impact Statement (EIS).

The EIS will outline other regulatory and legislative approvals required for Project implementation, notably the renewal of *The Water Power Act* Licence that expires on December 31, 2011.

3.0 Environmental Assessment Consultation

Consultation is an essential part of the planning and assessment process for the Project. The environmental assessment consultation program (consultation program³) for the Project will involve Aboriginal communities and organizations, local residents, other stakeholders, government departments and agencies, municipalities and the general public.

² When used on its own, the term 'stakeholder' means all interested parties.

³ The consultation program in this scoping document does not include consultation pursuant to section 35 of *The Constitution Act*.

The overall objective of the consultation program is to provide information on the Project and to create meaningful opportunities to receive information and views on the Project. The consultation program aims to achieve the following:

- Provide opportunities for the early involvement of Aboriginal people, local residents, the public, and other stakeholders in the process in order to ensure their involvement throughout the process;
- Effectively use a variety of mechanisms to provide information, receive feedback, and engage in a meaningful dialogue with stakeholders;
- Demonstrate an adaptive approach so that the consultation process can be adjusted in response to stakeholder issues and concerns;
- Effectively use the information received through the consultation process to avoid or minimize any negative Project effects and maximize Project benefits; and
- Communicate to stakeholders how the information they provided was used.

The consultation program will build on the initial Manitoba Hydro consultation and will consist of two rounds of consultation, as follows:

- The first round will describe the Project and solicit input on issues/concerns relating to potential Project effects; and
- The second round will present Project effects and mitigation measures for feedback prior to submission of the EIS to regulatory authorities. The second round of the consultation program will also be used to discuss how the information raised during the first round of the consultation program was utilized or addressed by Manitoba Hydro.

4.0 Aboriginal and Local Knowledge

Aboriginal and local knowledge are valuable sources of information for the environmental assessment. All reasonable efforts will be made to ensure that knowledge from these sources is collected and incorporated into the environmental assessment of the Project. A protocol for utilizing Aboriginal and local knowledge will be established with the providers of the information prior to incorporation into the EIS or any other public document.

5.0 Project Description

The Project includes:

- A new powerhouse;
- A new spillway;
- New dams; and
- A new switching station.

Associated infrastructure with the Project includes:

- A construction camp;
- A batch plant(s);
- Storage areas and offices;
- Water and wastewater treatment and disposal;
- Borrow areas; and
- Transportation route improvements.

The EIS will describe the Project using appropriate figures, maps and/or orthophotos, and will include the following:

- Location of the existing generating station, spillway and associated facilities;
- Location of the new generating station, spillway and associated facilities;
- Location of staging areas for construction;
- Location of borrow areas;
- Outline of roadways and access routes to be used during pre-construction, construction and operation stages of the Project;
- Traffic types and volumes;
- Location of construction camp and other supporting infrastructure;
- Schedule of construction activities including cofferdams, dewatering and control facilities, new buildings and infrastructure and intake and discharge channels and structures;
- General cost estimates and funding;
- Station operation and maintenance programs;
- Size and composition of the workforce during construction activities and new station operation;
- Health and safety programs and measures;
- Plans for decommissioning the existing generating station and associated facilities;
- Plans for decommissioning of any temporary infrastructure or facilities;
- Plans to address accidents and malfunctions;
- Wastes generated by the Project and how waste will be managed and disposed of; and
- Concept for the eventual decommissioning of the Project.

6.0 Modernization Alternatives

The EIS will include the following:

- A summary and assessment of the three principal alternatives considered for modernization (i.e., Rebuild, Renovate, Repair);
- An explanation of the rationale for selection of the Rebuild alternative; and
- A description of the process undertaken to determine the final alignment and general arrangement of the Project components.

7.0 Existing Environmental Setting

Physical, biological and socio-economic studies and activities will be undertaken to describe the physical, biological, and socio-economic components of the existing environment within the Study Area⁴. The description of the existing environmental setting will include the following:

7.1 Physical Environment

7.1.1 Climate/General Environment

The EIS will provide information on the following:

- Climate change;
- Averages and extremes in monthly temperatures and dates of freeze and thaw;
- Monthly precipitation and snow cover;
- Monthly wind velocity;
- Local air quality; and
- Ambient noise.

7.1.2 Water Regime

The EIS will provide information on the following:

- Winnipeg River system operations throughout the year for various hydraulic conditions;
- Erosion and sedimentation;
- Ice conditions;
- Woody debris accumulation and deposit; and
- Climate change effects on the water regime.

⁴ Base Study Areas will be defined for the physical, biological, and socio-economic components. The Study Areas will vary depending on the specific study activity being reviewed. (e.g. the Study Area for the terrestrial study activity will include borrow areas that may be remote from the base Study Area).

7.1.3 Physiography and Landscape

The EIS will provide information on the following:

- Physiography;
- Geology;
- Soils;
- Groundwater conditions; and
- Geologic deposits that may be used for the Project.

7.2 Aquatic Environment

7.2.1 Water and Sediment Quality

The EIS will provide information on the following:

- Water quality; and
- Sediment quality with emphasis on metals, metalloids and organics.

7.2.2 Lower Trophic Levels

The EIS will provide information on the following:

- Algae, rooted plants, zooplankton, and benthic invertebrates; and
- The inter-relationship of lower and higher trophic levels.

7.2.3 Fish Communities and Fish Habitat

The EIS will provide information on the following:

- Abundance and diversity of fish populations;
- Fish habitats, with emphasis on habitats in shallow water and foreshore areas;
- Fish movement;
- Mercury levels in fish; and
- Threatened and endangered species.

7.3 Terrestrial Environment

7.3.1 Vegetation and Terrestrial Habitat

The EIS will provide information on the following:

- Abundance, diversity and habitats of terrestrial and semi-aquatic vegetation; and
- Threatened and endangered species.

7.3.2 Invertebrates

The EIS will provide information on the following:

- Invertebrates species composition and distribution; and
- Threatened and endangered species.

7.3.3 Amphibians and Reptiles

The EIS will provide information on the following:

- Abundance, diversity and habitats of amphibians and reptiles; and
- Threatened and endangered species.

7.3.4 Birds

The EIS will provide information on the following:

- Migratory and breeding birds abundance, diversity and habitats;
- Nesting sites of colonial nesters and raptors; and
- Threatened and endangered species.

7.3.5 Mammals

The EIS will provide information on the following:

- Abundance, diversity and habitats of mammal populations; and
- Threatened and endangered species.

7.4 Socio-Economic Environment

7.4.1 Economy

The EIS will provide information on the following:

- Labour force characteristics including education, business/economic sectors, employment and unemployment, participation rates, and income levels;
- Profile of economic sectors within the Study Area including commercial resource use; and
- Manitoba Hydro contract tendering procedures, employment and hiring practices, compensation and benefit policies.

7.4.2 Property Ownership

The EIS will provide information on the following:

- Property ownership and land tenure, land/resource and water use, and land use and development controls.

7.4.3 Infrastructure and Services

The EIS will provide information on the following:

- Roads and highways, community facilities and other services.

7.4.4 Personal, Family and Community Life

The EIS will provide information on the following:

- Population characteristics, with an emphasis on demographics and health status of potentially affected communities and the region in general; and

- Way of life, community cohesion, culture and spirituality.

7.4.5 Aboriginal Resource Use

The EIS will provide information on the following:

- Existing Aboriginal harvesting, including hunting, fishing, trapping, and gathering.

7.4.6 Commercial Resource Use

The EIS will provide information on the following commercial resource uses:

- Hunting;
- Trapping;
- Fishing;
- Guiding and outfitting;
- Harvesting of wild rice;
- Mining;
- Forestry; and
- Hydro-electric generation.

7.4.7 Recreational Resource Use and Tourism

The EIS will provide information on the following recreation and tourism uses:

- Hunting;
- Trapping;
- Fishing;
- Gathering;
- Lodges and associated facilities;
- Cottage developments;
- Outfitters;
- Campgrounds;
- Recreational operations;
- Outdoor recreation activities; and
- Tourism and eco-tourism opportunities.

7.4.8 Heritage Resources

The EIS will provide information on the following:

- Historical-cultural characterization;
- Archaeological and culturally important sites;
- Known burial sites; and
- Past and present traditional land use and occupancy.

8.0 Proposed Assessment Approach

8.1 Effects Assessment Principles and Objectives

The overall effects assessment approach will consider scientific study and analysis, Aboriginal knowledge, local knowledge, and other stakeholder perspectives, issues and concerns.

The effects assessment approach will embrace the following principles:

- That an understanding is required of the existing physical, biological, and socio-economic environments in the Study Area;
- That an understanding is required of the Project and the potential interactions between the Project and the environment;
- That Aboriginal knowledge, local knowledge, and scientific analysis all contribute to gaining an understanding of the existing environment and how the existing environment may be affected by the Project;
- That an understanding is required of how other past and potential future human activities have and continue to affect the environment and how these activities may interact with the Project;
- That Project effects will need to be viewed from the perspective of different stakeholders;
- That stakeholder perspectives will be sought through consultation;
- That adverse effects will be avoided or mitigated and positive effects will be maximized to the extent practicable; and
- That follow-up monitoring is required.

The effects assessment approach is designed to describe and address potential Project effects on the physical, biological, and socio-economic environments for use in the preparation of the EIS for the Project.

The main objectives of the effects assessment for the Project are as follows:

- Assist in the planning and design of the Project by identifying and assessing potential environmental effects and mitigation options to avoid or minimize adverse effects and maximize positive effects to the degree practicable;
- Address concerns and issues identified by Aboriginal peoples, local residents, and other stakeholders with respect to the Project;
- Provide sufficient information to prepare an EIS for consideration by regulators to exercise their legislated mandate; and
- Provide sufficient information about the existing environment, so that follow-up monitoring studies can be planned.

The effects assessment will consider the existing environment without the Project, as the baseline condition against which changes caused by the Project will be assessed and measured.

Potential effects of the Project will also be considered in terms of sustainability as outlined in section 8.4 of this Draft Scoping Document.

8.2 Effects Assessment Process

The effects assessment will include the following steps:

- The Project and the existing environment will be described;
- Interactions between the Project and environment will be identified;
- A selected list of appropriate Valued Environmental Components (VECs) will be determined for the Study Area. These VECs will be used to provide a focus to the assessment and to the evaluation of the significance of the potential environmental effects of the Project;
- Technically and economically feasible measures to mitigate adverse effects will be identified, as will measures to enhance positive effects; and
- The significance of residual effects will be determined.

Using this process, the EIS will describe the potential effects of the Project on the physical, biological, and socio-economic environments for each phase of the Project – construction, operation and decommissioning.

8.2.1 Mitigation and Residual Effects

The EIS will describe any mitigation or effect management measures proposed to be implemented during the phases of the Project. Feasible measures to enhance the potential benefits associated with the construction and operation of the Project will also be detailed.

The EIS will identify any residual Project effects expected to remain after mitigation measures have been implemented.

8.2.2 Determination of Significance

The EIS will outline the framework to be used in the evaluation of the significance of residual adverse effects by using the following criteria:

- Nature of the effect;
- Magnitude of the effect;
- Duration of the effect;
- Frequency of the effect;
- Reversibility of the effect; and
- Geographic extent of the effect.

Characterization of the significance of the residual adverse effects will consider scientific study and analysis, Aboriginal knowledge, and local knowledge, and will relate to all phases of the Project – construction, operation, and decommissioning.

8.3 Cumulative Effects Assessment

In addition to describing the direct effects of the Project, the EIS will also include an assessment of cumulative effects. The Cumulative Effects Assessment (CEA) will include a consideration of the potential for Project effects to act in combination with the effects of other past, present and/or reasonably foreseeable future projects in the Study Area. The EIS will outline the approach and methods for the CEA. Guidance documents such as the *Operational Policy Statement OPS-EPO/3-1999 Addressing Cumulative Environmental Effects Under the Canadian Environment Assessment Act* and the *Cumulative Effects Practitioners Guide* will be used to formulate the CEA process.

Note: It is also anticipated that discussion with the PAT and TAC will be undertaken early in the regulatory process on the process for CEA and the framework for determining significance as outlined in section 8.2.2 of this Draft Scoping Document.

8.4 Sustainability Assessment

Manitoba Hydro has Corporate Environmental and Sustainable Development Policies in order to help link its responsibilities both for the supply of energy to the Manitoba economy and for the protection of the environment and human health. Manitoba Hydro intends to incorporate its principles of sustainable development in all of its activities associated with the planning, development, operation and maintenance of the Project.

The EIS for the Project will address and incorporate the *Principles and Guidelines of Sustainable Development* as contained in *The Manitoba Sustainable Development Act*.

9.0 Monitoring and Follow-up

The EIS will provide details of, and commit Manitoba Hydro to, a Monitoring and Follow-up program extending through the construction, operation and decommissioning phases of the Project. The Monitoring and Follow-up program will incorporate the following:

- Identification of proposed methods to avoid and mitigate adverse environmental effects, including summaries of potential environmental sensitivities and mitigation actions;
- Emergency response plans;
- Monitoring plans and reporting protocols;
- Closure plans for borrow areas, including mitigation of potential hazards to public safety;
- Information on waste management practices to be utilized during all phases of the Project;
- Documentation of EIS commitments;
- An implementation plan for the EIS commitments; and

- A commitment to mitigate environmental effects throughout the full life-cycle of the Project. Field construction and operating personnel will be provided clear instructions on the mitigation measures to be implemented and on the lines of communication to be followed.

Where appropriate, monitoring of the physical, biological, and socio-economic effects on local, Aboriginal, or other affected communities will be conducted during the construction, operation and decommissioning phases of the Project. The monitoring program is intended to confirm impact predictions related to anticipated effects and to determine whether unexpected effects are occurring.

A compliance monitoring program for the construction, operation and decommissioning phases of the Project will be provided. The monitoring program will describe parameters to be monitored, methodologies and time frames. Further research respecting issues relevant to the operation of the facility may also be recommended.

As part of the process of follow-up and monitoring, the principles of adaptive management will apply. The EIS will describe a process that will be implemented in the event that it is determined that the Project is having unexpected adverse effects, or if mitigation measures are proving to be ineffective.

10.0 Report Format

The EIS for the Project will be written with a minimum of technical terminology and will include a glossary of terms used throughout the document. An Executive Summary for the EIS will be provided.

The EIS will utilize maps, charts, diagrams and photographs as appropriate for presentation. To the extent possible, maps and diagrams will be presented at a common scale so that these may be overlaid for ease of reference.

Supporting scientific, local and Aboriginal information will be contained in reference appendices to the EIS.