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2014 05 27

Environmental Assessment & Licensing Branch
Manitoba Conservation and Water Stewardship
Suite 160 - 123 Main Street
Winnipeg MB R3C 1A3

Attention: Ms. Tracey Braun

Dear Ms. Braun:

Re: Letter of Confirmation for Regional Cumulative Effects Assessment

By way of this letter, both Manitoba and Manitoba Hydro confirm that they are in agreement with the attached final Terms of Reference to conduct a Regional Cumulative Effects Assessment (RCEA) of hydro-electric developments that includes the Nelson, Burntwood, and Churchill River systems, as defined below and in the Terms of Reference.

The RCEA is being conducted in two phases and is designed to address Recommendation 13.2 of the Clean Environment Commission Report on Public Hearing for the Bipole III Project. In his letter of August 14, 2013, the Minister of Conservation and Water Stewardship specifically committed to implementing this recommendation, which states:

"Manitoba Hydro, in cooperation with the Manitoba Government, conduct a Regional Cumulative Effects Assessment for all Manitoba Hydro projects and associated infrastructure in the Nelson River sub-watershed; and that this be undertaken prior to the licensing of any additional projects in the Nelson River sub-watershed after the Bipole III project."

It is planned that the final RCEA report will be available in late fall 2015. It will be retrospective in nature and will:

- identify, describe and acknowledge the cumulative effects of past Hydro developments;
- describe the current state of the environment in areas affected by Manitoba Hydro's system; and,
- describe a process for continued monitoring of and reporting on the state of the environment into the future.

The final RCEA report will be based on a review and synthesis of past and ongoing studies and monitoring programs, and will include both technical science and Aboriginal Traditional Knowledge to the extent that each is available.

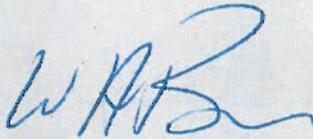
Ms. T. Braun

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It is intended that an interim product will be available in late May 2014 to demonstrate progress towards the overall RCEA and to provide an early identification of the studies and information being gathered to undertake the final RCEA, and the methods to be employed for the assessment.

Manitoba and Manitoba Hydro are further committed to implementing an appropriate public engagement process. This engagement process will be determined following submission of the interim report and will include opportunities for Aboriginal and other communities in the Region of Interest, as well as other interested parties, to provide their perspectives on the cumulative effects of hydroelectric development in the Region of Interest.

Confirmed this day of May, 2014:



Manitoba Hydro

Per: *William Brown*
Manager, Environmental Licensing and Protection

Confirmed this *27* day of May, 2014:

Original Signed by:
Tracey Braun, M.Sc.
Director,
Environmental Approvals Branch
Conservation and Water Stewardship

Government of Manitoba

Per: *Director*
Environmental Approval
Conservation and Water Stewardship

Terms of Reference
Joint Approach to Undertaking a Regional Cumulative Effects Assessment for Hydro
Developments as per Recommendation 13.2 of the Clean Environment Commission
(CEC) Bipole III Report
Manitoba Conservation and Water Stewardship and Manitoba Hydro

Background

The 2013 Clean Environment Commission (CEC) Bipole III Report included a list of non-licensing recommendations to be carried out jointly by Manitoba Hydro (MH) and the provincial government. On behalf of government, the Minister of Conservation and Water Stewardship (CWS) committed to implementing these recommendations.

These Terms of Reference provide a proposed approach to addressing one of the CEC's non-licensing recommendations, specifically number 13.2, which states:

“Manitoba Hydro, in cooperation with the Manitoba Government, conduct a Regional Cumulative Effects Assessment for all Manitoba Hydro projects and associated infrastructure in the Nelson River sub-watershed; and that this be undertaken prior to the licensing of any additional projects in the Nelson River sub-watershed after the Bipole III project.”

The CEC report details the rationale for this recommendation. In short, during the Bipole III hearings, some communities expressed concerns regarding effects they have experienced, and continue to experience, as a result of existing MH projects. The CEC noted that “...it became apparent that past hydro-electric developments in northern Manitoba have had a profound impact on communities in the area of these projects, as well as on the environment upstream and downstream.” Similar concerns were identified in the CEC's 2004 “Wuskwatim Generation and Transmission Projects” hearing report.

On October 17, 2013, the CEC heard motions from participants in the Keeyask CEC process who were requesting that the Keeyask Generation Project hearing be delayed until the recommended regional cumulative effects assessment is complete. As part of this motions hearing, the CEC noted the volume of study that has been completed to date by Manitoba Hydro in the Nelson River region and suggested that Recommendation 13.2 could readily be satisfied by pulling together and analyzing this information, rather than undertaking new field work or seeking new information.

Consistent with the Recommendation 13.2 and comments made by the CEC on October 17, 2013, these terms of reference will:

- identify the challenges ahead in making such an assessment decades after the developments have occurred;
- identify the scope of the study to address recommendation 13.2;

- describe the approach to be used to address the challenges while still meeting the intent of the recommendation;
- outline the work tasks to be done, who will have the accountability for each task and the timelines for completion;
- describe the desired end product; and,
- set out how the process will be managed between the Manitoba government and MH.

Challenges and Scope

Manitoba Hydro's major northern developments include the Churchill River Diversion (1976), Lake Winnipeg Regulation (1976), Kelsey Generating Station (G.S.) (1961), Kettle G.S. (1974), Long Spruce G.S. (1979) Limestone G.S. (1992) and Bipole I and II (1971 and 1978). These developments were assessed, designed, and constructed to meet the environmental assessment (EA) requirements of the time. Over the many ensuing years, EA practices and assessment procedures have evolved to where they are today.

The key differences between past and current EA practices are: the analysis of whole ecosystems; cumulative effects/impacts assessment; and, the collection of pre-development data that would be used to provide the context from which to measure future environmental impacts. As a result, establishing a pre-development condition from which to evaluate cumulative impacts will be a challenge in addressing the CEC's recommendation. This is not uncommon in cases where areas were developed many decades past.

In addition to assessing cumulative impacts over time, the CEC's recommendation refers to assessing these impacts over space, i.e., regionally. Regional cumulative assessments are typically used as a government's tool to facilitate broad, long-term planning decisions regarding a range of development options for a prescribed area or basin. In the case of the Nelson River sub-watershed, such planning decisions were made over forty (40) years ago and any impacts that may have resulted are largely irreversible at this point in time and/or the environment has now adapted.

Notwithstanding these challenges, the Manitoba government and MH will provide the best information possible to satisfy the objectives of the CEC's Bipole III recommendation 13.2. Also in terms of scope, it is proposed to include areas beyond that identified in the CEC recommendation to include the Churchill, Burntwood and Nelson river systems.

Work Steps, Approach to the Study and Accountability

Given the above, Manitoba and Manitoba Hydro believe that the best option to address Recommendation 13.2 is the development of a plain language "Regional Cumulative Effects Assessment for Hydro Developments on the Churchill, Burntwood and Nelson River Systems" that describes environmental change over time as a result of previous hydro development, including impacts, mitigation measures, community issues, compensation and the current quality of the environment. The report will be based on a review and synthesis of past and ongoing studies and monitoring programs. The proposed region of study is greater than that identified in the CEC report.

Specifically, the final report would:

- identify, describe, and acknowledge the cumulative impacts of past Hydro developments;
- describe the current state of the environment in areas affected by Manitoba Hydro's system; and,
- describe a process for continued monitoring of and reporting on the state of the environment into the future.

The report would use and incorporate, to the extent possible, attributes of contemporary environmental effects assessment and post-project assessment methodology. This type of assessment would be very similar to the approach taken from the documents currently being prepared by Manitoba Hydro at the CEC's request for the review of the application for finalization of the *Water Power Act* licence for Lake Winnipeg Regulation.

Phase One

The first phase will be to develop a plain language report entitled "A Response to Recommendation 13.2 – Phase 1: A Summary of Environmental Results" that summarizes and describes what is known about the environment in areas affected by hydroelectric developments that are associated with the lake Winnipeg Regulation and Churchill River Diversion areas. Using text and matrices, it would include:

- A description of all projects/facilities and key points such as area flooded, area of land affected, etc.
- A discussion of the history of Settlement Agreements.
- The preparation of a bibliography of all existing information on the environmental effects associated with hydro development in the Nelson River basin area including effects associated with CRD, LWR, Kelsey, Kettle, Long Spruce, Limestone, Radisson, Heday, Bipole I and II and other transmission components, and all related infrastructure such as water control structures and roads.
- A compilation, synthesis and summary of this information in text format and in matrices. This will essentially provide an organized (by topic and region) summary of all available environmental effects from existing studies.
- A summary of current monitoring information collected since 2008 by Manitoba and Manitoba Hydro's Coordinated Aquatic Monitoring Program (CAMP) and the long term monitoring program associated with Bipole III.
- Development of metrics, where feasible, of ecosystem health (by Manitoba) to enhance the assessment of information and data during Phase II and based on jointly agreed to regional study components.
- Preparation and submission of an interim report.
- Manitoba and Manitoba Hydro will work together to collect, summarize and document what has been learned through past and current consultation and Aboriginal Traditional Knowledge processes.

The consolidation, organization and synthesis of the vast amount of information and data that have been collected over the last several decades will provide the foundation for assessing the current quality of the environment in areas affected by hydroelectric developments associated with the Lake Winnipeg Regulation and Churchill River Diversion areas – primarily the Churchill, Burntwood and Nelson River systems.

To the extent possible, attributes of contemporary environmental effects assessment and post-project assessment methodology will be used which will be consistent with the approach currently being requested by the CEC for the review of the application for the finalization of the *Water Power Act* Licence for the Lake Winnipeg Regulation.

Accountability for the preparation of the Phase I report will be with MH; but Manitoba will participate jointly in collecting, summarizing and documenting what has been learned through past and current consultation and Aboriginal Traditional Knowledge processes. The Phase I “*Summary of Knowledge Acquired: Phase I of a Regional Cumulative Effects Assessment for Hydro Developments on the Churchill, Burntwood and Nelson River Systems*” will be completed by May 31, 2014 and submitted to the Minister of CWS on behalf of the Manitoba government. The initial Phase I report will provide the basis for the Phase II work.

Upon receipt of the Phase I report from MH, CWS will facilitate an internal review by departmental experts who will be expected to provide technical expertise and recommendations for the assessment. It is expected that Manitoba government will provide input where appropriate to be considered for the enhancement of the Phase II report and will communicate this to MH in a consultative and collaborative manner throughout the summer and fall of 2014.

Phase II

Phase II would include an assessment of the environmental effects of hydro development based on all available existing information, and utilizing to the degree possible the attributes of methodologies for environmental effects assessment and post-project assessment. This assessment would be undertaken by MH and would include:

- Pathways-of-effects diagrams to provide a visual representation of the possible linkages between the projects and the environment.
- An assessment (to the extent possible) of the environmental and socio-economic effects to identified regional study components of previous Hydro development (based on available information and, wherever possible, based on pre-hydro development information);
- A determination of the current quality of the environment in areas affected by Hydro development based on more current monitoring and assessment data and in consideration of available thresholds and benchmarks, as well as conditions in off-system areas, where applicable;
- The identification of gaps in information; and,
- Preparation of an Environmental Assessment and State of Knowledge Report.

The report prepared at the end of Phase II by Manitoba Hydro entitled "*Regional Cumulative Effects Assessment for Hydro Developments on the Churchill, Burntwood and Nelson River Systems: Final Report*" is to be provided to Manitoba in October, 2015, and submitted to the Minister of CWS on behalf of the Manitoba government. Upon receipt of the Phase II report from MH, as with the Phase I report, CWS will facilitate an internal review by departmental experts who will be expected to provide technical expertise and recommendations prior to finalizing the report.

Early in Phase II, Manitoba and Manitoba Hydro will also determine the exact nature and design of any appropriate public engagement processes. Once determined, Manitoba Hydro will provide the funding required to undertake the agreed to public engagement process.

Beyond Phase 2

CWS and MH will continue long term monitoring efforts managed under the Coordinated Aquatic Monitoring Program (CAMP) and the Bipole III monitoring and reporting programs to ensure that the environment is sustainably managed and protected well into the future.

Desired End Product

The desired end product will be a final report that addresses the intent of the CEC's Bipole III hearing report Recommendation 13.2, but that also provides a consolidated, vast, and comprehensive collection of environmental data and community knowledge about the region. It is fully intended that the report will be a resource for government and all Manitobans on the state of the environment in this resource and heritage-rich part of the province.

Process for Collaboration

The CEC recommended that the assessment be done in cooperation between MH and the Manitoba government. Although the major portion of report preparation will be the responsibility of MH, CWS, on behalf of the Manitoba government, will facilitate regular and ongoing input from internal experts as needed throughout each phase of the study (e.g., wildlife, fisheries, Heritage resources, forestry, etc.) and will contribute available information from its records to complete the study.

It is anticipated that a small project management team consisting of representation of both MH and CWS will be established and will meet on a regular basis to check milestones, schedules, and to discuss/resolve issues that may arise. The management team will be co-chaired by MH and CWS.

The management team, through their CWS members, shall request issue-specific technical meetings be held as needed with representatives from the relevant program areas to discuss findings, review technical options, interpret monitoring data, and discuss analyses and recommendations and seek government support/direction as necessary. As mentioned above, CWS will formally facilitate an internal review of both the Phase I and Phase II reports.

Timeline

The total length of the study is anticipated to be from January 2014 through October 2015. Work going beyond the submission of the final Phase II report can be determined outside of these Terms of Reference. An estimated summary of the timelines is provided below. It is possible that these dates may change based on the outcomes of Phase I and implementation experience during the course of Phase 2.

TASK	ACCOUNTABILITY	BY WHEN
Finalize Terms of Reference	MH and CWS	Jan. 24, 2014
Submit Phase I report to CWS	MH	May 31, 2014
Facilitate TAC review of Phase I report	CWS	Jul. 31, 2014
Project progress/management meetings	CWS and MH	Ongoing (monthly)
TAC meetings	CWS and MH	As needed
Public Engagement	TBD	TBD
Submit Phase II report to CWS	MH	Oct. 31, 2015
Facilitate TAC review of Phase II report	CWS	Nov. 30, 2015
Finalize Phase II report		Dec. 31, 2015

May 2014