Thursday March 10, 2011

Bruce Webb, P. Eng.
Water Development and Control Assessment Officer
Manitoba Conservation
160-123 Main Street
Winnipeg, MB R3C 1A5

Dear Bruce,

The following is in response to your questions contained in your email of January 21\textsuperscript{st} 2011, concerning the Environmental Impact Assessment Report for the THCF Youth Leadership Camp at Sylvia Lake.

1. The Tim Horton Children’s Foundation (THCF) identified its goal to establish a new camp, focused on its Youth Leadership Program in the summer season, in 2007. The Province of Manitoba was identified as a priority region for this new camp, given that other camps were already established in other Provinces and due to abundant potential for wilderness canoe tripping opportunities, as well as the opportunity for the camp to serve more economically disadvantaged youth during its "group" programs in the fall, winter and spring from a region it currently does not serve through this format.

An initial search of real estate was conducted with the assistance of a licensed real estate agent, which failed to identify suitable properties for sale in the Province. Any identified properties were either on too small a land base, or were too remote and did not provide the types of community supports that this type of camp would require. However, the region of north-eastern Manitoba, including Whiteshell Provincial Park, was identified through this process as well suited to the vision of the camp from both a wilderness canoe tripping and an accessibility standpoint.

In 2008, initial meetings with Manitoba Conservation were held to identify any opportunities in this region that may be available for land for the camp. A site at Meditation Lake was initially identified, due to its central location in the Whiteshell, its isolation from cottagers, its road access, and its potential as a campground. The land bordered an existing quarry and sand pit, and had been previously logged and re-planted. Throughout 2009, it became apparent that there were concerns with water quality at the site, and the Foundation chose to look for alternative locations in the area. While our attention shifted to another previously identified potential site at Sylvia Lake, we also reviewed potential locations at Loon Lake and Jessica Lake in the Whiteshell, along with locations in Nopaming, at Pine Falls and at Lundar. The Sylvia Lake site provided distinct advantages in the quality of the setting to support the objectives of the program and its access to wilderness canoe routes and to community supports. As such, it was identified in 2010 as the Foundation’s preferred location for the new camp.

Two public meetings were conducted related to the Meditation Lake location, and three were conducted related to the Sylvia Lake location.
2. The north-east section of the camp features rocky outcappings, overlooking the lake/river. A current does exist at that section of the waterfront. In reviewing the risk associated with this flowing water, the Foundation contracted two certified and experienced canoe trip leaders to review this section of the waterfront by canoe over the summer of 2010 (during June, July and August). The result of this assessment was that the Foundation’s existing Waterfront Program Standards were deemed sufficient to manage any risk associated with these waters. In addition, in drafting the site layout, the established swimming and boating docks were relocated to the south-east shore, to further minimize the direct affects of the river current on the camp’s on-site waterfront programming.

3. Please note that there is no plan to do any in-water blasting nor is there any plan to blast in the 15m No Blasting Zone adjacent to the edge of the water. Figures 4-12 has been revised to eliminate the minor overlap between the Possible Blasting Area and the No Blasting Zone (see attached revised figure 4-12).

Mitigation measures for blasting noise and vibration will include the following:

i. Use of appropriately sized and spaced charges to minimize both vibration and noise while maximizing effect;

ii. Carefully timing small blasts in multiple adjacent borings such that the blast effect travels over a broader area to maximize the effectiveness;

iii. Use rubber blasting mats to control debris and muffle sound;

iv. Use experienced, knowledgeable blasting contractor to work efficiently; and

v. Minimizing the total blasting requirements through the use of detailed topographic information and effective grading design.

4. The following mitigation measures, additional to those outlined in the Environmental Impact Assessment [EIA] (THCF, November 2010) and the forthcoming Environmental Protection Plan for Construction, will be employed to protect nesting birds and terrestrial fauna during the construction phase, as deemed appropriate. The types of mitigation below are primarily related to the timing of specific activities to minimize disruption of important nesting bird and terrestrial faunal life stages and/or activities (e.g., nesting, breeding), and identification of buffer distances (e.g., from active eagle nests).

Mitigation Measures for Effects to Nesting Birds
The mitigation measures outlined below are proposed to minimize the effects to nesting birds. Active nests for eagles and ospreys, or other active large stick nests, were not found within the camp lease boundaries during site surveys conducted in 2010 in support of the EIA. In order to ensure the buffers outlined below are maintained, a reconnaissance survey for active nests for eagles and ospreys and active large stick nests, will be conducted beyond the camp lease boundaries to a radial distance
of 200 m from any proposed infrastructure within the camp lease boundaries.

- Buffers recommended by Manitoba Conservation (2010) will be followed for nests of eagles and ospreys during construction activities, where possible, as outlined in the table below:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Buffer Radius</th>
<th>Objective of Buffer</th>
<th>Effective Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Eagle or Osprey Nest</td>
<td>200 m</td>
<td>protect from sensory disturbance during the breeding season</td>
<td>April 1 to July 31</td>
</tr>
<tr>
<td>Active Eagle or Osprey Nest</td>
<td>100 m</td>
<td>protect nest trees and maintain integrity of nest site</td>
<td>August 1 to March 31</td>
</tr>
<tr>
<td>Other Active Large Stick Nest</td>
<td>50 m</td>
<td>protect nest trees and maintain integrity of the site</td>
<td>When discovered during site operations</td>
</tr>
</tbody>
</table>

- Based on the additional reconnaissance discussed above, should any active nests for eagles and ospreys, or other active large stick nests be found, these will be reported with proposed mitigation measures to Manitoba Conservation for review prior to commencement of construction activities.
- During site clearing activities, the construction site supervisor and construction staff will be required to stop clearing activities occurring within the appropriate buffer area outlined above should any active eagle or osprey nests, or any other active large stick nests, be discovered during this activity. In this unlikely event, THCF Project Management will be notified immediately by the construction site supervisor, and THCF will consult with Manitoba Conservation to determine an acceptable mitigation plan prior to proceeding with clearing activities within the buffer areas outlined above.
- Construction at the site, including site clearing, will not occur between mid-March and mid-July, to minimize effects to breeding birds.

Mitigation Measures for Effects to Terrestrial Fauna

The mitigation measures outline below are proposed to minimize the effects to terrestrial fauna. It is important to note that suitable overwintering habitat for the northern leopard frog, the only amphibian species found within the region that is listed as special concern by SARA (THCF, November 2010; p. 6.10), was identified to include the deep waters of the beaver flood area, beyond the camp lease to the southwest, and suitable sites along Sylvia Lake. It was concluded that there was a general lack of suitable breeding habitat within the camp footprint.
Mitigation measures outlined below will help ensure that construction activities avoid disturbance and disruption to northern leopard frogs during the breeding period (mid-April through June).

- Construction at the site, including site clearing, will not occur between mid-March and mid-July, to protect spring breeding periods and young-of-the-year.
- Construction activities will not occur within 30 metres of the Winnipeg River shoreline along the northern portion of the site, where possible.
- Construction activities within 30 metres of the shoreline of Sylvia Lake will be limited, as discussed in EIA (THCF 2010), and will be associated with the installation of such things as docks, dry hydrant, potable water shoreline well and deck.

5. A pre-construction rare plant survey will be conducted of the camp lease area to further address effects on rare or endangered vegetation species. The survey will be designed to focus on the proposed area to be cleared for construction purposes (e.g. buildings, internal roads, other infrastructure). The survey will be conducted between mid-May and mid-June, with specific timings to be determined based on the timing of spring melt. The survey will include a search for any rare plant species present in general accordance with the Alberta Native Plant Council’s protocols. Specific emphasis would be placed on confirming the presence/absence of dog violet and Emory’s sedge, which are rare plant species known to occur within the region. Appropriate mitigation measures will be identified based on the outcomes of the rare plant survey findings. A summary report of the pre-construction rare plant survey and recommended mitigations will be submitted to Manitoba Conservation for review prior to the commencement of construction activities within the camp lease area.

6. The camp’s waterfront would take advantage of the existing sandy shoreline on the south-east of the property. There will be no changes to the existing land topography in this area, nor is there any plans for sand to be added to the shoreline. Clearing in the general vicinity would be limited to the removal of deadfall and impediments to the placing of docks, canoe racks, sheds and suitable open space to ensure clear sightlines and conduct waterfront activity safely. Planting of grass, and fertilization, are not anticipated at the waterfront area. Planned floating docks are similar to the "Connect-a-dock" product used at our Kentucky camp. These are anchored by a "Dead Man Collar" assembly, which enables the docks to be floated and anchored seasonally, removed each fall and re-installed each spring (details of this assembly will be submitted with the application to Department of Fisheries and Oceans).

7. We will utilize “Dark Sky” lighting, based on recommendations defined by IDA (International Dark Sky Association) and IES (Illumination Engineering Society), in order to minimize any lighting effects in the surrounding area.
8. A large scale grease trap will be installed at the main lodge where the main kitchen is located. The vast majority of food preparation will occur in this building. The wastewater system will be a proprietary manufactured system that has been used effectively in Manitoba previously. Cold weather operation of the treatment system and the disposal beds is common.

Both the treatment system and the disposal beds are commonly used in Canada in cold weather applications and have been designed for such use. One example of commonly accepted design practice for pressurized bed construction in cold climates is to provide downward facing orifices (every third orifice) which allow the distribution lines to drain thereby preventing freezing and bursting. Similarly forcemains will be designed to have frost protection through the use of a combination of the following:

i. Sufficient cover to prevent freezing;

ii. Sloping the forcemain to allow draindown into the outlet or drainback into the pump chamber; and/or

iii. Providing insulation.

The treatment and disposal beds will be designed to have multiple components that can be operated independently. For example, the treatment system will have two treatment trains—each of which will be capable of completely treating half of the camp’s total design flow. Similarly, the disposal bed will be segregated into nine cells. That will be designed independently. This design will facilitate the shutdown of one half of the treatment system and multiple disposal cells during the winter when freezing is a concern and will generate less sewage due to the reduced number of users. The wastewater system will be designed to be flexible enough so it can be operated effectively during cold weather.

The sand for the disposal bed will meet ASTM C-33 as required by Manitoba On-site Wastewater Management Regulation 83/2003. Approximately 3,000 m³ of sand will be required for the disposal bed construction.

The disposal field cells are designed to be dosed independently on a rotating basis. This is achieved by controlling multiple pumps to discharge through distribution valves on an alternating basis. The pumping is controlled such that one cell is dosed at a time and the dosing rotates through the nine cells in an orderly manner. Each cell will be dosed equally throughout the day. At peak daily design flow, the cells will be dosed for approximately 5 minutes and then rest for at least one hour between doses. The frequency of dosing will depend on the sewage volume generated on any given day.

The proprietary on-site wastewater system proposed to treat the site’s residential strength wastewater will generate sludge at an anticipated rate which would require it to be hauled off-site approximately once every 3-5
years. The sludge will be hauled off-site and disposed at a local municipal wastewater plant that has septic receiving capacity.

9. Solid Waste - The Foundation intends to enter into an agreement with Manitoba Conservation to utilize waste haulage services provided throughout the Park. Solid waste would be removed from the site accordingly. Construction-phase waste would be addressed separately through the construction-phase EPP.

10. We will contact Transport Canada with respect to the Navigable Waters Protection Program and the camp project.

11. We will work with Department of Fisheries and Oceans accordingly on the dry hydrant and any other related concerns.

Please contact me if you required any further details.

Yours Truly,

TIM HORTON CHILDREN'S FOUNDATION

Garry Fraser
THI Vice President, Special Projects