

# The Corporation of the City of Kawartha Lakes

## Planning Committee Report

Report Number PLAN2017-009

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**Date:** February 8, 2017

**Time:** 1:00 p.m.

**Place:** Council Chambers

**Public Meeting**

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**Ward Community Identifier:** Ward 16 - Manvers

**Subject:** An application to amend the City of Kawartha Lakes Oak Ridges Moraine Zoning By-law 2005-133 to change the zone category on a portion of the property from Oak Ridges Moraine Country Side Area (ORMCS) Zone to an ORMCS Exception Zone on land described as Part Lots 8 & 9, Concession 3, former Township of Manvers, City of Kawartha Lakes, identified as 510 Telecom Road (DARMAR FARMS INC.) – Planning Application D06-17-002.

**Co-Author/Title:** Linda Russell, Planner II

**Signature:** 

**Co-Author/Title:** David Harding, Planner I

**Signature:**

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### Recommendations:

**RESOLVED THAT** Report PLAN2017-009, respecting Part Lots 8 & 9, Concession 3, geographic Township of Manvers, "DARMAR FARMS INC. - Application D06-17-002", be received; and

**THAT** a Zoning By-law Amendment respecting application D06-17-002, be referred back to staff, pending confirmation from the Ministry of Municipal Affairs and Housing and the Ministry of Environment and Climate Change that this proposal is permitted and until such time that all other agency comments have been received and any comments and concerns have been addressed.

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**Department Head:**



**Corporate Services Director / Other:**



**Chief Administrative Officer:**

## Background:

On May 7, 2017, the Ministry of Environment and Climate Change issued a Renewable Energy Approval (REA) for the construction, installation and operation of a Class 4 wind facility, known as "Settlers Landing", located at 510 Telecom Road. The site is comprised of Part of Lots 7, 8, 9, Concession 3, geographic Township of Manvers (refer to Appendix 'A').

On May 22, 2015, the REA was appealed to the Environmental Review Tribunal (ERT) on the grounds that the project will cause serious harm to human health and serious and irreversible harm to plant life, animal life and the natural environment. On November 18, 2015, the Tribunal issued an order, supporting the appeal. Specifically, the Tribunal found that construction and decommissioning of turbines 3 and 5, and the access roads to turbines, 2, 3, and 5 will cause harm to significant woodlands identified as Significant Woodland 11 (SW11), including the habitat it represents. On September 19, 2016, the ERT approved a Remedy Plan which revised the REA to address the harms found by the Tribunal. The goal of the Remedy Plan is to improve SW11, both in terms of its size and habitat value, within the lifetime of the project. The Amended Renewable Energy Approval was issued on September 23, 2016 (refer to Appendix 'B').

## Proposal

The applicant submitted a consent application to sever an approximately 0.72 hectare (1 acre) residential lot containing an existing dwelling, and retain approximately 102.28 hectares (252.74 acres) of agricultural and forested land. There are four agricultural buildings on the retained portion of the property (refer to Appendix 'C').

The retained land would be consolidated with non-abutting agricultural land. As a condition of provisional consent the agricultural land to be retained is to be rezoned to prohibit residential use.

The zoning by-law amendment application was submitted in anticipation that the consent will be approved and that a condition of provisional consent approval will be that the agricultural and forest lands be rezoned to prohibit residential use.

Owner:	Dale McFeeters, Darmar Farms Inc.
Applicant:	Bob Clark, Clark Consulting Services
Legal Description:	Part Lots 7, 8, 9, Concession 3, geographic Township of Manvers
Designation:	"Countryside Area" in the Oak Ridges Moraine Policy Area
Zone:	"Oak Ridges Moraine Countryside Area (ORMCS) Zone" on Schedule 'A' of the Oak Ridges Moraine Zoning By-law 2005-133.
Lot Area:	Total = 103 hectares (255 ac.)
Site Servicing:	Residential – Private individual on-site sewage disposal system and well Agricultural – Unserviced

Existing Uses: Severed – Dwelling currently used as an office  
Retained – Agricultural, Forest, Wind Turbine Project (Settlers  
Landing Wind Park)

Adjacent Uses: North, South: Agricultural, Forest, Rural Residential  
East, West: Agricultural, Forest

### **Rationale:**

Staff is seeking direction from the Ministry of Environment and Climate Change (MOECC), the Ministry of Municipal Affairs and Housing (MMAH), and the City Solicitor, as to whether the Renewable Energy Approval effectively sterilizes the use of the land for development proposals. It is not clear if this proposal impacts the REA, or is even permitted by the REA. The REA applies different rules to participating landowner (dwelling on the property the project is situated upon) than non-participating land owners (all other dwellings). The applicant submitted a planning justification report, but does not address any potential impacts created by this proposal. It does not appear that the approval authority, MOECC, has been consulted prior to submitting the Planning Act applications.

In addition, the proposed house to be severed is currently being used as an office for the construction company contracted to install the turbines. This use is not permitted in the zoning by-law. Staff is also seeking clarification on this issue.

### **Other Alternatives Considered:**

No other alternatives have been considered.

### **Financial Considerations:**

There are no financial considerations unless council's decision to adopt or its refusal to adopt the requested amendment is appealed to the Ontario Municipal Board. In the event of an appeal, there would be costs, some of which may be recovered from the applicant.

### **Relationship of Recommendations to the 2016-2019 Strategic Plan:**

This report does not align with any of the strategic priorities.

### **Servicing Comments:**

The agricultural land is un-serviced. The existing single detached dwelling on the land proposed to be severed is serviced by a private individual sewage disposal system and well.

### **Consultations:**

Notice of this application was circulated to all land owners of record within a 500 metre radius, plan review agencies, and City Departments which may have an interest in the application. To date, we have received the following comments:

January 10, 2017 – The Building Division has no objection to the application.

January 16, 2017 – The Building Division, Part 8 Sewage Systems, has no objection to the application.

January 18, 2017 – The Chippewas of Rama First Nation has not identified concerns.

January 25, 2017 – The Engineering and Corporate Assets Department has no objection to the application.

### **Attachments:**

Appendix 'A' – Location Map



Appendix A to  
PLAN2017-009.pdf

Appendix 'B' – Amended REA



Appendix B to  
PLAN2017-009.pdf

Appendix 'C' – Applicant's Sketch



Appendix C to  
PLAN2017-009.pdf

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<b>Department Head:</b>	Chris Marshall
<b>Department File:</b>	D06-17-002

to

REPORT PLAN2017-009

FILE NO: D06-17-002

**GEOGRAPHIC TOWNSHIP OF MANVERS**

Concession 4

**BOUNDARY OF  
SETTLERS LANDING  
WIND FARM**

Telecom Road

**LAND SUBJECT  
TO ZONING  
BY-LAW  
AMENDMENT**

Concession 3

Highway #35

Drum Road

Lot 7

Canadian Pacific Railway

Benson St

'Pontypool'

Lot 8

Lot 9

Lot 10

Concession 2





Ministry of the Environment and Climate Change  
Ministère de l'Environnement et de l'Action en  
matière de changement climatique

## AMENDMENT TO RENEWABLE ENERGY APPROVAL

NUMBER 8992-9TVSKD  
Issue Date: September 23, 2016

Settlers Landing Nominee Ltd.  
155 Wellington Street West, Suite 2930  
Toronto, Ontario  
M5J 2J2

Site Location: Settlers Landing Wind Park  
510 Telecom Rd Part of Lots 7-9, Concession 3  
Kawartha Lakes City  
L0A 1K0

*You are hereby notified that I have amended Approval No. 8992-9TVSKD issued on May 7, 2015 for a Class 4 wind facility , as follows:*

**A. The definitions of "Application" and "Equipment" are deleted and replaced with the following:**

11. "Application" means the application for a Renewable Energy Approval dated May 3, 2013, and signed by Ingo Stuckman, President and CEO of Settlers Landing Wind Park LP and all supporting documentation submitted with the application, including amended documentation submitted by the Company in support of the Company's remedy plan up to the date this Approval is altered;
24. "Equipment" means the four (4) wind turbine generators and one (1) transformer substation, identified in this Approval and as further described in the Application, to the extent approved by this Approval;

**B. Condition A1 is deleted and replaced with the following:**

- A1. The Company shall construct, install, use, operate, maintain and retire the Facility in accordance with the terms and conditions of this Approval and the Application and in accordance with the following schedules attached hereto:

Schedule A - Facility Description and Project Map  
Schedule B - Coordinates of the Equipment and Noise Specifications  
Schedule C - Enhanced Woodland Rehabilitation Protocol  
Schedule D - Implementation, Monitoring and Maintenance Plan

**C. Conditions I1 and I3 are deleted and replaced with the following:**

- I1.** The Company shall implement the Environmental Effects Monitoring Plan for the Settlers Landing Wind Park, titled Settlers Landing Wind Park Natural Heritage Environmental Effects Monitoring Plan dated October 3, 2014; the Enhanced Woodland Rehabilitation Protocol attached as Schedule C; the Implementation, Monitoring and Maintenance Plan attached as Schedule D; and the commitments made in the following reports and included in the Application, and which the Company submitted to the Ministry of Natural Resources and Forestry in order to comply with O. Reg. 359/09:
- (1) Settlers Landing Wind Park, Natural Heritage Assessment and Environmental Impact Study, November 2, 2012, prepared by M.K Ince and Associated Ltd.; and
  - (2) Settlers Landing Wind Park Natural Heritage Assessment and Environmental Impact Study Addendum, February 19, 2013, prepared by M.K Ince and Associated Ltd.
- I3.** The Company shall implement the post-construction bird and bat mortality monitoring described in the Environmental Effects Monitoring Plan, described in Condition I1, at all four (4) constructed turbines.

**D. Schedule A is deleted and replaced with the following:**

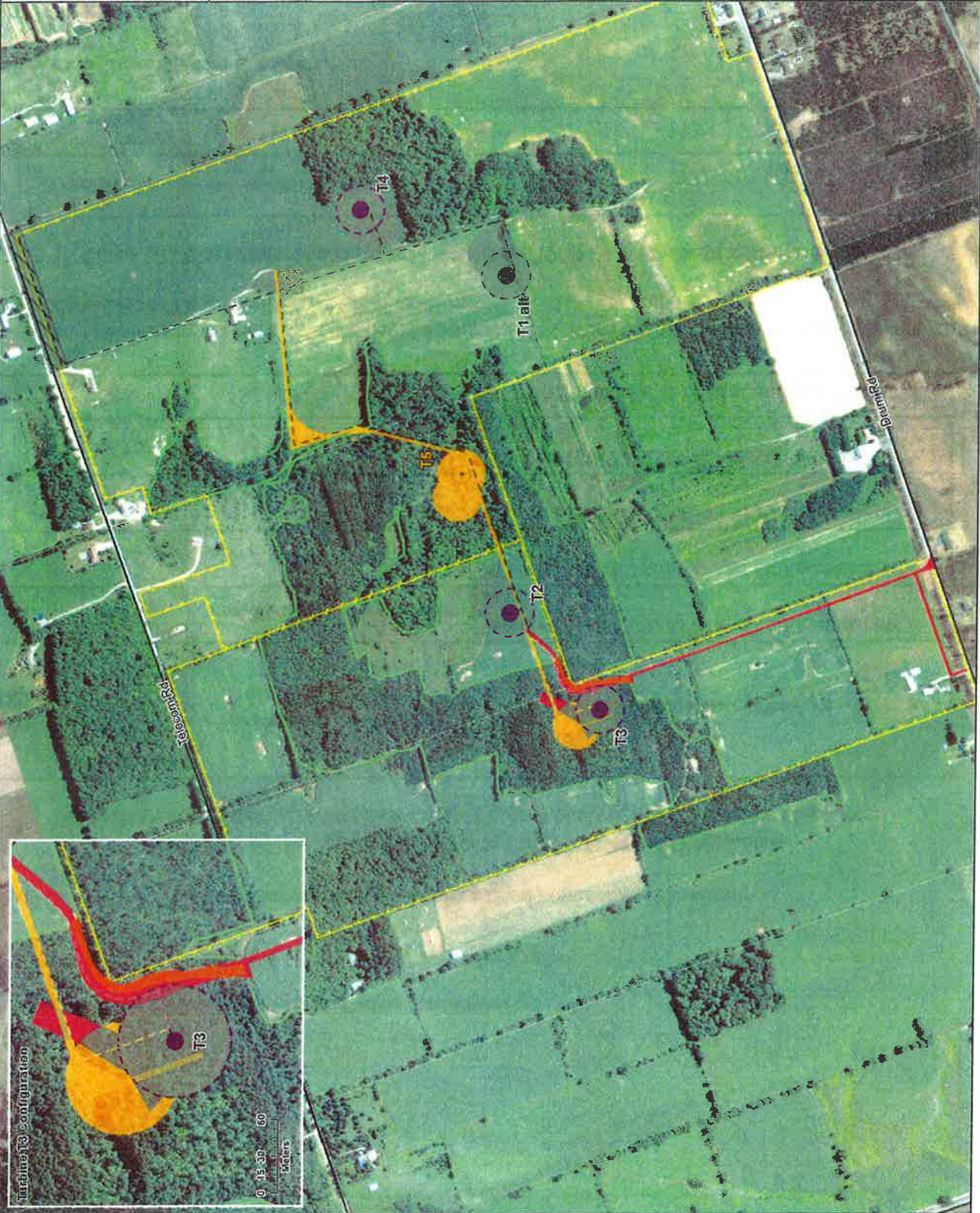
**SCHEDULE A**

**Facility Description**

The Facility shall consist of the construction, installation, operation, use and retiring of the following:

- (a) a total of four (4) Senvion MM92 wind turbine generators with a maximum total name plate capacity of 8 megawatts (MW), designated as source ID Nos. T1\_alt, T2, T3 and T4, each with a hub height of 100 metres above grade, and sited at the locations shown in Schedule B, in accordance with Condition C1(2)(b); and
- (b) associated ancillary equipment, systems and technologies including one (1) 10 mega-volt-ampere (MVA) transformer substation, on-site access roads, underground cabling and overhead distribution lines,

all in accordance with the Application, and the Project Map in Schedule A. Where there is a conflict between the Application and the Project Map in Schedule A with respect to (i) the dimensions and location of the laydown area for turbine T3, (ii) the dimensions and location of the access road and collector line to T2 and T3, and (iii) the installation method of the collector lines, the Project Map shall take precedence.



Project Map

Case No. 15-037  
Appendix D

- Project Infrastructure Added**
- Collector Line (Cabling)
  - Access Road / Laydown Area
- Project Infrastructure Removed**
- Wind Turbine
  - Collector Line (Cabling)
  - Access Road / Laydown Area
- REA Project Layout**
- Wind Turbine
  - Collector Line (Cabling)\*
  - Access Road / Laydown Area
  - Substation Area
  - Point of Common Coupling Area\*\*
  - Blade Sweep (82.5 m)
- Base Layers**
- Road
  - Existing Farm Roadway
  - Significant Woodland (WO11)
  - Property Boundary
  - Participating Property

\* Collector Lines will be directional drilled under the eastern part of woodland WO11 (east of turbine T2).  
\*\* The point of common coupling will be chosen along the project electrical line within this represented area.



Settlers Landing Wind Park

Project Map

March 2016	1:7 000	Datum NAD 1983 Zone 17N Source LID, MINRF, OBIM, FBS
PR 60401000		

**AECOM**

Exhibit 15

This drawing has been prepared for the use of AECOM clients and may not be used, copied, or reproduced in any form without the written consent of AECOM. AECOM accepts no responsibility for any errors or omissions in this drawing.



E. Schedule B is deleted and replaced with the following:

### SCHEDULE B

#### Coordinates of the Equipment and Noise Specifications

Coordinates of the Equipment below in UTM, Z17-NAD83 projection

**Table B1: Coordinates and Maximum Sound Power Levels of Wind Turbine Generators**

Source ID	Maximum sound power level (dBA)	Easting (m)	Northing (m)	Source description
T1_alt	103.2	688,252	4,885,866	Senvion MM92, 2.0 MW and 100 metres hub height
T2	103.2	687,603	4,885,855	Senvion MM92, 2.0 MW and 100 metres hub height
T3	103.2	687,415	4,885,682	Senvion MM92, 2.0 MW and 100 metres hub height
T4	103.2	688,379	4,886,145	Senvion MM92, 2.0 MW and 100 metres hub height
S2	82.5	688,241	4,886,277	10 MVA Transformer Substation, See Table B2

Note: The Maximum Sound Power Level of Source ID "S2" include the applicable 5 dB tonal penalty described in the Noise Guidelines for Wind Farms.

**Table B2: Maximum sound power level (dB) of 10 MVA Transformer Substation**

Transformer	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Sound Power Level (dB)	85.1	87.1	82.1	82.1	76.1	71.1	66.1	59.1

F. Schedule C is added to the Approval:

### SCHEDULE C

#### Enhanced Woodland Rehabilitation Protocol

#### 3.3 Post-Construction Monitoring commitments for Significant Natural Features

##### 3.3.1 Woodland Rehabilitation (WO11)

The following protocol applies to woodland WO11. This woodland is a significant woodland on the Oak Ridges Moraine.

During the construction phase of Settlers Landing Wind Park, 0.97 ha of WO11 (2.2% of the total woodland area) will be cleared in the area of turbine T3 and in the area of an existing farm road. The area cleared around T3 (0.85 ha) will be used for the construction of the turbine, including the foundation, crane pad, and the crane and rotor assembly and laydown areas. During the operation of the wind park, the horizontal blade swept area for T3 will be situated within WO11, however, no additional woodland will be cleared for operational activities. The existing farm road will be widened (clearing of 0.12 ha) to act as a project road to access turbines T2 and T3.

Clearing will occur within the following ELC type:

- FOCM6-3 (Dry-fresh Scots Pine Naturalized Coniferous Plantation)

To ensure that the negative ecological impacts are rectified and a net benefit is provided in less than the life of the project, the following measures will be implemented before the construction phase and following project decommissioning.

**Prior to project construction:**

A detailed botanical inventory (a comprehensive species list of all vascular plants within each polygon) has been undertaken by qualified and experienced field naturalists once during the month of May 2013, and once during mid-late summer prior to construction (completed in summer 2013). Photographs have been taken within the construction footprint to inform future regeneration efforts.

The goal of this analysis is to gather a complete and up-to-date species list for each ELC polygon collected from the early and mid-late growing season. Each species list will inform naturalists of total biodiversity within each polygon, and these lists will be utilized to inform woodland rehabilitation efforts.

An additional very detailed tree inventory (a species list of all trees within each polygon) has been conducted by qualified and experienced field naturalists in the area of turbine T3 and the existing farm road during the months of December, 2015 and January 2016 in order to further characterize the species and age of the trees in these areas, and to inform decisions with respect to the proposed planting and transplanting list.

**Following project construction:**

Approximately 0.97 ha of WO11 is planned for clearing during the project construction phase (0.85 ha in the Reduced T3 Area, and 0.12 hectares in the area of the Alternate Access Road). Within one year of construction, a total of 2.7 hectares of open meadow located in the center of WO11 as illustrated in the Figure below will be used for new growth. 1.5 hectares will be used for an intensive rehabilitation effort (the "Woodland Rehabilitation Area"). This reflects a 3:2 ratio of habitat regenerated to land cleared. There will also be a 1.2 ha area of natural plantings as well (see below).



For rehabilitation, the following measures will be taken in the Woodland Rehabilitation Area:

- A range of large and medium sized trees removed from the Reduced T3 Area and Alternate Access Road area will be transplanted to the Woodland Rehabilitation Area. Trees for transplanting will be identified based on size and species, with the aim of creating a forest composition and function that is similar to that of the natural communities surrounding the Woodland Rehabilitation Area.
- Native saplings and seedlings will be planted in the Woodland Rehabilitation Area with the goal of providing high quality forest habitat that is consistent with surrounding communities. Tree species will be chosen that are naturally occurring within the area. Saplings/seedlings will be obtained from a supplier that maintains seed banks from local sources. Trees will be planted at a density of approximately 1000 stems/hectare. The new plantings will include trees up to 15 years of age. Table 1 below sets out each tree species that will be used in the Woodland Rehabilitation Area, the number of trees that will be transplanted and purchased for planting, and the percentage each tree species will make up of the total composition of trees replanted

and planted.

- For the first two years following planting and replanting, monitoring and maintenance will occur once monthly between the months of May and September to collect complete inventories of vascular plants within the Rehabilitation Area, to remove non-native woody species, and to remove native woody species in the vicinity of planted seedlings/saplings that are not associated with the adjacent ELC polygon type. The survival and health of the trees transplanted and planted will be monitored during each monitoring event in the first two years. Photographs will be taken of the Woodland Rehabilitation Area at each visit.
- After the first two years, the above intensive monitoring and intensive maintenance measures will be implemented each growing season (once between April and June and once between July and September) until the 10th year after construction, or until an agreement is reached between the proponent and the MNRF that the intensity may be reduced. Thereafter, the same monitoring will continue to occur each growing season (once between April and June and once between July and September), and the maintenance will be on an as-required basis, until the 20th year after construction or until an agreement is reached between the proponent and the MNRF that regeneration efforts have been sufficient.
- An analysis of biodiversity comparing the Woodland Rehabilitation Area and the adjacent woodland community will be performed in years 1, 5, 10 and 20, and following each analysis a summary report will be submitted to the MNRF.
- Vernal pools will be created by constructing pits and mounds within the Woodland Rehabilitation Area, to provide shelter, food and nursery habitat for a variety of invertebrate, amphibian, reptile, bird and mammal species.
- Woody debris will be retained from the existing Reduced T3 Area and will be relocated to the Woodland Rehabilitation Area to assist in influencing the nutrient cycle, soil erosion and formation and water retention.

In addition to the Woodland Rehabilitation Area (1.5 ha), an additional 1.2 ha of area will be planted to contribute to overall habitat and consist of two areas that are 0.2ha and 1.0ha in size. These areas are referred to as Additional Planting Area and are located east and south of the main Woodland Rehabilitation Area respectively. Additional plantings will include sugar maple and oak species ranging in age up to 15 years as well as meadow species throughout.

#### **Following project decommissioning:**

During project decommissioning turbine T3 will be removed entirely. The empty area will then be rehabilitated, as will the widened area around the existing farm road.

In the Reduced T3 Area and the Alternate Access Road native saplings or seedlings will be planted in the same ratio/composition as the adjacent ELC polygon, or similar pending consultation with Trees Ontario. Saplings/seedlings will be obtained from an organization that maintains seed banks from local sources. Trees will be planted at a density of approximately 1000 stems/hectare. Monitoring and maintenance will take place exactly as described above (following project construction), adhering to regeneration plans reflecting ELC polygon types present prior to construction.

Table 1. Woodland Rehabilitation Area - List of Trees to be Transplanted and Planted

Common Name	Scientific Name	Source	Number	DBH (cm) Size Range	% Composition	Overall Total (% composition)	
DECIDUOUS TREES							
American basswood	<i>Tilia americana</i>	Transplanted Purchased native stock	3 168	5-20 1-5	10.7%	1,403  (89%)	
American beech	<i>Fagus grandifolia</i>	Transplanted Purchased native stock	6 23	1-5 1-5	1.8%		
black cherry	<i>Prunus serotina</i>	Transplanted Purchased native stock	71 0	1-5	4.5%		
choke cherry	<i>Prunus virginiana</i>	Transplanted Purchased native stock	17 0	1-10	1.1%		
ironwood	<i>Ostrya virginiana</i>	Transplanted Purchased native stock	0 3	1-5	0.2%		
pin cherry	<i>Prunus pensylvanica</i>	Transplanted Purchased native stock	50 0	1-5	3.2%		
red maple	<i>Acer rubrum</i>	Transplanted Purchased native stock	31 51	1-20 1-10	5.2%		
red oak	<i>Quercus rubra</i>	Transplanted Purchased native stock	33 236	3-10 1-20	17%		
sugar maple	<i>Acer saccharum</i>	Transplanted Purchased native stock	6 400	3-10 1-20	26%		
cottonwood	<i>Populous deltoides</i>	Transplanted Purchased native stock	0 20	1-5	1.3%		
trembling aspen	<i>Populous tremuloides</i>	Transplanted Purchased native stock	0 102	1-3	6.5%		
white birch	<i>Betula papyrifera</i>	Transplanted Purchased native stock	5 28	1-10 1-10	2.1%		
white oak	<i>Quercus glabra</i>	Transplanted Purchased native stock	0 148	1-5	9.4%		
CONIFEROUS TREES							
white spruce	<i>Picea glauca</i>	Transplanted Purchased native stock	163 0	1-20	10.3%		173  (11%)
red pine	<i>Pinus resinosa</i>	Transplanted Purchased native stock	6 0	5-10	0.4%		
white pine	<i>Pinus strobus</i>	Transplanted Purchased native stock	4 0	10-20	0.25%		
Total Species	16		1,576		100%		

**G. Schedule D is added to the Approval:**

**SCHEDULE D  
Implementation, Monitoring and Maintenance Plan**

**REMEDY PLAN  
WOODLAND REHABILITATION  
IMPLEMENTATION, MAINTENANCE & MONITORING**

**1.0 PLANNING AND MOBILIZATION**

**1.1 Planning for Transplanting**

In order to achieve a woodland community that will recreate the woodland community adjacent to the Woodland Rehabilitation Area, ecologists will examine the topography of the rehabilitation area and assess the best transplant location for each selected tree. Transplanting locations of each tree will be based on site-specific considerations as to soil, drainage, wind and sun exposure and other conditions, in order to avoid any increased mortality of transplanted trees. Transplanted trees will be placed in a way to maximize initial canopy cover within the Woodland Rehabilitation Area.

A Landscape Drawing (the "Landscape Drawing") will be developed for transplanted trees based on the ecologist's and landscape architect's recommendations, which will form part of the Landscape Drawing.

**1.2 Planning for New Stock Planting**

As with the transplanted trees an ecologist will examine the existing ELC data for the woodland adjacent to the Woodland Rehabilitation Area and select locations and densities of tree planting based on their: species, size, soil and drainage requirements, and in a way that will result in a community which recreates the characteristics of the adjacent woodland. The planted new stock trees will be placed in such a way so that species are intermixed throughout the Woodland Rehabilitation Area and to compliment the transplanted trees.

A Landscape Drawing will be developed for new stock planting based on the ecologist's and landscape architect's recommendations, which will also form part of the Landscape Drawing.

**1.3 Production of Specifications and Tender Drawings**

In order to ensure all tasks associated with the Woodland Rehabilitation Plan are implemented as designed to achieve the desired outcome, drawings and specifications will be prepared for contractor(s) to review and provide a bid, consistent with the Landscape Drawing. During the bidding period the ecologist and/or the landscape architect will be available to respond to questions from the bidding contractor(s).

**2.0 CLEARING AND GRUBBING OF REMEDY AREA**

The ecologist and/or the landscape architect shall meet with the awarded contractor to kick off the removal and planting phases. Contractors will clear the Woodland Rehabilitation Area of existing vegetation, including all tree and meadow species. An environmental monitor (being a qualified ecologist or landscape architect) will be on-site to monitor the staking activities to ensure the appropriate area is delineated and cleared. Clearing activities will take place after the breeding bird timing window for the area (April 20th - August 13th for meadow habitats).

### **3.0 TREE TRANSPLANTING**

#### **3.1 Flagging Trees to be Transplanted**

A Landscape Drawing will be consulted to determine the trees that will be transplanted and identified in the field by its unique aluminum tag number. Trees to be transplanted will be flagged with flagging tape.

#### **3.2 Grading and tree clearing within Reduced T3 and Alternate Access Road Areas**

Clearing of vegetation and trees that are not identified for transplant within the Reduced T3 Area and the Alternate Access Road will be completed by the contractor to allow vehicles mounted with hydraulic tree spades to access the larger trees to be transplanted. These trees would be otherwise removed as part of the clearing process for these two areas. Grubbing and grading may be required to facilitate vehicle use. An environmental monitor will be on-site during all clearing activities. Clearing activities will take place after the breeding bird timing window for the area (April 15th - August 12th for forested habitats).

#### **3.3 Determining of Locations of Transplanted Trees**

An environmental monitor will be on site for the transplanting activities to ensure that the correct trees are transplanted to the correct locations. The trees that have been flagged for transplant will be removed from the Alternate Access Road and the Reduced T3 Area, and transplanted into the appropriate location within the Woodland Rehabilitation Area, as indicated on a Landscape Drawing .

### **4.0 PLANTING OF NEW TREES**

An environmental monitor will be on site during the planting of new trees to ensure that a Landscape Drawing is followed appropriately. Whips and various tree sizes will be planted throughout the Woodland Rehabilitation Area in accordance with the locations and densities outlined in a Landscape Drawing.

### **5.0 PIT AND MOUND CONSTRUCTION**

#### **5.1 Determination of Pit and Mound Locations**

The Woodland Rehabilitation Area will be examined on-site by an ecologist or environmental monitor to determine the best possible location for pits and mounds, and to maximize the potential for development of vernal pools.

## **5.2 Co-ordination of contractor**

An ecologist or environmental monitor will direct the contractors to the appropriate location for pit excavations and mound placement, as well as the required design specifications. The contractors will proceed with the construction of the pit and mound features.

## **6.0 SEEDING AND REPLACEMENT OF WOODY DEBRIS**

### **6.1 Seeding**

Following the transplanting, planting of new trees and excavation of the pits and mounds, the Woodland Rehabilitation Area will be seeded with a native seed mix. This seeding will be used to establish ground cover within the Woodland Rehabilitation Area. An environmental monitor will provide oversight during these activities to ensure the appropriate area is seeded with the correct density of seeds and that the seeds are incorporated into the soils.

### **6.2 Place piles of woody debris**

Wood brush piles and logs created from trees cleared from the Alternate Access Road and the Reduced T3 Area will be placed throughout the Woodland Rehabilitation Area to provide increased habitat for birds and small mammals. An environmental monitor will be on-site to oversee the placement of the woody debris piles.

## **7.0 MAINTENANCE**

### **7.1 Two Year Maintenance Period**

The following will be undertaken with respect to maintenance during the first two years following implementation:

1. Commence to maintain plant material and seeded areas (as described below) immediately after installation and maintain them in a vigorous growing condition throughout the 2-year period.
2. In accordance with the specifications on the care and maintenance of plants and seeded areas the contractor shall:
  - (a) Maintain by watering, pruning, cultivating and weeding as required for healthy growth of trees and shrubs.
  - (b) Tighten and repair stakes and guy supports and reset trees and shrubs to proper grades or vertical position as required. Remove all stakes and guying at the end of the 2-year period.
  - (c) Install and maintain integrity of rodent protection measures (i.e., tree guards).
  - (d) Restore or replace damaged wrappings. Spray as required to keep trees and shrubs free of insects and disease. Replace plant stock that is dead, or not in a flourishing growing state or does not

meet the requirements set out in the specifications. Remove dead stock immediately. Replace plant stock at the proper time (spring or late summer) during the next planting season. Tag or mark replacement material in a permanently visible manner and notify the project owner and its environmental consultant in writing of the date on which the replacement was planted. Include a sketch showing the location of replaced plants.

- (e) Maintenance shall include keeping temporary protection fences, barriers and signs in place as required for protection.
- (f) Coordinate watering to provide deep root watering to all newly installed, transplanted and new trees and shrubs. Water plant material every three (3) weeks for the period between mid-May and mid-August; six (6) times per season for the 2-year period, for a total of twelve (12) waterings. Provide additional watering through July and August based on rainfall occurrences in order to keep plants well-watered and to ensure vigorous, healthy growth.
- (g) Water seeded areas (if seeded in the spring-early summer or late summer-early fall) regularly during the first six (6) to eight (8) weeks after planting, to maintain optimum soil moisture level for germination and continued growth of grass. Avoid seeding in July or August. Control watering to prevent incidents of erosion. Watering should be applied on a three week interval. Additional watering may be needed through July and August based on rainfall occurrences. Thoroughly water evergreens in late fall prior to freeze-up to saturate soil around root system.
- (h) Install winter protection (burlap) to coniferous trees in October-November and remove the following spring during the 2-year period.
- (i) Fertilize trees at time of planting for establishment: 10-6-4 at 1 kg per 25 mm of tree caliper or as outlined in planting soil analysis fertilizer recommendations from a certified soil testing lab. Apply two fertilizer applications, one in early spring and one in late summer during the two-year period.
- (j) Remove weeds from planting bed mulch on a regular basis. Top up mulch to ensure 100 mm depth during the two-year period.

## **8.0 MONITORING**

### **8.1 Construction Monitoring**

An environmental monitor will be on-site to monitor all clearing activities, to ensure that the appropriate trees are being cleared.

### **8.2 Post Planting Monitoring and Reporting Procedures**

The maintenance work will be inspected by the project owner's environmental consultant during three site visits, reporting and documented in writing for the project owner. Such inspection and reporting of the maintenance work will be performed in accordance with the amended Woodland Rehabilitation Protocol.

**This Notice shall constitute part of the approval issued under Approval No. 8992-9TVSKD dated May 7, 2015.**

DATED AT TORONTO this 23rd day of September, 2016

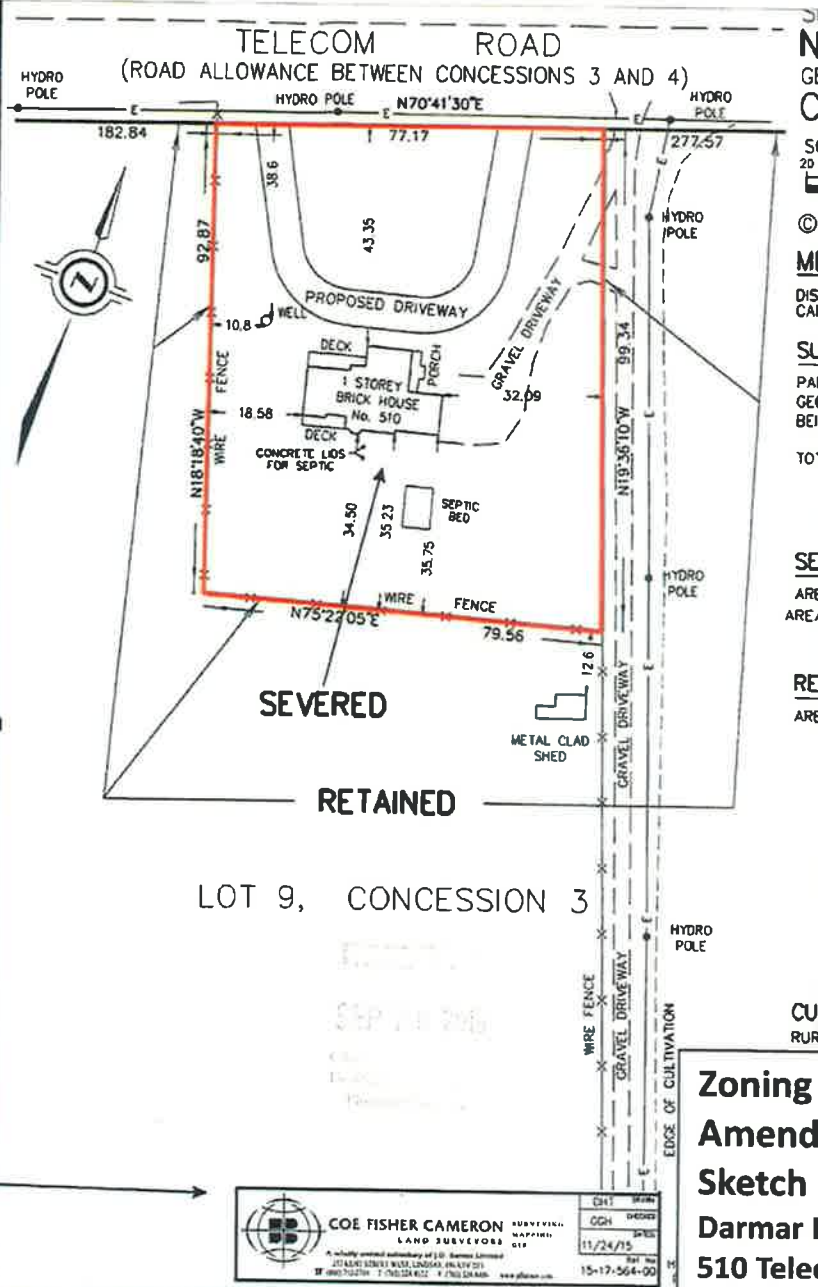


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Mohsen Keyvani, P.Eng.  
Director  
Section 47.5, *Environmental Protection Act*

NC/

c: District Manager, MOECC Peterborough  
Andrea Kausel, Capstone Power Corp.



**Zoning Bylaw  
Amendment  
Sketch**  
**Darmar Farms Inc.**  
**510 Telecom Road**