

November 24, 2014

The Honourable Tony Clement, MP for Parry Sound – Muskoka
President, Treasury Board of Canada
169 Manitoba Street
Bracebridge, ON P1L 1S3
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Dear Minister Clement:

Re: Proposed Hydro-electric Generating Station at the Bala Falls

I am writing to request your assistance in facilitating a meeting with senior Transport Canada officials to discuss concerns I have regarding their June 25, 2014 approval of the work for the proposed hydro-electric generating station at the Bala falls.

These concerns include the following:

- 1) The alternate portage routes suggested are not safe or are not on public land.
- 2) The water velocity at upstream and downstream docks will often be dangerously fast during the summer.
- 3) There would be more than one in four chance of flooding Lake Muskoka during construction.

Additional detail follows.

1) Alternate portage routes suggested are not safe or are not on public land

As the proponent's proposed generating station would obstruct the historic Bala Portage (which even the proponent's own study confirms has always been south of the Bala north falls), the proponent has suggested two alternate portage routes. However these are not acceptable, as follows:

- a) Portage Route #1 (from the Town Docks on Lake Muskoka to Portage Street to the Town Docks on the Moon River).
 - This route travels over private property, over which there is no formal permission to trespass.
 - It also requires crossing Muskoka Road 169 just south of a curve in the road which obstructs the view of vehicles approaching from the north, so this area is a very dangerous location to cross.
- b) Portage Route #2 (from the Mill Stream generating station headpond, to River Street, to the Moon River boat launch).
 - This route requires canoeing on the Mill Stream under the Muskoka Road 169 bridge. As the width of the Mill Stream narrows substantially under this bridge, the water speed suddenly increases to more than double the 0.5 m/s maximum water speed target for manoeuvring suggested by Transport Canada.
 - As an example of this concern, staff at Camp Pine Crest have reportedly determined this portage route is therefore too dangerous for their canoe trips through Bala.

We note that the proponent submitted a report by David Humphrys in support of these portage routes. However, Mr. Humphrys:

- a) Was not informed of the land ownership and property boundaries, so would not have known that his suggested Portage Route #1 requires trespassing.
- b) Apparently did not actually canoe and portage in Bala, so he would not have known about the fast current in the Mill Stream under the bridge (or perhaps the generating station was not operating at the time).

More concerns were detailed in an August 12, 2014 letter I sent to Kelly Thompson at Transport Canada.

2) Water velocity at docks will often be dangerously fast during the summer

- a) Using historical daily flow data shows that the proposed generating station would operate at **full capacity an average of 21 days each summer** (details at <http://savethebalafalls.com/?p=4687>). So the proponent's upstream and downstream flow simulations for flows of 98 m³/s are the appropriate ones to reference, and these show unacceptably-high surface water velocities of double and even triple the target of 0.5 m/s at several locations near or in the path to/from both public and private docks.

This is a significant concern as these areas and docks are frequently used by children in canoes and by other less-experienced people in small boats.

- b) When considering safety issues, the proponent's use of monthly average flows (such as they provided in Tables 1 through 3 in Appendix E of their Addendum) is not appropriate just as claiming a tornado-prone area is safe because the monthly average wind speed is low. Safety must be assessed using the **daily flows**, not monthly averages.

Additional detail has been provided in a February 7, 2014 letter I sent to Suzanne Shea at Transport Canada.

3) More than one in four chance of flooding Lake Muskoka in June through March

- a) The proponent's construction plans require an upstream cofferdam entirely blocking-off the Bala north channel from June 1 to March 31. They either again make the mistake of using monthly average flow data, or perhaps they only considered dates between July 15 and October 15 to check whether the Bala south channel's capacity of 252 m³/s would be exceeded.

In any case, the proponent has not adequately considered the risk of flooding Lake Muskoka. For example, the table below shows that using daily flow data from Environment Canada's *Water Survey of Canada* for the years 1966 through 2010, the flow through Bala exceeded 252 m³/s on the following days between the dates of June 1 and March 31.

	Year	First day	Last day	Number of days
1	1966	November 30	December 20	21
2	1967	November 3	November 16	14
3	1973	March 16	March 27	12
4	1981	September 7	September 18	12
5	1982	December 7	December 13	7
6	1984	May 30	June 1	3

7	1985	January 1	January 7	7
8	1992	November 17	December 2	16
9	1995	November 17	November 19	3
10	2003	November 19	December 1	13
11	2008	January 11	January 22	12
12	2010	December 2	December 9	8
	Total			128

Ranges of dates from 1966 to 2010 when flow through Bala exceeded 252 m³/s, between June 1 and March 31

- b) This table shows that in the 45 years analysed, the flow through Bala exceeded the capacity of the south channel:
- In 12 of those 45 years. So more than $(12/45 =)$ 26% of the years had an extreme flow event which could not be handled solely by the Bala south channel. This is more than a one in four chance of flooding Lake Muskoka and the proposed construction site.
 - For a total of 128 days. This is an average of more than two days of flooding **every year**.
- Note that the above is flooding **during the “non-spring freshet” time** during which the Bala north channel would be blocked off for construction. That is, **significant extreme flow events are not only during the spring**, and the proponent’s plans present too high a risk of flooding both Lake Muskoka and the construction site.
- c) The proponent claims that “Should an extreme event occur, the construction site will be partially demobilized and machinery will excavate the upstream rockfill in order to let the required flow pass”. This impractical and would not be safe, as:
- At least during construction Stage #4, when the intake canal and the powerhouse would be excavated and the intermediate cofferdam is not yet constructed, it would allow **uncontrolled flow to bypass the Bala north dam**. This would be a disaster.
 - Such extreme flow events:
 - Would be too dangerous for construction workers to be working near the water. And it would be especially too dangerous to remove a temporary cofferdam that may already be stressed past its design capacity.
 - Could occur on a weekend or holiday when construction workers with the required skills are not on-site or are not immediately available.
 - Could occur when the required machinery is not on-site – different construction stages require different equipment, and the required equipment may not be immediately available.
 - The Bala north dam would need to first be inspected to ensure it has not been damaged by earlier blasting, excavation, and other construction work. So the dam may not always be ready to handle the force of an extreme flow event.
 - Removal of a cofferdam must be done properly to keep fine sediments from contaminating the sensitive downstream fish habitat. This applies to both the upstream and downstream cofferdams, and to the downstream access ramp required for construction Stage #8. Proper cofferdam or access ramp removal could not be done during an extreme flow event.

Conclusion

I request a meeting to be sure these issues are fully understood and properly discussed. I can meet anywhere convenient for the appropriate and responsible staff. Please let me know if there is any additional information I may provide in advance of this.

Sincerely,

A handwritten signature in cursive script that reads "Mitchell Shnier".

Mitchell Shnier, on behalf of SaveTheBalaFalls.com

Cc: The Honourable Lisa Raitt, Minister of Transport, Lisa.Raitt@parl.gc.ca

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