



CANADIAN ENVIRONMENTAL LAW ASSOCIATION
L'ASSOCIATION CANADIENNE DU DROIT DE L'ENVIRONNEMENT

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BY EMAIL

Sandra Markey, Manager
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Agriculture & Agri-Food Canada
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Dear Ms. Markey:

**RE: ETHANOL FACILITY PROPOSED BY FARMTECH ENERGY CORPORATION
(OSHAWA WATERFRONT): CEAR NO. 08-01-42395 / AAFC NO. ecoABC 005**

Please be advised that we are counsel for Friends of Second Marsh (FSM), which is an incorporated non-profit organization that has worked for over 35 years to protect, sustain and promote the provincially significant Second Marsh in Oshawa, Ontario.

We have carefully reviewed the Screening Report (AMEC, June 2011) and the supporting documentation, and we have been instructed by the FSM to provide you with the following comments on behalf of our client.

PART I – OVERVIEW

Our client previously provided comments in relation to environmental assessment (EA) documentation prepared several years ago by FarmTech regarding its controversial proposal to construct and operate a large-scale ethanol refinery immediately beside Second Marsh. In essence, our client (and other stakeholders) identified significant gaps, flaws and omissions in the EA documentation filed by FarmTech in 2008.¹

Since that time, FarmTech has prepared various supplementary reports, studies and other documents which purport to address the numerous outstanding issues raised by public and governmental reviewers. The FarmTech materials have been heavily relied upon by the consulting firm retained on behalf of the Responsible Authority (RA) to prepare a Screening Report under the *Canadian Environmental Assessment Act* (CEAA) in relation to this project.

In summary, based upon our review of the Screening Report and supporting documentation, it is clear that FSM's serious concerns about the project still remain substantially unresolved at the

¹ Letter from CELA to Maria McGibbon dated October 17, 2008.

present time. Similarly, the significant problems in the EA documentation have not been adequately rectified to date within the screening exercise conducted on behalf of the RA.

Moreover, it is our overall conclusion that the Screening Report is superficial, unpersuasive and deficient, and that the Report does not satisfy the content requirements prescribed by subsection 16(1) of the CEAA. In addition, it is our submission that no credence or weight should be attached to the Report's unsubstantiated and incredulous claims that the project will not cause any significant adverse environmental effects at the proposed location adjacent to Second Marsh.

Accordingly, the only course of action that is reasonably open to the RA in this case is to conclude, pursuant to subsection 20(1)(b) of the CEAA, that despite mitigation measures, the project is likely to cause significant adverse environmental effects that cannot be justified in the circumstances. On this basis, the RA should refuse to provide any federal funding, or to exercise any other power, duty or function, that would allow the project to be carried out in whole or in part at its proposed location.

In the alternative, our client submits that pursuant to subsection 20(1)(c) of the CEAA, this project should be referred to the Minister for referral to a review panel on the grounds that: (i) it is uncertain whether the project is likely to cause significant adverse effects; (ii) the project is likely to cause significant adverse effects and it is unclear whether such effects are justifiable; and (iii) extensive public concerns warrant an immediate referral to a review panel.

PART II – GENERAL COMMENTS

Our client has five general comments about the content, nature, tone and procedural aspects of the Screening Report, which are described below. Our client's more detailed critique of specific components of the Screening Report is contained in Part III of this submission, while our client's overall conclusions are set out in Part IV of this submission.

1. The Screening Report does not Comply with CEAA Requirements

The Supreme Court of Canada has described federal EA “as a planning tool that is now generally regarded as an integral component of sound decision-making,” and that “has both an information-gathering and decision-making component which provide the decision-maker with an objective basis for granting or denying approval for a proposed development.”² For the reasons outlined below, it is our opinion that the Screening Report does not comply with the information-gathering and decision-making requirements imposed by the CEAA.

It is our understanding that the author of the Screening Report was retained by the Government of Canada for the purposes of preparing a Screening Report on behalf of the RA in this matter, namely Agriculture and Agri-Food Canada (AAFC). In this regard, we note that the cover of the Screening Report claims that it was “conducted in compliance” with CEAA requirements. The Report also claims that it was “assembled” in compliance with the CEAA and the ecoABC

² *Friends of Oldman River Society v. Canada*, [1992] 1 S.C.R. 3 (SCC) at para. 103.

guidelines (page 3). However, for the reasons outlined in Part III of this submission, we submit that such claims are highly debatable at best, and clearly erroneous at worst.

We recognize that an RA may delegate the task of preparing a Screening Report, in whole or part, to any other person, body or jurisdiction, as has occurred in this case (see subsection 17(1) of CEAA). Nevertheless, an RA cannot delegate its responsibility for ensuring that a Screening Report has been completed in compliance with the CEAA's substantive requirements before making a "course of action" decision under section 20 of the CEAA. In fact, the CEAA expressly prohibits an RA from taking a course of action unless it is satisfied that the delegated function has been carried out in accordance with the CEAA and regulations (see subsection 17(2) of the CEAA).

The mandatory content requirements for a Screening Report are set out in subsection 16(1) of the CEAA, and, in this case, are further clarified in the AAFC's EA guidelines (April 2007) for ethanol projects subject to the CEAA. In particular, subsection 16(1) of the CEAA provides that a Screening Report must consider the following factors:

- (a) the environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out;
- (b) the significance of the effects referred to in paragraph (a);
- (c) comments from the public that are received in accordance with this Act and the regulations;
- (d) measures that are technically and economically feasible and that would mitigate³ any significant adverse environmental effects of the project; and
- (e) any other matter relevant to the screening, comprehensive study, mediation or assessment by a review panel, such as the need for the project and alternatives to the project, that the responsible authority or, except in the case of a screening, the Minister after consulting with the responsible authority, may require to be considered.

Having regard for these mandatory considerations, our client's overall position is that the AAFC cannot decide to fund the FarmTech project on the basis of the Screening Report and related EA documentation currently before the AAFC. The general reasons in support of this position can be summarized as follows:

- (a) there is insufficient information in the Screening Report to establish the alleged need to locate the proposed refinery immediately beside Second Marsh;

³ "Mitigation" is defined under CEAA as "the elimination, reduction or control of the adverse environmental effects of the project, and includes restitution for any damage to the environment caused by such effects through replacement, restoration, compensation or any other means."

- (b) the Screening Report contains an inadequate or incomplete description of the project activities throughout the entire life-cycle (especially decommissioning);
- (c) there is insufficient information in the Screening Report to adequately identify and evaluate the likelihood or significance of adverse environmental effects (including cumulative effects) that may be caused or contributed to by the project;
- (d) the Screening Report fails to adequately describe, at a sufficient level of detail, technically and economically feasible mitigation measures and followup programs which will be effective in preventing significant adverse environmental effects; and
- (e) there is insufficient information to demonstrate that the project meets the sustainability purposes and precautionary requirements established under the CEAA.

The net result is that the AAFC has been left with inadequate information to discharge its “high standard of care” when considering the mandatory requirements prescribed by subsection 16(1) of the CEAA.⁴ Accordingly, our client submits that there is no reasonable basis upon which the AAFC can conclude that the project will not cause significant adverse environmental effects, as claimed by the Screening Report.

2. Inadequate Consideration of Sustainable Development and the Precautionary Principle

The overall aim of the CEAA is to achieve sustainable development by integrating environmental considerations into governmental decision-making at the federal level (see the preamble and subsections 2(1), 4(1)(b) and 4(2) of the CEAA). “Sustainable development” is defined under the CEAA as “development that meets the needs of the present, without compromising the ability of future generations to meet their needs.”

In addition to its focus upon sustainable development, section 4 of the CEAA further endorses precaution and public participation in federal decision-making:

- 4(1) The purposes of the Act are
 - (a) to ensure that projects are considered in a careful and precautionary manner before federal authorities take action in connection with them in order to ensure that such projects do not cause significant adverse environmental effects...
 - (d) to ensure that there are opportunities for timely and meaningful public participation throughout the environmental assessment process.

⁴ *Alberta Wilderness Association v. Cardinal River Coals Ltd.* (1999), 30 C.E.L.R. (N.S.) 175 (Fed.T.D.) at paras. 39-41, 52; *Friends of the West County Association v. Canada* (2000), 31 C.E.L.R. (N.S.) 239 (Fed.C.A.) at paras.25-26

Similarly, subsection 4(2) of the CEAA imposes a positive legal duty upon “all bodies subject to the provisions of this Act” (including the AAFC) to “exercise their powers in a manner that protects the environment and human health and applies the precautionary principle.” The Federal Court of Appeal has held that “the precautionary principle states that a project should not be undertaken if it *may* have serious adverse ecological consequences, even if it is not possible to prove with any degree of certainty that these consequences will in fact materialize (original emphasis).”⁵

In this case, our client submits that the Screening Report does not adequately consider or apply these important considerations to the FarmTech project, as described below. In particular, the FSM submits that the project does not constitute sustainable development, and that funding the project to allow it to proceed at this location is not consistent with the precautionary principle. Simply put, it does not reflect sound environmental planning to construct and operate a large-scale (and potentially risky) industrial facility at the proposed location, especially in light of the site’s close proximity to Second Marsh, species at risk, and other sensitive receptors.

3. The Limited Evidentiary Basis of the Screening Report

We are greatly concerned about the inherent limitations in the evidentiary basis of the Screening Report itself. For example, it appears to us that the author did not undertake any of its own field work, environmental monitoring or empirical testing to independently evaluate the accuracy of the data, assumptions, modelling and methodology presented by FarmTech in its EA documentation. Thus, it is our view that the Screening Report essentially amounts to a desktop review which simply regurgitates – rather than credibly assesses or verifies – the various claims contained within the proponent’s inadequate EA materials.

Indeed, the limited nature of the Screening Report is acknowledged in the Executive Summary (page i), which indicates that the Report merely “summarizes and synthesizes information” from various technical documents prepared by FarmTech and its consultants over the years. Similarly, the Screening Report notes that it is solely based upon the proponent’s technical reports and information provided by public/agency reviewers (pages 3 and 9-10).

In our view, the general absence of adequate information-gathering by the author of the Screening Report means, in effect, that the Report is almost wholly dependent upon the limited investigations and analysis conducted by FarmTech’s consultants. More importantly, we submit that the substantive deficiencies still contained within FarmTech’s updated EA materials have not been corrected or remedied by the Screening Report. Thus, it is our submission the Screening Report is best characterized as a precarious house of cards that collapses as soon as the shaky foundation of the underlying FarmTech EA material is seriously scrutinized and ultimately rejected for the various reasons described below.

⁵ *Canadian Parks & Wilderness Society v. Canada*, 2003 FCA 197 (Fed. C.A.) at para.24.

4. The Tone of the Screening Report is Inappropriate

Having regard for the purposes and provisions of the CEAA, it is clear that a Screening Report should contain a robust, independent and objective assessment of the various considerations set out in subsection 16(1) of the CEAA. In other words, a Screening Report should not serve as an “infomercial” for a proposed project, and an RA should not serve as a shill for a private proponent.

In this case, we strongly object to the various statements made in the Screening Report about the alleged economic benefits (i.e. job creation, utility payments, federal revenue, etc.) of this project. For example, the Screening Report crows that international markets for the proponent’s product “may” develop in “Asia, Africa, Europe and elsewhere” (page 2). In our view, this is unsubstantiated conjecture that has no place in a Screening Report, and should be accorded no weight by the RA.

5. The Public Comment Period is Inadequate

Since the initial public comment opportunity in 2008, it appears that representatives of the proponent and the RA have remained in close contact with each other, and have generated a sizeable paper trail of new, revised or supplementary EA materials. It further appears that much of this activity has occurred behind closed doors, with little or no public input until the Screening Report was first released for public review and comment in late June 2011.

Similarly, although the newly released material purports to address concerns raised by FSM (and other stakeholders) in 2008, please be advised that neither CELA nor FSM were ever contacted by FarmTech consultants (or the Screening Report author) to discuss these concerns or, more importantly, to ascertain whether they have now been satisfactorily addressed, as claimed by FarmTech.

In any event, given the voluminous nature of the Screening Report and supporting documentation, and given the problematic timing of the current public comment period, we requested the RA to grant a reasonable extension of the comment period to September 2011.⁶ This request was initially refused by the RA, which opined that “adequate time” has been provided for public review/comment, and further claimed that the RA’s interaction with FarmTech “has ensured that the evaluation of the project has been careful and precautionary in nature.”⁷ However, the comment deadline was then subsequently extended by the RA to August 12, 2011.

While it is more helpful than not to have some extra time to comment on the Screening Report, it is our view that a brief two-week extension in the middle of the summer vacation season does not display the flexibility required to fully and effectively engage interested or potentially affected parties in the screening process. This is particularly true since ensuring meaningful public participation is an express purpose of the CEAA, and is obviously appropriate in this case. In any event, since the public comment period has not yet closed, we trust that the RA has not

⁶ Letter from CELA to Sandra Markey dated July 6, 2011.

⁷ Letter from Sandra Markey to CELA dated July 11, 2011.

already formed any final conclusions about the adequacy of the Screening Report, or the acceptability of the project (or its environmental impacts) from a public interest perspective.

PART III – SPECIFIC COMMENTS

Our client’s specific comments about the Screening Report and supporting documents are set out below. To assist the RA, these comments address the Screening Report components in the same chronological order as they appear in the Report.

Please be advised that the following discussion does not entail a complete inventory of all of the problems that we have noted within the Screening Report or supporting EA documents. Instead, we have attempted to focus upon the issues of particular concern to the FSM, and we will leave it to other public and agency reviewers to raise further or other concerns about the Screening Report and/or the project.

1. Summary Description of the Project (Section 1.0)

We are astounded by the number of significant errors and omissions in the summary description of the project and its location. For example, contrary to the Screening Report (pages i and 65), the proposed site is not bounded by a “former sugar factory to the north”; instead, the Second Marsh Wildlife Area lies to the north of the proposed location (see the north arrow on the map in Appendix A: Exhibit 2). The Report’s mistaken description of the basic physical geography of the surrounding area suggests a lack of careful attention to detail, and does not inspire much confidence in the overall soundness or reliability of the Report.

The Screening Report then asserts that FarmTech has “attempted to address issues under the City’s Official Plan and By-Law” (pages 1 and 62). However, FarmTech’s recent withdrawal of its *Planning Act* applications for an official plan amendment and re-zoning strikes us as an odd way to consensually “address” land use planning issues. The bottom line is that the project is not a permitted land use at this location under the City’s Official Plan or zoning by-law, and municipal officials have made it abundantly clear that the project is an undesirable and unwanted land use on the Oshawa waterfront. In our view, the Screening Report’s attempt to downplay or discount this fundamental land use dispute should not be accepted by the RA.

Similarly, the Screening Report’s summary of the proposed location (pages 1-2) also conveniently overlooks or ignores the important buffer zone role played by the Gifford Farmlands. In 2008, the report prepared by the Hon. David Crombie noted that these lands provide a valuable physical barrier that separates and contains the industrial port activities from the environmentally sensitive features and functions of Second Marsh. The failure of the Screening Report summary to seriously discuss, or even acknowledge, this buffer role suggests that the Report author was not duly mindful of the important environmental planning benefit of keeping these lands undeveloped (or at least free of intensive industrial uses).

The Screening Report then restates FarmTech’s oft-repeated claim that the site was selected because of its proximity to major trucking and shipping routes (page 2). However, it is our submission that FarmTech and the Screening Report author have failed to present any persuasive

evidence demonstrating that this is the only (or best) location for the project. To the contrary, the public record is clear that other suitable non-waterfront locations are available, and have been offered to, the proponent. Moreover, FarmTech's absurd insistence that the project must be built on the Oshawa waterfront is at odds with the undisputed reality that other ethanol plants in Ontario and across Canada already operate successfully without being located immediately beside a deepwater port. Again, we are concerned that the Screening Report appears to accept the proponent's claims at face value, rather than subject them to careful and critical analysis.

The Screening Report outlines the consultation that has occurred with other federal departments or ministries with an interest in the project (pages 4-5). However, it is not clear from the Screening Report whether each of these federal entities have reviewed and commented upon the full suite of FarmTech EA documents, or whether these entities were provided with the comments of other public/agency reviewers. Moreover, it appears from Table 1-1 and the appendices that neither Environment Canada nor Health Canada reviewed the proponent's air dispersion modelling, although the Screening Report author opined that the modelling was "acceptable." Our further comments on air dispersion modelling are set out below. Interestingly, Table 1-1 goes on to report that Natural Resources Canada has withdrawn as potential funder of the project, but fails to explain or elaborate upon the reasons for this withdrawal.

The Screening Report further advises that although FarmTech had previously applied for provincial certificates of approval under the *Environmental Protection Act* (EPA) and *Ontario Water Resources Act* (OWRA), FarmTech subsequently withdrew these applications and now intends to proceed without any EPA or OWRA approvals (page 8). Apparently, FarmTech and Oshawa Harbour Commission claim that provincial environmental legislation does not apply to undertakings occurring on lands under federal jurisdiction (page 8). In reply, it is our strongly held opinion that there is no legal merit in the argument that the EPA and OWRA are wholly inapplicable to this facility if constructed and operated as proposed by FarmTech.⁸

In this regard, we agree with the Screening Report that there is nothing in the CEAA that requires applicable provincial approvals to be fully in place before an RA takes a course of action under subsection 20(1) of the CEAA (page 8). On the other hand, we see nothing in the CEAA that authorizes an RA to knowingly fund a project which may be undertaken by a proponent in a manner contrary to law. Thus, the proponent's declared intention to sidestep the EPA and OWRA is not an irrelevant consideration in this case, and must not be endorsed or facilitated by the RA.

We further note that Ontario's Ministry of the Environment (MOE) has recently advised the AAFC that EPA and OWRA approvals will be required for this project if it proceeds.⁹ Moreover, despite the Screening Report's questionable assertion that the MOE was "generally satisfied" with FarmTech's previously filed applications under the EPA and OWRA (page 8), the MOE has confirmed that its review of the Screening Report "has identified a number of concerns related to air quality and odour impacts which have not been satisfactorily addressed" (i.e.

⁸ See, for example, *Canadian Pacific Ltd. v. Her Majesty the Queen in right of Ontario*, [1995] 2 S.C.R. 1031 (SCC).

⁹ Letter from MOE to Sandra Markey dated July 28, 2011.

cumulative effects, odour complaints protocol, odour mitigation plan, fugitive emission sources, air emission estimates, air quality/emissions monitoring plan, etc.).¹⁰

We would further point out that it is the MOE – not the Screening Report author – that has the mandate, resources and responsibility for determining whether the project is likely to meet the requirements of the provincial ministry (page 8). For the same reason, we take even less comfort in the Screening Report’s assurance that the Oshawa Harbour Commission (OHC) has indicated its willingness to monitor the project’s “environmental effects and adherence to standards generally equivalent to those of provincial law” (page 8). In our view, the OHC’s uncertain future, operational track record, pecuniary interest in the project, and general lack of environmental expertise means that it cannot and should not be relied up as a “proxy” for the MOE. The bottom line is that it is up to the MOE to monitor and enforce MOE standards, and our client strongly objects to any arrangement that features the OHC (or a successor port authority) as the main environmental protection agency in this case.

2. Detailed Project Description (Section 2.0)

The AAFC’s EA guidelines (April 2007) state that a “clear and detailed” project description is required (page 11). In our view, the project description set out in Section 2 of the Screening Report is neither “clear” nor “detailed”, which inevitably impairs the ability of the RA and other public/agency reviewers to understand and evaluate the project or its potential impacts upon the environment.

For example, the description of the “farmer-led” private proponent and its partners (i.e. FarmTech Growers Cooperative) is vague and devoid of detail (page 11). No information is provided about the corporate structure, officers/directors, or financial resources of FarmTech. No information is provided to demonstrate that FarmTech has operational experience in ethanol production in this province or any other jurisdiction. No information is provided in relation to the number or location of farmers or other persons who have become formal members of the cooperative to date. No explanation is provided about the nexus between FarmTech and the “O’Connor Land and Cattle” entity mentioned in the Screening Report. No information is provided in section 2.1 about the OHC, which has clearly partnered with FarmTech in relation to this project. These and similar information gaps are not fatal to the Screening Report, but they tend to diminish the overall credibility, traceability and accountability of the screening process.

Similarly, the Screening Report’s “background” and “purpose” discussion (pages 11-12) more closely resembles a hyperbolic business prospectus, rather than a detailed summary of the project’s history and context. For example, even if certain governments have prescribed ethanol content requirements for gasoline (page 11), it does not necessarily follow that an ethanol refinery must be built beside the Second Marsh.

Moreover, even if there are construction and full-time jobs associated with this project, it seems to us that the claimed economic benefits to the regional economy would be virtually identical if the project was re-located to non-waterfront lands elsewhere in Durham Region. In addition, corn growers’ perceived need for market security would still be met if the project proceeded on

¹⁰ *Ibid.*

non-waterfront lands. In short, even if there was an air of reality to the rosy economic figures presented in the Screening Report (i.e. 650 industry jobs, \$60 million in corn contracts, etc.), the Screening Report fails to properly justify the establishment of another ethanol refinery in southern Ontario, and most certainly does not justify the construction and operation of a new ethanol facility on the Oshawa waterfront beside Second Marsh.

We are compelled to again comment upon the Screening Report's contention that the project will create human health and environmental benefits, such as reductions in greenhouse gas emissions and use of fossil fuels (page 11). We have addressed such claims in our previous submission, and need not repeat our response again in detail.¹¹ Suffice it to say that it is well-documented that on a full life-cycle analysis, corn-based ethanol production: (a) requires more fossil fuel than the ethanol fuel produced; (b) generally causes or contributes to air, water and soil pollution; and (c) has only a limited impact in mitigating climate change. For these reasons, we submit that the health or environmental benefits alleged by the proponent cannot be used by the Screening Report (or the RA) as the justification for funding this project, particularly since there has been inadequate consideration of whether these hypothetical benefits are offset or outweighed by localized air, noise, or water impacts upon Second Marsh and its environs. In our client's view, this is not an acceptable trade-off, nor does it accord with the sustainability principles entrenched within the CEAA.

We are further compelled to respond to the Screening Report's suggestion that the project absolutely must, of necessity, be located on the Oshawa waterfront (page 13). To our knowledge, no other ethanol facility in Ontario has required direct access to a deepwater port in order to operate successfully. Simply put, there are other available industrial lands within Durham Region (i.e. Brock Township) that provide ready access to road and rail transport, that are even closer to corn production areas, and that are well-suited for an ethanol facility.

The Screening Report's suggestion that the OHC (or its successor) may derive some revenue from the project (page 13) cannot, in our view, serve as the rationale for building the ethanol plant beside Second Marsh, in direct defiance of the wishes of local residents and elected municipal officials. On this point, it is our understanding that the OHC claims to be financially self-sufficient, which means that it does not need FarmTech revenue in order to remain viable and functional.

In addition, since the Screening Report concedes that most of the incoming corn and outgoing product would be transported by truck to/from the site, there is no practical reason to accommodate the proponent's unproven need for the project to be located on the Oshawa waterfront. Similarly, no weight should be given to the Screening Report's speculative comments that a deepwater port is necessary to ensure a steady supply of corn if local suppliers suffer crop failure (although the Screening Report offers no statistical analysis of the frequency, duration or magnitude of catastrophic corn crop failures in southern Ontario).

The Screening Report then purports to provide a "detailed" description of the construction, operation and decommissioning phases of the project (pages 14-30). However, this description is very preliminary and conceptual in nature, and does not offer sufficient technical information

¹¹ Letter from CELA to Maria McGibbon dated October 17, 2008, page 17.

on many key operational activities. In this regard, the Screening Report offers no significant improvement over the sparse and generally incomplete detail provided in the proponent's EA documents to date.¹²

For example, the Screening Report reveals the proponent's intention to not undertake any detailed geotechnical work until after the AAFC makes its "course of action" determination under the CEAA (page 14). Similarly, FarmTech proposes to defer the following key items to some unspecified date(s) in the future:

- (a) details/location of the Harbour Road extension and realignment of the Waterfront Trail (page 15);
- (b) design details for related appurtenances (page 15);
- (c) location of the stilling basin or sediment trap (page 17);
- (d) emergency response procedures for the construction phase (page 18);
- (e) detailed design for utility connections (i.e. water, electricity, gas) (page 18);
- (f) construction plan for the corn storage silos/conveyor system at the Oshawa port (page 19);
- (g) plan to create on-site turtle nesting habitat (page 20);
- (h) spill containment plans/protocols (page 21);
- (i) design details for ethanol storage tanks (page 24);
- (j) decommissioning plan (page 30);
- (k) particulars regarding a possible CO₂ recovery plant (page 30);
- (l) further archaeological investigations (page 73);
- (m) fire safety training protocols/emergency response (page 78);
- (n) spill response protocols/procedures (page 79);
- (o) comprehensive Environmental Protection Plans for each project phase (page 80);
- (p) Community Action Plan containing notification/complaint protocols (page 80);
- (q) environmental effects/effectiveness monitoring program (page 80); and

¹² *Ibid.*, pages 6-7.

(r) additional pre-construction biological surveys (page 122).

In our view, the deferral of these and other critically important matters is unwarranted, unacceptable, and undermines the ability of the RA and public/agency reviewers to fully assess the likelihood or significance of the environmental impacts of the proposed activities. In addition, contrary to the public participation rights conferred under the CEAA, there is no guarantee that our client or other stakeholders will have a meaningful opportunity to review and comment upon these items as they are developed by the proponent in the future.

More alarmingly, the Screening Report advises that the AAFC expects the OHC to utilize the FarmTech lease to contractually require the proponent to “fully meet” the environmental and monitoring “commitments” scattered throughout the EA documentation (page 13). In our client’s view, this approach is highly objectionable since many of the key “commitments” have not been articulated in Schedule F in a sufficiently precise manner in order to facilitate timely and effective enforcement/compliance activities. Second, the lease (which has not been fully disclosed to the public to date) is only enforceable at the instance of the signatories, and “privity of contract” considerations will preclude other interested persons or agencies from taking steps to enforce contractual terms/conditions in the event of non-compliance by FarmTech. Third, our client respectfully suggests that the OHC is not an appropriate enforcement/compliance agency in this case, particularly since it will receive project-related revenue and therefore will have a vested financial interest if the project proceeds at the proposed location. Fourth, the AAFC’s inability to impose binding and enforceable terms/conditions in a statutory permit underscores the compelling need to ensure that FarmTech applies for, receives, and complies with provincial approvals as may be required under the EPA and/or OWRA.

Our client is also concerned about the Screening Report’s inadequate discussion of mitigation measures in Section 2 and elsewhere in the Report. For example, the Report provides nothing new or satisfactory in relation to the mitigation of the project’s visual impacts (page 19). While FarmTech proposes to use landscaping and naturalization techniques to “soften” the aesthetics of the plant buildings, these measures will fall considerably short in terms of screening the refinery from public view. The bottom line is that no amount of landscaping will make this plant unseen by, or more palatable to, visitors to the Second Marsh Wildlife Area and users of the Waterfront Trail. At virtually every turn, people will be confronted by a large, dusty, emissions-belching industrial complex adjacent to Second Marsh. In our client’s view, this unnecessary industrial intrusion will greatly diminish the natural viewshed, and will significantly affect the recreational, educational, interpretive and scenic values of the Second Marsh Wildlife Area.

Similarly, the Screening Report touts the benefits of a herpetile barrier, naturalized buffers/strips, and the possible establishment of turtle nesting habitat (page 20). In our client’s view, these and similar mitigation measures do not represent adequate compensation for the habitat loss and species impacts which may be caused by the construction and operation of the ethanol refinery. In addition, it is unclear whether the herpetile barriers will restrict herpetile migration through the area. Similarly, even if certain patches of land are “naturalized”, it appears to us that there will likely be a net loss in the total size of bird nesting area currently available on the Gifford Farmlands. Accordingly, it is our view that the Screening Report does not provide any credible

assurances that natural heritage features and functions will not be adversely affected by the construction, operation and decommissioning of the refinery.

3. Scope of the Project and the Assessment (Section 3.0)

In general, Section 3.0 of the Screening Report accurately summarizes the various considerations which must be addressed in a screening level assessment under the CEAA (page 31). This is not surprising since much of this text is substantially similar (if not virtually identical) to the relevant sections of the AAFC's EA guidelines (April 2007). However, as noted above, it is our opinion that the actual content of the Screening Report does not adequately canvass these matters at a sufficient level of detail. At best, Section 3.0 represents a statement of intention (or terms of reference) for a screening of the FarmTech project, but the Screening Report itself does not, in our view, meet the requirements prescribed under the CEAA.

4. Existing Environment (Section 4.0)

In our previous submission in 2008, we identified a number of shortcomings and deficiencies in the proponent's EA documentation in relation of existing baseline conditions.¹³ In our view, neither the proponent's updated EA work nor the Screening Report adequately address the problems in the description of current environmental conditions at the site vicinity.

For example, it appears that no site-specific hydrogeological assessment has been conducted to determine the presence of an aquifer under the proposed location (page 36). It is our submission that this constitutes a major oversight in the Screening Report, given that: (a) the local groundwater flow in the site vicinity is towards nearby surface watercourses; (b) there is clear potential for spilled substances to infiltrate into the groundwater flow system; and (c) the Report's explanation for this omission is unpersuasive and anthropogenic in nature.

More alarmingly, in its description of bird migration activity and breeding habitat usage in the site vicinity, the Screening Report is based upon an extremely limited number of ill-timed "field visits" and "surveys." For example, the Report states that "site-specific bird surveys" were carried out on September 15 and October 5, 2007, and again on June 16 and 26, 2008 (page 44). "Marsh monitoring" surveys were carried out on July 1 and 10, 2009 (page 46), and brief "crepuscular" (dusk) surveys were conducted on May 31, June 15 and 31, 2010 (page 47). In our client's view, these studies are inherently unreliable and wholly unacceptable for the purposes of meeting the requirements of subsection 16(1) of CEAA.

First, the "surveys" conducted in June should be considered as "summer" visits, not "spring" visits. Indeed, it appears that there is a complete absence of any credible or comprehensive spring migration surveys in this case. This omission is of grave concern to our client, particularly since Second Marsh is heavily used in the spring by migrants (including species at risk) moving towards nesting areas. Indeed, the numbers and diversity of waterfowl during the spring can consist of thousands of birds and up to 23 species recorded at one time. In our client's view, the failure or refusal to carry out a proper spring migration survey is both appalling and inexplicable. Moreover, the Screening Report's discussion of spring bird activity fails to refer

¹³ *Ibid.*, pages 8, 12.

to, or rely upon, readily accessible records of current and archival bird sightings in Second Marsh and environs (i.e. <http://ontbirds.ca>).

Second, the fall field visits summarized in the Screening Report are totally inadequate and unacceptable, particularly since this work appears to have been limited to just two morning visits on September 15 and October 5, 2007. In our view, this methodology is completely incapable of obtaining sufficient information and data to properly characterize fall migration activity at Second Marsh and its vicinity. Indeed, for the bulk of bird species known to be present in this area, the fall migration period should be considered as occurring between August 1 and December 1, and some shorebirds actually start their fall migration as early as late June. Moreover, several groups of birds (i.e. waterfowl and birds of prey) use periods other than morning as their primary migratory period of activity. Similarly, since several species leave their roosting locations at first light and do not return until dusk, the limited time spent by the proponent's consultants at the site likely missed extensive behavioural and habitat use of the area by fall migrants.

Third, to properly assess migration activity, both spring and fall surveys should have been undertaken in a consistent manner, starting ½ hour before sunrise and ending ½ hour after sunset for two or three days per week for the entire migration period. In addition, given the proximity of the project location to a provincially significant wetland and migration corridor, the fall bird surveys should have been carried out for full daylight periods at a minimum of every second week from August 1 to December 1.

Fourth, the 2009 “marsh monitoring” program should also be regarded as fundamentally flawed and unreliable. The proponent's Supplementary Report (May 2011) indicates that these surveys were conducted on July 1 and 10 (Section 4.3.1). In our client's view, this is very late in the breeding season, as the Ontario Breeding Bird Atlas and marsh monitoring protocols specify July 10 as the end of an acceptable breeding survey period. To obtain proper sampling data, the surveys should have been undertaken earlier, rather than at the last possible opportunity. In addition, the survey dates are only separated by 10 days, which is the absolute minimum according to marsh monitoring protocols established by Bird Studies Canada, and which is 5 days shorter than protocols for Great Lakes-wide monitoring established by the U.S. Environmental Protection Agency. Had these two surveys been conducted in June rather than July, it seems reasonable to anticipate that the survey crew would have noticed nests for the Ring-billed Gull (two nests), Caspian Tern (two nests) and Herring Gull (three nests), which were confirmed and recorded by other persons in 2009. This discrepancy calls into question the accuracy of the prediction in the Supplementary Report (May 2011) that these three species were “not expected to be breeding” in Second Marsh (section 4.3.3). To the contrary, Caspian Terns and Herring Gulls attempt to nest in Second Marsh on an annual basis.

In summary, since species diversity and numbers can and do change daily (and sometimes hourly) at Second Marsh and environs, the bird survey work conducted to date is woefully inadequate, and cannot be used to rationally support any claims that construction and operation of the project will not adversely affect avian species. Our client further notes that the southwest portion of Second Marsh is the area furthest removed from Highway 401, the railway, and human visitors, and therefore offers sanctuary for wildlife species. Indeed, many herons,

shorebirds and waterbirds congregate in that portion of the marsh (and the outlet of Farewell Creek) because of its relative isolation and high biological productivity. Accordingly, our client submits that constructing and operating the ethanol plant will add noise, disturbance and human presence where it does not currently exist, and which will likely displace species and decrease avian usage of the adjacent portion of Second Marsh.

The Screening Report acknowledges the presence of the Blanding's Turtle within Second Marsh, but states that no "prime nesting" areas were noted in the project's footprint (page 48), and that "no habitats on the site are currently protected" under the *Species at Risk Act* (page 58). In response, we would point out that the Blanding's Turtle (designated as "threatened" under the *Species at Risk Act*) makes extensive use of upland habitat for purposes other than nesting (i.e. dormancy, travel corridor, etc.).¹⁴ In addition, research has demonstrated that the Blanding's Turtle can travel hundreds of metres to nest in upland areas well away from wetlands. Since the Blanding's Turtle has been observed in the southwest portion of Second Marsh, it must be assumed that the entire site (generally characterized as sandy/silty in nature) could potentially provide nesting habitat for this species, and that Blanding's Turtles may attempt to nest several hundred metres to the west of the marsh.

However, our client remains concerned that the proposed fencing may limit the westerly movement of the Blanding's Turtle across the subject lands. In addition, given the preference of female Blanding's Turtles to choose nesting locations in relatively open areas (i.e. fields) and along paved roadways (Congdon et al. 2000; COSEWIC 2005), our client is concerned about road mortality of Blanding's Turtles due to increased truck traffic to and from the project site. Indeed, the COSEWIC assessment report on the status of the Blanding's Turtle specifically identifies road mortality as a cause of the decline in the Great Lakes-St. Lawrence population of this species (COSEWIC 2005). Moreover, constructing the plant, using the access road, and installing fencing may create habitat isolation/fragmentation in relation to this species, particularly in relation to wetlands to the west of Second Marsh.

In summary, the FSM submits that it cannot be concluded, on the basis of the Screening Report, that the Gifford Farmlands do not constitute usable (or critical) habitat for this species at risk, or that effective mitigation measures will be undertaken in relation to this species at risk. To the contrary, our client submits that the threatened status of the Blanding's Turtle calls for the application of the precautionary principle in this case for three main reasons: (a) the federal government has not yet defined "critical habitat" or developed a recovery strategy for this species under the *Species at Risk Act*; (b) the upland and wetland habitats in Second Marsh and the adjoining federal lands constitute preferred habitat for this species; and (c) the Blanding's Turtle has actually been observed in the southwest portion of Second Marsh. Thus, it seems unlikely that this species population will be maintained or increased if habitat likely to be designated as "critical" on these federal lands is not adequately protected.

In our client's view, there are various data gaps which plague the Screening Report's limited discussion of air-related matters. For example, the wind conditions at the proposed site were not measured by an on-site meteorological station, despite the fact that the proponent has had ample

¹⁴ Joyal et al., "Landscape Ecology Approaches to Wetland Species: A Case Study of Two Turtle Species in Southern Maine", *Conservation Biology*, Vol.15, No.6, December 2001.

opportunity to set up and monitor such a station since 2008. Instead, the Screening Report concedes that that wind conditions were “estimated” using data from somewhere in “Central Ontario”, which was deemed (without elaboration) to be “representative” of conditions at the site (page 63 and Appendix A: Exhibit 12). Given the proximity of Second Marsh (and its potential exposure to fugitive and stack emissions from the project), we submit that the failure or refusal to collect wind speed/direction data at the site is unacceptable, and should not be tolerated by the AAFC.

Moreover, the absence of actual on-site wind data calls into question the reliability or soundness of the air dispersion modelling conducted in relation to the project. In particular, it appears that the proponent and Screening Report author have continued to rely upon the AERMOD plume model (page 115), which was previously criticized by our client and other stakeholders as being inappropriate in this case due to the coastal location of the proposed site, and the likelihood that AERMOD will underestimate maximum ground-level concentrations of air contaminants emanating from the project.¹⁵ Indeed, the Screening Report concedes that AERMOD does not consider the proximity of the project to the shoreline (page 155).

We have similar concerns in relation to the general failure or refusal to collect relevant ambient air quality data in the site vicinity and local airshed (pages 63-64). Again, at all material times, it was open to the proponent (or Screening Report author) to conduct actual air sampling/analysis, rather than rely upon “guesstimates” predicated on data gathered by third-parties from non-Oshawa monitoring stations. In addition, it appears to us that the sparse ambient air quality information conveyed in the Screening Report does not capture the full suite of air contaminants which are likely to be discharged from the refinery.

In our view, these deficiencies raise significant concerns about the adequacy of the Screening Report’s identification and analysis of the project’s direct, indirect and cumulative impacts upon air quality. Moreover, our client derives no comfort from the Screening Report’s contention that baseline air contaminant concentrations met MOE standards (O.Reg.419/05), especially since some of the key data originated in Toronto or Mississauga rather than Oshawa, and since current MOE “point of impingement” standards pertain to individual substances and generally do not take synergistic or additive effects into account (particularly in urban “hot spots” with multiple sources of air contaminants). In addition, the Screening Report’s claim that Toronto and/or Mississauga are “similar” to the proposed site location is both unpersuasive and unproven. For example, it is unknown whether these non-Oshawa stations have nearby industries which are “similar” to those found currently operating along the Oshawa waterfront, or which emit odour and air contaminants which are “similar” to those emanating from existing facilities along the Oshawa waterfront (i.e. asphalt plant).

The Screening Report’s discussion of existing land use (pages 66-70) is marred by a lengthy and somewhat superfluous discussion of the OHC, port usage, and the recent tri-party settlement agreement. Indeed, it strikes us as incongruous that the Report’s discussion of these peripheral matters occupies more space than the review of climate and baseline air quality conditions. In addition, while the Report quotes at length from the settlement agreement, it appears to us that there is no language in the agreement (or the *Canada Marine Act*) that compels the OHC or its

¹⁵ *Ibid.*, page 11.

successor port authority to facilitate this private sector project or to become industrial landlords, as opposed to managing the port as a transportation hub.

We must also object to the Screening Report's assertion that the AAFC "has no authority to determine the appropriateness of the proposed land use", and that the AAFC is "solely responsible" for determining whether project is likely to cause significant adverse environmental effects (page 70). First, it is our position that this statement misstates (or unduly narrows) the legal test under subsections 16(1) and 20(1) of the CEAA. Second, while it is true that the AAFC does not hold any statutory land use controls over the subject lands, we submit that if and when the AAFC concludes, on the evidence, that the project is likely to cause significant adverse environmental effects, it necessarily follows that the proposed land use is inappropriate at this location, and that federal funding should be denied accordingly. Third, we further submit that no weight should be attached to the Screening Report's conjecture that it is still open to the OHC (or port authority) to refuse the project, regardless of whether AAFC funding is provided. Given that the proponent and OHC have already executed a lease agreement, it seems to us that such a scenario is highly implausible at the present time.

5. Assessment of Environment Effects, Mitigation Requirements and Residual Effects (Section 5.0)

Section 5.0 of the Screening Report claims that the scope of the assessment "covers all works and activities associated with the construction, operations and decommissioning phases of the project" (page 80). However, the Screening Report subsequently acknowledges that decommissioning activities "are unknown at this time" (page 162). Thus, we are unclear how the Screening Report author managed to identify and evaluate the environmental impacts of activities that are "unknown" at the present time.

Leaving aside this internal inconsistency, our client is more concerned about the general lack of rigour in, and highly subjective nature of, the net environmental effects analysis in the Screening Report. For example, the Report states that impacts upon "Valued Ecosystem Components" were evaluated on the basis of information supplied from the proponent, a review of project activities, an appraisal of the environmental setting, and "professional judgment" (page 80). In our opinion, the resulting impact analysis is far from robust, traceable, or replicable, and much of Section 5.0 strikes us more as wishful thinking (or speculative predictions) rather than objective and reliable findings. Thus, we largely view this portion of the Screening Report as opinion masquerading as fact, and we submit that the RA should place little or no weight on the debatable conclusions offered in the text and tables set out in Section 5.0 of the Report.

We further note that the preferred mitigation approach is "avoidance" (page 80). If this is true, then the proponent should avoid this site altogether, and relocate the project to more suitable lands which are not surrounded by sensitive receptors, species at risk, or provincially significant natural heritage. In our view, the most effective way to safeguard Second Marsh is to ensure that the proponent avoids the Gifford Farmlands in their entirety.

With respect to Table 5-2, it is unclear whether the assessment of "particulate matter" and "noise" (page 90) takes into account the high-volume truck traffic that will be entering and

exiting the site during the operations phase. Similarly, while Table 5-2 purports to assess “odour” (page 91), it is unclear whether specific air contaminants (i.e. volatile organic compounds, products of combustion, etc.) were evaluated in terms of air quality impacts. In addition, it is unclear whether the “noise” and “odour” assessment took into account wildlife sensitivity to such impacts. The assurance in Table 5-2 that the project “will meet all of the MOE regulatory thresholds for the release of contaminants” (page 91) should be given no credence by the RA, especially given the proponent’s withdrawal of its previous EPA application, and its declared intention to not apply for any provincial environmental approvals for the project.

Our further comments on these and other matters are set out below in relation to the proponent’s ostensible “responses” to public/agency concerns raised to date (Section 7.0 of the Screening Report).

6. Followup Programs and Monitoring (Section 6.0)

The Screening Report conveys the proponent’s intention to develop various plans to monitor and mitigate impacts arising from the project (page 137), such the Environmental Protection Plan, Community Action Plan, and Environmental Monitoring Program. The fundamental problem, however, is that none of these plans and programs actually exist at the present time. Moreover, it is uncertain when these plans/programs will be drafted, what the content may include, and whether interested/affected persons (such as FSM) will be able to participate meaningfully in the development of these plans.

Given this paucity of essential information, the RA is left with insufficient evidence to conclude that the proponent has presented monitoring/follow-up proposals which are viable, effective, and likely to produce the required data on the accuracy of EA predictions, the efficacy of mitigation measures, or the need for corrective or remedial action during the construction and operation phases of the project.

7. Public Consultation (Section 7.0)

The Screening Report claims that the proponent has addressed the numerous concerns raised by various public/agency reviewers, including our client (page 143). However, there is a vast difference between “addressing” a concern, and actually “resolving” a concern. Thus, while Table 7-1 sets out the proponent’s position on certain issues raised by stakeholders, our client notes that its concerns remain largely outstanding. In short, the FSM’s concerns have not been satisfactorily resolved by the pat answers provided by the proponent and summarized in the Screening Report.

For example, the proponent’s main response to concerns regarding devaluation of the waterfront as a community asset (page 145) is to develop a naturalized area and to construct a visual berm. As noted above, however, the local topography and the overwhelming size of the project buildings/structures will make this proposed mitigative mechanism wholly ineffective, and it will not prevent the degradation of visitors’ visual experiences within the Second Marsh Wildlife Area, particularly along the Waterfront Trail in the vicinity of the project. Indeed, the Screening

Report concedes that “the facility will be visible following mitigation” (page 157). In addition, our client submits that adding natural species to what are already mostly natural areas will be inconsequential in terms of wildlife habitat quality, and this commitment will not adequately offset the adverse impacts upon Second Marsh and its environs. Accordingly, no amount of spin within the Screening Report can disguise the fact that the project is not a compatible land use at this location.

The proponent further claims that that it is “highly likely” that the subject lands “will be utilized for some developmental purposes, regardless of the FarmTech project” (pages 145, 157 and 159). This is an extremely weak argument that in no way justifies the construction and operation of an ethanol refinery at this sensitive location. To the contrary, there is nothing inevitable about the industrial development of these lands, particularly since there appears to be no other private developer seeking to establish new industrial, commercial or institutional land uses on the Gifford Farmlands. Indeed, the lease executed between the OHC and FarmTech likely eliminates the possibility of other tenants on this property. Moreover, at the present time, it is impossible to predict, with any degree of certainty, what the successor port authority (or federal government) intends to do with these lands in the future. Thus, no weight should be attached to the unmeritorious and speculative argument that the project should be permitted to proceed because industrial development is “highly likely” at this location.

The Screening Report also suggests that its proposal “respects” the OMB-approved design guidelines (1995) for these lands, and further argues that the proposal is an “improvement” because it entails “a single use with relatively low land use intensity” (page 146). In our opinion, the project clearly falls outside the scope of the design guidelines, which is presumably why FarmTech applied for an official plan amendment and rezoning in the first place. Moreover, the mere fact that the project is a “single use” does not make it an “improvement,” and it cannot be seriously suggested that constructing and operating a large-scale industrial facility upon these sensitive lands somehow qualifies as a “relatively low land use intensity.” To the contrary, given the various environmental impacts and risks posed by the project, we submit that this “single use” is exactly the type of industrial development that the design guidelines sought to prevent at this location. Put another way, this project would be an obvious detriment to the type of sustainable waterfront that would result if the design guidelines were respected.

With respect to traffic-related concerns, the proponent states that 140 trucks per day will be entering the site (page 147). However, assuming that these vehicles do not remain on-site overnight, there will also up to 140 trucks/day exiting the site. This translates to almost 300 truck trips/day along the access road beside the Waterfront Trail and near the southern edge of the meadowlands of the Second Marsh Wildlife Area. It also appears likely that the bulk of these trips will occur during daylight hours, when the Trail is most likely to be experiencing its highest visitor usage. Contrary to the proponent’s claim that the Trail is like any other “walkway” or “public street” (page 146), our client submits that a public trail through a significant wildlife area is not like any regular sidewalk. Thus, the FSM submits that it is not acceptable to apply the same “potential noise and odour considerations” in this case. In short, our client maintains that the close proximity of the Waterfront Trail and Second Marsh Wildlife Area makes this vicinity particularly sensitive to truck traffic, noise and exhaust.

With respect to “environmental concerns” associated with diesel truck exhaust, the Screening Report contends that the traffic volume will not cause any “significant” change in the current situation, and refers to the proponent’s air dispersion modelling (pages 146-47). However, it is unclear from Table 5-2 in the Screening Report whether – or to what extent – the air emissions analysis for certain parameters (i.e. PM, odour, etc.) took truck traffic into account, or considered wildlife sensitivity to such contaminants. The Screening Report’s statement that traffic-related air emissions are regulated through vehicle manufacturing requirements (page 147) is unsatisfactory and unresponsive to the FSM’s concerns about vehicular impacts on local air quality, Trail users, and local wildlife.

The Screening Report then indicates that the 120 metre buffer zone is in accordance with the City’s Official Plan and other planning instruments (page 149). We hasten to add, however, that this buffer zone is best suited for activities that are actually permitted by the Official Plan to occur on the subject lands. As noted above, the project is not a permitted land use under the City’s Official Plan or zoning by-law. In our view, a non-conforming land use does not become acceptable merely because existing buffer zone requirements may be observed.

In relation to wildlife habitat concerns, the Screening Report opines, among other things, that “connectivity of habitats will be improved” (pages 149-50). In our client’s view, connectivity will not be “improved” by planting native species. In fact, connectivity already exists through the shrub, tree and grass zones along Harmony Creek, and through the wide expanse of crops on the Gifford Farmlands. Thus, our client submits that the establishment of the Project would considerably narrow or impair the movement of wildlife upon or through these lands.

Similarly, contrary to the Screening Report’s assurances, the planting of native species does not increase the available nesting opportunities for waterfowl or meadow bird species (pages 145 and 149-50). These species are known to nest frequently within crops planted near the marsh. In fact, the agricultural lands associated with Gifford Hill have historically been managed as forage. Hayland is an important upland habitat type for nesting birds such as waterfowl, especially when in close proximity to wetlands. The Screening Report’s inference (pages 145 and 153) that cultivated agricultural land has minimal value as nesting habitat is incorrect when part of the agricultural rotation is forage. Even when the agricultural use is for row crops, the land is still of value in the spring and fall when staging waterfowl feed on waste grain left behind after harvest. In addition, no credence should be given by the RA to the Report’s assertion that “new brooding habitat” will be created for waterfowl (page 149). Simply put, waterfowl do not use upland areas for brooding; instead, soon after hatch, the brood is moved to the wetland, where they spend the next few months until they are fledged.

In summary, it is our client’s view that the establishment of the Project would adversely affect and/or permanently remove a large area of nesting habitat that is currently available to bird species. This is particularly true if the “new” nesting habitat is located within the same 120 metre buffer which is supposed to contain the large berm. In our client’s view, the relatively steep slopes of the berm will not constitute high quality waterfowl nesting habitat. It should be further noted that construction of the stormwater management pond will also remove natural vegetation in this buffer zone. Thus, our client remains concerned that the various disturbances caused by an active ethanol refinery at the proposed site will inhibit more sensitive waterfowl

species (i.e. species other than the Canada goose and mallard duck) from nesting in the 120 metre buffer.

Incredibly, the Screening Report goes on to suggest that the Great Lakes Wetlands Centre proposed by our client will not be impacted because it will be one kilometre away from the ethanol refinery, and because “a berm and related landscaping” will be undertaken by the proponent (page 150). As discussed above, the local topography and overall dimensions of the refinery buildings/structures will render these mitigation measures totally inadequate. Visitors to the Second Marsh Wildlife Area will be invariably forced into a visual confrontation with the large-scale industrial complex on the subject lands. Moreover, the Great Lakes Wetlands Centre will have a rooftop “look-out” platform, and the Centre itself will serve as a gateway to the wildlife area as visitors view the marsh from various vantage points that have clear sightlines to the proposed refinery. In these circumstances, the simplistic suggestion that a berm or landscaping will fully mitigate visual impacts is both ludicrous and unsubstantiated.

The Screening Report also claims that the proposed location is “appropriate” because the project is merely an industrial use that the proponent wishes to establish near other industries in the general area (page 150). In reply, we submit that by any objective standard, the proposed waterfront location is not appropriate, and cannot be rationalized on the basis that there are some other pre-existing facilities nearby. We further note that in 1995, extensive negotiations were undertaken, and considerable public expenses were incurred, in the development of the OMB-approved guidelines which were intended to provide direction on which kinds of land uses were – or were not – permitted upon the Gifford Farmlands. In our view, the project clearly falls outside of the permitted uses contemplated by the guidelines. In addition, the above-noted Crombie Report recognized the proposed site as a valuable buffer between industry and the Second Marsh. Accordingly, we submit that the AAFC should not fund or otherwise facilitate the industrialization of these lands by the proponent in this case.

The Screening Report then attempts to refute widespread public concern about the proposed waterfront site by arguing that the location is “vital” because the project is, in part, “reliant” on Great Lakes shipping into the Oshawa port (pages 150 and 158-59). For the reasons outlined above, we submit that the RA should attach no weight to such claims because the vast majority of incoming corn and outgoing product will be transported by truck, not ships. In addition, to our knowledge, no other ethanol refinery in Ontario requires direct access to a deepwater port. Aside from the environmental risks posed by the project, we see no compelling reason for the AAFC to provide tens of millions of taxpayers’ dollars in this case when there is no demonstrable need to build the refinery near the port. To the contrary, it is our submission that the fiscally prudent (and environmentally sound) course of action is for the AAFC to refrain from providing federal funding to this ill-conceived and poorly sited project.

With respect to our client’s concerns about the Little Gull, the Screening Report’s commentary (page 151) only serves to highlight the seriousness of the project’s potential adverse impacts upon this species, which utilizes Second Marsh for various purposes. The current lack of legal protection under the *Species at Risk Act* does not alter the biological fact that Little Gulls are among the rarest (and least understood) breeding birds in North America (Ewins and Weseloh 1999). Interestingly, the first breeding record for this species was in Second Marsh in 1962

(Scott 1963). At the present time, the North American population is estimated to be only 400 individuals (Joos and Weseloh 2007; Milko et al. 2003).

The Little Gull populations are significantly restricted on this continent, and are likely continuing to decline due to their limited breeding and non-breeding ranges, as noted in the Screening Report (pages 151-52). One of the critical components of their non-breeding range is the migration staging area. Significantly, the southwest portion of Second Marsh, adjacent to the proposed project site, is one of only two North American springtime staging areas for the Little Gull. In fact, Second Marsh appears to be the most consistent spring location for this species, and it usually has the highest single day count of Little Gulls in North America on an annual basis. For example, on April 25, 2011, 81 individuals were counted in Second Marsh, representing 20% of the entire North American population. On spring days in previous years, over 100 individuals were counted in Second Marsh.

Little Gulls move throughout Second Marsh in early morning light in order to forage, as noted in section 4.6.2 of the Supplementary Report (May 2011). However, these birds primarily forage on the surface of Lake Ontario (with large flocks of Bonaparte's Gulls) after they leave the marsh in the morning. Moreover, the primary reason that this species utilizes Second Marsh is to perform courtship displays and pair bonding in and over the marsh. These remarkable courtship displays have been mentioned several times in birding records generated since 2002, but they appear not to have been referenced in the Supplementary Report or the Screening Report. In fact, for the past seven years, our client has partnered with the Canadian Wildlife Service to provide "Little Gull Viewing Days." This is a public event which draws visitors from across Ontario and the United States, and it provides them with an opportunity to observe and enjoy one of nature's spectacular exhibitions.

In particular, these courtship flights can involve up to over 40 birds at one time (approximately 10% of the entire North American population) displaying over Second Marsh. The courtship flights typically occur throughout the morning between 200 and 800 feet in the air above the marsh and surrounding areas, including the site of the proposed ethanol refinery. Accordingly, our client remains greatly concerned that the noise, air quality impacts, added human presence and other activities associated with the project may create a significant disturbance factor to these courting birds, and otherwise adversely affect the only known courtship area for this species.

More generally, our client submits that any degradation or impairment of Second Marsh as a staging area may cause detrimental effects on the Little Gull population in North America. In accordance with the precautionary principle, our client submits that such risks should not be incurred in this case, and are best avoided by not constructing or operating the ethanol refinery in close proximity to Second Marsh.

In response to our client's concerns about the Little Gull, the Screening Report (pages 151-52) invokes and relies upon the "Wings over Water" document, which assigned a relatively low threat (1 out of 5) to this species' non-breeding habitat. However, this document dates back to 2003, long before a large-scale ethanol refinery was proposed immediately beside Second Marsh, which is likely the most important spring staging area on the continent. At the very least, it

appears that this threat should now be upgraded to 4 (“significant potential threats exist, but have not actually occurred; concentration results in high potential risk”).

Regarding stakeholders’ concerns about the abject lack of technical detail in the EA documentation (especially in relation to mitigation measures and monitoring programs), the Screening Report suggests (without explanation) that it is “customary” to defer these matters until post-EA detailed design work is undertaken (page 153). In our view, this unsubstantiated proposition is contrary to the CEAA requirements in subsection 16(1), and should be summarily rejected by the RA in this case. On this point, the Federal Court has recognized that an EA of a project, and the assessment of environmental effects (and their mitigability), should occur only when the operational details of a project have been developed with sufficient particularity to facilitate meaningful public and agency review.¹⁶ To date, this level of technical detail has not been provided in this case, and the Screening Report’s generic discussion of key operational matters (and the proponent’s promise that plans will “evolve” in the future) is highly unacceptable.

In the context of aerial deposition of contaminants from the project, the Screening Report appears to concede that no surface water sampling was undertaken by the proponent, but downplays this fact on the primary basis that acrolein is unlikely to pose a problem in this case (page 153). This prediction is unresponsive to our client’s concern about the direct, indirect and cumulative effects of the full suite of volatile organic compounds (not just acrolein) and other air contaminants emanating from the project. Moreover, as described above, our client takes no comfort in the Screening Report’s claim that AERMOD modelling shows that MOE regulatory standards will be met.

The Screening Report then attempts to discount our client’s concerns about off-site impacts of organic dust from the project (page 153). The Report acknowledges that some dust may enter the marsh under some conditions, but claims (without elaboration) that this particulate matter will be “similar” to materials already entering the marsh from other sources. The Report further suggests that the turbidity and nutrient status of Second Marsh is dominated by runoff from urban, industrial, and agricultural lands. However, the Report itself notes that Harmony Creek has been diverted around Second Marsh (pages 39 and 41), meaning that the marsh is not dominated by nutrient inputs from upstream sources within the Creek’s drainage basin. Furthermore, it appears that the Screening Report does not address our client’s specific concern about the potential for the organic dust to serve as a fertilizer within Second Marsh and trigger (or contribute to) algae blooms and related disruptions of this sensitive ecosystem.

In response to our client’s concerns about lighting-related impacts upon astronomy activities in the site vicinity, the Screening Report states that the FSM website listing of upcoming events did not mention any astronomy outings (page 157). In response, our client notes that the event listing portion of the FSM website is a dynamic document that is updated as required, and it does not archive or record past events after they have occurred. Accordingly, the absence of a particular event from the current listing does not mean that such events have not occurred in the past, or that they will not occur in the future. More importantly, the FSM has, on a number of occasions, partnered with the Durham Region Astronomical Association to provide night-time

¹⁶ *Friends of the Island Inc. v. Canada* (1993), 10 C.E.L.R. (NS) 204 (Fed. Ct.) at para.41.

public education events in the southwest corner of the Second Marsh Wildlife Area, in close proximity to the project's proposed location. With minimal effort (i.e. a phone call to FSM representatives), this fact could have been readily verified by the Screening Report author, who instead relied solely on a cursory website review.

The Screening Report goes on to suggest that the area east of Second Marsh (i.e. between the marsh and McLaughlin Bay) is a "more suitable venue" for astronomy events (page 157). We question whether the author of this statement has actually visited the area in question; if so, it would be readily apparent that this eastern area is a relatively narrow strip of land bounded by tall trees along the northern edge. This effectively eliminates a large portion of the night sky for viewing and interpretive activities, whereas the southwest location (in a field close to the project site) provides a 360 degree view of the night sky, and, at the present time, it is relatively sheltered from direct lines of sight to existing light sources.

The Screening Report then argues that the proponent's lighting system will be designed to focus downward on work areas (page 157). This simplistic answer does not resolve our client's concerns about light pollution arising from the project, and the proponent's approach appears unlikely to fully mitigate or avoid light-related impacts. For example, even if lighting is focused downward with full cut-off fixtures, the resultant light can still reflect off pavement/concrete, buildings/structures, and vegetation, all of which will cumulatively contribute towards the sky glow effect. In addition, while Table 7-1 of the Screening Report discusses the intensity and direction of the outdoor lighting, it appears to overlook the other critical factor, *viz.*, the colour of the light. Outdoor lighting that emits in the blue-white end of the spectrum will have a more pronounced effect in increasing sky glow, and light at the bluish end can have more deleterious effects on flora and fauna (i.e. affecting breeding, foraging and other activities). Thus, if bluish and yellow light is emitted from the same lumens (light output), the bluish light may cause more negative effects upon the local environment.

It is our client's position that outdoor lighting should ideally have a correlated colour temperature (CCT) of 4100 Kelvin (or less), which is similar to moonlight (a natural source of night-time light). Since flora and fauna have evolved to deal with the presence (or absence) of moonlight, having artificial lights blazing throughout the night, regardless of intensity and colour, is inconsistent with natural rhythms. It appears that none of these considerations are discussed in Table 7-1 of the Screening Report, which, in our view, undermines the credibility of the Report's assertion that project lighting will not adversely affect Second Marsh or its wildlife species.

Our client further notes that the Community Strategic Plan developed by the Region of Durham has expressly adopted the goal of reducing "air and light pollution."¹⁷ Similarly, the Regional Official Plan states that "development shall take into account... noise, odour, dust, and light pollution," and that development shall "avoid and reduce light trespass, glare, overlighting, and 'uplight'" in order to "contribute to an aesthetically pleasing night-time environment" and to "protect the night sky for its scientific and natural interest."¹⁸ The Official Plan further provides that "outdoor lighting shall be directed away from key natural heritage and/or hydrologic

¹⁷ *Growing Together: Durham Region Strategic Plan 2009-2014*, Goal 2.6.

¹⁸ *Durham Region Official Plan* (June 5, 2008), Policy 2.2.5 and Policy 2.2.12.

features and their associated vegetative protection zones.”¹⁹ Thus, it is our submission that any new facility (such the proposed ethanol refinery) which adds to – rather than reduces – the existing light pollution burden is both undesirable and contrary to regional planning objectives.

8. Aboriginal Consultation (Section 8.0)

Our client has no comment on the adequacy of the aboriginal consultation program carried out on behalf of the RA (page 160).

9. Conclusion (Section 9.0)

The Screening Report’s overall conclusion is that “the residual impact [of the project] will be minimal to low,” and that “based on the detailed overview of Project activities and the evaluation of their potential environmental impacts, no significant residual effects are anticipated from the development of the project, in light of the proposed mitigation and follow-up measures” (page 161).

If this was the working hypothesis that directed the screening exercise, then, in our view, it has not been proven by the Screening Report or the proponent’s EA documentation. For the reasons outlined above, it is our opinion that the Report’s unduly optimistic conclusion has not been substantiated by the information-gathering and analytical work conducted to date by the proponent and the Screening Report author.

To the contrary, it is our submission that the available evidence points to the opposite conclusion, *viz.*, that significant adverse environmental effects are likely to be caused by the project despite proposed mitigation measures, and that such effects cannot be justified in the circumstances. In the alternative, it is submitted that there remains considerable uncertainty about the likelihood or significance of adverse environmental effects associated with the project. In either case, we conclude that the Screening Report has fundamentally failed to satisfactorily demonstrate the absence of significant adverse environmental effects, and otherwise fails to adequately canvass the various considerations prescribed by subsection 16(1) of the CEAA.

We further note that the Screening Report claims that the project is “similar” to the design used in the Suncor ethanol facility in Sarnia, which the Report states is being operated without public complaint (page 163). However, the Report fails to identify what is “similar” (or different) between the two facilities, and it is our understanding that the Suncor facility is not located beside a deepwater port, a provincially significant wetland containing species at risk, or thousands of nearby residents.

Moreover, we further understand that the Suncor facility is an area designated as “Industrial” in the St. Clair Township Official Plan, and that the distance to nearest residential area from the Suncor facility is approximately 4 kilometres. In addition, the facility is subject to a detailed certificate of approval issued by the MOE under the EPA in order to control emissions of contaminants from the site into the natural environment. Again, this underscores the importance

¹⁹ *Ibid.*, Policy 2.2.12.

of ensuring that the proponent in this case complies with the province’s environmental protection legislation.

PART IV – CONCLUSION AND REQUESTED OUTCOME

From a legal perspective, the fundamental condition precedent for providing federal funding to FarmTech is the completion of a Screening Report that fully satisfies the requirements of the CEAA, and that adequately addresses the various matters set out in subsection 16(1) of the CEAA at a sufficient level of detail. In our opinion, this condition precedent has not been fulfilled to date, and no weight should be attached to the Screening Report’s dubious claim that the project will not cause any significant adverse environmental effects.

Unless and until the statutory requirements under the CEAA have been met in this case, it is our submission that the AAFC cannot accept or rely upon the Screening Report as drafted, and cannot provide the federal funding assistance being sought by the proponent.

Accordingly, our client hereby requests the AAFC, as the RA in this case, to:

- (a) conclude that despite potential mitigation measures, the project is likely to cause significant adverse environmental effects that cannot be justified in the circumstances (subsection 20(1)(b) of the CEAA); or
- (b) in the alternative, conclude that this matter should be referred to the Minister for referral to a review panel in light of extensive public concern about the project, uncertainty about the likelihood or significance of adverse environmental effects, and other relevant considerations (subsection 20(1)(c) of the CEAA).

It is well-documented that the restoration of Second Marsh is well underway, but the marsh is still subject to ongoing degradation from various threats and activities.²⁰ Accordingly, it is not in the public interest to compound this problem by authorizing or funding another industrial threat to be constructed and operated immediately beside Second Marsh.

We trust that the foregoing comments will be taken into account as the RA makes its “course of action” decision under subsection 20(1) of the CEAA.

Please feel free to contact the undersigned if you have any further questions or comments regarding this submission.

²⁰ Satu Pernanen, *Marsh Bird and Vegetation Community Response to Water Level Management at Oshawa Second Marsh – 2005* (February 2006), pages 1 and 22; Central Lake Ontario Conservation, *2009 Durham Region Coastal Wetland Monitoring Report*, pages 34-35.

Yours truly,

CANADIAN ENVIRONMENTAL LAW ASSOCIATION

A handwritten signature in black ink, appearing to read 'R. Lindgren', with a long horizontal stroke extending to the right.

Richard D. Lindgren
Counsel

cc. The Hon. Peter Kent, Minister of the Environment
Doris Dumais, Director, MOE EA & Approvals Branch
Brian Brasier, FSM