Transport Canada | Transports Canada
Marine | Maritime

100 Front Street South
Sarnia ON,
N7T 2M4

Our File # 8200-07-6495

January 22 2010

Hatch
4342 Queen Street,
PO Box 1001
Niagara Falls, ON
L2E 6W1

Attn: Trion Clarke

Re: **Proposed hydroelectric Power Generation, Swift River Energy , North Bala Dam, Town of Bala, Province of Ontario**

Dear Mr. Clarke;

I have completed my review of the Environmental Screening Review Report, dated October 2009, for the above described project.

I had previously commented on the Draft report March 12, 2009 and had concerns with the potential interference to navigation in the area of the intake channel, the surface water velocities proposed, impacts on portaging around the dam and the proposed safety boom requirements/locations. To address these concerns I requested additional information be provided either in the report or separately.

During my current review I have identified the following :

Navigation Interference

- **Purk's Place:** Impacts to the Purk's Place Boat House and Marina continue to be of critical interest to me. The ESR addresses this issue in a number of areas (3.5.5.1, 5.3.8, table 6.1, 6.3.6.1, 6.3.7.1 and in the D17 summary Volume II). Most of these references accurately reflect my concerns and indicate that a negotiated and mutually agreeable solution will be found between Swift River and Purk's Place. I am slightly concerned that the wording in table 6.1 implies that a settlement has been reached – where the remainder of the information indicates that negotiations continue.

- **Surface Water Velocities:** The additional information you have provided includes surface water velocities both current and expected in the intake and tailrace areas. I have used these figures (and descriptions in the document and those recently provided), to assess the impacts to navigation caused by the flow.
    - Velocity in the intake area may exceed 0.61 m/s, dissipating to 0.3 m/s nearing the Town Dock Bala Bay. These velocities reasonably correspond to the existing Spring flow velocities and will occur during the operation of the generator. Navigation will be affected in the immediate area of the intake but not in the Town Dock area.

    - Velocity in the outfall area will increase over existing for that location (0.6m/s to 1.3 m/s); however, overall the velocities will be reduced (2.4m/s maximum to 1.3m/s maximum) and directed straight downstream. This will remove the circular flow patterns that exist and should make navigating a small vessel easier and more predictable.

- Velocity in the intake area during extreme storm events (figure 6.2d) will be quite high and not suitable for small boat navigation near the Town Dock Bala Bay. Your further explanation of this figure (email of January 18, 2010) indicates that this flow and velocity will only be experienced during 1:100 year storm events. These are extreme events and very rare. Small vessels should not be affected as they will not be using the area for navigation at those times.

- **Bala Regatta:** I have corresponded directly with the Bala Aquatic Association concerning their historic regatta and you have addressed their concerns in the ESR (2.2.5.7) and with the surface water velocity and plant flow figures (6.1, 6.2c). Their activities should be able to continue as they have planned.

- **Historic Portage**: There is evidence that portaging takes place adjacent to Purk's Place using the Crown lands as a take out location. If the intake channel is built on those lands the portage take out will have to move. I assessed the overall location during my review and completed a site inspection. There exists an alternate location for take out (Diver's Point) and a second take out location adjacent to the Town Dock (Bala Bay). Put in locations exist downstream and will not be affected by the project (Town Dock in Bala Reach).

- **Water Levels**: The electrical generator is to be operated as a "run-of-the-river" system using the existing Muskoka River Water Management Plan (MRWMP) with a potential change in the Target Operating Level (TOL) of minus 5 centimeters. This change will not affect navigation either upstream or downstream.

- **Safety/Warning Booms**: I have assessed the proposed locations for both the intake and tailrace areas.

  - The intake boom location (Bala Bay, upstream of the rail bridge) seems to be a reasonable location and will provide continued access to the Town Dock, Diver's Point and will allow the Bala Regatta to continue without significant changes. The boom will directly affect the Purk's Place business by preventing water access to the docks and building. The existing Crown lands and portage will also be negatively affected.

  - The downstream Tailrace Boom is reasonably located and will not remove access to navigation of any significant water area. Surface water velocities will be in the 1.2 m/s to 1.3 m/s range and quickly dissipate to negligible. This should not interfere with small boat traffic during the generator operation. I understand that this location was chosen to minimize the water area removed from navigation, reduce the visual impact to adjacent owners and maintain access to the North Bala Falls and public access points.

Outstanding Considerations

During detailed project review we will require:

- A report on known accidents or fatalities in the North and South Bala dam areas.
- Final details of the Safety/Warning boom design (size, type, colour, spacing and anchoring system).
- Details of the temporary dewatering berms, installation, marking and removal plans.
- Water velocity changes and navigation protection during berm installations.
- Fish habitat Compensation plans and shoal creation areas to assess their impacts to navigation.

- Temporary and permanent public safety measures planned and details (throw rings, fencing, navigation marking, signage etc.).
- Portage marking
- Possible Snowmobile/Pedestrian Bridge crossing of Bala Bay (section 6.3.6.1) – this will require a complete and separate application and approval under the Navigable Waters Protection Act (NWPA).
- A follow up report of actual surface water velocities obtained during testing and run up of the operating hydro electric generator. This will be required in the intake area, the Town Dock Bala Bay and the tailrace area as a check against the modeling.

Please note that we will be a Responsible Authority (RA) for the Canadian Environmental Assessment Act (CEAA) as I have confirmed that Booms still trigger under the CEAA Law List. We will be participating in the current review initiated by the Department of Fisheries and Oceans (DFO-FHM).

I must stress that the impacts to the Purk`s Place business remain outstanding and hinder our ability to approve the proposed project. Navigation and Riparian access concerns must be addressed before Transport Canada proceeds with detailed project approvals.

If you have any questions, comments or concerns with my review of the ESR please do not hesitate to contact me at your convenience. I have two office locations 613-990-5901 Ottawa and 613-925-1934 Prescott. My email address is al.robertson@tc.gc.ca for both offices.

Yours truly;

Al Robertson
Senior NWP Officer
Transport Canada
Navigable Waters Protection
Ontario Region