

Ministry of Natural Resources
Confirmation Letter
Dated: October 23, 2012

Renewable Energy Operations Team
300 Water Street
Peterborough, Ontario
K9J 8M5

October 23, 2012

Suncor Energy Products Inc.
150 6th Avenue SW
Calgary AB
T2P 3E3

RE: Modifications to Suncor Energy Adelaide Wind Project Location

Dear Christopher Scott,

The Ministry of Natural Resources (MNR) has received the document dated October 15, 2012 that describes modifications to the Suncor Energy Adelaide Wind Project location made subsequent to MNR's letter confirming the Natural Heritage Assessment in respect of the project.

Upon review of the modifications, MNR is satisfied that the Natural Heritage Assessment requirements of Ontario Regulation 359/09 have been met. Please add this letter as an addendum to the confirmation letter issued July 31, 2012 for the Suncor Energy Adelaide Wind Project.

If you wish to discuss, please contact me at amy.cameron@ontario.ca or 705-875-7481.

Sincerely,



Amy Cameron
Coordinator
Renewable Energy Operations Team
Southern Region MNR

cc. Heather Riddell, Renewable Energy Planning Ecologist, MNR
Mitch Wilson, Aylmer District Manager, MNR
Narren Santos, Environmental Approvals Branch, MOE
Zeljko Romic, Environmental Approvals Branch, MOE
Mark Kozak, Environmental Scientist, Stantec

Natural Heritage Assessment and Environmental Impact Study

Addendum 1: October 15, 2012



Stantec

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October 15, 2012
File: 160960710

Ontario Ministry of Natural Resources
Southern Region Renewable Energy Operations Team
4th floor, South Tower
300 Water St
PO Box 7000
Peterborough ON K9J8M5

Attention: Heather Riddell

Reference: Suncor Energy Adelaide Wind Project Addendum 1

Dear Ms. Riddell:

This letter report is submitted as an addendum to the Suncor Energy Adelaide Wind Project Renewable Energy Approval Application – Natural Heritage Assessment and Environmental Impact Study (NHA/EIS) that was submitted to the Ministry of Natural Resources (MNR) in July 2012, and received a confirmation letter on July 31, 2012. This letter report should therefore be read in association with that document.

The proposed routing of the underground collector line between Features 22 and 23 as originally described under the NHA/EIS has been extended approximately 15 m to the east. The proposed shift remains on private land. The original Project Location and proposed modification are shown on the attached Figure 1.

The purpose of this letter is to provide the MNR with an understanding of the modification that has been made to the collector line routing since the NHA/EIS was confirmed by MNR and to provide an assessment of the proposed change to the routing in order to identify any additional potential effects, mitigation measures, or monitoring requirements that were not considered within the NHA/EIS.

The proposed modification involves shifting the proposed underground collector line eastwards and closer to the southeast corner of the woodlot in Feature 22. This modification is required based on property access restrictions arising in the location of the original proposed route. The modification revises the original routing so that the line will be directionally drilled underneath Feature 22. Construction works will be very short term in duration; drilling of the line underneath the feature would be completed within one day with additional time required for setup and removal of equipment and to clear and re-vegetate the drill pits.

Reference: Adelaide Wind Power Project Addendum 1

CHANGE TO IDENTIFICATION OF NATURAL FEATURES WITHIN 120 M OF THE NEW PROJECT LOCATION

There is no change to the natural heritage features associated with Feature 22. Feature 22 occurs within 120 m of the original as well as the proposed Project Location. Feature 22 was identified in the NHA/EIS (July 2012). A site investigation of the feature was completed and an evaluation of significance determined that Feature 22 represented significant woodland. It contained four wetland community ecosites (including two deciduous swamp communities, one thicket swamp and one mineral marsh community), although none of these communities were located within 120 m of the original or proposed Project Location. Feature 22 also contained amphibian breeding (woodland), and generalized significant waterfowl nesting and marsh breeding bird habitat, none of which is anticipated to be affected by the Project modification.

No new features are within 120 m of the Project Location as a result of the proposed modification to the location of the collector line.

No changes are required to the Records Review, Site Investigation or Evaluation of Significance reports as a result of the proposed changes.

CHANGE TO ASSESSMENT OF IMPACTS AND MITIGATION MEASURES

Vegetation removal to accommodate the western drill pit and staging area will be restricted to the cultural meadow community to the west of Feature 22 (identified as CUM1 on Figure 1), and will be at least 30 m from Feature 22. This removal will be temporary in nature and the cleared area will be replanted with native species upon completion of construction activities. The eastern drill pit and staging area will be in an active agricultural field to the south of Feature 22, also at least 30 m from Feature 22, and will not require any clearing of natural vegetation. As all components of the Project remain outside the woodland, wetland and wildlife habitat boundaries there will be no direct loss of habitat or function of Feature 22 as a result of the proposed modification.

Other potential impacts to Feature 22 from directional drilling are erosion, sediment deposition and damage to the structural roots of the trees. Given the temporary nature of the activity, the relatively short duration of activities, the location of the activities (at least 30 m from the edge of the feature) and the erection of barrier fencing (i.e., silt fencing), the risk of increased mortality to wildlife during construction of the line is considered extremely low.

The following mitigation measures are recommended:

- isolate the area with hay bales, sand bags, or silt fencing to surround and contain the drilling mud;
- consult with MOE regarding next appropriate action among the following:
 - a mobile vacuum truck will be used to pump the drilling mud from the contained area and recycled to the return pit;
 - the drilling mud will be left in place to avoid potential damage from vehicles entering the area;

Reference: Adelaide Wind Power Project Addendum 1

- once excess drilling mud is removed, the area will be seeded and/or replanted using native species similar to those in the adjacent area, or allowed to re-grow from existing vegetation;
- re-vegetated areas will be monitored twice per year for two years subsequent to frac-out to confirm re-vegetation is successful. If re-vegetation is unsuccessful, additional measures will be taken to restore the vegetation, including removal and replacement (using local soils) of existing substrate in the affected area;
- vegetation clearing will be conducted outside the breeding periods for birds and amphibians (i.e., no clearing will occur from April 1 to July 31);
- drilling equipment will be set up, and all drilling will be conducted, a minimum of 30 m from the edge of Feature 22 (as well as a minimum of 30 m from Feature 23). It should be noted that the nearest wetland boundary within Feature 22 to the proposed drilling is illustrated as SWD2-2, and is in excess of 100 m from the proposed modification;
- all drilling will occur at a depth of 3 m, or as close to this depth as construction and site conditions allow;
- prior to drilling, sediment control fencing will be installed at feature edges that occur within 30 m of drilling activities;
- topsoil stripped from the drill exit site must be stockpiled in a location designated by the Inspector;
- the topsoil stockpile must be located as far as possible from the feature;
- there is no watercourse crossing required as part of the modification, nor is there a watercourse in the vicinity of Feature 22. In the event of an inadvertent return or spill of drilling lubricant, preventive and responsive measures as outlined in the *Accidental Spills and Construction Emergency Response Plan* sections of the *Suncor Energy Adelaide Wind Power Project Construction Plan Report* will be implemented immediately;
- while refuelling activities will be required at the site of the directional drill, all fuel storage and refuelling activities will occur well away from the feature. In the event of an accidental spill, the MOE Spills Action Centre will be contacted as appropriate and emergency spill procedures will be implemented immediately; and,
- construction machinery should be checked for presence of wildlife (i.e., reptiles) daily prior to operating machinery.

As a result of the proposed project modification, the above mitigation measures should be supplemented to the Construction Plan Report and the Environmental Effects Monitoring Plan. The Construction Monitoring Plan for the proposed modification is provided in Table 1 of this letter report.

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October 15, 2012
Attention: Heather Riddell
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Reference: Adelaide Wind Power Project Addendum 1

OVERALL ASSESSMENT OF CHANGES TO NHA/EIS

Replacement of the assessment of potential impacts and mitigation measures for Feature 22 to Table 5.1 of the NHA/EIS.

Stantec Consulting Ltd. prepared this letter report for Suncor Energy for the Adelaide Wind Power Project. Suncor Energy is committed to implementing the appropriate protection and mitigation measures as they apply to the construction and operation of the proposed Project.

Respectfully,

STANTEC CONSULTING LTD.



Vince Deschamps, M.Sc., MCIP, RPP
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Attachment: Table 1: Construction Monitoring Plan
Figure 1: Collector Line Adjustment

c. C. Scott, Suncor Energy Products Inc.
M. Kozak, Stantec Consulting Ltd.

Reference: Adelaide Wind Power Project Addendum 1

Table 1: Construction Monitoring Plan

Potential Negative Effect	Mitigation Strategy	Performance Objective	Monitoring Plan					Contingency Measures
			Methods	Location	Frequency	Rationale	Reporting	
CONSTRUCTION								
Sediment deposition into Feature 22 (significant woodland, wetland, contained amphibian breeding (woodland), and generalized significant waterfowl nesting and marsh breeding bird habitat) from directional drilling.	Drilling equipment will be set up and all drilling will be conducted a minimum of 30 m from the edge of the feature. Topsoil stripped from the drill exit site must be stockpiled in a location designated by the Inspector. The topsoil stockpile must be located as far as possible from the feature.	No soil deposition in woodland feature.	Visual inspection of soil stockpile and observation along drilling route for inadvertent soil release into the woodland.	Designated soil stockpile location and drilling route under Feature 22.	Daily during drilling.	Once drilling has been completed and the drill pits re-vegetated, there will be no further risk of soil deposition in the woodland feature.	n/a	Removal of any material inadvertently deposited into feature.



Legend

-  Project Boundary
-  120m Zone Of Investigation
-  Proposed Turbine Location
-  Directional Drill Entry/Exit Point (Approximate)
-  Revised Underground Collector Line Route
-  Old Underground Collector Line Route
-  Expressway / Highway
-  Road
-  Watercourse
-  ELC Community Boundary
-  Property Boundary

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Orthographic imagery provided by Suncor, 2011. Imagery taken in Spring 2010.



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October 2012
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Client/Project
Suncor Energy
Adelaide Wind Project

Figure No.
1

DRAFT

Title
Collector Line Adjustment