

March 12, 2010

Mr. Tom Goodeve,
Manager, Policy Development Services
City of Oshawa
50 Centre Street South,
Oshawa, ON L1H 3Z7

Dear Mr. Goodeve:

Project No: 60117209-80720
Regarding: Peer Review of Proposed Farm Tech Ethanol Plant

I have looked at the materials that you have sent me on updates to the Environmental Assessment of the proposed Farm Tech. Jacques Whitford Stantec has provided additional terrestrial ecological information in a report titled Response to Central Lake Ontario Conservation Authority (CLOCA) dated December 2009. It would be useful to see the original letter from CLOCA, but I assume that the response has captured the comments on Table 1 at the front of the report. It does not appear that Jacques Whitford Stantec has addressed the comments raised by AECOM's peer review in a letter dated October 15, 2008. We will first provide comments on the response report followed by our original concerns on the environmental impact studies.

2.2 Marsh Monitoring Surveys

A breeding bird survey was conducted in early July. This was late in the season for detecting Least Bittern, one of the target SAR species, as they mostly call in late May / early June. CLOCA requested additional fieldwork during the migration period (i.e spring or autumn) which was not done. Both the marsh fringe and onsite woodlot may be important as migration staging habitat.

We note that a Blanding's Turtle was found in the western portion of the marsh, within 150 m of the subject site. This confirms that the species is still present in the marsh and therefore needs sufficient adjacent habitat for successful nesting. Blanding's Turtles typically nest several hundred meters away from the wetlands they live in, further than any other Ontario turtle. The Chimey Swift is now threatened provincially and the Snapping Turtle is now recognized as a Special Concern species by the Committee on the Status of Species at Risk in Ontario (COSSARO) (both were added in 2009). It is likely that the Snapping Turtle nests in the wetland buffer.

2.5 Pre-Construction Survey

Jacques Whitford Stantec recommends that nest surveys be conducted prior to construction. A more preferred approach is that any vegetation clearing and primary excavation should occur outside of the

breeding bird season instead of conducting nest surveys in the breeding season while construction is in progress.

2.6 Site Naturalization

It is not clear why Jacques Whitford Stantec would consult with CLOCA regarding the extent of naturalization. The report states that “about 58% of the site will be in a naturalized state” so all of this should be either naturalized or remain in a natural condition. It would be useful to have a figure that clearly shows which portions of the property will be in a permanent natural or naturalized state.

Gifford Hill and thicket vegetation on the west part of the site are shown as being retained as open space on the site plans. It is not clear if there is a commitment to retaining these features permanently or if this is a potential future expansion area.

3.1 Noise Impacts

Noise measurements show that existing on site noise levels range from 35-57 dBA, yet the predicted noise level after development under the worst case scenario is 50 dBA. This does not seem to consider the combination of background noise which by itself can be >50 dBA. Table 6 only assumes the lowest of ambient noise levels, when it would be more appropriate to use the highest ones to assess impacts. Also Figure 3-4 shows a predicted 50 dBA level well out into the marsh, so presumably noise would be louder in that portion of Second Marsh closer to the plant. A statement is made that brief (1-2 hours) periods of louder noise will occur “a few times a week during periods when wildlife activity in the marsh is low (i.e. early morning hours)”. Bird activity is highest in early morning especially during the breeding season when noise would be most disruptive. Loud and erratic noise levels can result in avoidance by territorial songbirds.

3.2 Potential Light Impacts

It is not clear what the ambient light levels are from the sample locations since they are the average of 60 sample points, and it is unlikely to they would all be the same. I agree with CLOCAs comment that it would be preferred if light standards were lower than 9.14 m. Otherwise the recommended 150 Watt luminaries are probably a reasonable alternative to minimize light affects.

5 Net Effects

5.2 Sensory Disturbance

We do not agree that Least Bittern is “relatively tolerant of human presence” as stated. This is a very shy species that avoids humans whenever possible. Because of its soft territorial call, it may be negatively affected by increased noise levels. We do not believe that the Florida study quoted is relevant in proving that water birds will adapt to the proposed Farm Tech development. Water birds in Florida are generally more tolerant of human presence than in Ontario, so this kind of comparison cannot be made.

5.3 Compatibility of Proposed Project Elements

The fence as shown on the site plan reduces the habitat value of the berm which lies within the 120 m wetland buffer. Consequently the adjacent habitat available to wildlife species such as nesting waterfowl and nesting turtles ranges from 40 to 80 m, not 120. The narrow buffer makes this sensitive lifestage (both turtles and waterfowl) more prone to predation which is constrained by the fence. Therefore the fence should be along the edge of the 120 m wetland buffer. If the berm and stormwater management pond must be fenced, then they too should be outside of the 120 m wetland buffer.

Landscape Plan

An Overall Landscape Concept Plan (drawings L1, L2, L3) was prepared by Daniel Obrien & Associates Ltd. in August 2008. This plan shows recommended naturalized plantings in the buffer, Gifford Hill and elsewhere on site. We did not comment on this plan in the earlier peer review but some comments are provided below:

- Some species listed in the plant list should be replaced
- River Birch (*Betula nigra*) – not native to Ontario, replace with Paper Birch
- Black Ash (*Fraxinus nigra*) – is a swamp tree, therefore best in low areas. Replace with White Ash on upland sites
- Black Locust (*Gleditsia triacanthos*) – not sure if this is supposed to be Black Locust (*Robinia pseudo-acacia*) or Honey Locust (*G. triacanthos*). Black is non-native and invasive and Honey is not locally indigenous, therefore neither should be planted. Replace with other species such as Ironwood, Basswood or Red Oak
- Black Cherry (*Prunus nigra*) – I assume this is Black Cherry (*P. serotina*), not Canada Plum (*P. nigra*)
- Pin Oak (*Quercus palustris*) - not locally indigenous, it should be replaced with Bur Oak
- Black Willow (*Salix purpurea nigra*) – *Salix purpurea* is non-native and invasive and therefore should not be planted. I am not sure if this is an error in the name or if it is a cultivated variety. Either true Black Willow (*Salix nigra*) or another more common species such as Pussy Willow should be indicated on the plan.
- Wayfaring Tree (*Viburnum lantana*) – is non native invasive, suggest not using even as ornamental since it can seed into adjacent natural area.

Although typically shown on landscaping drawings, we do not recommend using tree stakes in naturalized plantings because they are generally unnecessary and often not removed for years resulting in tree mortality.

The impact to the woodlot on the west side is not addressed by Jacques Whitford Stantec. The landscape drawings show that it will be maintained, but the grading limit approaches the woodlot edge. Precautions need to be made to prevent construction impacts from degrading the woodlot.

Comments from the Previous Peer Review

AECOM raised the following issues in our previous peer review from October 15, 2008. Comments are provided after the issues

- a) Vegetation communities on site and immediately surrounding portions of Second Marsh need to be described and mapped in detail.
 - I have not seen vegetation map of the site, only brief descriptions
- b) Plant and wildlife species lists should be prepared to clearly indicate what is on the site and what is on immediately surrounding lands.
 - Species lists of birds have been provided and presumably most of these are from the adjacent Second Marsh. List from Table A-1 should be combined with previous species list
 - No plant species list for site has been provided in any reports.
- c) Waterfowl migration staging and wintering needs to be examined in adjacent part of Second Marsh and offshore Lake Ontario
 - Waterfowl staging and wintering has not been addressed
 - The small woodlot on site may be important for landbird migration but this is not assessed
- d) Analysis of possible bird strikes on the structure of proposed facility
 - This has not been discussed

Summary

The previous peer review comments have not been addressed and there are some additional concerns. Consequently we are not satisfied that the impacts have been properly assessed. Because of the location of Second Marsh at the urban fringe along Lake Ontario, its high wildlife values and the intensity of land uses that are proposed adjacent to this feature, it is imperative that the 120 m wetland buffer not be compromised. In addition we have the following recommendations with respect to the environmental impacts of the proposed Farm Tech development.

The four issues raised in the August 2008 peer review need to be addressed;

- a) Plan should clearly show which areas are to permanently remain in natural or naturalized condition;
- b) Relocate fence in the wetland buffer such that wildlife dependent on adjacent upland habitat such as breeding waterfowl and nesting turtles have access to the full 120 m upland buffer;
- c) Vegetation clearing and initial grading should be conducted outside of the breeding bird season;
- d) Noise assessment needs to evaluate the combination of predicted noise levels with the background noise at the western edge of Second Marsh;
- e) Some of the plant materials in the landscape plan should be changed as suggested;

- f) The woodlot west of the proposed plant needs to be adequately protected on the east side to prevent construction intrusion.

We trust that the comments are helpful. If you have any further questions, please contact the undersigned.

Sincerely,
AECOM Canada Ltd.

A handwritten signature in black ink, appearing to read 'James Kamstra', with a long horizontal flourish extending to the right.

James Kamstra B.Sc., M.E.S.
Senior Terrestrial Ecologist

JK:pc