

Figure 2

Adelaide Wind Energy Centre Project Area and Natural Features

Legend

- Project Area (120m Buffer)
- ★ Turbine
- MET Station
- Access Road
- Collector System
- Interconnection Line
- Project Location
- Staging Area
- Substation
- Operations and Maintenance Buildings
- Existing Transmission Line
- ---- Railroad
- Highway
- Primary Road
- Secondary Road
- >> Intermittent Watercourse
- Permanent Watercourse
- S Waterbody
- Provincially Significant Wetland (PSW)
- 0 Other Wetland
- Wooded
- CS ANSI, Life Science
- ANSI, Earth Science
- Regulation Limit (ABCA)



Aquatic, Terrestrial and Wetland Biologists

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Project: 1230			NAD83 - UTM Zone 17		
Date: August 20, 2012			Scale: 1:35,000 (11x17")		
0	500	1 000	1 500	2 000 Metres	

2.0 Staff Roles

The requirements of the REA process indicate that the name and qualifications of all staff participating in the NHA should be provided. This staffing information is provided in the Adelaide Wind Energy Centre NHA (NRSI 2012) and the qualifications and roles of key staff participating in the addendum to this project's NHA have been outline below.

Andrew G. Ryckman, B.Sc.

Andrew is a Terrestrial and Wetland Biologist with 7 years of environmental experience. He routinely manages the natural heritage aspects of renewable energy projects, with specific expertise relating to bats and herpetofauna. Andrew is certified in Ecological Land Classification (2010), and has successfully completed a Bat Conservation International (BCI) Acoustic Monitoring Workshop (2008).

Andrew's role was to act as the project manager, overseeing all aspects of the Natural Heritage Assessment, including all associated field work and reporting. He was the main contact point for agency staff and assisted with the preparation of all corresponding reports including this addendum.

Kaitlin N. Powers, B.E.S

Kaitlin is a Terrestrial and Wetland Biologist with over 3 years experience working as an environmental technician in both public and private sectors. As a graduate in Environment and Resources Studies from the University of Waterloo, Kaitlin specialized in ecological restoration and is a member of the Society for Ecological Restoration of Ontario (SERO) as well as the Kitchener-Waterloo Field Naturalists (KWFN). She is certified in Ecological Land Classification (ELC) for northeastern Ontario (2011) and in the Ontario Wetland Evaluation System (2012).

Kaitlin assisted in coordinating the field work for the project and was the main author of the NHA. Kaitlin assisted in reviewing the changes to the Adelaide Wind Energy Centre's layout and assisted in identifying necessary NHA addendums. She is the main author of this report.

Gerry Schaus, B.A., GIS-AS

Gerry has over 4 years experience in the renewable energy sector and regularly prepares natural heritage mapping for wind, solar, and hydroelectric projects. This work includes mapping of natural features, vegetation communities, and aquatic habitats, terrestrial monitoring locations, constraints and proposed project layouts. Gerry has significant experience working with AutoCAD and (AutoCAD) Map3D.

Gerry's role in the project was as GIS technician. He reviewed and collected all available background mapping resources, digitized information gathered from site investigations, and integrated this information to generate this project's mapping.

3.0 Overview of Project Changes

In the time since MNR confirmation was received for the Adelaide Wind Energy Centre's NHA, several minor changes have been made to this project's layout, resulting in adjustments to the NHA. The types of changes made and addressed in this report include:

- Distances from project components to natural features
- Transmission line/cabling routes
- Sizes of project component disturbance areas
- Addition of a MET station
- Expansion of the substation land to accommodate operations and maintenance buildings

Many changes to the project layout are minor with minimal changes to the overall project area. Layout alterations that resulted in re-positioning project components <5m away from their NHA submission position, that remained within the same land use as described in the NHA, and that did not result in the inclusion of additional natural features, will be considered insignificant and will not be specifically addressed in this report. Likewise, changes to the layout that resulted in land no longer being included in the project area will not be discussed unless a natural feature or wildlife habitat is no longer within 120m of the project location and no longer requires consideration in the NHA.

Changes made to the Adelaide Wind Energy Centre project layout are outlined and discussed in Tables 1 and 2. Figures 3-8 provide a visual overlay of the differences between the NHA submission layout and the layout presented in this addendum, with significant differences highlighted. The Adelaide Wind Energy Centre project layout presented in the original NHA submission is provided for reference in Appendix II.

Project Component	Location	Description/Rationale of Change	Closer to Features or Habitat Within 120m (Y/N)	Affected Natural features	Reference Figure(s)
Turbine	Т2	Turbine moved east to accommodate request of local resident	This change results in the turbine being closer to a woodland that has already been studied, and is still closer to another turbine location (T1).	WOD-008	3
	T35	Turbine moved towards the west so it is the required distance away from the road.	This change in position results in the turbine being further away from a natural feature. No new features or habitats are now included in the project area as a result of this change.	WOD-025	5
Turbine Laydown	T2, T3, T5, T6, T7, T13, T24, TAlt1	Laydown of turbines has changed from a circular to square shaped area to accommodate construction activities.	This change in footprint shape results in small changes in the distances between project locations and natural features or habitats. No new features or habitats are included in the project area as a result of this change.	WOD-008 WOD-057 WOD-013 WOD-005 WOD-004 WOD-010 BMA-017 BMA-012 BMA-001 BMA-004 AWO-005 CAS-002	3-8
	T2, T9, T23	Laydown moved eastwards to accommodate construction activities and turbine move (T2).	These changes in position results in the turbines being closer to natural features, but no new features or habitats are now included in the project area as a result of this change.	WOD-008 WOD-003 WOD-004 WOD-012 BMA-014 BMA-001 BMA-012	3,4,5
	T1,T4	Laydown moved southwards to accommodate construction activities.	This adjustment results in small changes in the distances between project locations and natural features or habitats. No new features or habitats are included in the project area as a result of this change.	WOD-008 WOD-057 YSG-001	3,4
	T11, T21, T30	Laydown moved northwards to accommodate construction activities.	This adjustment results in small changes in the distances between project locations and natural features or habitats. No new features or habitats are included in the project area as a result of this change.	WOD-007 WOD-009 BMA-011 BMA-005	4,5

Table 1. Changes to the Adelaide Wind Energy Centre Layout

				AWO-004	
	T19, T25, T26, T29	Laydown moved westwards to accommodate construction activities.	This adjustment results in small changes in the distances between project locations and natural features or habitats. No new features or habitats are included in the project area as a result of this change.	WOD-017 WOD-037 WET-037 BMA-003 AWO-002 CAS-003 CAS-007	5,6
	Off of Cuddy Drive, N of T6	Moved towards the west	No new natural features or wildlife habitats overlap the project area because of this adjustment. There are also no resulting changes in distances between project components and natural features.	None	4
	From T3 east towards Seed Road	Footprint expanded towards the south to accommodate construction activities.	No new natural features or wildlife habitats overlap the project area because of this adjustment. There are also no resulting changes in distances between project components and natural features.	None	3
Access Road and Underground	Between T9 to T11	Moved towards the south	This adjustment results in changes in distances between project components and natural features. There are no new natural features that overlap the project area because of this adjustment.	WOD-003 WOD-004 WOD-005 WOD-006 WOD-007 BMA-014 BMA-001 BMA-012 BMA-011	4
Cabling	Between T11 and T12	Extended westwards	No new natural features or wildlife habitats overlap the project area because of this adjustment. There are also no resulting changes in distances between project components and natural features.	None	4
	Between T17- T18 and T21	Footprint expanded to accommodate construction activities.	No new natural features or wildlife habitats overlap the project area because of this adjustment. There are also no resulting changes in distances between project components and natural features.	None	5
	West of T23	Footprint expanded to accommodate construction activities.	This adjustment results in slight changes in distances between project components and natural features. There are no new natural features that overlap the project area because of this adjustment.	WOD-012	5
	South of T25	Footprint expanded to accommodate construction activities.	This adjustment results in slight changes in distances between project components and natural features. There are no new natural features that overlap the project area	WOD-017 BMA-003 AWO-002	5

			because of this adjustment.	CAS-003	
	Between T31 and T32	Footprint expanded to accommodate construction activities.	This adjustment results in slight changes in distances between project components and natural features. There are no new natural features that overlap the project area because of this adjustment.	WOD-009 BMA-005 AWO-004	5
	Between T33 to T36	Footprint expanded to accommodate construction activities.	This adjustment results in slight changes in distances between project components and natural features. There are no new natural features that overlap the project area because of this adjustment.	WOD-016 WOD-015 WOD-025 WOD-026 WOD-027 WOD-014 BMA-020 BMA-006 BMA-018 BMA-019 AWO-003 YSG-002	5
	Between T26 to T28	Footprint expanded to accommodate construction activities.	No new natural features or wildlife habitats overlap the project area because of this adjustment. There are also no resulting changes in distances between project components and natural features.	None	6
Access Roads	T12 south to Egremont Drive	Access road now further extends towards the west.	No new natural features or wildlife habitats overlap the project area because of this adjustment. There are also no resulting changes in distances between project components and natural features.	None	4

	NE of T13	Access road shifted SW.	This adjustment results in slight changes in distances between project components and natural features. There are no new natural features that overlap the project area because of this adjustment.	WOD-010 WOD-036 WOD-019 BMA-004 AWO-005 CAS-002	5
	Between T14- T17, as well as T19	Access road footprint expanded to accommodate construction activities.	This adjustment results in slight changes in distances between project components and natural features. There are no new natural features that overlap the project area because of this adjustment.	WOD-019	5
	Between T21 and T22	Access road footprint expanded to accommodate construction activities.	No new natural features or wildlife habitats overlap the project area because of this adjustment. There are also no resulting changes in distances between project components and natural features.	None	5
	NW of T20	Access road footprint expanded to accommodate construction activities.	No new natural features or wildlife habitats overlap the project area because of this adjustment. There are also no resulting changes in distances between project components and natural features.	None	5
	West of T30 to Sullivan Road	Access road removed between T30 and Sullivan Road. Road now extends eastward to the MET station.	No new natural features or wildlife habitats overlap the project area because of this adjustment. There are changes in distances between project components and natural features resulting in a natural feature and a Carey's sedge habitat location no longer being within the project area .	WOD-033 CAS-005	5
	Between T30 and T31	Access road added between these two turbines.	This adjustment results in slight changes in distances between project components and natural features. There are no new natural features that overlap the project area because of this adjustment.	WOD-009 BMA-005 AWO-004	5
	Between T28 and T29	Access road footprint expanded to accommodate construction activities.	This adjustment results in slight changes in distances between project components and natural features. There are no new natural features that overlap the project area because of this adjustment.	WOD-034 WET-034 WOD-037 WET-037 CAS-006 CAS-007	6
Underground Cabling	Cuddy Drive (between Morse Road and Seed Road)	Cabling now extends along the north side of Cuddy Drive and continues south down Stone School Line before traversing eastwards across private property to Seed	No new natural features or wildlife habitats overlap the project area because of this adjustment. There are also no resulting changes in distances between project components and natural features.	None	3