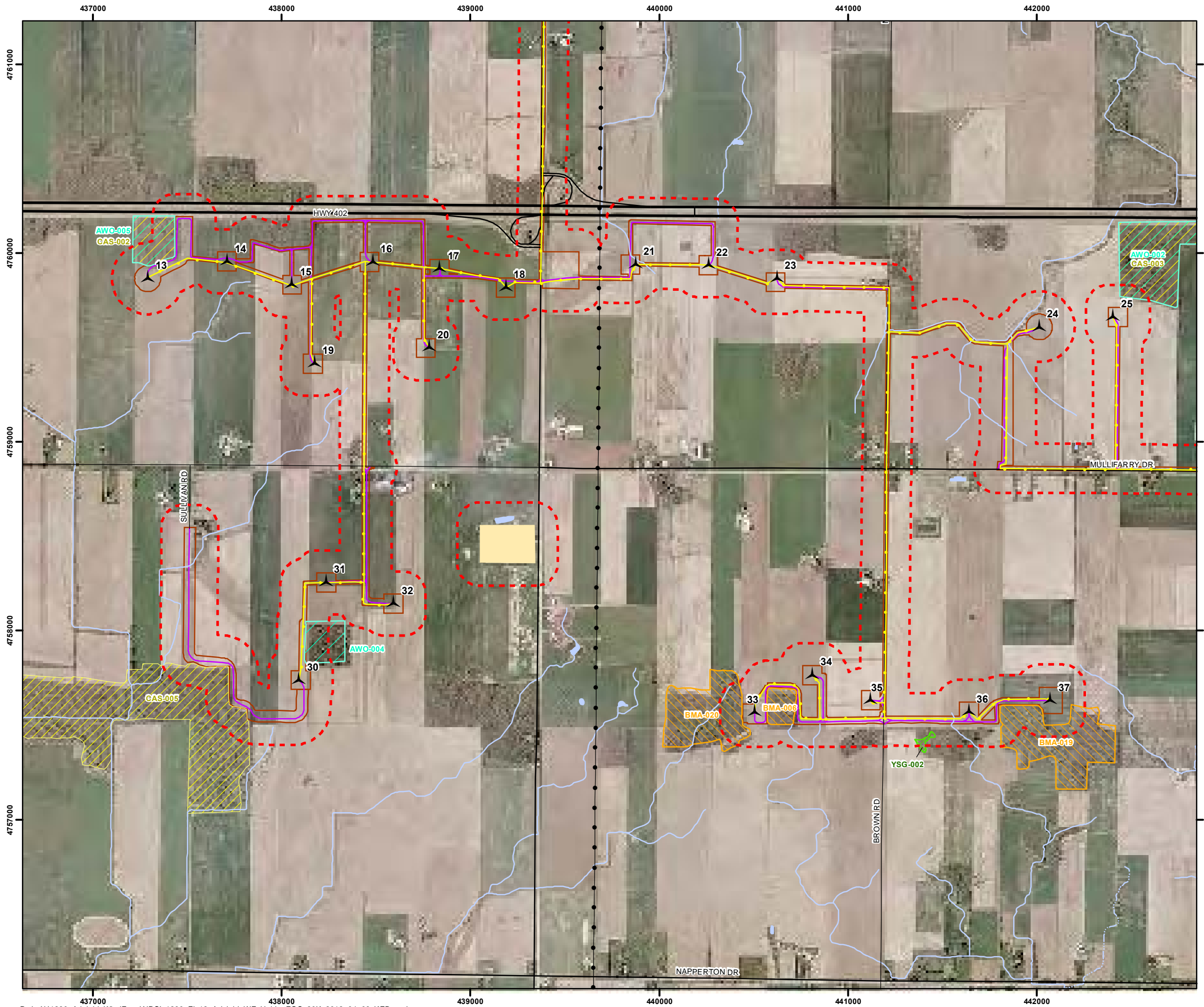


Figure 12

Adelaide Wind Energy Centre Significant Habitat - Southwest



- Legend**
- Project Area (120m)
 - Project Location
 - Turbine
 - Point of Common Coupling (PCC)
 - Access Road
 - Collector System
 - Transmission Line
 - Staging Area
 - Interconnection Facilities
 - Substation
 - Existing Transmission Line
 - Railroad
 - Highway
 - Primary Road
 - Secondary Road
 - Permanent Watercourse
 - Intermittent Watercourse
 - Waterbody
 - Raptor Wintering Area (RWA)
 - Amphibian Breeding Habitat - Woodland (AWO)
 - Bat Maternity Colony (BMA)
 - Carey's Sedge (CAS)
 - Yellow Stargrass (YSG)

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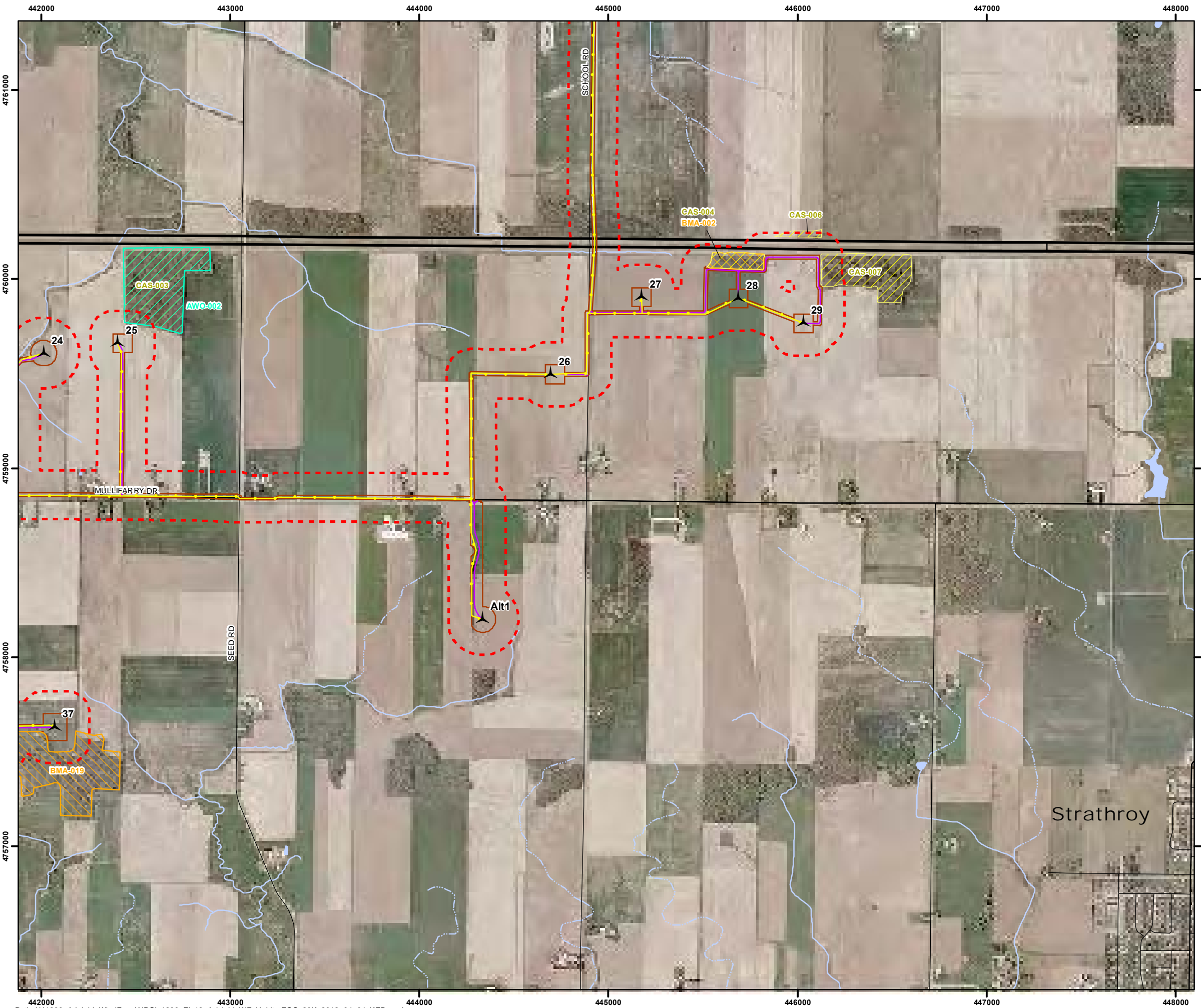
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Project: 1230 Date: April 9, 2012	NAD83 - UTM Zone 17 Scale: 1:20,000 (11x17")
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0 200 400 600 800 1,000 Metres


Figure 13

Adelaide Wind Energy Centre Significant Habitat - Southeast



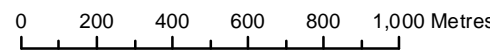
Legend

- Project Area (120m Buffer)
- Project Location
- Turbine
- Point of Common Coupling (PCC)
- Access Road
- Collector System
- Transmission Line
- Staging Area
- Interconnection Facilities
- Substation
- Existing Transmission Line
- Railroad
- Highway
- Primary Road
- Secondary Road
- Permanent Watercourse
- Intermittent Watercourse
- Waterbody
- Amphibian Breeding Habitat - Woodland (AWO)
- Bat Maternity Colony (BMA)

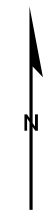


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Project: 1230 Date: April 4, 2012	NAD83 - UTM Zone 17 Scale: 1:20,000 (11x17")
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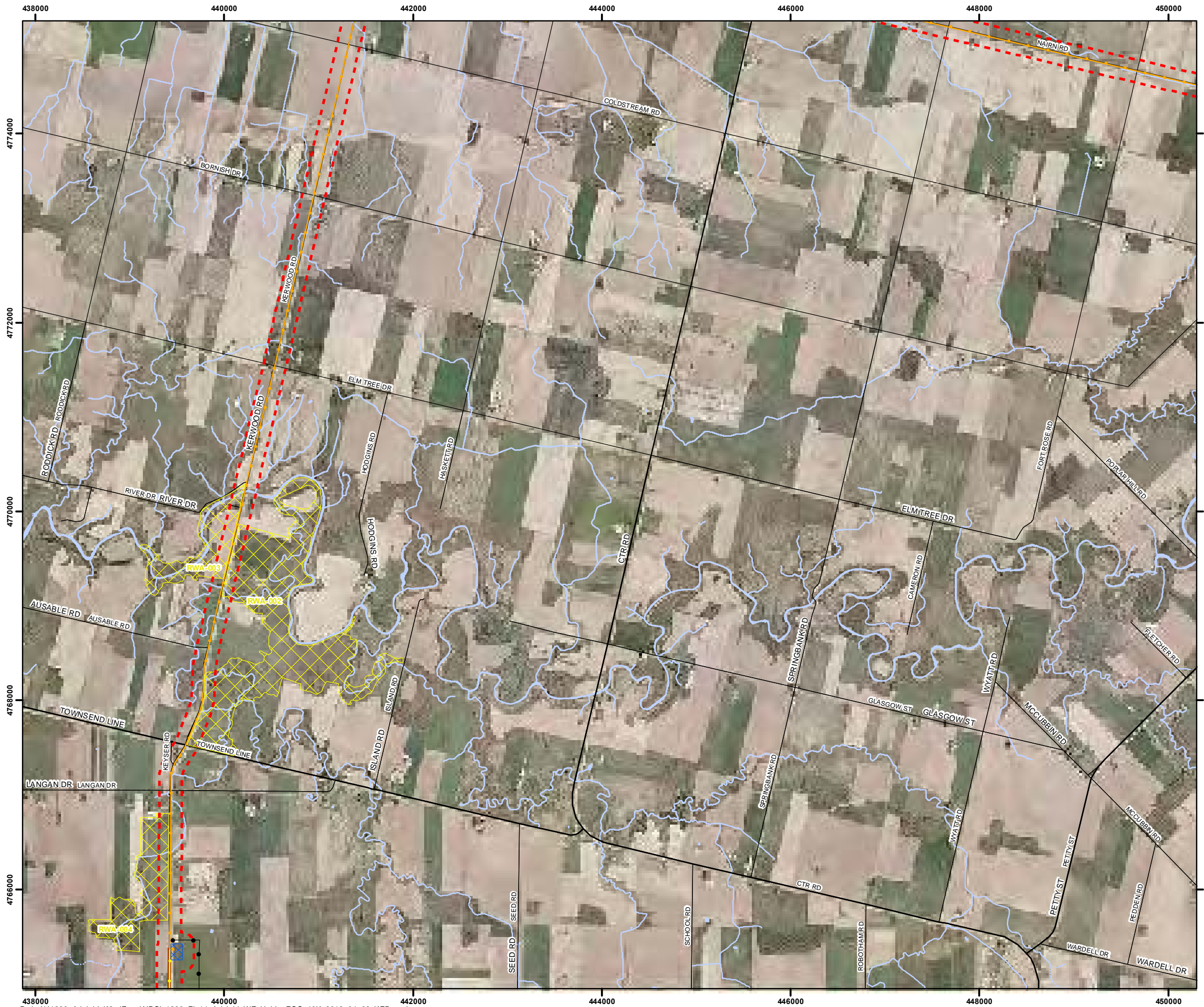
0 200 400 600 800 1,000 Metres



N

Figure 14

Adelaide Wind Energy Centre Significant Habitat - Kerwood T-Line



- Legend**
- Project Area (120m Buffer)
 - Project Location
 - Turbine
 - Point of Common Coupling (PCC)
 - Access Road
 - Collector System
 - Transmission Line
 - Staging Area
 - Interconnection Facilities
 - Substation
 - Existing Transmission Line
 - Railroad
 - Highway
 - Primary Road
 - Secondary Road
 - Permanent Watercourse
 - Intermittent Watercourse
 - Waterbody
 - Raptor Wintering Area (RWA)

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Project: 1230 Date: April 2, 2012	NAD83 - UTM Zone 17 Scale: 1:40,000 (11x17")
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Figure 15

Adelaide Wind Energy Centre Significant Habitat - Nairn T-Line



- Legend**
- Project Area (120m Buffer)
 - Project Location
 - Turbine
 - Point of Common Coupling (PCC)
 - Access Road
 - Collector System
 - Transmission Line
 - Staging Area
 - Interconnection Facilities
 - Substation
 - Existing Transmission Line
 - Railroad
 - Highway
 - Primary Road
 - Secondary Road
 - Permanent Watercourse
 - Intermittent Watercourse
 - Waterbody
 - Raptor Wintering Area (RWA)

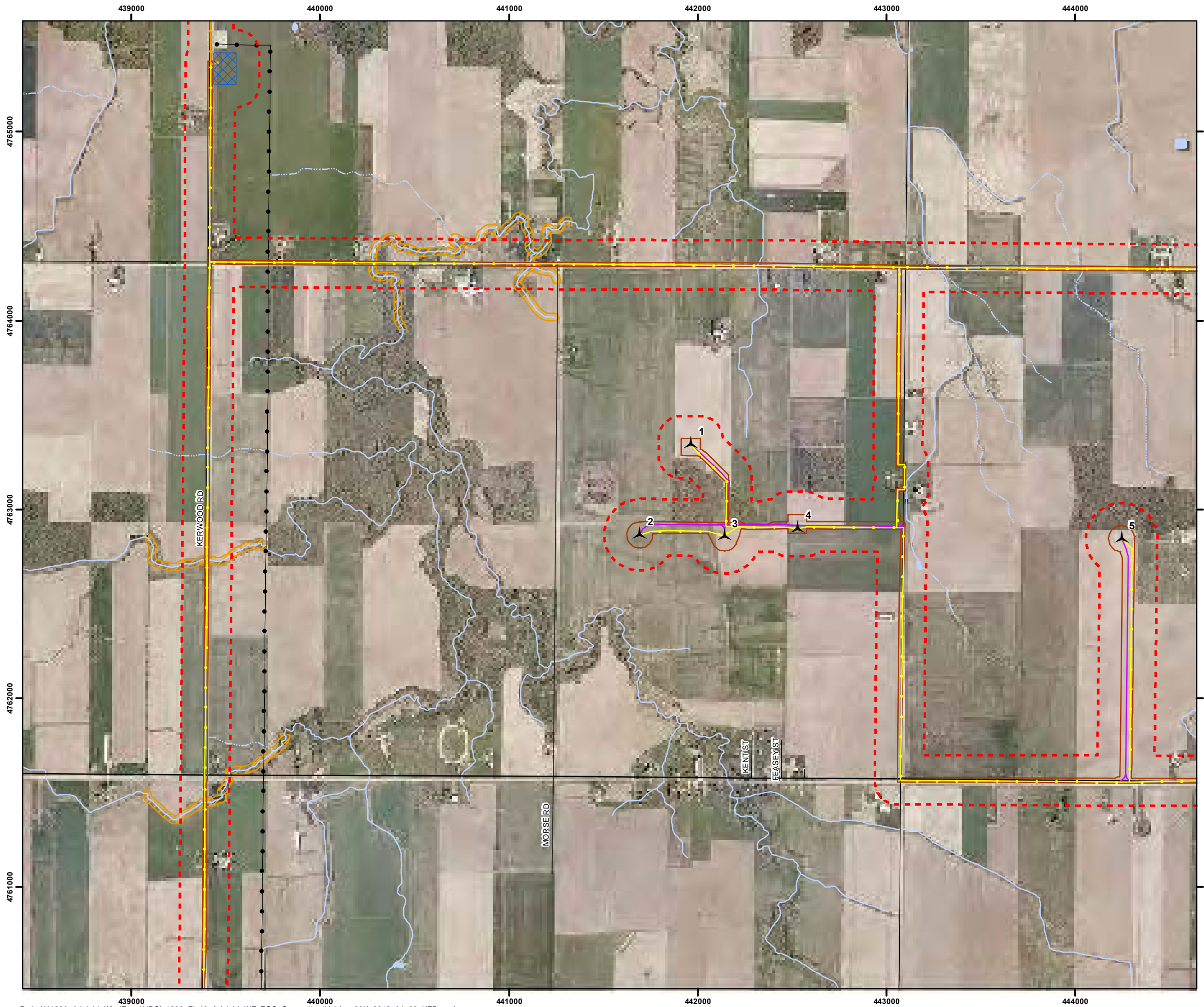


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Project: 1230 Date: April 2, 2012	NAD83 - UTM Zone 17 Scale: 1:40,000 (11x17")
0 500 1,000 1,500 2,000 Metres	


Figure 16

Adelaide Wind Energy Centre Generalized Wildlife Habitat- Northwest



Legend

- Project Area (120m Buffer)
- Project Location
- Turbine
- Point of Common Coupling (PCC)
- Access Road
- Collector System
- Transmission Line
- Staging Area
- Interconnection Facilities
- Substation
- Existing Transmission Line
- Railroad
- Highway
- Primary Road
- Secondary Road
- Permanent Watercourse
- Intermittent Watercourse
- Waterbody
- Generalized Habitat

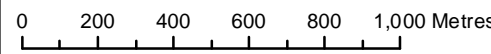


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Project: 1230 Date: April 9, 2012	NAD83 - UTM Zone 17 Scale: 1:20,000 (11x17")
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0 200 400 600 800 1,000 Metres



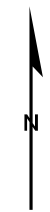
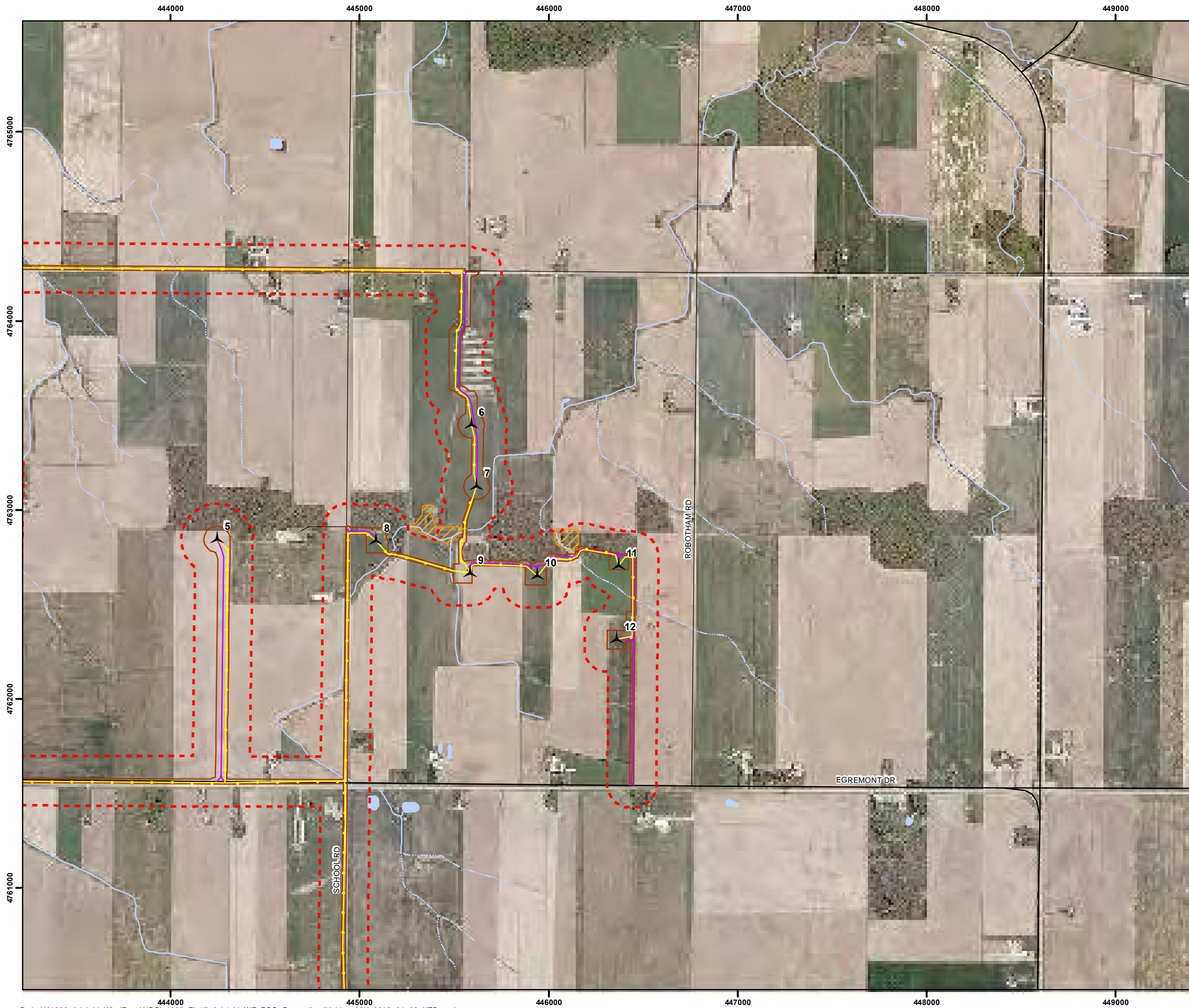


Figure 17

Adelaide Wind Energy Centre Generalized Wildlife Habitat - Northeast



- Legend**
- Project Area (120m Buffer)
 - Project Location
 - Turbine
 - Point of Common Coupling (PCC)
 - Access Road
 - Collector System
 - Transmission Line
 - Staging Area
 - Interconnection Facilities
 - Substation
 - Existing Transmission Line
 - Railroad
 - Highway
 - Primary Road
 - Secondary Road
 - Permanent Watercourse
 - Intermittent Watercourse
 - Waterbody
 - Generalized Habitat

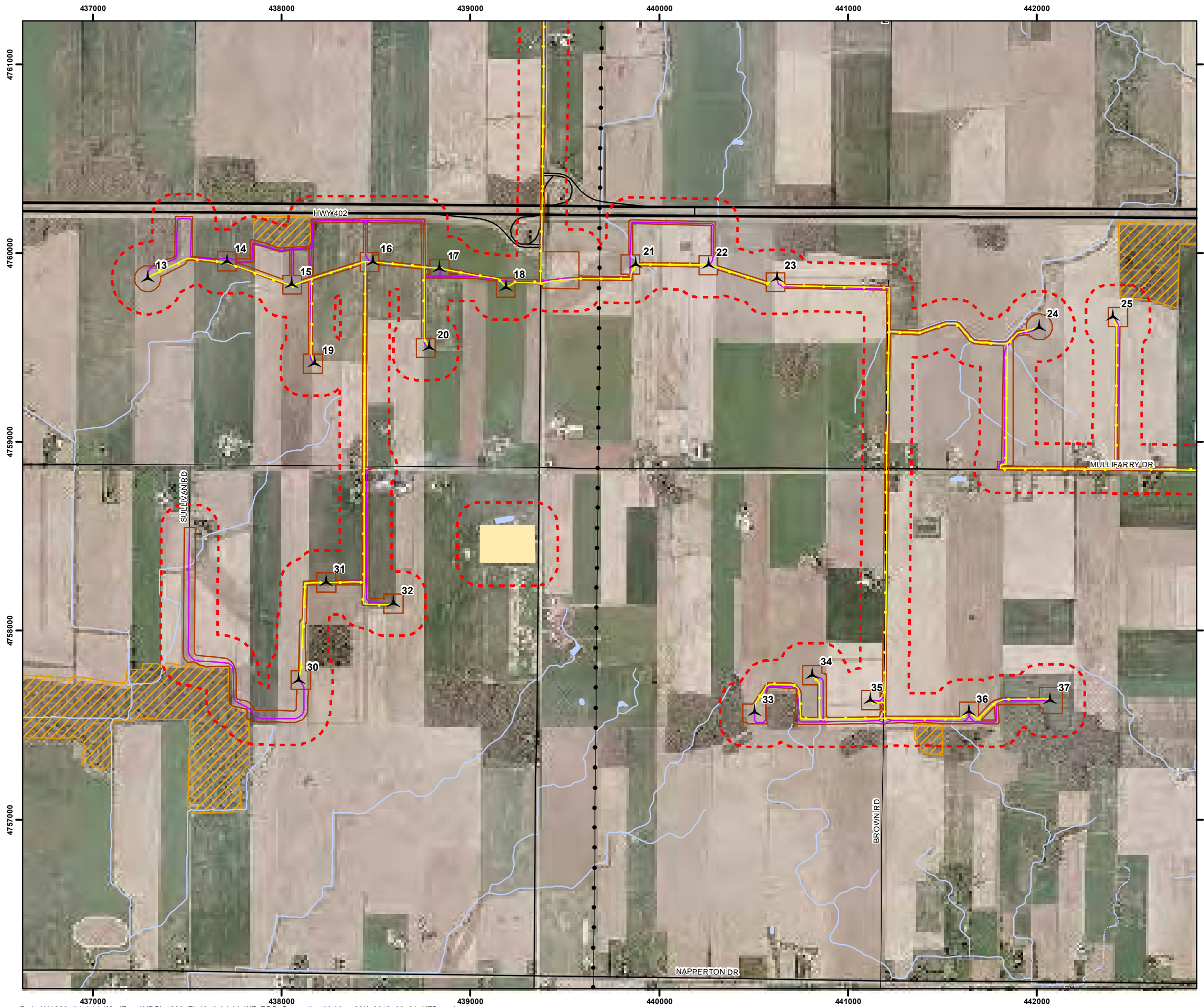


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Project: 1230 Date: April 9, 2012	NAD83 - UTM Zone 17 Scale: 1:20,000 (11x17")	

Figure 18

Adelaide Wind Energy Centre Generalized Wildlife Habitat - Southwest



Legend

- Project Area (120m Buffer)
- Project Location
- Turbine
- Point of Common Coupling (PCC)
- Access Road
- Collector System
- Transmission Line
- Staging Area
- Interconnection Facilities
- Substation
- Existing Transmission Line
- Railroad
- Highway
- Primary Road
- Secondary Road
- Permanent Watercourse
- Intermittent Watercourse
- Waterbody
- Generalized Habitat



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Project: 1230 Date: March 1, 2012	NAD83 - UTM Zone 17 Scale: 1:20,000 (11x17")
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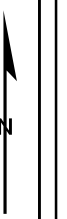
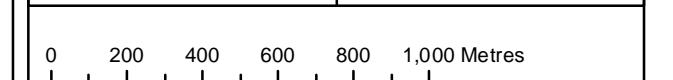
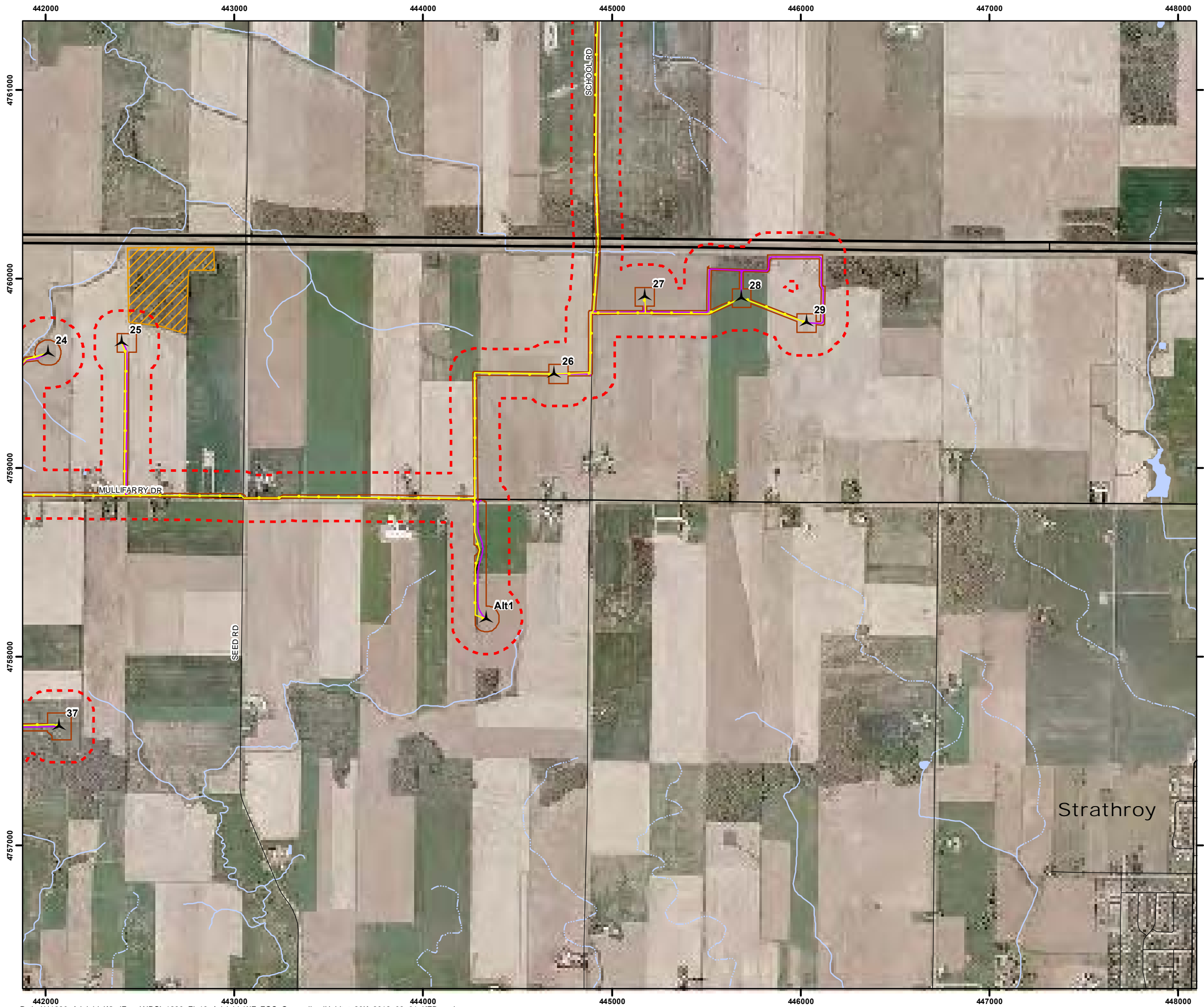


Figure 19

Adelaide Wind Energy Centre Generalized Wildlife Habitat - Southeast



Legend

- Project Area (120m Buffer)
- Project Location
- Turbine
- Point of Common Coupling (PCC)
- Access Road
- Collector System
- Transmission Line
- Staging Area
- Interconnection Facilities
- Substation
- Existing Transmission Line
- Railroad
- Highway
- Primary Road
- Secondary Road
- Permanent Watercourse
- Intermittent Watercourse
- Waterbody
- Generalized Habitat



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Project: 1230 Date: March 1, 2012	NAD83 - UTM Zone 17 Scale: 1:20,000 (11x17")
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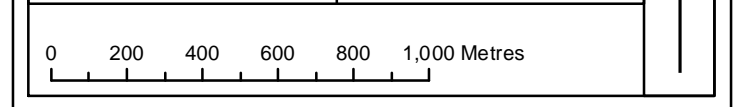
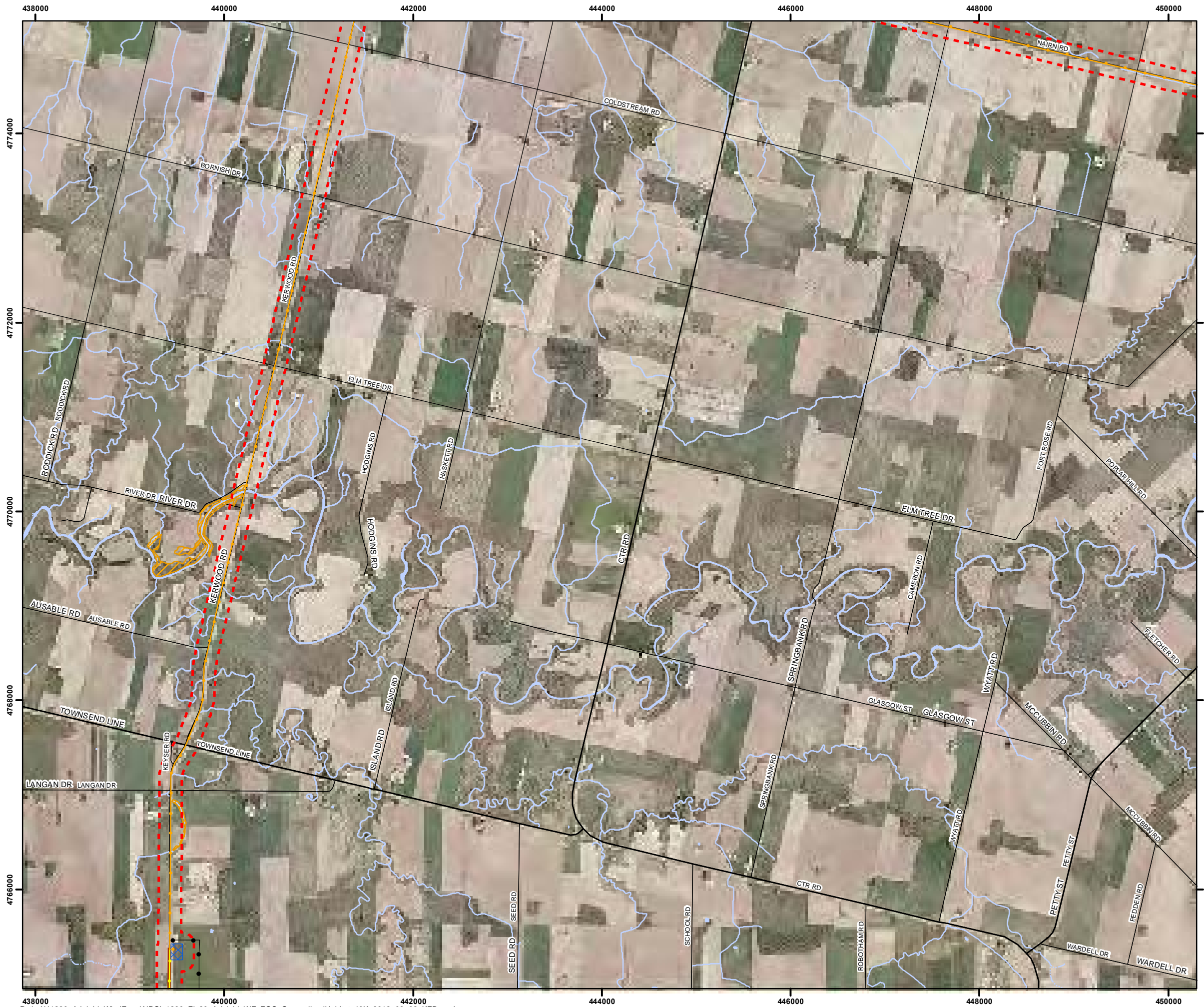


Figure 20

Adelaide Wind Energy Centre Generalized Wildlife Habitat - Kerwood T-Line



Legend

- Project Area (120m Buffer)
- Project Location
- Turbine
- Point of Common Coupling (PCC)
- Access Road
- Collector System
- Transmission Line
- Staging Area
- Interconnection Facilities
- Substation
- Existing Transmission Line
- Railroad
- Highway
- Primary Road
- Secondary Road
- Permanent Watercourse
- Intermittent Watercourse
- Waterbody
- Generalized Habitat

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Project: 1230 Date: March 1, 2012	NAD83 - UTM Zone 17 Scale: 1:40,000 (11x17")
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0 500 1,000 1,500 2,000 Metres

Adelaide Wind Energy Centre Generalized Wildlife Habitat - Nairn T-Line



Legend

- Project Area (120m Buffer)
- Project Location
- Turbine
- Point of Common Coupling (PCC)
- Access Road
- Collector System
- Transmission Line
- Staging Area
- Interconnection Facilities
- Substation
- Existing Transmission Line
- Railroad
- Highway
- Primary Road
- Secondary Road
- Permanent Watercourse
- Intermittent Watercourse
- Waterbody
- Generalized Habitat

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Project: 1230 Date: April 2, 2012	NAD83 - UTM Zone 17 Scale: 1:40,000 (11x17")
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0 500 1,000 1,500 2,000 Metres

Table 12. Evaluation of Significance for Wildlife Habitat within 120m of the Adelaide Wind Energy Centre

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
RWA-002 Raptor Wintering Area	185.8	FOM OAGM2	WT – >120 AR – >120 OL – 5 UL – >120	PROPOSED: Thirty minute visual raptor surveys focused on identifying raptors along woodland/update edge habitat. Surveys will be conducted on 3 visits in January 2012, with another 3 visits occurring in February 2012 (depending on January results). (See Appendix II for detailed survey methods)	To be confirmed through pre-construction surveys	- Presence of 1 short-eared owl (provincially Special Concern) and/or the presence of two (2) indicator species.	Presumed	14	Yes
RWA-003 Raptor Wintering Area	44.6	FOM OAGM2	WT – >120 AR – >120 OL – 5 UL – >120	PROPOSED: Thirty minute visual raptor surveys focused on identifying raptors along woodland/update edge habitat. Surveys will be conducted on 3 visits in January 2012, with another 3 visits occurring in February 2012 (depending on January results). (See Appendix II for detailed survey methods)	To be confirmed through pre-construction surveys	- Presence of 1 short-eared owl (provincially Special Concern) and/or the presence of two (2) indicator species.	Presumed	14	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
				for detailed survey methods)					
RWA-004 Raptor Wintering Area	54	FODM5-3 OAGM2	WT – >120 AR – >120 OL – 5 UL – >120	PROPOSED: Thirty minute visual raptor surveys focused on identifying raptors along woodland/update edge habitat. Surveys will be conducted on 3 visits in January 2012, with another 3 visits occurring in February 2012 (depending on January results). (See Appendix II for detailed survey methods)	To be confirmed through pre-construction surveys	- Presence of 1 short-eared owl (provincially Special Concern) and/or the presence of two (2) indicator species.	Presumed	14	Yes
SNH-001 Snake Hibernaculum	<0.1	Rock Pile	WT – >120 AR – 63 OL – >120 UL – >120	Candidate snake hibernacula area searches conducted on 4 separate occasions in early fall with warm and sunny weather conditions. Area searches were conducted for a minimum of 10 minutes.	No observed snakes.	- Presence of at least five (5) individuals or two (2) or more snake species in, or near, a potential hibernacula in spring or fall. - Confirmation of a Special Concern species	No	N/A	No

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
SNH-002 Snake Hibernaculum	<0.1	Rock/Wood Pile	WT – >120 AR – 18 OL – >120 UL – 18	Candidate snake hibernacula area searches conducted on 4 separate occasions in early fall with warm and sunny weather conditions. Area searches were conducted for a minimum of 10 minutes.	No observed snakes.	- Presence of at least five (5) individuals or two (2) or more snake species in, or near, a potential hibernacula in spring or fall. - Confirmation of a Special Concern species	No	N/A	No
BMA-001 Bat Maternity Colony	1.6	FODM4-2	WT – 100 AR – 4 OL – 120 UL – 108	Ten nights each of evening point count surveys with use of bat detector and through-the-night abundance surveys with use of bat monitor in June/early July 2011 following guidance in the Bat and Bat Habitats (OMNR 2010) (See Appendix III for detailed survey methods)	Overall Passage Range: 22.8 passes/night Species: 30kHz; 48% (11 bats/night) 40kHz; 17% (4 passes/night)	- Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big brown bats, ten (10) little brown bats, or five (5) adult, female, silver-haired bats.	Yes	11	Yes
BMA-002 Bat Maternity Colony	2.1	FODM6-1	WT – 105 AR – 4 OL – >120 UL – >120	Ten nights each of evening point count surveys with use of bat detector and through-the-night abundance surveys with use	Overall Passage Range: 202.1 passes/night Species: 30kHz; 81% (164 bats/night)	- Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big	Yes	13	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
				of bat monitor in June/early July 2011 following guidance in the Bat and Bat Habitats (OMNR 2010) (See Appendix III for detailed survey methods)		brown bats twenty (20) little brown bats, or five (5) adult, female, silver-haired bats.			
BMA-003 Bat Maternity Colony	14.1	FODM6-5	WT – 77 AR – 115 OL – >120 UL – 115	Ten nights each of evening point count surveys with use of bat detector and through-the-night abundance surveys with use of bat monitor in June/early July 2011 following guidance in the Bat and Bat Habitats (OMNR 2010) (See Appendix III for detailed survey methods)	Overall Passage Rage: 4.8 passes/night Species: Little Brown Bat; 34% (1.6 bats/night) Small-footed Bat; 25% (1.2 bats/night)	- Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big brown bats twenty (20) little brown bats, or five (5) adult, female, silver-haired bats.	No	12,13	No
BMA-004 Bat Maternity Colony	4.7	FODM2-4	WT – 51 AR – 4 OL – >120 UL – 4	Ten nights each of evening point count surveys with use of bat detector and through-the-night abundance surveys with use of bat monitor in June/early July 2011 following	Overall Passage Rage: 38.6 passes/night Species: Myotis sp.; 34% (13 bats/night) Little Brown Bat; 18% (6.9 bats/night)	Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big brown bats twenty (20) little brown bats, or	No	12	No

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
				guidance in the Bat and Bat Habitats (OMNR 2010) (See Appendix III for detailed survey methods)		five (5) adult, female, silver-haired bats.			
BMA-005 Bat Maternity Colony	4.1	FODM2-4	WT – 63 AR – 108 OL – >120 UL – 4	Ten nights each of evening point count surveys with use of bat detector and through-the-night abundance surveys with use of bat monitor in June/early July 2011 following guidance in the Bat and Bat Habitats (OMNR 2010) (See Appendix III for detailed survey methods)	Overall Passage Range: 3.4 passes/night Species: 30kHz; 93% (3.2 bats/night)	Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big brown bats twenty (20) little brown bats, or five (5) adult, female, silver-haired bats.	No	12	No
BMA-006 Bat Maternity Colony	2.7	FODM5-6	WT – 16 AR – 4 OL – >120 UL – 4	Ten nights each of evening point count surveys with use of bat detector and through-the-night abundance surveys with use of bat monitor in June/early July 2011 following guidance in the Bats and Bat Habitats (OMNR	Overall Passage Range: 174.1 passes/night Species: 30kHz; 98% (170 bats/night)	- Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big brown bats , twenty (20) little brown bats, or five (5) adult, female, silver-haired bats.	Yes	12	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
				2010) (See Appendix III for detailed survey methods)					
BMA-011 Bat Maternity Colony	2.3	FODM4-2	WT – 19 AR – 4 OL – >120 UL – 4	PROPOSED: A single 1.5hr visual point count surveys at each of up to 10 snags (depending on site access). Surveys will be in accordance with Bats and Bat Habitats (OMNR 2011). (See Appendix III for detailed survey methods)	To be confirmed through pre-construction surveys	- Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big brown bats twenty (20) little brown bats, or five (5) adult, female, silver-haired bats.	Presumed	11	Yes
BMA-012 Bat Maternity Colony	8.7	FODM4-2	WT – 19 AR – 4 OL – >120 UL – 4	PROPOSED: A single 1.5hr visual point count surveys at each of up to 10 snags (depending on site access). Surveys will be in accordance with Bats and Bat Habitats (OMNR 2011). (See Appendix III for detailed survey methods)	To be confirmed through pre-construction surveys	- Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big brown bats twenty (20) little brown bats, or five (5) adult, female, silver-haired bats.	Presumed	11	Yes
BMA-014 Bat Maternity	1.0	FODM4-9	WT – 21 AR – 4 OL – >120	PROPOSED: A single 1.5hr visual point count	To be confirmed through pre-construction	- Maternity colonies include at least twenty	Presumed	11	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
Colony			UL – 4	surveys at each of up to 10 snags (depending on site access). Surveys will be in accordance with Bats and Bat Habitats (OMNR 2011). (See Appendix III for detailed survey methods)	surveys	(20) tricolored bats or northern long-eared bats ten (10) big brown bats twenty (20) little brown bats, or five (5) adult, female, silver-haired bats.			
BMA-016 Bat Maternity Colony	6.9	FODM9-3	WT – 16 AR – 4 OL – >120 UL – 4	PROPOSED: A single 1.5hr visual point count surveys at each of up to 10 snags (depending on site access). Surveys will be in accordance with Bats and Bat Habitats (OMNR 2011). (See Appendix III for detailed survey methods)	To be confirmed through pre-construction surveys	- Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big brown bats twenty (20) little brown bats, or five (5) adult, female, silver-haired bats.	Presumed	11	Yes
BMA-017 Bat Maternity Colony	19.9	FODM4-9	WT – 23 AR – 78 OL – >120 UL – 78	PROPOSED: A single 1.5hr visual point count surveys at each of up to 10 snags (depending on site access). Surveys will be in accordance with Bats and Bat	To be confirmed through pre-construction surveys	- Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big brown bats twenty (20) little brown bats, or	Presumed	11	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
				Habitats (OMNR 2011). (See Appendix III for detailed survey methods)		five (5) adult, female, silver-haired bats.			
BMA-019 Bat Maternity Colony	15.1	FODM5-6	WT – 22 AR – 4 OL – >120 UL – 4	PROPOSED: A single 1.5hr visual point count surveys at each of up to 16 snags (depending on site access). Surveys will be in accordance with Bats and Bat Habitats (OMNR 2011). (See Appendix III for detailed survey methods)	To be confirmed through pre-construction surveys	Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big brown bats twenty (20) little brown bats, or five (5) adult, female, silver-haired bats.	Presumed	12	Yes
BMA-020 Bat Maternity Colony	12.9	FODM5-6	WT – 21 AR – 54 OL – >120 UL – 54	PROPOSED: A single 1.5hr visual point count surveys at each of up to 13 snags (depending on site access). Surveys will be in accordance with Bats and Bat Habitats (OMNR 2011). (See Appendix III for detailed survey methods)	To be confirmed through pre-construction surveys	Maternity colonies include at least twenty (20) tricolored bats or northern long-eared bats ten (10) big brown bats twenty (20) little brown bats, or five (5) adult, female, silver-haired bats.	Presumed	12	Yes
AWO-001 Amphibian	0.9	SWDM3-2	WT – 40 AR – 65	PROPOSED: Three (3) evening	To be confirmed through pre-	Studies conducted during	Presumed	11	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
Breeding Habitat (Woodland)			OL – 65 UL – >120	<p>amphibian call surveys (depending on site access), occurring once in each of April, May, and June. Each survey will last 3 minutes, following accepted Marsh Monitoring Program protocol.</p> <p>During each survey, biologists will record species and calling abundance codes, along with other appropriate information (date, time, weather, etc.) (See Appendix IV for detailed survey methods)</p>	construction surveys	<p>spring confirm the presence of a wetland, lake, or pond within or ≤120m from a woodland of any size, and presence of breeding population of ≥20 individuals (adult, juvenile, egg/larval mass) of ≥1 of the following:</p> <ul style="list-style-type: none"> • Eastern Newt • Blue-spotted Salamander • Spotted Salamander • Gray Treefrog • Spring Peeper • Western Chorus Frog • Wood Frog.² 			
AWO-002 Amphibian Breeding Habitat (Woodland)	0.5	MAMM1	WT – 77 AR – 115 OL – >120 UL – 115	<p>PROPOSED: Three (3) evening amphibian call surveys (depending on site access), occurring once in each of April, May, and June. Each</p>	To be confirmed through pre-construction surveys	<p>Studies conducted during spring confirm the presence of a wetland, lake, or pond within or ≤120m from a woodland of any size, and</p>	Presumed	12,13	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
				<p>survey will last 3 minutes, following accepted Marsh Monitoring Program protocol.</p> <p>During each survey, biologists will record species and calling abundance codes, along with other appropriate information (date, time, weather, etc.) (See Appendix IV for detailed survey methods)</p>		<p>presence of breeding population of ≥ 20 individuals (adult, juvenile, egg/larval mass) of ≥ 1 of the following:</p> <ul style="list-style-type: none"> • Eastern Newt • Blue-spotted Salamander • Spotted Salamander • Gray Treefrog • Spring Peeper • Western Chorus Frog • Wood Frog.² 			
AWO-004 Amphibian Breeding Habitat (Woodland)	4.1	FODM2-4	WT – 63 AR – 108 OL – >120 UL – 4	<p>PROPOSED: Three (3) evening amphibian call surveys (depending on site access), occurring once in each of April, May, and June. Each survey will last 3 minutes, following accepted Marsh Monitoring Program protocol.</p>	To be confirmed through pre-construction surveys	<p>Studies conducted during spring confirm the presence of a wetland, lake, or pond within or ≤ 120m from a woodland of any size, and presence of breeding population of ≥ 20 individuals (adult, juvenile, egg/larval mass)</p>	Presumed	12	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
				<p>During each survey, biologists will record species and calling abundance codes, along with other appropriate information (date, time, weather, etc.) (See Appendix IV for detailed survey methods)</p>		<p>of ≥1 of the following:</p> <ul style="list-style-type: none"> • Eastern Newt • Blue-spotted Salamander • Spotted Salamander • Gray Treefrog • Spring Peeper • Western Chorus Frog • Wood Frog.² 			
AWO-005 Amphibian Breeding Habitat (Woodland)	4.7	FODM2-4	WT – 51 AR – 4 OL – >120 UL – 4	<p>PROPOSED: Three (3) evening amphibian call surveys (depending on site access), occurring once in each of April, May, and June. Each survey will last 3 minutes, following accepted Marsh Monitoring Program protocol.</p> <p>During each survey, biologists will record species and calling abundance codes, along with other appropriate</p>	To be confirmed through pre-construction surveys	<p>Studies conducted during spring confirm the presence of a wetland, lake, or pond within or ≤120m from a woodland of any size, and presence of breeding population of ≥20 individuals (adult, juvenile, egg/larval mass) of ≥1 of the following:</p> <ul style="list-style-type: none"> • Eastern Newt • Blue-spotted Salamander • Spotted 	Presumed	12	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
				information (date, time, weather, etc.) (See Appendix IV for detailed survey methods)		<ul style="list-style-type: none"> Salamander • Gray Treefrog • Spring Peeper • Western Chorus Frog • Wood Frog.² 			
Habitat of Species of Conservation Concern									
Carey's Sedge (CAS-001)	6.9	FODM6-4	WT – 16 AR – 4 OL – >120 UL – 4 SI - >120	Single site visit to complete standardized area searches of forest habitat.	To be confirmed through pre-construction surveys	Observation of species will trigger discussions with MNR to determine if this represents a significant species population	Presumed significant	11	Yes
Carey's Sedge (CAS-002)	4.7	FODM6-4	WT – 51 AR – 4 OL – >120 UL – 4 SI - >120	Single site visit to complete standardized area searches of forest habitat.	To be confirmed through pre-construction surveys	Observation of species will trigger discussions with MNR to determine if this represents a significant species population	Presumed significant	12	Yes
Carey's Sedge (CAS-003)	14.1	FODM6-5	WT – 77 AR – 115 OL – >120 UL – 115 SI - >120	Single site visit to complete standardized area searches of forest habitat.	To be confirmed through pre-construction surveys	Observation of species will trigger discussions with MNR to determine if this represents a	Presumed significant	13	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
						significant species population			
Carey's Sedge (CAS-004)	2.1	FODM6-1	WT – 105 AR – 4 OL – >120 UL – >120 SI - >120	Single site visit to complete standardized area searches of forest habitat.	To be confirmed through pre-construction surveys	Observation of species will trigger discussions with MNR to determine if this represents a significant species population	Presumed significant	13	Yes
Carey's Sedge (CAS-005)	86.9	FODM7-2	WT – >120 AR – 2 OL – >120 UL – >120 SI - >120	Single site visit to complete standardized area searches of forest habitat.	To be confirmed through pre-construction surveys	Observation of species will trigger discussions with MNR to determine if this represents a significant species population	Presumed significant	12	Yes
Carey's Sedge (CAS-006)	0.5	FODM7-2	WT – >120 AR – 97 OL – >120 UL – >120 SI - >120	Single site visit to complete standardized area searches of forest habitat.	To be confirmed through pre-construction surveys	Observation of species will trigger discussions with MNR to determine if this represents a significant species population	Presumed significant	13	Yes
Carey's Sedge (CAS-007)	8.1	FODM7	WT – >120 AR – 4 OL – >120 UL – >120	Single site visit to complete standardized area searches of forest	To be confirmed through pre-construction surveys	Observation of species will trigger discussions with	Presumed significant	13	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
			SI - >120	habitat.		MNR to determine if this represents a significant species population			
Yellow Stargrass (YSG-001)	12.1	MEM	WT – 16.9 AR – Overlapping OL – >120 UL – >0.1 SI - >120	Single site visit to complete standardized area searches of meadow habitat.	To be confirmed through pre-construction surveys	Observation of species will trigger discussions with MNR to determine if this represents a significant species population	Presumed significant	10	Yes
Yellow Stargrass (YSG-002)	0.36	MEF	WT – >120 AR – 56.5 OL – >120 UL – 69 SI ->120	Single site visit to complete standardized area searches of meadow habitat.	To be confirmed through pre-construction surveys	Observation of species will trigger discussions with MNR to determine if this represents a significant species population	Presumed significant	12	Yes
Generalized Candidate Significant Wildlife Habitat									
CRA-001 Terrestrial Crayfish	14.1	Meadow marsh within FODM6-5	WT – 77 AR – 115 OL – >120 UL – 115	N/A	Greater than 120m from a project component with an operational impact – will be generalized	N/A	Generalized	18,19	Yes
AWO-003 Amphibian Breeding Habitat (Woodland)	2.2	WODM4	WT – >120 AR – >120 OL – 4 UL – >120	N/A	Greater than 120m from a project component with an operational impact – will be generalized	N/A	Generalized	18	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
RFT-001 Rare Forest Type	1.2	FODM7-4	WT - >120 AR - >120 OL - 31 UL - >120 SI - >120	N/A	Greater than 120m from a project component with an operational impact - will be generalized	N/A	Generalized	18	Yes
RFT-002 Rare Forest Type	2.5	FODM7	WT - >120 AR - >120 OL - 15 UL - >120 SI - >120	N/A	Greater than 120m from a project component with an operational impact - will be generalized	N/A	Generalized	18	Yes
BMA-007 Bat Maternity Colony	86.9	FODM7-2	WT - >120 AR - 2 OL - >120 UL - >120	N/A	Greater than 120m from a project component with an operational impact - will be generalized	N/A	Generalized	18	Yes
BMA-013 Bat Maternity Colony	1	FODM4-2	WT - >120 AR - 4 OL - >120 UL - >4	N/A	Greater than 120m from a project component with an operational impact - will be generalized	N/A	Generalized	17	Yes
BMA-015 Bat Maternity Colony	1.4	FODM4-9	WT - >120 AR - >120 OL - >120 UL - >0.1	N/A	Greater than 120m from a project component with an operational impact - will be generalized	N/A	Generalized	17	Yes
BMA-021 Bat Maternity Colony	4.4	WODM4-3	WT - >120 AR - 4 OL - >120 UL - >120	N/A	Greater than 120m from a project component with an operational impact - will be generalized	N/A	Generalized	18	Yes
Woodland Raptor Nesting	Various	Various	Not located within project location	N/A	Greater than 120m from a project component with an operational impact - will be generalized	N/A	Generalized	16-21	Yes

Feature ID	Size (ha)	Composition	Distance to Project Location ¹	Evaluation Methods	Evaluation Results	Provincial Criteria	Significance	Figure	EIS Required (Y/N)
Red-headed Woodpecker	Various	Woodland/ forest edges	Not located within project location	N/A	Greater than 120m from a project component with an operational impact – will be generalized	N/A	Generalized	16-21	Yes
Blue-ringed Dancer	Various	Creeks and streams	Not located within project location	N/A	Greater than 120m from a project component with an operational impact – will be generalized	N/A	Generalized	16-21	Yes
Double-striped Bluet	Various	Slow streams	Not located within project location	N/A	Greater than 120m from a project component with an operational impact – will be generalized	N/A	Generalized	16-21	Yes
Pronghorn Clubtail	Various	Ponds and slow streams	Not located within project location	N/A	Greater than 120m from a project component with an operational impact – will be generalized	N/A	Generalized	16-21	Yes
Woodland Bulrush	Various	Slow moving streams	Not located within project location	N/A	Greater than 120m from a project component with an operational impact – will be generalized	N/A	Generalized	16	Yes

¹ Project components with anticipated operational impacts, as per the Natural Heritage Assessment Guide (Appendix D) have been bolded (OMNR 2011)

Legend

- WT: Wind Turbine
- AR: Access Road
- OL: Overhead Line
- UL: Underground Line

11.0 Evaluation of Significance Summary

In accordance with the REA Regulation, NRSI biologists have completed a comprehensive evaluation of significance of the Adelaide Wind Energy Centre project area. The results of the evaluation have been discussed in the preceding sections, and have been summarized in Table 13 below. This summary includes: woodlands, wetlands, valleylands, species of conservation concern and significant wildlife habitat, some of which will be carried forward to the environmental impact statement, as noted in the table.

Table 13. Summary of Significant Natural Features and Wildlife Habitat within 120m of the Adelaide Wind Energy Centre

Feature ID	Feature Type	Distance to Closest Turbine (from blade tip)	Distance to Other Project Infrastructure	EIS Required (Y/N)
WOD-001	Woodland	16	4	Yes
WOD-002	Woodland	>120	Overlapping (horizontal directional drilling under woodland)	Yes
WOD-003	Woodland	21	4	Yes
WOD-004	Woodland	100	4	Yes
WOD-005	Woodland	19	4	Yes
WOD-006	Woodland	>120	4	Yes
WOD-007	Woodland	19	4	No
WOD-008	Woodland	21	10	Yes
WOD-009	Woodland	63	4	Yes
WOD-010	Woodland	51	4	Yes
WOD-011	Woodland	>120	4	Yes
WOD-012	Woodland	65	100	Yes
WOD-013	Woodland	23	78	Yes
WOD-014	Woodland	22	4	Yes
WOD-015	Woodland	16	4	Yes
WOD-016	Woodland	21	54	Yes
WOD-017	Woodland	77	115	Yes

WOD-018	Woodland	105	4	No
WOD-019	Woodland	>120	105	Yes
WOD-020	Woodland	>120	4	Yes
WOD-021	Woodland	>120	7	No
WOD-022	Woodland	>120	4	No
WOD-023	Woodland	>120	32	No
WOD-024	Woodland	>120	Overlapping (vegetation removal for installation of overhead cable within existing road right of way)	No
WOD-025	Woodland	74	4	No
WOD-026	Woodland	97	4	Yes
WOD-027	Woodland	18	4	Yes
WOD-033	Woodland	>120	2	Yes
WOD-034	Woodland	>120	97	No
WOD-035	Woodland	>120	22	Yes
WOD-036	Woodland	>120	104	Yes
WOD-037	Woodland	>120	4	Yes
WOD-038	Woodland	>120	92	Yes
WOD-039	Woodland	>120	31	No
WOD-040	Woodland	>120	14	Yes
WOD-041	Woodland	>120	21	Yes
WOD-042	Woodland	>120	15	Yes
WOD-043	Woodland	>120	83	Yes
WOD-044	Woodland	>120	29	Yes
WOD-045	Woodland	>120	18	Yes
WOD-046	Woodland	>120	21	Yes
WOD-047	Woodland	>120	20	Yes
WOD-048	Woodland	>120	46	Yes
WOD-049	Woodland	>120	20	Yes
WOD-050	Woodland	>120	12	Yes
WOD-051	Woodland	>120	7	Yes
WOD-052	Woodland	>120	17	Yes
WOD-053	Woodland	>120	11.5	Yes
WOD-054	Woodland	>120	Overlapping (vegetation removal for installation of overhead cable within existing road right of way)	No
WOD-055	Woodland	>120	16	Yes
WOD-056	Woodland	>120	116	Yes
WOD-057	Woodland	78	4	Yes
WET-001a	Wetland	40	65	Yes
WET-034	Wetland	>120	97	Yes
WET-037	Wetland	>120	4	Yes
WET-042	Wetland	>120	15	Yes
WET-049	Wetland	>120	20	Yes
VAL-020	Valleyland	>120	4	Yes
VAL-048	Valleyland	>120	46	Yes
RWA-002	Raptor Wintering Area	>120	5	Yes
RWA-003	Raptor Wintering Area	>120	5	Yes

RWA-004	Raptor Wintering Area	>120	5	Yes
SNH-001	Snake Hibernaculum	>120	63	No
SNH-002	Snake Hibernaculum	>120	18	No
BMA-001	Bat Maternity Colony	100	4	Yes
BMA-002	Bat Maternity Colony	105	4	Yes
BMA-003	Bat Maternity Colony	77	115	No
BMA-004	Bat Maternity Colony	51	4	No
BMA-005	Bat Maternity Colony	63	4	No
BMA-006	Bat Maternity Colony	16	4	Yes
BMA-011	Bat Maternity Colony	19	4	Yes
BMA-012	Bat Maternity Colony	19	4	Yes
BMA-014	Bat Maternity Colony	21	4	Yes
BMA-016	Bat Maternity Colony	16	4	Yes
BMA-017	Bat Maternity Colony	23	78	Yes
BMA-019	Bat Maternity Colony	22	4	Yes
BMA-020	Bat Maternity Colony	21	54	Yes
AWO-001	Amphibian Breeding Habitat (Woodland)	40	65	Yes
AWO-002	Amphibian Breeding Habitat (Woodland)	77	115	Yes
AWO-004	Amphibian Breeding Habitat (Woodland)	63	4	Yes
AWO-005	Amphibian Breeding Habitat (Woodland)	51	4	Yes
CAS-001	Carey's Sedge	16	4	Yes
CAS-002	Carey's Sedge	51	4	Yes
CAS-003	Carey's Sedge	77	115	Yes
CAS-004	Carey's Sedge	105	4	Yes
CAS-005	Carey's Sedge	>120	2	Yes
CAS-006	Carey's Sedge	>120	97	Yes
CAS-007	Carey's Sedge	>120	4	Yes
YSG-001	Yellow Stargrass	16.9	>0.1	Yes
YSG-002	Yellow Stargrass	>120	56.5	Yes
Generalized Candidate Significant Wildlife Habitat				
Bat Maternity Colony	Not within 120m of infrastructure identified in Appendix D of the Natural Heritage Assessment guide that will have an operational impact on the habitats. Therefore these habitats will be carried forward to the Environmental Impact Study where they will be treated as significant.			Generalized
Rare Forest Type				Generalized
Amphibian Breeding Habitat (Woodland)				Generalized
Terrestrial Crayfish				Generalized
Woodland Raptor Nesting				Generalized
Red-headed Woodpecker				Generalized
Blue-ringed Dancer				Generalized
Double-striped Bluet				Generalized
Pronghorn Clubtail Bluet				Generalized
Woodland Bulrush	Generalized			

12.0 References

Publications

- Cadman, M.D., D.A. Sutherland, G.G. Beck, D. Lepage, and A.R. Couturier (eds.). 2007. Atlas of the Breeding Birds of Ontario, 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature, Toronto, xxii + 706 pp.
- Dobbyn, J.S. 1994. Atlas of the Mammals of Ontario. Federation of Ontario Naturalists.
- Gleason, H.A. and Cronquist, A. 1991. Manual of Vascular Plants of Northeastern United States and Adjacent Canada. Second Edition. New York Botanical Garden: New York.
- Jones, C.D., Kinglsey, A., Burke, P. and Holder, M. 2008. Field Guide to the Dragonflies and Damselflies of Algonquin Provincial Park and the Surrounding Area. Renfrew, Ontario: The Friends of Algonquin Park.
- Lam, E. 2004. Damselflies of the Northeast. Forest Hills, New York: Biodiversity Books.
- Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.
- Ontario Ministry of Natural Resources. 2012. Significant Wildlife Habitat Ecoregion Criteria Schedules for Ecoregion 7E addendum. Draft February 2012.
- Ontario Ministry of Natural Resources. 2011a. Significant Wildlife Habitat Ecoregion Criteria Schedules for Ecoregion 7E addendum.
- Ontario Ministry of Natural Resources. 2011b. Natural Heritage Assessment Guide for Renewable Energy Projects. July 2011 (first edition).
- Ontario Ministry of Natural Resources. 2011c. Bats and Bat Habitats: Guidelines for Wind Power Projects. July 2011 (second edition).
- Ontario Ministry of Natural Resources. 2010a. Natural Heritage Reference Manual: for Natural Heritage Policies of the Provincial Policy Statement, 2005. Working Draft. 2nd Edition.
- Ontario Ministry of Natural Resources. 2010b. Bats and Bat Habitats: Guidelines for Wind Power Projects. March 2010.
- Ontario Ministry of Natural Resources. 2009. Significant Wildlife Habitat Ecoregion Criteria Schedules: Addendum to SWHTG (Working Draft).

Ontario Ministry of Natural Resources. 2002. Ontario Wetland Evaluation System: Southern Manual. 3rd Edition. Including OMNR Interpretations of Current Ontario Wetland Evaluation Systems Manuals (dated June 14, 2007).

Ontario Ministry of Natural Resources. 2000. Significant Wildlife Habitat: Technical Guide. MNR, October 2000.

Internet Sources

Bird Studies Canada. 2004. Important Bird Areas of Canada. Website:
<http://www.ibacanada.ca>

Oldham, M.J. and W.F. Weller. 2000. Ontario Herpetofaunal Atlas. Natural Heritage Information Centre, Ontario Ministry of Natural Resources. Available at:
<http://www.mnr.gov.on.ca/MNR/nhic/herps/ohs.html>.

Ontario Ministry of Natural Resources. 2010c. Biodiversity Explorer. Available at:
<http://www.biodiversityexplorer.mnr.gov.on.ca/nhicWEB/main.jsp>

Ontario Ministry of Natural Resources. 2008a. Species at Risk in Ontario – Red-headed Woodpecker. Available at:
http://www.rom.on.ca/ontario/risk.php?doc_type=fact&id=120&lang=en

Ontario Ministry of Natural Resources. 2008b. Species at Risk in Ontario – Golden-winged Warbler. Available at:
http://www.rom.on.ca/ontario/risk.php?doc_type=fact&id=320&lang=en