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14 December 2012

Karen McGhee
Project Manager
Horizon Hydro Operations Ltd.
2300 Yonge Street, Suite 801
PO Box 2300
Toronto, ON M4P 1E4
Email: troutlakeinfo@m-k-e.ca

Dear Ms. McGhee:

**Re: Trout Lake River Hydroelectric Proposal
Comments on Notice of Inspection of the Environmental Report**

Ontario Rivers Alliance (ORA) is a Not-for-Profit grassroots organization with a focus on healthy river ecosystems all across Ontario. ORA members represent numerous organizations such as the French River Delta Association, CPAWS-Ottawa Valley, Friends of Temagami, Paddle Canada, Whitewater Ontario, Vermilion River Stewardship, Mississippi Mills Riverwatchers, along with many other stewardships, associations, and private and First Nations citizens, who have come together to support healthy river ecosystems in Ontario and to ensure that development affecting Ontario rivers is environmentally, ecologically and socially sustainable.

ORA wishes to thank you for this opportunity to comment on the draft Environmental Report (ER) for the Trout Lake River Hydroelectric Project, proposed to be located at Big Falls on the Trout Lake River. ORA has reviewed the draft ER, and offer the following comments:

1. Notice of Inspection – Not Notified

ORA registered as a stakeholder on 15 October 2012, 2 weeks before the Notice of Inspection and Environmental Report were submitted for comment, and yet ORA was not notified by Horizon Hydro Operations Ltd. (Horizon) of their release. It was only by a stroke of luck that ORA discovered its release. Although ORA was provided with an extension to submit our comments until 14 December, it has been difficult to respond given such a busy time of year.

Recommendation 1:

In future, Horizon should use a read receipt when notifying the public and stakeholders by email, and maintain a current and accurate mailing list. Timely and efficient notification to stakeholders is paramount to a fair and democratic process.

2. Documentation – A Need for a Clear and Transparent Process Section 3 – Public, Agency and Aboriginal Consultation

This section sets out consultation summaries for the public, agency and aboriginal consultation; however, there is no clear, transparent and traceable means to verify the accuracy and coverage of concerns set out in the summary, as not all supporting documentation was contained in the Appendices to back it up. For instance:

- AppC1 contained no correspondence from public and stakeholders after 2009.
- AppC2 contained no agency minutes, correspondence is non-existent after September 2011, and documentation is not complete when correspondence is referred to but does not appear in the Appendix. A Horizon PowerPoint presentation regarding an Agency meeting held on 20 October 2011 was included; however, there were no associated minutes to know the reactions, concerns and questions expressed by agencies.
 - No documents at all for the year 2012 were contained in this document.
- AppC3 & C4 – no correspondence, only presentations by Horizon.
- App C5 – presentations by Horizon – only 1 letter from Asubpeeschoseewagong Netum Anishinabek, dated 29 June 2012, requesting an opportunity to discuss the prospect of a partnership.
- AppC6 – again only one letter from Hatch to McGhee, dated 19 July 2011.

We notified you of the lack of supporting documentation contained in the Appendices, and made a special request by email on 5 December 2012 for correspondence and minutes of Agency meetings. You responded indicating you would look to see if there were any finalized minutes; but unfortunately today is the deadline, and no minutes were forwarded, nor any message to inform us that you would not be providing them.

If this is a strong environmentally and socially sustainable project, and the proponent wants to ensure transparency and a clear path to how decisions were made, then there should no problem in providing all the consultation background documentation to support how mitigation measures have or have not been addressed to satisfy concerns.

Recommendation 2:

All supporting documentation for public, agency and first nation consultation, including correspondence, concerns, and proponent responses, must be contained in the Environmental Report to help stakeholders better understand the concerns, and ensure Horizon has addressed those concerns through the final project design and operation plan.

Recommendation 3:

In future all requests for information are addressed and responded to in a timely manner.

3. 4.2.5.4 - Mercury in Fish Flesh

It was noted that there are no projections of methylmercury production or bioaccumulation of mercury post-inundation, and thus the potential impact of human exposure to mercury in fish has not been properly assessed. Since this proposal involves a headpond that inundates a wetland area, and mercury levels in fish tissue above the proposed dam location are elevated, and carry consumption restrictions, it is imperative that a mercury projection study be performed. For example, a University of Toronto study reports on reservoirs in Quebec, constructed on La Grande River,

comparing mercury levels in fish for pre-impoundment with post-impoundment conditions. "At all sites, mercury was consistently higher in pike and walleye." "After impoundment, mercury in fish increased: for example walleye year 2 (2x) and year 4 (3.5x), and for whitefish in year 2 (3x) and in year 4 (5.5x)."¹

Recommendation 4:

ORA submits that whenever head ponds are proposed for any hydroelectric proposal, no matter the size, it is important to make the maximum amount of information and studies available to assess potential impacts that could pose a threat to public health and safety.

Recommendation 5:

Provide a quantitative analysis and projected post-construction estimate of increased mercury levels in fish tissue to understand the potential impacts on fish and human health as a result of the new reservoir.

Recommendation 6:

A socio-economic impact study be undertaken to understand the potential impacts and net costs, both short-term and long-term, to potentially affected stakeholders who rely on fishing as an economic driver, and for First Nations who rely on fish as a main staple in their diets.

4. Mercury in Drinking Water

There is a lack of detailed information concerning expected increase of mercury in drinking water as a result of newly inundated head pond, as well as its resulting implications on human health and safety.

Recommendation 7:

Provide a quantitative analysis and projected post-construction estimate of mercury levels in water to understand potential impacts on human health as a result of the new reservoir.

5. 4.1.8.1 – Fish Community Studies

It appears that fish species utilizing the study area of the dam would be negatively impacted, both during construction and post-construction. The study indicates the catch was dominated by YOY upstream from the proposed dam and adults in the large wetland upstream near the mid-point of the proposed head pond. The proposed head-pond area immediately upstream from the proposed dam was the only sampling location in which walleye and white sucker YOY were captured. This nursery site and habitat for several fish species will be destroyed during construction, and after construction the headpond has the potential to make it unsuitable for nursery habitat, expose young fish to predation, and populations could eventually decline. This wetland is also thought to be a spawning site for Northern Pike and perhaps walleye.

The ER reports that new habitat within the head pond will be primarily lacustrine-like environment with slow flow velocities with a larger proportion of deep water areas and no high velocity rapids. Long-term changes include loss of fast water habitat within the

¹ Bioaccumulation of Mercury by Aquatic Biota in Hydroelectric Reservoirs: A Review and Consideration of Mechanisms, by PM Stokes and CD Wren, UofT, P265, 2nd paragraph

upper 1000m of the head pond, and the alteration of benthic invertebrate and spawning habit for walleye and white sucker. It is indicated that vegetation will change and may well affect larger fish, and that the area to be flooded will be offset by new growth along the shoreline of the new impoundment.

ORA questions whether the new vegetation will be suitable for YOY and would provide sufficient cover for larger fish. Also, how long before vegetation is suitable for pike spawning? Mitigation measures indicate that fish habitat mitigation and compensation measures will be developed, however, there needs to be more detail.

Recommendation 8:

The Environmental Report must include detailed mitigation and compensation measures for habitat and nursery replacement.

Recommendation 9:

Turbines that harm as few fish as possible, and fish passage, must be incorporated into project design to reduce fish mortality, and to allow fish to migrate freely for spawning.

8. Dam Decommissioning

Ontario is littered with old and derelict hydroelectric dams that are no longer in use, along with access roads, transmission lines and poles, and that must be monitored and maintained (at a cost, usually to the taxpayer), and ultimately removed for safety and/or ecological reasons. This all takes dollars that taxpayers should not have to pay. Developers reap the rewards for at least the 40 year life cycle of their contract, and a portion of these funds must be secured for dam decommissioning.

If the FIT Program were to be terminated, profits reduced, or costly repairs were needed due to damage caused by ice or flooding, or if climate change reduced the amount of water available for energy production, the payback from these small rivers could make this facility unprofitable. This could result in bankruptcy and/or abandonment. There is no commitment in this ER for setting provisions aside to decommission the facility and its infrastructure if events such as the foregoing should occur. Provisions for dam decommissioning are essential.

Recommendation 10:

Up-front decommissioning provisions must be included in all new hydroelectric proposals in the event this facility is no longer socially, environmentally or economically sustainable.

ORA looks forward to our recommendations being reflected in the final ER.

Respectfully,



Linda Heron
Chair, Ontario Rivers Alliance

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