



Fisheries and Oceans
Canada

Pêches et Océans
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Our file Notre référence

12 July 2013

Mr. Ken Adams
President
Keeyask Hydropower Limited Partnership
360 Portage Avenue
Winnipeg, Manitoba
R3C 0G8

Re: Fish Passage, Keeyask Generating Station Project

Dear Mr. Adams:

Fisheries and Oceans Canada (DFO), Manitoba Hydro, representing the Keeyask Hydropower Limited Partnership (KHLP), and Manitoba Conservation and Water Stewardship (MCWS) staff have met to define the best approach to addressing fish passage issues at the proposed Keeyask Generating station over a period reaching back to 2011. This letter documents the results of those efforts by confirming the agreed upon mitigation for the issues related to fish passage for the project.

One of the first and most critical elements to the establishment of mitigation for this project was the definition of Fisheries Management Objectives for the area of the proposed project. In October 2012, Manitoba Conservation and Stewardship presented DFO and Manitoba Hydro, on behalf of the KHLP, with the Manitoba Fisheries Branch Fisheries Management Objectives for the Keeyask Dam/Gull Lake Area (Attachment 1). DFO has reviewed both the objectives and the mechanisms that support the Fisheries Management Objectives, included in the above document.

There has been considerable discussion regarding fish passage, which is one of the mechanisms that support Manitoba's fisheries management objectives. For ease of understanding, the discussion surrounding fish passage at the project site is divided within this letter into two components, upstream and downstream passage. .

Upstream Fish Passage

In review of the documents for the Keeyask Generating station and in consultation with both Manitoba Hydro, on behalf of the KHLP, and Manitoba Fisheries Branch specialists, DFO has determined that there is insufficient data at this time to conclude that there is or is not significant upstream movement of fish past the site of the proposed Keeyask generating station. It is most probable that there is movement of lake sturgeon, walleye and whitefish, among other species, in an upstream direction. However, the magnitude, timing and importance of the fish movements to a sustainable fishery have not been adequately defined for this site. Furthermore, it is recognised that this knowledge is difficult and dangerous to obtain in the conditions at the proposed site.

All parties acknowledge that fish passage facilities are site specific, technically challenging and, at times, very expensive. Combined with incomplete current knowledge of fish movement at the site, it is premature to warrant installation of a long term upstream fish passage facility. However, DFO in discussions with Manitoba Hydro, on behalf of the KHLP, and MCWS has concluded that the following will be considered when determining authorization of impacts pursuant to the *Fisheries Act*:

- 1) The probable movement of lake sturgeon, walleye and whitefish, among other species, at the proposed project site should be considered as important to the lifecycle and ongoing productivity of these fishes, in the absence of site-specific data to the contrary.
- 2) The analysis of upstream fish movement, based on currently available, multiyear data, in addition to data collected prior to construction.
- 3) The opportunity for Manitoba Hydro, on behalf of the KHLP, for additional data collection in support of the project's Aquatic Effects Monitoring Program, to support MCWS Fisheries Management Objectives, and agreed to by MCWS and DFO. This program would determine the role of fish movement and the ability of habitat to support all life history requirements of fish such that productivity is maintained.
- 4) The results of these data and their role in the project's Aquatic Effects Monitoring Program would be reported to DFO and the MCWS each year. Based on these results, additional studies may be required. The requirement for fish passage facilities will be determined by DFO, in consultation with MCWS, based on the results of monitoring, established fisheries management objectives and support for ongoing fisheries productivity. In the event that DFO, in consultation with the MCWS, determines that all fish management objectives can be met and ongoing productivity can be supported without the installation of fish passage facilities, DFO will not require the installation of these facilities as part of the proposed development. Dependent on the long term sustainability of the fishery, as determined by regulators with input from local communities, installation of fish passage facilities may be required at a future date.

5) The requirement for the Manitoba Hydro, on behalf of the KHLP to include in its planning and construction design, those fish passage facility elements necessary to allow for economically and technically feasible retrofits to occur. Planning would include siting of future fish passage facilities. Manitoba Hydro, on behalf of the KHLP has undertaken an examination of fish passage options and has indicated that there are technically and economically feasible retrofit options.

Downstream Fish Passage

The ability for downstream fish passage to occur only through the turbines has implications for fisheries productivity due to changing access to habitats and increased mortality from impingement and entrainment of fish. Based on discussions with Manitoba Hydro, on behalf of the KHLP, DFO has determined that additional fish exclusion, beyond that provided for by trashracks with appropriate bar spacing at the turbine intake, to prevent fish from being entrained through the generating station may not be warranted at this time. As there is some uncertainty as to the potential magnitude of the death of fish moving through the new Keeyask generating station, considerations for authorization of impacts pursuant to the *Fisheries Act* would include the following:

- 1) The opportunity for the Manitoba Hydro, on behalf of the KHLP, to monitor fish movement through the generating station to determine the timing and magnitude of fish mortality by species.
- 2) The status of lake sturgeon in this reach of the Nelson River currently assessed by COSEWIC as “endangered”, and the need to consider specific measures to mitigate impacts on the species and their habitats.
- 3) The development of an adaptive management program by Manitoba Hydro, on behalf of the KHLP, in consultation with DFO and MCWS that seeks to minimize the impacts to fish. Based on the results of monitoring, the need for further downstream fish passage or additional fish exclusion measures will be determined by DFO in consultation with MCWS and community stakeholders. In the event that a scientifically defensible monitoring program demonstrates all Fisheries Management Objectives can be met and sustainability and ongoing productivity of fisheries can be supported without the installation of additional downstream fish passage works or modifications to the generating station complex, DFO will not require these changes.

Should you have any questions or comments, please do not hesitate to contact Julie Dahl (DFO) by phone 204-983-5164, or by email Julie.Dahl@dfo-mpo.gc.ca at your convenience to discuss the proposed project.

Yours sincerely,



Dale Nicholson
Regional Director, Ecosystems Management
Central and Arctic Region
Fisheries and Oceans Canada

Copy: Brian Parker, Manitoba Conservation and Water Stewardship