

February 7, 2014

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Dear Ms Shea:

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

#### **Summary**

As nobody would want the subject proposed project to be constructed and then found to be too dangerous to operate, please reply with how the public can be assured the marine safety issues will be addressed before any construction work begins.

#### **Detail**

I understand from your December 2, 2013 e-mail that the proponent for the proposed hydro-electric generating station at the Bala Falls had not yet submitted an application for Approval. However, in reading Transport Canada's last detailed communication to the proponent (letter from Mr. Al Robertson, September 18, 2012), we are concerned that important information has not been adequately considered by Transport Canada.

On the last page of the proponent's 2012 Addendum to their environmental screening report they provided a diagram showing the expected water velocity downstream of their proposed hydro-electric generating station. The figure below shows this diagram overlaid on an aerial photograph to show the location of this faster water relative to the nearby public Town Docks on the Moon River, and the private docks.

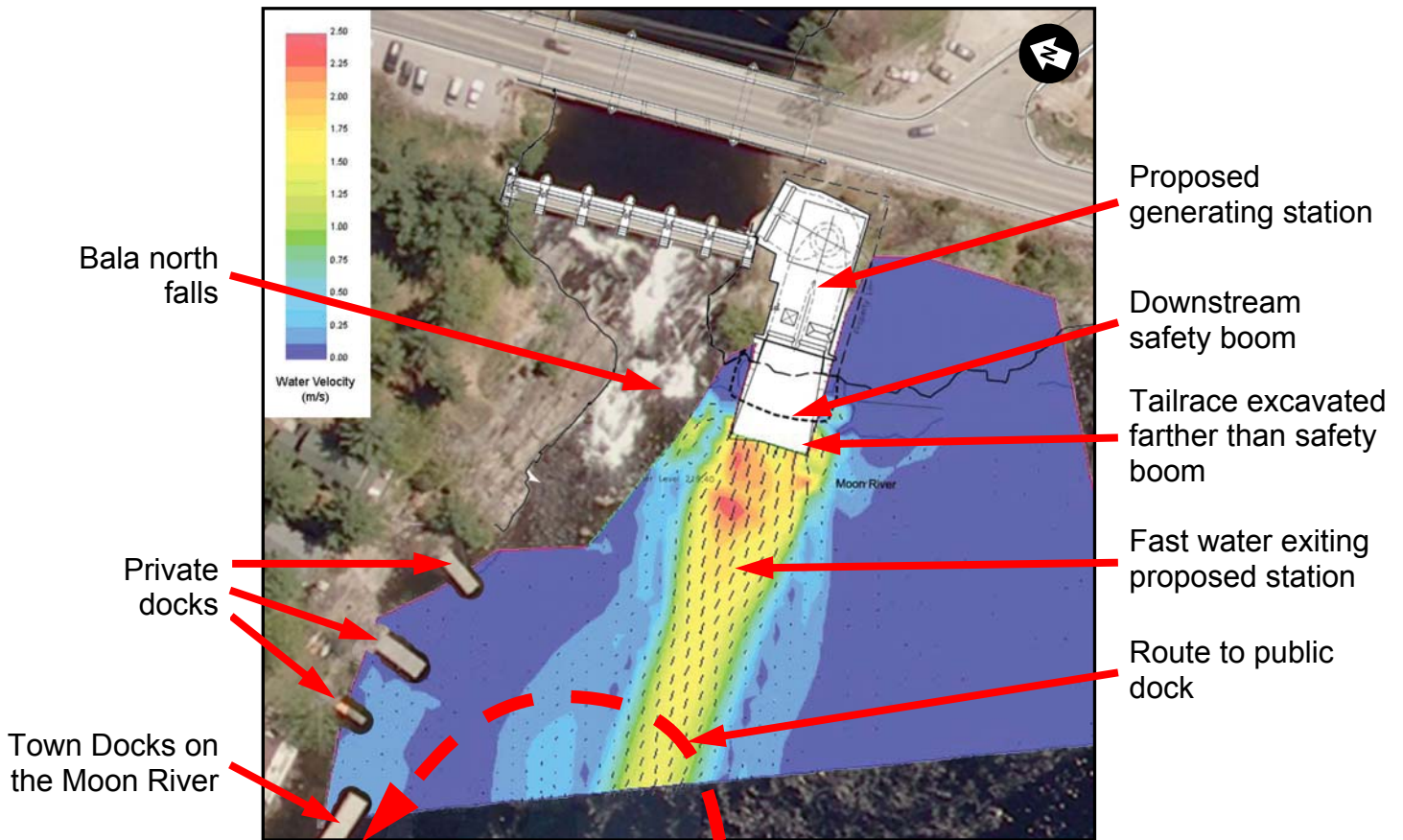
The proponent's diagram notes it applies to a 98 m<sup>3</sup>/s flow of water through their proposed station, which corresponds to it running at full capacity. Their colour-coding shows that the resulting water velocity of up to 1.75 m/s would extend past three private docks, and also past the Town Docks on the Moon River. As we have detailed at <http://savethebalafalls.com/?p=4103>, the proposed generating station would operate at full capacity an average of 21 days each summer, so the **flow shown would occur frequently during the main recreational boating season.**

It is also important to note that to dock at the Town Docks on the Moon River, boats approximately follow the dashed path shown in the figure below (as it is safer to work with the flow of the river, and also so the dock is on the driver's side). However:

- 1) Note that to dock, **boats would need to travel through the fast water** exiting the proposed generating station.

This would not only be difficult, but the danger would be increased as there would be no way for boaters to know whether the generating station was; shut-down, **operating at**

**full capacity**, or anything between – **all** of which **would occur during the summer boating season**. And this flow would be determined by many **factors not known to the public**, such as coordination with the downstream generating station, maintenance schedules, provincial electricity demand, and so on.



2) Also note that the Town Docks on the Moon River are the **only public docks on the Moon River**, and that:

- a) They are important economically, as they are the only way for people from the Moon River to visit and shop in Bala by boat.
- b) Many boaters approaching the Town Docks on the Moon River would be first-time visitors to the area, and would not know about the unnatural, unpredictable, and dangerous currents from the proposed generating station – which could and would start at any time.
- c) And being public docks, there is a **responsibility they be safe to use**, as those approaching would quite rightly assume and expect.

3) This water exiting the proposed generating station would not only be fast, but also turbulent. For example:

- a) Hydro-electric turbines (and the water passing through them) rotate at hundreds of revolutions per minute.
- b) From the information we have from the proponent, the proposed tailrace would require excavating the Moon River deeper, and the invert of this excavation would continue to rise up from the bottom, out to more than 70' from the

generating station. As shown by the proponent's drawing – this unnatural rise would **extend past the proposed station's "safety boom"**, resulting in turbulence outside of the safety boom.

In summary, the **churning and rising water exiting downstream of the proposed generating station would present more marine safety issues than the simple velocity** of water shown in the proponent's drawing.

- 4) The boating public would expect any dangerously fast and turbulent water exiting the proposed hydro-electric generating station (perhaps as warned about on posted signs) to only be dangerous within the downstream safety boom. However, as shown in the figure, this **fast water would be just as dangerous outside of the downstream safety boom as within it.**

## Conclusion

The September 18, 2012 letter from Mr. Robertson did not appear to consider that:

- The proposed generating station would often operate at full capacity during the summer marine navigation season, and the velocity of the water where boats need to be navigated to dock at the public Town Docks on the Moon River would often be **greater than presented in this letter – and also be turbulent.**
- There are **private docks which are closer to the proposed project's tailrace** than the Town Docks on the Moon River, and these property owners also have riparian rights guaranteeing them safe access to the Moon River.
- The area at the base of the Bala north falls is very popular for many types of boats, including canoes, pedal boats, stand-up paddleboards, and kayaks, all of which require an even lower water speed and calmer water.
- The fast water exiting the proposed station would be **just as dangerous outside of the downstream safety boom as within it.** This dangerous flow would **start and change at any time – including during the summer –** from none to the **full capacity** of the proposed station. Such **unpredictability would deceive the public's otherwise good judgement**, making this proposed project even more dangerous to boaters.

This proposed project as designed would be a disaster for the proponent and public alike.

The proponent should not be allowed to begin blasting and other irreversible construction work until it is known how their proposed project could safely co-exist with the long-time and well-known uses of the area's navigable waterway.

Please respond with how Transport Canada will ensure the many questions of marine safety and riparian rights are addressed before any construction of this proposed project begins.

Sincerely,



Mitchell Shnier, on behalf of SaveTheBalaFalls.com

Cc: Ann Whitely-Gillen, Transport Canada, Ann.Whitely-Gillen@tc.gc.ca  
Her Worship Alice Murphy, Mayor, Township of Muskoka Lakes, AMurphy@muskokalakes.ca