

CANADIAN ENVIRONMENTAL ASSESSMENT AGENCY

Background Information Document

Keeyask Generation Project proposed by the Keeyask Hydropower Limited Partnership

FOR PUBLIC COMMENT

December 15, 2011 – January 31, 2012

Canadian Environmental Assessment Registry Reference Number: 11-03-64144

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1 Introduction and Purpose

The Canadian Environmental Assessment Agency (the Agency) has received and accepted a project description for the Keeyask Generation Project (the Project) near Gillam, Manitoba. The Project is proposed by Keeyask Hydropower Limited Partnership (the proponent), which is comprised of a joint venture between Manitoba Hydro and four local Cree Nation partners (Tataskweyak Cree Nation, War Lake First Nation, York Factory First Nation and Fox Lake Cree Nation).

The Project includes the construction and operation of a 695-megawatt hydroelectric generation station at Gull Rapids on the lower Nelson River approximately 30 kilometres southwest of Gillam, Manitoba. It would include a powerhouse complex, a spillway, dams, dykes, a reservoir, and other related infrastructure.

Based on a review of the proponent's project description, the Agency has determined that the Project is subject to the *Comprehensive Study List Regulations* under the *Canadian Environmental Assessment Act* (the Act) and that an environmental assessment (EA) is required. The purpose of this document is for the Agency to inform the public about the Project and the parameters of the EA, and to solicit feedback from the public on the conduct of the EA.

The primary objective of federal EA is to ensure that a project is considered in a careful and precautionary manner in order to ensure that it will not result in significant adverse environmental effects. The federal EA process aims to promote sustainable development and thereby achieve or maintain a healthy environment and economy, promote communication and cooperation among federal and provincial agencies, as well as with Aboriginal groups, and provide opportunities for timely and meaningful public participation.

At this time the Agency is in the early stages of identifying the potential environmental effects of the Project that should be examined during the detailed technical stages of the EA. The Agency is seeking comments from the public to ensure that the potential effects that might result from the Project are identified for consideration as part of the assessment process. A notice of this opportunity for Aboriginal and public comment has been posted to the Agency's website and comments will be received until January 31, 2012. Additional detail on the current public comment period is included in Section 7.3.

2 Project Summary

The Project involves development of a 695 MW generating station on the Nelson River at the base of Gull Rapids, immediately upstream of Stephens Lake, as shown in Figure 1. The site is located on provincial Crown land and is entirely within the Split Lake Resource Management Area.

The Project will utilize a differential of elevation (head) of approximately 18 metres of the 27 metre drop between Clark Lake and Stephens Lake. About 7 metres of this drop in elevation occurs through Gull Rapids. It is expected to produce an average of about 4400 GWh of electricity per year.

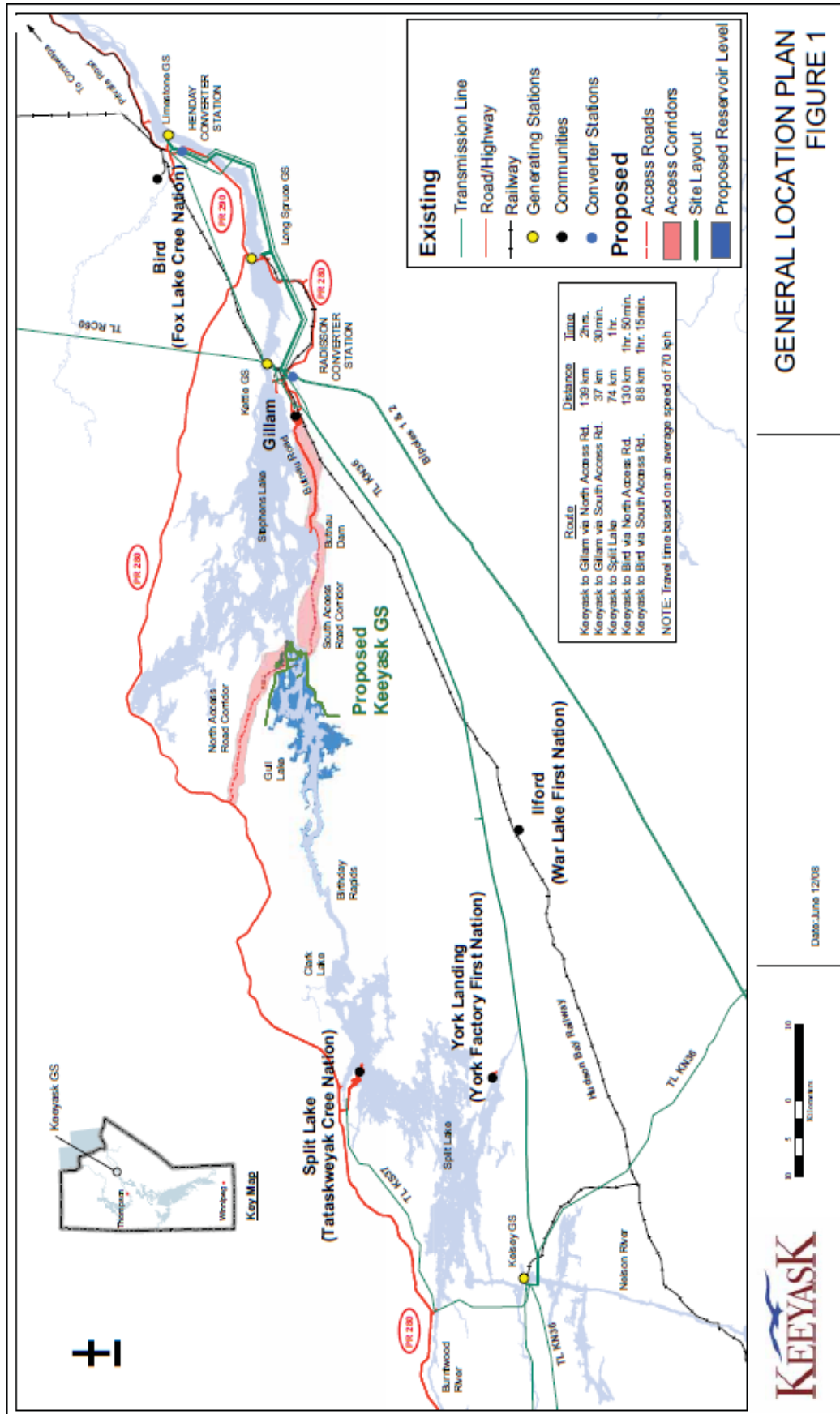
Figure 1. Proposed Scope of Factors

The Project will flood Gull Rapids and create a 93 square kilometres reservoir, resulting in approximately 45 square kilometres of initial flooding. Erosion of the shoreline in the years following initial impoundment of the reservoir will cause the extent of flooding to increase. The flooding will be limited to the area between Clark Lake outlet and Gull Rapids. Prior to impoundment, the majority of the area to be flooded will be cleared. The Project will be operated to maintain an elevation in the forebay between 158.0 metres (518.4 feet) and 159.0 metres (521.7 feet).

The Project is expected to take eight years to construct. The first generating unit would be scheduled to be in service after six years, with the remaining units to take an additional two years to complete.

The Project includes the following principal structures:

- a powerhouse/service bay complex built across the north side of Gull Rapids;
- a spillway built across the south side of Gull Rapids;
- dams across Gull Rapids (north/central/south);
- dykes built on the north and south sides of the reservoir;
- a transmission tower spur; and
- supporting infrastructure, as described below:
 - a north access road to PR280 and south access road to Gillam,
 - construction camps,
 - contractors work areas,
 - construction power services,
 - borrow sources,
 - cofferdams,
 - an ice boom, and
 - boat launches and a portage.



GENERAL LOCATION PLAN
FIGURE 1

In accordance with the Cabinet Directive on Improving the Performance of the Regulatory System for Major Resource Projects, the Project has been identified as a “major resource project” and will be subject to review in accordance with the federal Major Resource Project initiative. Additional information on the initiative is available from the Major Projects Management Office (MPMO) at www.mpmo-bggp.gc.ca.

More information about the proponents and the proposed developments may be found on the Keeyask Hydropower Limited Partnership website: <http://keeyask.com>.

3 Federal Environmental Assessment Requirements

3.1 The Canadian Environmental Assessment Act

Under section 5 of the Act, a federal EA may be required when, in respect of a project, a federal authority:

- is the proponent;
- makes or authorizes payment or any other form of financial assistance to the proponent;
- sells, leases, or otherwise disposes of lands; or
- issues a permit, license, or other form of approval pursuant to a statutory or regulatory provision referred to in the *Law List Regulations*.

Based on a review of the Project description and discussion with federal authorities, the Agency has concluded that an EA under the Act is required on the basis of the following:

- Fisheries and Oceans Canada (DFO) may issue authorizations for works or undertakings associated with the Project; and,
- Transport Canada (TC) may issue approvals for works or undertakings associated with the Project.

Therefore, both DFO and TC become responsible authorities (RAs) under the Act. RAs are required to ensure that an EA of the Project is conducted prior to taking any decisions that would enable the Project to proceed.

In addition to the RAs, Environment Canada, Natural Resources Canada, and Health Canada will provide specialist or expert advice on specific aspects of the potential environmental effects of the Project.

The Agency will exercise the powers and perform the duties and functions of the responsible authority until it submits a comprehensive study report (CSR) to the Minister of the Environment. The Agency will also act as the Federal Environmental Assessment Coordinator and as the Crown Consultation Coordinator for the EA of the Project.

The Agency has determined that the electrical production capacity of the Project, as described by the proponent, is subject to a comprehensive study pursuant to subsection 5(b) of the *Comprehensive Study List Regulations* of the Act, which include the proposed construction, decommissioning or abandonment of a hydroelectric generating station with a production capacity of 200 MW or more.

3.2 Factors to be Considered

The Agency is determining the factors and the scope of the factors to be considered in the comprehensive study. The Agency is required to consider the factors specified in section 16 of the Act, taking into consideration the definitions of “environment”, “environmental effect”, and “project”, prior to the Government of Canada taking a decision that would permit the Project to proceed (e.g., grant funding, disposal of land, or issuance of a permit or authorization).

As defined under the Act, “environmental effect” means, in respect of a project:

- a) *any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as those terms are defined in subsection 2(1) of the Species at Risk Act,*
- b) *any effect of any change referred to in paragraph (a) on*
 - i) *health and socio-economic conditions,*
 - ii) *physical and cultural heritage,*
 - iii) *the current use of lands and resources for traditional purposes by aboriginal persons, or*
 - iv) *any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, or*
- c) *any change to the project that may be caused by the environment, whether any such change or effect occurs within or outside Canada.*

Under section 16 of the Act, the following factors must be considered in an EA conducted as a comprehensive study:

- The environmental effects (as defined above) of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out;
- The significance of the environmental effects;
- Comments from the public obtained in accordance with the Act;
- Measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project;
- The purpose of the project;
- Alternative means of carrying out the project that are technically and economically feasible and the environmental effects of any such alternatives;
- The need for, and the requirements of, any follow-up program in respect of the project; and,
- The capacity of renewable resources that are likely to be significantly affected by the project to meet the needs of the present and those of the future.

Under section 79 of the *Species at Risk Act*, the responsible authorities also must identify adverse effects of the project on listed species and their critical habitat or residences. The RAs must also ensure that measures are taken to avoid or lessen adverse effects and that effects are monitored. Mitigation measures must be consistent with recovery strategies and action plans for the species.

3.3 Scope of Factors

The following table describes the proposed scope of factors to be considered through the comprehensive study of the Project.

Table 1. Proposed Scope of Factors

Environmental Component	Scope of Review
Terrestrial and Aquatic Physical Environment	<ul style="list-style-type: none"> • Surface water quality and quantity • Ground water quality and quantity • Hydrology • Hydrogeology • Air quality • Climate and meteorology • Terrain, soils and geology • Natural hazards
Terrestrial and Aquatic Biological Environment	<ul style="list-style-type: none"> • Vegetation and plant communities • Wetlands • Wildlife and wildlife habitat • Ecologically sensitive or significant areas, species of conservation concern, including species at risk and their habitats • Freshwater aquatic environment (e.g. aquatic life, fish and fish habitat) • Migratory birds and their habitats
Human Environment (i.e. indirect effects resulting from a direct change in the environment)	<ul style="list-style-type: none"> • Current use of lands and resources for traditional purposes by Aboriginal persons • Navigation • Human health (e.g. noise, drinking water quality, country foods) • Physical and cultural heritage • Archaeological, historical, paleontological or structures/sites of archaeological significance

3.4 Additional Matters to be Considered

Spatial and Temporal Boundaries

The spatial boundary will be determined specific to each factor in order to effectively assess the potential environmental effects of the Project. Spatial boundaries are based on the zone of the Project's influence beyond which the effects of the Project are expected to be non-detectable. Multiple study area boundaries are to be employed to reflect the range of geographic areas and seasonal/annual fluctuations within which specific effects may be experienced.

The temporal boundaries will encompass the entire lifespan of the Project, which is the duration of use until it is deemed necessary to be decommissioned. The EA will discuss the effects of the Project on each factor beginning with the construction phase and throughout the operations phase, including maintenance and/or modifications, and through to the completion of the decommissioning phase. Potential malfunctions and accidents that could occur during any

project phase will also be considered, along with the likelihood and circumstances under which these events could occur.

Need for and Purpose of the Project

The EA will include a description of the need for and purpose of the Project. The “need for” a project is defined as the problem or opportunity that the project is intending to solve or satisfy. The “purpose of” a project is defined as what is to be achieved by carrying out the project. The “need for” and “purpose of” the Project will be established from the perspective of the proponent.

Alternatives to the Project

The EA will include a consideration of alternatives to the Project, which are functionally different ways considered by the proponent to meet the Project need and achieve the Project purpose.

Alternative Means of Carrying out the Project

The EA will include an analysis of the alternative means of carrying out the Project that are technically and economically feasible, and the environmental effects of any such alternative means. A rationale for the preferred alternative will be included.

Environmental Effects Analysis and Significance of Environmental Effects

The federal EA will include an evaluation of the nature and extent of the residual adverse environmental effects after applying mitigation and whether the adverse environmental effects are likely to be significant.

Mitigation Measures

Mitigation means, in respect of a project, the elimination, reduction or control of the adverse environmental effects. The EA will be used to identify mitigation measures that are technically and economically feasible and would mitigate identified adverse environmental effects arising from the Project.

Cumulative Environmental Effects

The evaluation of potential cumulative environmental effects will focus on the interaction between the residual environmental effects of the Project and the environmental effects of other past, present or reasonably foreseeable future projects or activities. The cumulative effects assessment will include, but not necessarily be limited to consideration of: existing industrial projects; other proposed developments; other land and resource use activities (forestry, hunting, trapping, fishing); and tourism and recreation activities.

Effects of the Environment on the Project

In addition to evaluating the effects of the Project on the environment, including cumulative environmental effects, changes to the Project that may arise as a result of the environment will also be considered. This analysis will include consideration of natural hazards such as: extreme weather events (lightning, extreme precipitation, flooding, wind, avalanches and icing); seismic events; fire; slope stability; and climate change. Proposed mitigation, including design strategies, will be considered in the evaluation of the effects of the environment on the Project and the determination of their significance.

Sustainability of Renewable Resources

The EA will include consideration of the capacity of renewable resources that are likely to be significantly affected by the Project to meet the needs of the present and those of the future.

Accidents and Malfunctions

The EA will include consideration of the potential accidents, malfunctions and unplanned events that could occur in any phase of the Project, the likelihood and circumstances under which these events could occur, and the environmental effects that may result from such events, should contingency plans not be fully effective.

Follow-up Program

The purpose of a follow-up program is to verify the accuracy of the EA and determine the effectiveness of mitigation measures. The EA will describe the follow-up program and its associated requirements.

Comments from the Public

Comments from the public that are received in accordance with the Act will be considered by the responsible authorities and the Minister of the Environment. A record of how comments have been considered and incorporated into the EA will be prepared.

4 Comprehensive Study Process Overview

Taking into consideration any public comments received on this document, the federal government will prepare the Environmental Impact Statement Guidelines to guide the proponent's preparation of an environmental impact statement (EIS). Following submission of the EIS, the Agency will prepare a CSR that documents the federal conclusions on the environmental effects of the Project. Upon completion, the CSR will be submitted to the Minister of the Environment. It will then be made available for public comment following which the Minister of the Environment will make his decision under section 23 of the Act.

The federal Minister of the Environment's decision will be based on an evaluation of the significance of environmental effects as presented in the CSR and any public comments submitted on that report. The Minister may request additional information or require that public concerns be further addressed before issuing the EA decision statement.

The EA decision statement sets out the Minister's opinion as to whether the Project is or is not likely to cause significant adverse environmental effects, taking into account the implementation of any mitigation measures and follow-up programs that the Minister considers appropriate. Once the Minister has issued the EA decision statement, the Project will be referred back to the responsible authorities (DFO and TC) for appropriate action, which may include issuing authorizations or provision of federal land in order for the Project to proceed.

5 Coordinated Environmental Assessment Process

The federal and provincial environmental assessments will be conducted in accordance with the terms of the *Canada-Manitoba Agreement on Environmental Assessment Cooperation* (2007).

Under this agreement, projects that require a review under both federal and provincial EA legislations will undergo a single, cooperative assessment, meeting the legal requirements of both governments while maintaining their respective existing roles and responsibilities. While every attempt is made to ensure there is a single EA process, it is important to keep in mind that each government will make project-related decisions on matters within its own legislative authority.

Additional information on the provincial environmental assessment requirements is available on the Manitoba Conservation – Environmental Assessment and Licensing Branch website: www.gov.mb.ca/conservation/eal/index.html.

6 Aboriginal Consultation

The federal Crown's duty to consult and, where appropriate, accommodate Aboriginal groups arises when it contemplates conduct that might adversely impact potential or established Aboriginal or Treaty rights.

Consultations that occur through the EA process will be used by the federal Crown to assist it in understanding Aboriginal groups' concerns and, as appropriate, in addressing those concerns.

The Agency is the federal Crown consultation coordinator for this EA, and as such, will work closely with federal authorities, Province of Manitoba officials, the proponent and potentially affected Aboriginal groups, to coordinate consultation activities as much as possible.

At this time, the following Aboriginal groups have been contacted with respect to the federal EA of the Keeyask Generation Project:

- War Lake First Nation*
- Fox Lake Cree Nation*
- Tataskweyak Cree Nation*
- York Factory First Nation*
- Cross Lake First Nation
- Norway House Cree Nation
- O-Pipon-Na-Piwin Cree Nation
- Nisichawayasihk Cree Nation
- Manitoba Métis (through the Manitoba Metis Federation)

* Tataskweyak Cree Nation, War Lake First Nation, Fox Lake Cree Nation and York Factory First Nation are known as the Keeyask Cree Nation partners (KCN partners). Together with Manitoba Hydro, the KCN partners form the proponent group known as the Keeyask Hydropower Limited Partnership that is proposing the Project.

7 Public Participation

Public participation is a key component of the EA process. Public comments will be sought on this document, the findings of the Environmental Impact Statement, and the CSR. Funding to support the participation of the public in the EA review process is made available through the

Participant Funding Program. Notices of public comment opportunities will be posted on the Canadian Environmental Assessment Registry (CEAR) at <http://www.ceaa-acee.gc.ca>.

7.1 Canadian Environmental Assessment Registry

Pursuant to section 55 of the Act, the CEAR has been established to provide notice of the EA and to facilitate public access to records related to the EA. The CEAR consists of a project file and an internet site. The internet component of the CEAR can be accessed at www.ceaa-acee.gc.ca under reference number 11-03-64144.

7.2 Participant Funding

The Government of Canada, through the Agency, will provide participant funding to successful applicants to assist groups and individuals to take part in the EA. Information on the participant funding program, including the Participant Funding Program Guide and the application form are available at www.ceaa-acee.gc.ca. To receive funding, successful applicants must participate in the EA by reviewing and commenting on documents, preparing technical analyses, attending meetings or contributing by other means.

Notices regarding the availability of participant funding will be posted on the CEAR internet site at www.ceaa.gc.ca under reference number 11-03-64144.

7.3 Public comments at this time

At this time, the Agency is in the early stages of identifying the potential environmental effects of the Project that should be examined during the detailed technical stages of the EA. The Agency is seeking comments from the public to ensure that the potential effects that might result from the Project are identified for consideration as part of the assessment process.

Persons wishing to submit comments may do so in writing to the Agency. Comments must be received by close of business day January 31, 2012.

Comments should be sent to:

Keeyask Generation Project
Canadian Environmental Assessment Agency
Suite 101, 167 Lombard Avenue
Winnipeg, MB R3B 0T6
Tel.: 204-983-7997
Fax: 204-983-7174
Email: KeeyaskGeneration@ceaa-acee.gc.ca

Please be as detailed as possible and clearly reference the Keeyask Generation Project and the Canadian Environmental Assessment Registry (CEAR) file number 11-03-64144 on your submission. Please note that all comments received are considered public and will become part of the public registry.