

### Legend

- Signed Properties
- Map Book Index
- Preliminary Study Area
- Great Lakes 5 km Buffer
- Niagara Escarpment 5 km Buffer
- Road

- ### 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.



Client/Project  
Niagara Region Wind Corporation

Figure No.  
F-0

Title  
**Field Map**







Stantec Consulting Ltd.  
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Guelph, ON  
Canada N1G 4P5  
Tel: (519) 836-6050  
Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
Date: Nov 17

Project Name: Niagara Region Wind Project  
Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C): <u>3°</u>	WIND: <u>3</u>	CLOUD: <u>40%</u>	PPT: <u>some rain/snow in pm</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: #1-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings. DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization







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Project Number: 160950269

Project Name: Niagara Region Wind Project

Date: Nov 17, 2011

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C): <u>3</u>	WIND: <u>3</u>	CLOUD: <u>40%</u>	PPT: <u>some rain/snow in pm</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: #2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
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STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

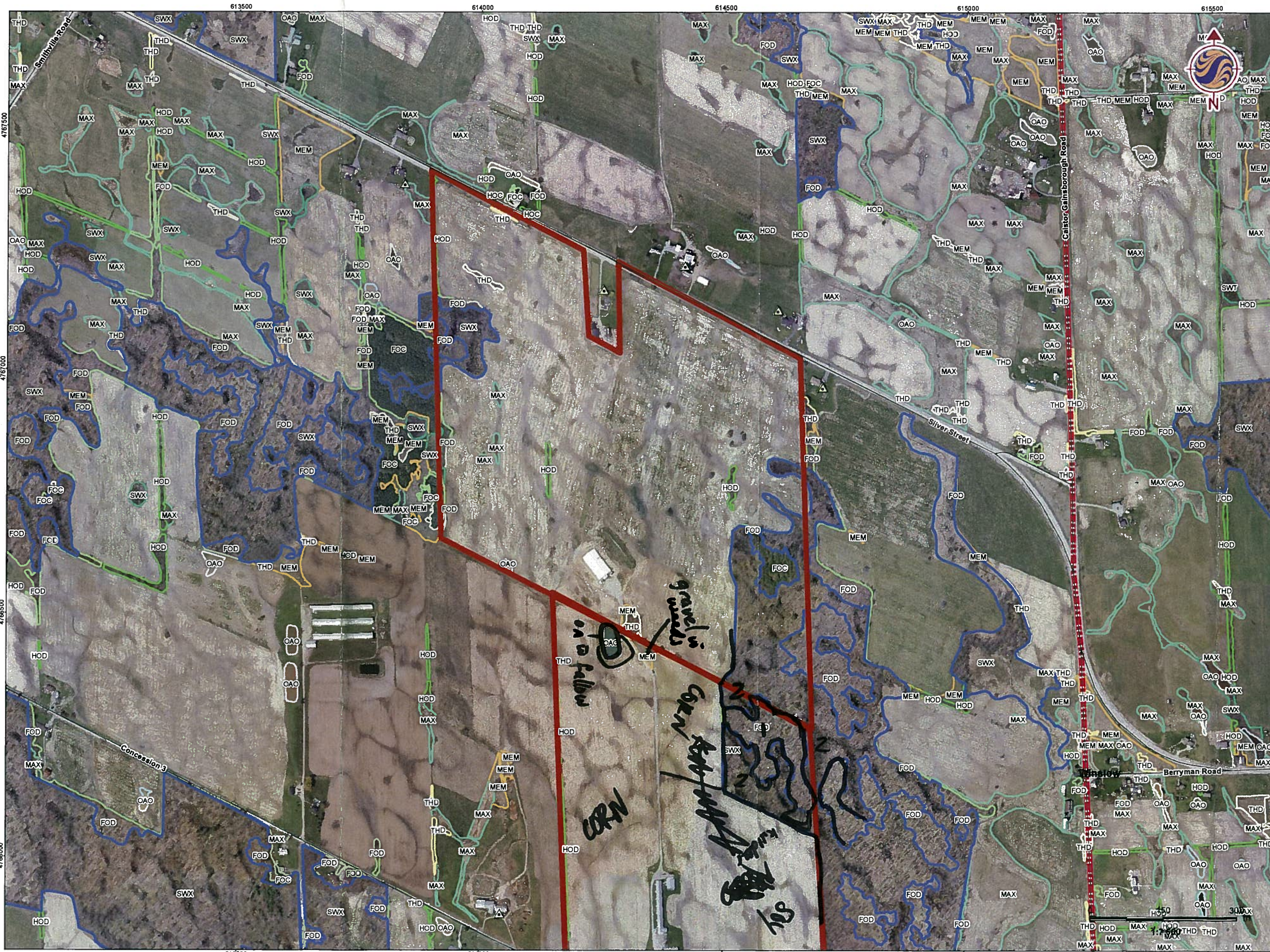
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>whole polygon with several shallow pool areas</u>				<u>Fragmipolis + forbs</u>	<u>yes</u>

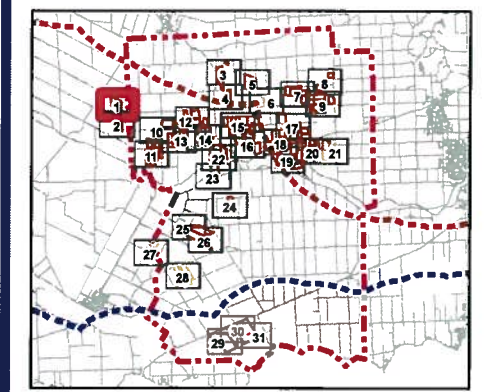
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=disjunctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization





- ### Legend
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - To Be Determined
  - Open Rock/Shrub Rock Barren
  - Shoreline
  - Bluff
  - Swamp
  - Marsh
  - Bog
  - Wetland
  - Meadow
  - Thicket
  - Savanna
  - Woodland
  - Forest
  - Hedgerow
  - Treed Agriculture
  - Open Water



- ### 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.

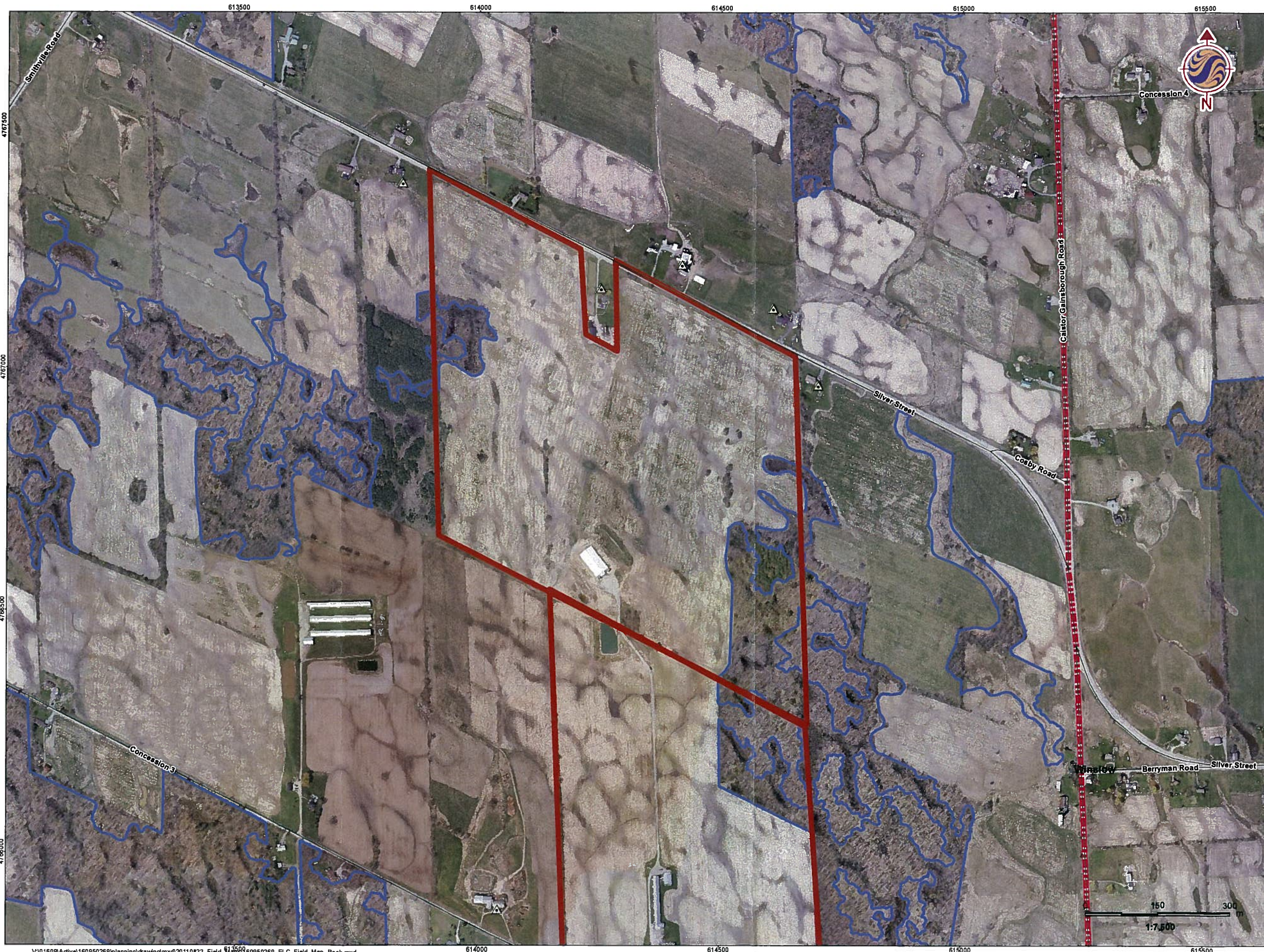


Client/Project  
Niagara Region Wind Corporation

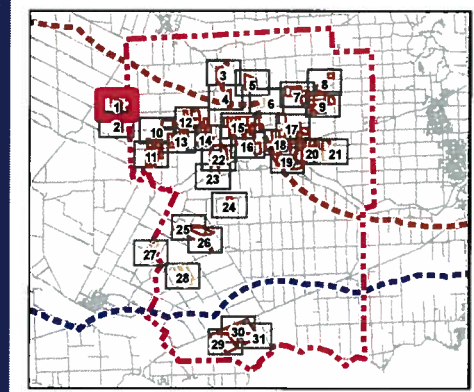
Figure No.  
E-1

Title  
**ELC Field Map 1**





- ### Legend
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland



- ### Notes
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**Stantec** November, 2011  
160950269

Client/Project  
**Niagara Region Wind Corporation**

Figure No.  
**E-1**

Title  
**ELC Field Map 1**









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: Niagara Region Wind Project

Date: Nov 17, 2011

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C): <u>3</u>	WIND: <u>3</u>	CLOUD: <u>40%</u>	PPT: <u>some rain/snow in pm</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: #2-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>Swamp complex may contain potential habitat</u>						

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269  
Date: Nov 17

Project Name: Niagara Region Wind Project  
Field Personnel: Nicole Chariton

Weather Conditions:	TEMP (°C): <u>3</u>	WIND: <u>3</u>	CLOUD: <u>40%</u>	PPT: <u>some rain/snow in pm</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: #2-3 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. karst topography, abandoned mines or caves]

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UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
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STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
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SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>swamp complex may contain potential amphibian habitat</u>					

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: \_\_\_\_\_

Project Name: \_\_\_\_\_

Date: \_\_\_\_\_

Field Personnel: \_\_\_\_\_

<b>Weather Conditions:</b>	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
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## Woodland & Wildlife Habitat Assessment Form

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Date: \_\_\_\_\_

Field Personnel: \_\_\_\_\_

<b>Weather Conditions:</b>	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
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UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

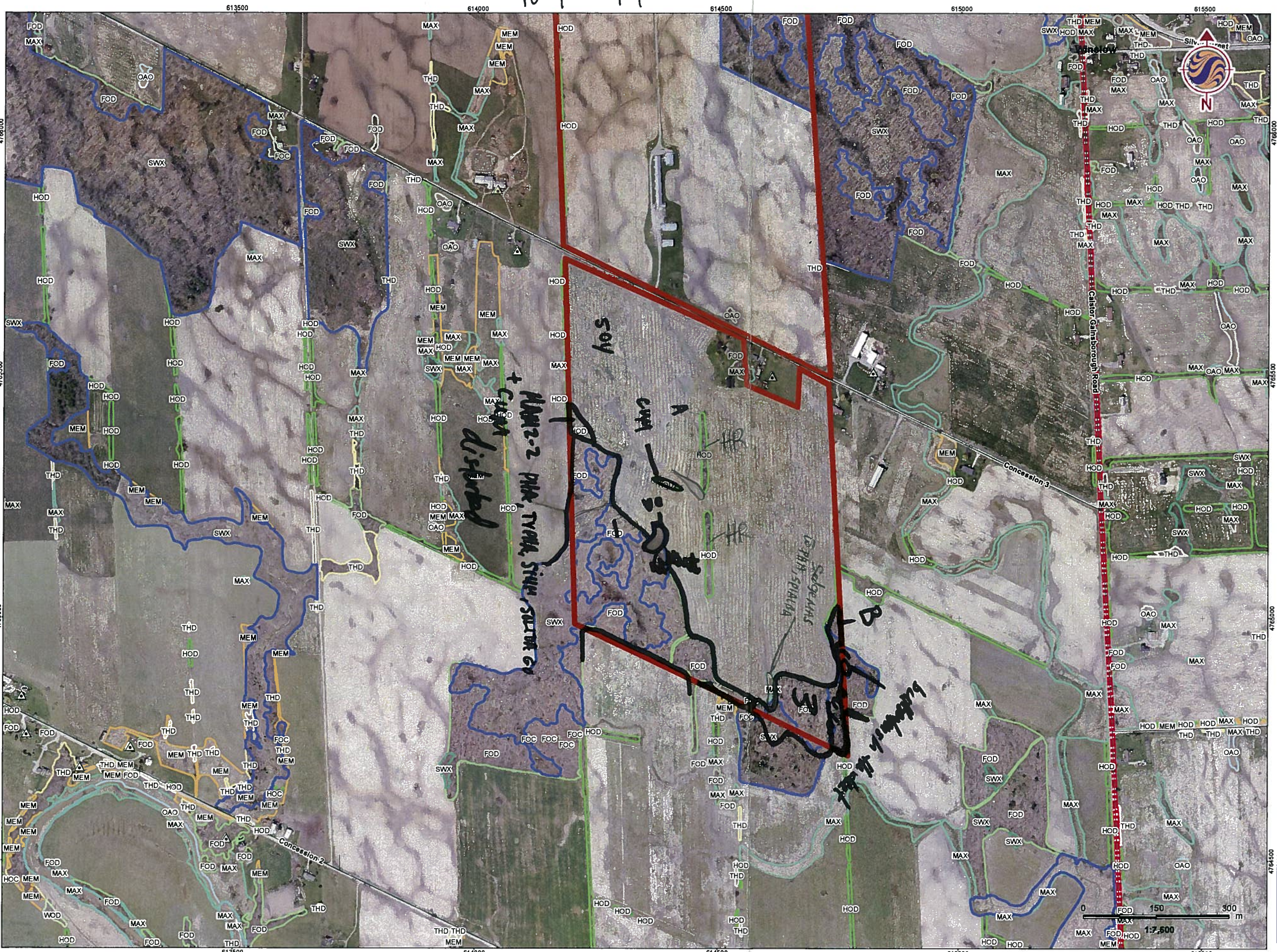
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization



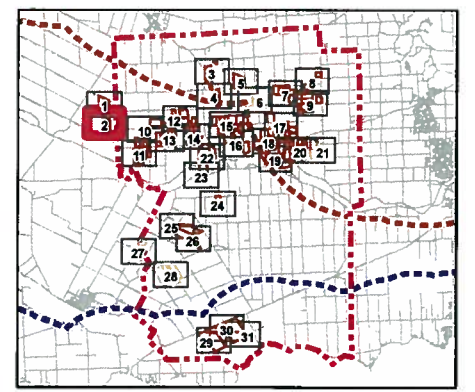
rough copy

A: TYPICAL, SUSUKU, SCICUPPE, GRASST, GRAMMABIO



- ### Legend
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
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  - To Be Determined
  - Open Rock/Shrub Rock Barren
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  - Bog
  - Wetland
  - Meadow
  - Thicket
  - Savanna
  - Woodland
  - Forest
  - Hedgerow
  - Treed Agriculture
  - Open Water

got rid of polygon #2 (part of complex in #1)



### Notes

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**Stantec**

November, 2011  
160950269

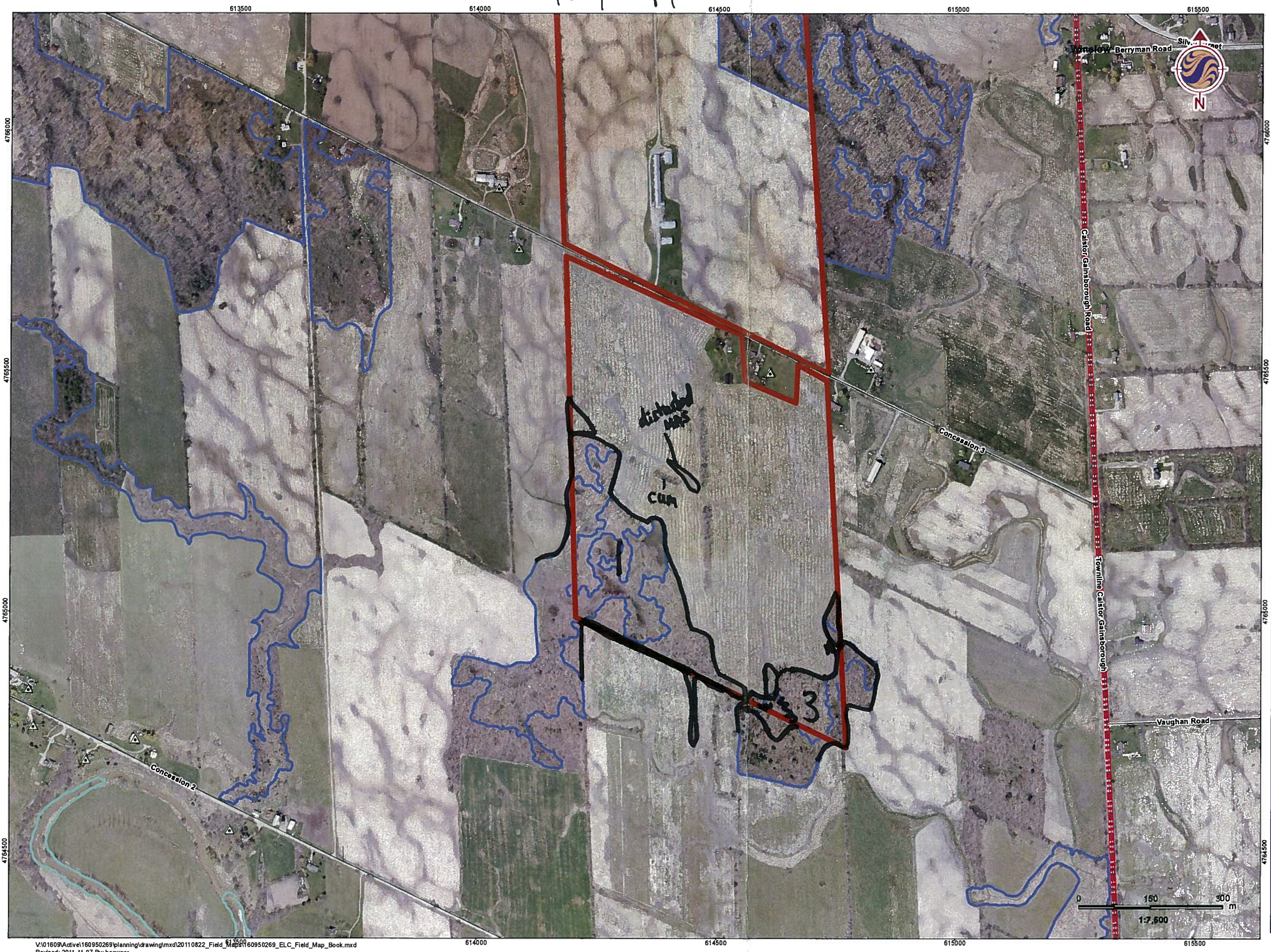
Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-2

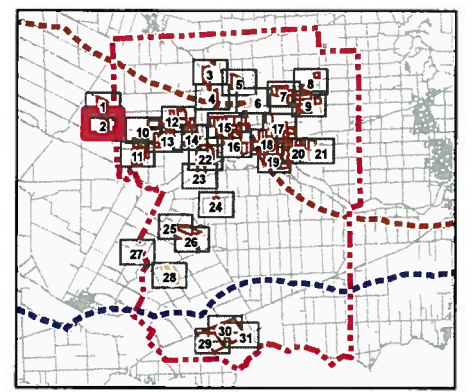
Title  
ELC Field Map 2



Rough Copy



- Legend**
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland



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**Stantec**

November, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-2

Title  
**ELC Field Map 2**









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: Niagara Region Wind Project

Date: \_\_\_\_\_

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C): <u>9</u>	WIND: <u>1-2</u>	CLOUD: <u>10%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
---------------------	------------------------	---------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: #3-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
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POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
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STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Swamp complex w pool areas (throughout polygon)</u>					

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- Woodpecker (red-bellied) UTM: 0622404 4768440 - OB  
 - mammal den - border of SWD and FOD UTM 0622390 4768549  
 ↳ opening approximately 40cm x 20cm

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: Niagara region Wind Project

Date: Nov 4, 2011

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	9	1-2	10%	none	none

ELC Polygon: #3-A Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HU=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: Niagara Region Wind Project

Date: Nov 4, 2011

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>9</u>	<u>1-2</u>	<u>10%</u>	<u>none</u>	<u>none</u>

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>MAM may contain amphibian habitat potential if it pools in spring</u>						

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization



SE39; Tile E-4; Poly A  
 Not a natural community - keep only for species list - can see cut hay btw plants  
 - wet along inside edge ~ 5-10 cm deep

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara</u>	POLYGON: <u>4-A</u>	
	SURVEYOR(S): <u>NC</u>	DATE: <u>Oct 28</u>	UTME:
	START: <u>4:30</u>	END: <u>5:00</u>	UTMZ:
			UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	5-7	4	GRASS > DAUCARDO > ARUTHEO

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**STAND COMPOSITION:** BA:

SIZE CLASS ANALYSIS:	N <10	N 10-24	M 25-50	N >50
STANDING SNAGS:	N <10	N 10-24	N 25-50	N >50
DEADFALL/LOGS:	N <10	N 10-24	N 25-50	N >50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes: - cut hay field with weeds starting to grow in

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:	POLYGON:
	DATE:	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
						GRASS					A
						Velvet leaf					O-A
						Huckle					O
						DAUCARDO					O-A
						SOLIDAGO					O
						CHENODIUM					O
						TAROFFE					R-O
						POTENTILLA					R
						ALFAFA					R-O
						MALVA					R-O
						TRIFOLIUM					O
						EPILLOTHUM					

Page \_\_\_ of \_\_\_  
 Signature: Nick Chatter (Field Personnel)  
 Quality Control: This form is complete & legible   
 Signature: [Signature] (Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: Niagara Region Wind Project

Date: Oct 28, 2011

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C): <u>12</u>	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=home/ha; OB=observed; SC=cat; SI=other sign; TR=track; VO=vocalization



ELC SITE: Niagara POLYGON: 4-B  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NC DATE: Oct 28  
 START: 4:30 END: 5:00 UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input checked="" type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input checked="" type="checkbox"/> MARSH
		<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input checked="" type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	1-7	4	PHALARUN >> DIPFULL > SOLIDAGO

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**STAND COMPOSITION:** BA:

**SIZE CLASS ANALYSIS:** <10 10-24 25-50 >50

**STANDING SNAGS:** <10 10-24 25-50 >50

**DEADFALL/LOGS:** <10 10-24 25-50 >50

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

**COMM. AGE:** PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE: DEPTH TO MOTTLES/GLEY g= G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: MAM2-2

INCLUSION: Open aquatic CODE: OAO

COMPLEX: CODE:

Evidence of Disturbance / Notes:

- water on ground - outside of OA pocket, covers ~20% at 5-20 cm deep  
 - associated with drainage and OA

SF39; T1P E-4; Poly B

ELC SITE: POLYGON: DATE: SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
						PHALARUN					D
						GRASS 5					O
						DIPFULL					O
						SYMNOVA					O
						SOLIDAGO					O
						VERHAST					R
						EPILOBIUM					R
						POLYGONUM					R
						TYPLATI					R

Page \_\_\_ of \_\_\_  
 Signature: *Nick...* (Field Personnel)  
 Quality Control: This form is complete & legible   
 Signature: *...* (Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: Niagara Region Wind Project

Date: Oct 28, 2011

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: #4-B Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
	Pooled water may represent potential amphibian habitat - throughout community						

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HD=household; OB=observed; SC=scan; SI=other sign; TK=track; VO=visualization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: Niagara Region Wind Project

Date: Oct 28, 2011

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: # 4-C Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=encase; DP=distinctive parts; FE=feeding evidence; FN=egg/nest; HD=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 50269

Project Name: NICARA

Date: SEPT 29 - 11

Field Personnel: JR

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	18	2	70%	0	RAIN

ELC Polygon: # 1 Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

AMGO - OB  
 - MONARCH - OB  
 - MOJO - OB  
 - OPEN HABITAT (POTENTIAL AMPHIB BREEDING)

CA - carcass; DP - distinctive parts; FE - feeding evidence; FY - eggs/nest; HO - house/den; OB - observed; SC - scat; SI - other sign; TK - track; VO - vocalization







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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 50269

Project Name: NIAGARA

Date: SEPT 29 - 11

Field Personnel: JR

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	18	2	70%	0	RAIN

ELC Polygon: # 2 Assessment Type:  Visual; roadside, no access  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
 -Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
 -Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
 -Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
 -Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 -Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- H2O IN THIS SMALL COMMUNITY

CA - carcass; DP - distinctive pair; FE - feeding evidence; FY - eggs/nest; HO - house/roost; OB - observed; SC - seal; SI - other sign; TK - track; VO - vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 50269

Project Name: NIAGARA

Date: SEPT 29-11

Field Personnel: JR

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	18	2	70%	0	RAIN

ELC Polygon: # 3 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- GAFR - 28  
 - WOFFR - 28  
 - TREE-FRAG - 50 or 100x 0.100

CA = carcass; DP = distinctive parts; FE = feeding evidence; FY = eggs/nest; HO = house/den; OB = observed; SC = scat; SI = other sign; TK = track; VO = vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 50269

Project Name: NIAGARA

Date: SEPT 29-11

Field Personnel: JR

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	18	2	70%	0	Rov

ELC Polygon: # 4 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

-WOFB - OB

CA - carcass; DP - distinctive parts; FE - feeding evidence; FY - eggs/nest; HO - house/den; OB - observed; SC - scat; SF - other sign; TK - track; VO - vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 6950269

Project Name: NIAGARA

Date: SEPT 29-11

Field Personnel: STR

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>18</u>	<u>2</u>	<u>70%</u>	<u>φ</u>	<u>RAIN</u>

ELC Polygon: # 5 Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

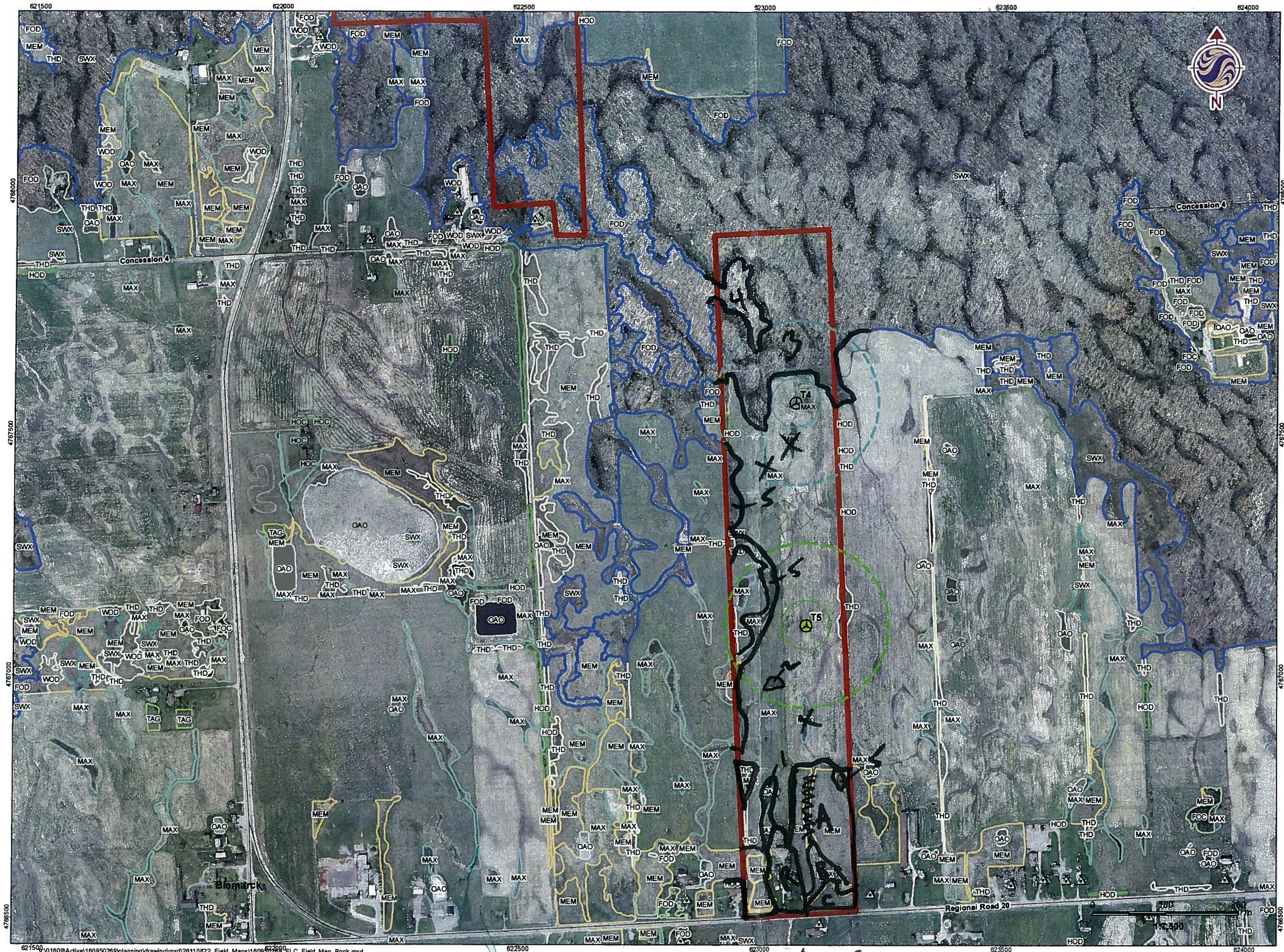
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- FOLLOWS UNPLOWED DRAINAGE AREAS WITHIN FIELDS

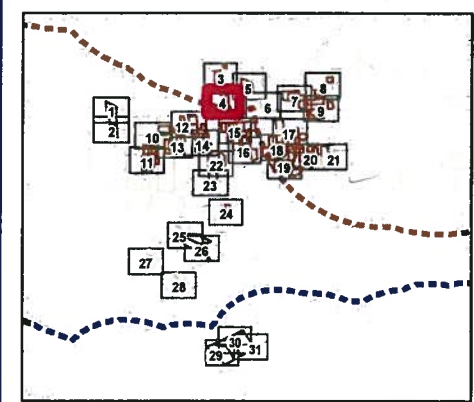
CA - carcass; DP - distinctive parts; FE - feeding evidence; FY - egg/nest; HD - house/iden; OB - observed; SC - scat; SF - other sign; TK - track; VO - vocalization





### Legend

	Preliminary Study Area		Turbines on Developable Land and 101m Diameter
	Signed Project Sites		170.5m Buffer of Turbine
	Potential Signed Property		Turbines W/ 120m S/B PSW and 101m Diameter
	Road		170.5m Buffer of Turbine
	Railway		Turbines W/ 120m S/B Woodland and 101m Diameter
	Municipality Lower Tier		170.5m Buffer of Turbine
	Provincially Significant Wetland		Turbines W/ 120m S/B Wood/Wetland and 101m Diameter
	Other/Locally Significant Wetland		170.5m Buffer of Turbine
	To Be Determined		
	Open Rock/Shrub Rock Barren		
	Shoreline		
	Bluff		
	Swamp		
	Marsh		
	Bog		
	Wetland		
	Meadow		
	Thicket		
	Savanna		
	Woodland		
	Forest		
	Hedgerow		
	Treed Agriculture		
	Open Water		



- ### Notes
- Coordinate System: NAD 1983 UTM Zone 17N).
  - Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.



**Stantec**

September, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-4

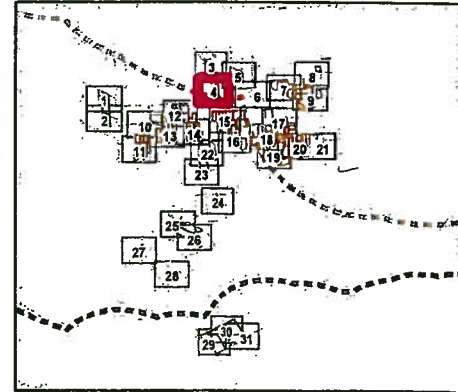
Title  
**ELC Field Map 4**

*Handwritten notes:* 4 \* CONCRETE FOUNDATION WORK





- ### Legend
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - To Be Determined
  - Open Rock/Shrub Rock Barren
  - Shoreline
  - Bluff
  - Swamp
  - Marsh
  - Bog
  - Wetland
  - Meadow
  - Thicket
  - Savanna
  - Woodland
  - Forest
  - Hedgerow
  - Treed Agriculture
  - Open Water
  - Turbines on Developable Land and 101m Diameter
  - 170.5m Buffer of Turbine
  - Turbines W/ 120m S/B PSW and 101m Diameter
  - 170.5m Buffer of Turbine
  - Turbines W/ 120m S/B Woodland and 101m Diameter
  - 170.5m Buffer of Turbine
  - Turbines W/ 120m S/B Wood/Wetland and 101m Diameter
  - 170.5m Buffer of Turbine



- ### Notes
- Coordinate System: NAD 1983 UTM Zone 17N.
  - Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

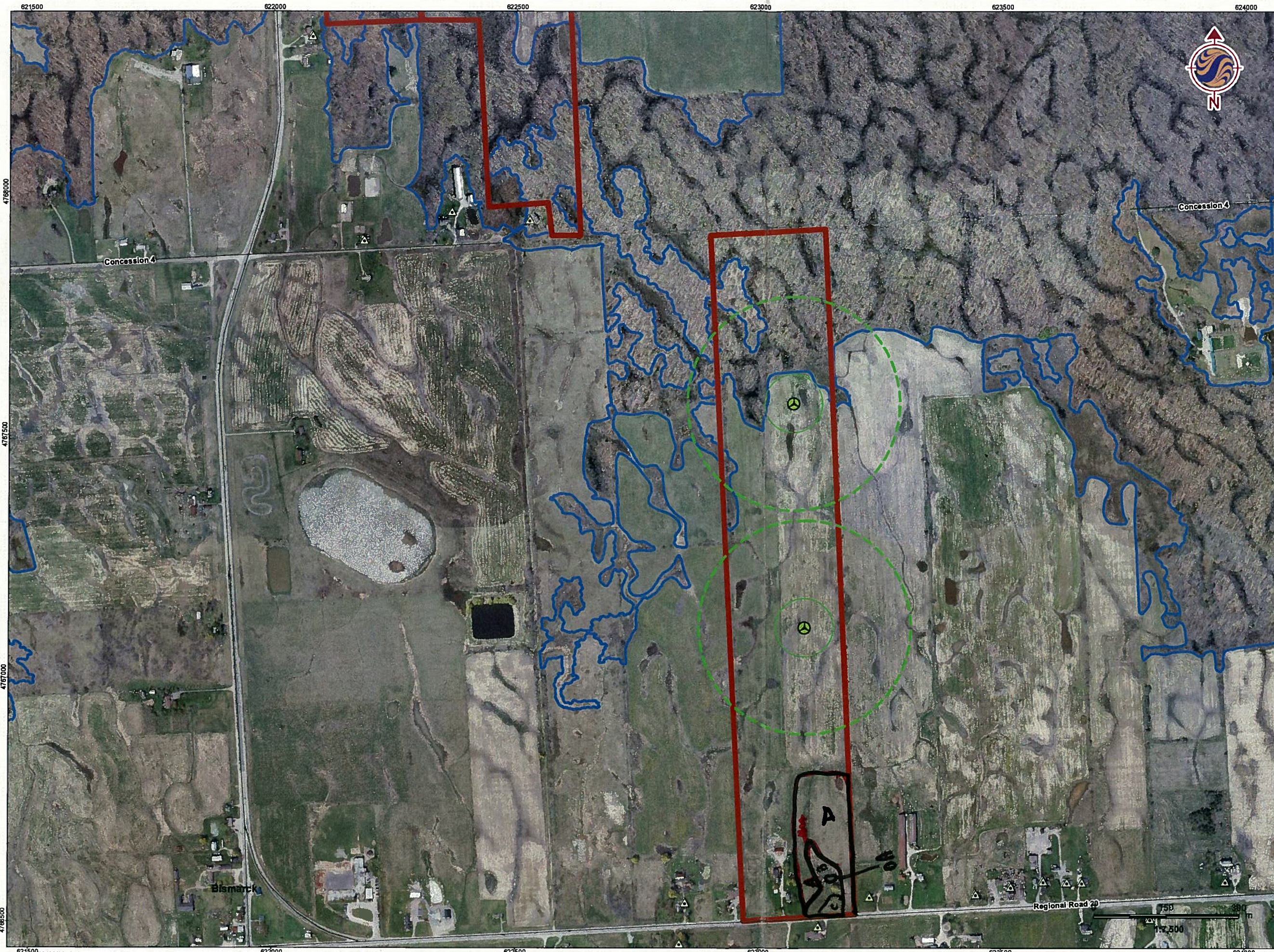
September, 2011  
180950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-4

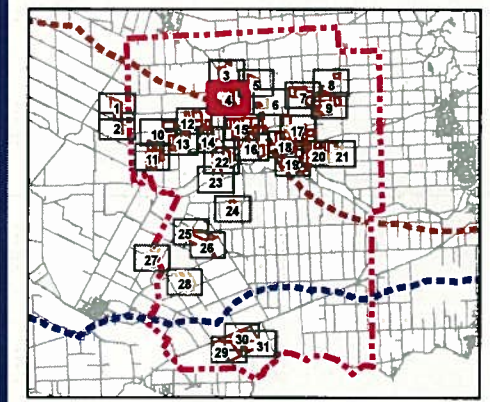
Title  
**ELC Field Map 4**





- Legend**
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Turbines on Developable Land and 120m Diameter
  - 160m Buffer of Turbine

W



**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.



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August 2011  
160950289

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Niagara Region Wind Corporation

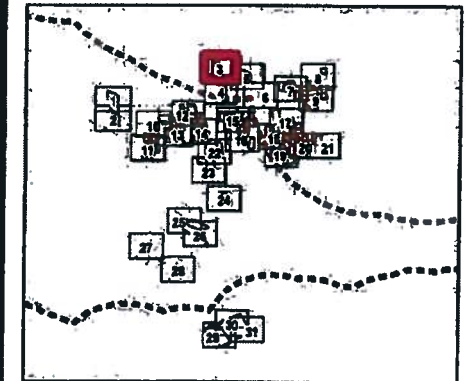
Figure No.  
F-4

Title  
**Field Map 4**





- ### Legend
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipally Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - To Be Determined
  - Open Rock/Shrub Rock Barren
  - Shoreline
  - Bluff
  - Swamp
  - Marsh
  - Bog
  - Wetland
  - Meadow
  - Thicket
  - Savanna
  - Woodland
  - Forest
  - Hedgerow
  - Treed Agriculture
  - Open Water
  - Turbines on Developable Land and 101m Diameter
  - 170.5m Buffer of Turbine
  - Turbines W/ 120m S/B PSW and 101m Diameter
  - 170.5m Buffer of Turbine
  - Turbines W/ 120m S/B Woodland and 101m Diameter
  - 170.5m Buffer of Turbine
  - Turbines W/ 120m S/B Wood/Wetland and 101m Diameter
  - 170.5m Buffer of Turbine



- ### Notes
- Coordinate System: NAD 1983 UTM Zone 17N.
  - Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.



Figure No. E-3  
 Title ELC Field Map 3









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: Niagara Region Wind Project

Date: Oct 29

Field Personnel: \_\_\_\_\_

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>20</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	-------------------------	-------------------	---------------------	---------------------	--------------------------------------

ELC Polygon: #-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Wetland complex throughout polygon with some pools</u>					

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=egg/feet; HO=hoop/hoop; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization



SEST; Tile F-5; Poly 2

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara</u>		POLYGON: <u>5-2</u>	
	SURVEYOR(S): <u>NC</u>		DATE: <u>Oct 28</u>	UTME:
	START: <u>3:00</u>	END: <u>3:30</u>	UTMZ:	UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input checked="" type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWMAP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input checked="" type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF			

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	<u>5-7</u>	<u>4</u>	<u>GRASS &gt; SYMNOVA &gt; SOLIDAGO</u>

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:					BA:
SIZE CLASS ANALYSIS:	<10	10 - 24	25 - 50	>50	
STANDING SNAGS:	<10	10 - 24	25 - 50	>50	
DEADFALL/LOGS:	<10	10 - 24	25 - 50	>50	
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT				
COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>D-M old field cultural meadow</u>	CODE: <u>CAMI-1</u>
INCLUSION <u>reed canopy grass mineral meadow marsh</u>	CODE: <u>HAMZ-2</u>
COMPLEX	CODE:

Evidence of Disturbance / Notes:

(Wet) CAMI-1 with HAMZ-2 border (drainage)

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
						GRASS					A	
						SYMNOVA					A	
						DAUCARIS					O	
						SOLIDAGO					A	
						Juncus					R	
						VICCRAC					O	
						AREX					O	
						VERHAST					R	
						GEMM					R	
						HELIOTUS					O	

Page \_\_\_ of \_\_\_

Signature: Nick...  
(Field Personnel)

Quality Control: This form is complete  & legible

Signature: ...  
(Project Manager)





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 Canada N1G 4P5  
 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stanter**

Project Number: 160950269

Project Name: Niagara Region Wind Project

Date: Oct 28, 2011

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	1	20	none	rain

ELC Polygon: #5-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains/potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains/potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains/large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>The MAM may act as a vernal pool and may provide potential amphibian habitat</u>						

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization



SE 57, Tile F-5, Poly 3

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NIAGARA	POLYGON: 5-3		
	SURVEYOR(S): NC	DATE: October 28	UTME:	
	START: 4:00	END: 5:00	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input checked="" type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> COVER		<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE	<input checked="" type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input checked="" type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > FAGGRAN > QUERUAR > TILAMER
2 SUB-CANOPY	3	3	FAGGRAN > ACESASA > OSTVIRG
3 UNDERSTOREY	4	3	FAGGRAN > ACESASA > OSTVIRG
4 GRD. LAYER	5-7	2	CAREX > GELUM > XMAS FERW

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:	BA:
SIZE CLASS ANALYSIS:	A <10 A 10-24 R 25-50 R >50
STANDING SNAGS:	0 <10 0 10-24 0 25-50 N >50
DEADFALL/LOGS:	A <10 A 10-24 A 25-50 R >50
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
COMM. AGE:	PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

Texture: silty sand  
DEPTH TO MOTTLES/GLEY: g=41 G=  
MOISTURE: 4 DEPTH OF ORGANICS: (cm)  
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: DRY-FRESH SUGAR MAPLE-BEECH DECIDUOUS FOREST	CODE: FOD 5-2
INCLUSION:	CODE:
COMPLEX Green ash mineral deciduous swamp	CODE: SWD 2-2

Evidence of Disturbance / Notes:

some swamps have more maple than ash

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESASA	A	OA				beachdrup					0
FAGGRAN	0	A	A			Wintersgreen					R
OSTVIRG		OA	0			CAREX J					0
QUERUAR	R					GRASS					R
QUERUAR	R					XMAS FERW					R-0
TILAMER	R					GELUM					0

Page \_\_\_ of \_\_\_

Signature: *N. Chen*  
(Field Personnel)

Quality Control: This form is complete & legible

Signature: *ac*  
(Project Manager)





**Stantec Consulting Ltd.**  
 1 – 70 Southgate Drive  
 Guelph, ON  
 Canada N1G 4P5  
 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: Niagara Region Wind Project

Date: Oct 28, 2011

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	1	20	none	rain

ELC Polygon: #5-3 Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

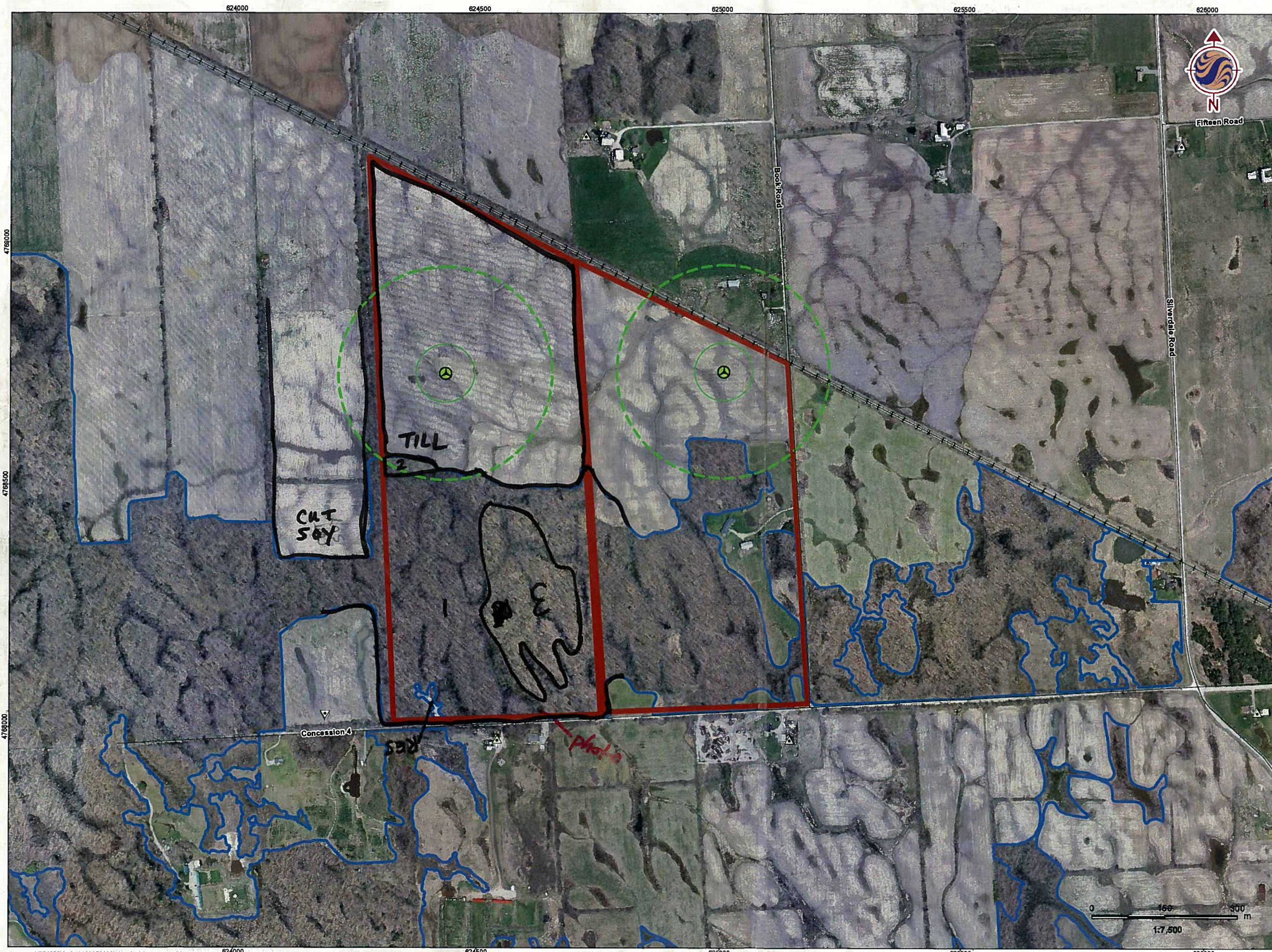
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>Wetland complex throughout with some pools</u>						

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

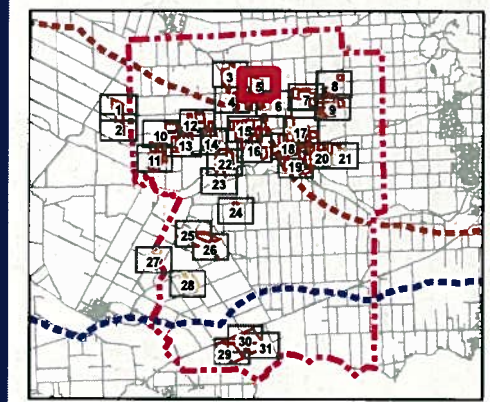
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization





- Legend**
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Turbines on Developable Land and 120m Diameter
  - 160m Buffer of Turbine

W



**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.



**Stantec**

August, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

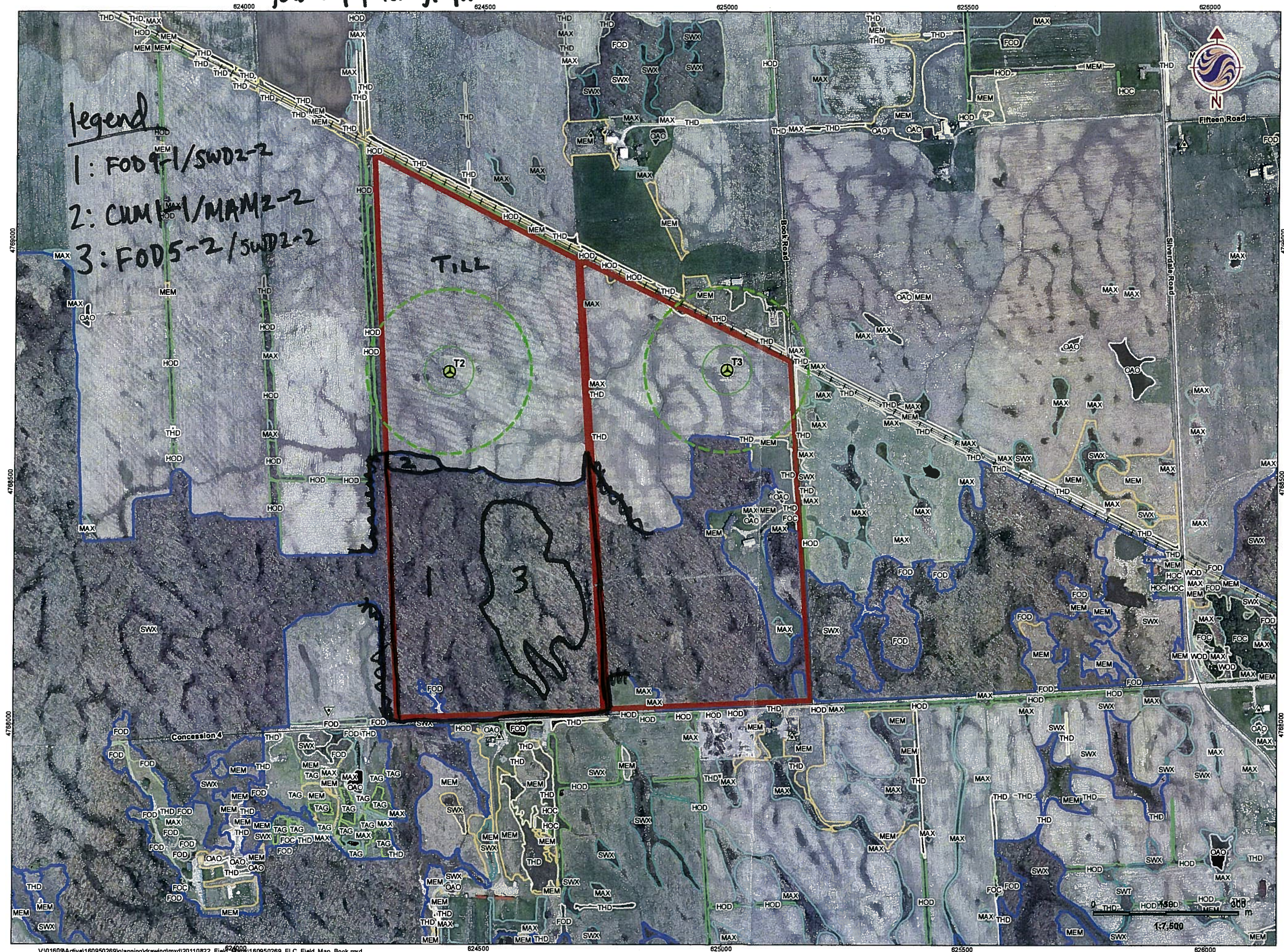
Figure No.  
F-5

Title  
**Field Map 5**





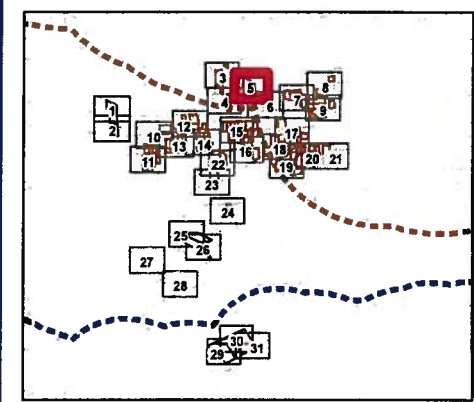
good copy for graphics



Legend  
 1: FOD 9-1/SWD2-2  
 2: CUM 1/MAM2-2  
 3: FOD 5-2/SWD2-2

### Legend

	Preliminary Study Area		Turbines on Developable Land and 101m Diameter
	Signed Project Sites		170.5m Buffer of Turbine
	Potential Signed Property		Turbines W/ 120m S/B PSW and 101m Diameter
	Road		170.5m Buffer of Turbine
	Railway		Turbines W/ 120m S/B Woodland and 101m Diameter
	Municipality Lower Tier		170.5m Buffer of Turbine
	Provincially Significant Wetland		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Other/Locally Significant Wetland		170.5m Buffer of Turbine
	To Be Determined		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Open Rock/Strub Rock Barren		170.5m Buffer of Turbine
	Shoreline		
	Bluff		
	Swamp		
	Marsh		
	Bog		
	Wetland		
	Meadow		
	Thicket		
	Savanna		
	Woodland		
	Forest		
	Hedgerow		
	Treed Agriculture		
	Open Water		



### Notes

- Coordinate System: NAD 1983 UTM Zone 17N).
- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.



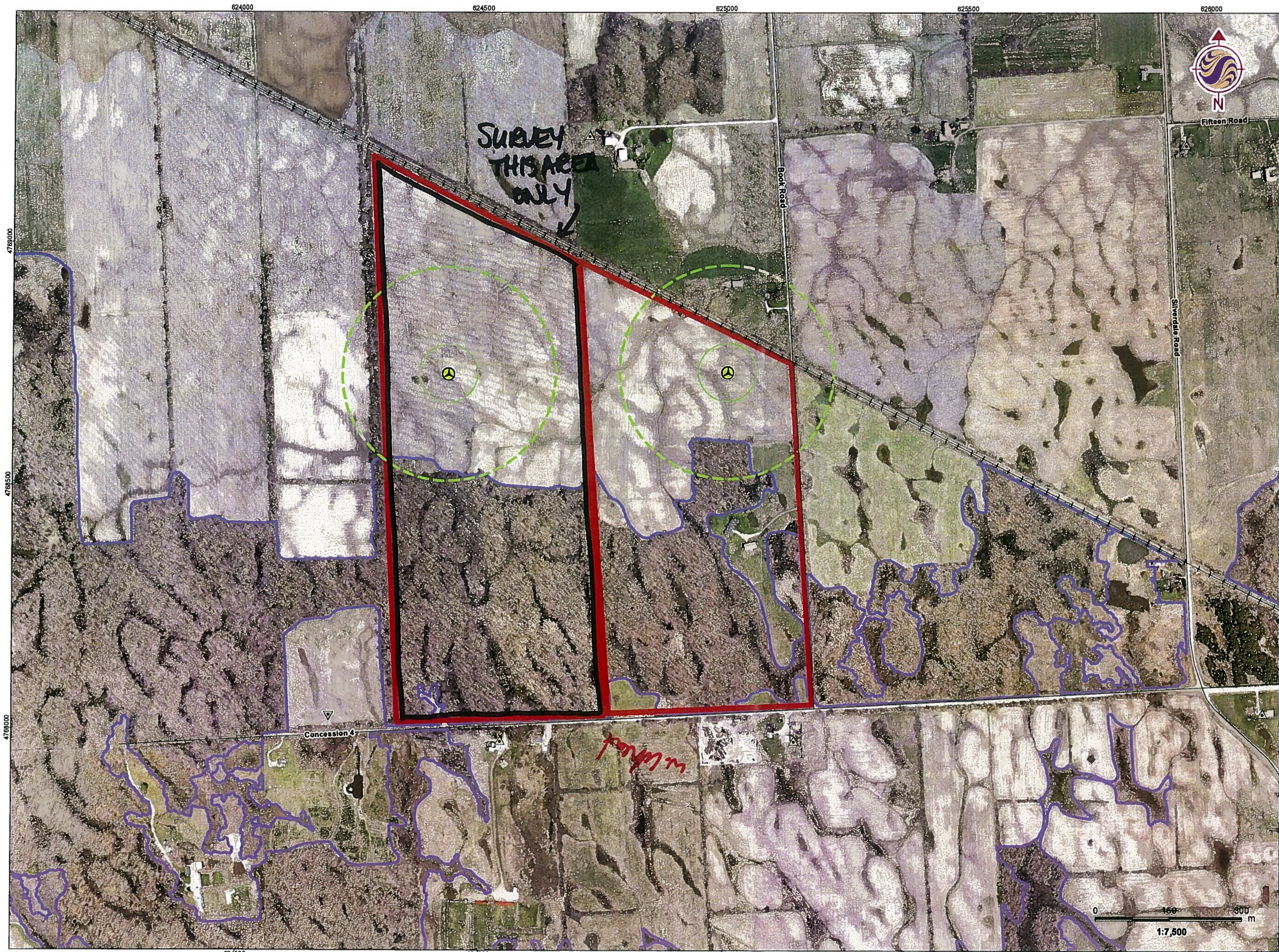
September, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-5

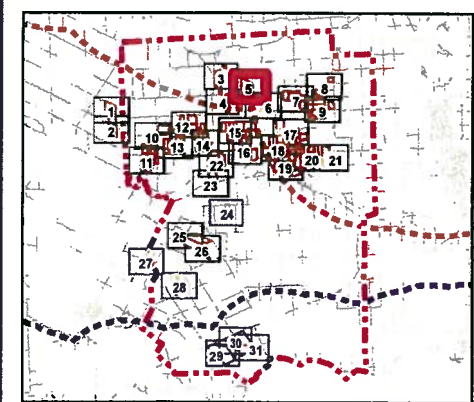
Title  
**ELC Field Map 5**





### Legend

- Preliminary Study Area
- Signed Project Sites
- Potential Signed Property
- Road
- Railway
- Municipality Lower Tier
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Turbines on Developable Land and 120m Diameter
- 160m Buffer of Turbine



- ### 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.



**Stantec**

August 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
F-5

Title  
**Field Map 5**



SE36; Tile F-7; Poly A

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara</u>	POLYGON: <u>7-A</u>	
	SURVEYOR(S): <u>NC</u>	DATE: <u>Oct 27, 2011</u>	UTME:
	START: <u>12</u>	END: <u>12:30</u>	UTMZ:
			UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input checked="" type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<b>SITE</b>		<input type="checkbox"/> TALUS	<b>COVER</b>	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> CREVICE / CAVE	<input checked="" type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input checked="" type="checkbox"/> MEADOW
<input checked="" type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> PRAIRIE
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> TREED		<input type="checkbox"/> THICKET
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY		
2	SUB-CANOPY		
3	UNDERSTOREY		
4	GRD. LAYER	5-7 4	PHALARIS >> PERSICARIA > PANICUM SP

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:	BA:
SIZE CLASS ANALYSIS:	<10 10-24 25-50 >50
STANDING SNAGS:	<10 10-24 25-50 >50
DEADFALL/LOGS:	<10 10-24 25-50 >50
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
COMM. AGE:	PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Red-cedar grass mineral meadow marsh</u>	CODE: <u>NAM2-2</u>
INCLUSION	CODE:
COMPLEX	CODE:

**Evidence of Disturbance / Notes:**

- associated with drainage ditch

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
						PHALARIS					A	
						PERSICARIA					O	
						VERHAST					O	
						PANICUM					O	

Page \_\_\_ of \_\_\_  
Signature: Newland  
(Field Personnel)

Quality Control: This form is complete  & legible   
Signature: edw  
(Project Manager)





Stantec Consulting Ltd.  
1 - 70 Southgate Drive  
Guelph, ON  
Canada N1G 4P5  
Tel: (519) 836-6050  
Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 27, 2011

Field Personnel: N. Charbon

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10</u>	<u>1</u>	<u>100</u>	<u>none</u>	<u>rain</u>

ELC Polygon: #7-A Assessment Type: -Visual; no access / -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>surface water throughout</u>		<u>5-10cm</u>		<u>yes</u>	<u>no</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization









Stantec Consulting Ltd.  
1 - 70 Southgate Drive  
Guelph, ON  
Canada N1G 4P5  
Tel: (519) 836-6050  
Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NKWC

Date: Oct 27, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>100</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	-------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: # 7-13 Assessment Type: -Visual; no access / -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
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[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
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[i.e. karst topography, abandoned mines or caves]

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[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
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SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>vernal pool</u>	<u>20 x 5 m</u>		<u>TBD</u>	<u>Phalaris</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 27, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>100</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: #7-C Assessment Type: -Visual; no access / -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Some pooled H<sub>2</sub>O</u>		<u>~5 cm</u>		<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 27, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10</u>	<u>1</u>	<u>100</u>	<u>none</u>	<u>var</u>

ELC Polygon: #7-D1E Assessment Type: -Visual; no access / -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>pooled water throughout</u>		<u>1-2 ft at least</u>		<u>forbs + graminoids</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FF=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 27, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10</u>	<u>1</u>	<u>100</u>	<u>none</u>	<u>rain</u>

ELC Polygon: #7-F Assessment Type: -Visual; no access / -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SF=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: Niagara Region Wind Project

Date: October 28, 2011

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	1	20%	none	rain

ELC Polygon: # 7-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	Community is a shallow pool of water				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VC=vocalization









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# Woodland & Wildlife Habitat Assessment Form

**Starter**

Project Number: 160950269  
 Date: Oct 27, 2011

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>(</u>	CLOUD: <u>100</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: #7-3 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>whole community contains pooling</u>		<u>10-50cm</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- potential porcupine damage on trees  
 - mammal trails through grass

CA=carcass; DP=distinctive parts; FE=feeding evidence; FV=feigning; H=house; ID=identification; OB=observed; SC=scar; S=other sign; TK=track; VC=recognition









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 27

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10</u>	<u>1</u>	<u>100</u>	<u>none</u>	<u>rain</u>

ELC Polygon: # 74 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FN=egg/nest; FO=house/den; OB=observed; SC=seal; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: \_\_\_\_\_

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>20</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: #7-5 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>pooling throughout feature</u>		<u>~1ft</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FB=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization



SE 37; T1E F-7; Poly 1

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara</u>	POLYGON: <u>7-1</u>	
	SURVEYOR(S): <u>NC</u>	DATE: <u>Oct 27/28</u>	UTME:
	START: <u>2 pm</u>	END: <u>11 am</u>	UTMZ:
			UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<b>SITE</b>			<b>COVER</b>		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER	<input type="checkbox"/> OPEN		<input type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER	<input type="checkbox"/> SHRUB		<input checked="" type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
<input checked="" type="checkbox"/> SURFICIAL DEP.	<input type="checkbox"/> SAND DUNE				<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK	<input type="checkbox"/> BLUFF				<input checked="" type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACERUBR > QUERUBR > QUEALBA
2 SUB-CANOPY	3	3	CARCARO > ACERUBR > OSTVIRG
3 UNDERSTOREY	4	3	CARCARO > ACERUBR > RUBUS SPP > VIBURNUM SPP
4 GRD. LAYER	5-7	3	SOLRUGO > SYMMACR > CAREX SPP

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:		BA:
SIZE CLASS ANALYSIS:	A <10 A 10-24 0 25-50 R >50	
STANDING SNAGS:	0 <10 0 10-24 0 25-50 N >50	
DEADFALL/LOGS:	A <10 0 10-24 R 25-50 N >50	
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT	

COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
SOIL ANALYSIS:	↑ clay content #1 #2 #1 #2 samples				
TEXTURE:	DEPTH TO MOTTLES/GLEY	g= 18/10 cm	G= 18/10		
MOISTURE: 6	DEPTH OF ORGANICS:				(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: 7120				(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
<u>F-M Oak-Maple Deciduous forest</u>	<u>FOD9-2</u>
INCLUSION	CODE:
COMPLEX	CODE: <u>SWD1-1/SWT2-4</u>

**Evidence of Disturbance / Notes:**

- past + present logging
- recent vehicle tracks
- garbage
- very disturbed internally - no longer matches up with cur photo

<b>ELC</b>	SITE:
COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
DOPTREM	R					PHRAGMITES				R	
FRAPENN	O					TUSFARF				R	
CARCARO		A	A			CAREX SPP				O-A	
ACERUBR	A					SOLRUGO				A	
*QUEBICO	A					DRYCARF				O-R	
ULMAMER	R					VITRIPA				R	
QUERUBR	A					*BIDENS				O	
PRUSERO	R					TAROFFI				R-O	
ACEFREE	O					RUBPUBE				R-O	
*SALIX	R	R				*RUBHSP				O	
QUEMACR	R					POTSIMP				O	
CAROVAT	R					SMITHSP				R-O	
OSTVIRG			O			Muhlenbergia				R-O	
ACESASA	R	R				*EUPPERF				R	
FAGGRAN		R				*THEPALU				R-O	
QUEALBA	O					*SIUSUAY				A	
						EURMACR				A	
						AGRIMONY				O-R	
						SMIATI				R-O	
						*BOECYLI				O	
						*IMPCAPE				R-O	
						*EPILOBIUM				R-O	
*ILLEVERT			A								
CAATAEGUS			R-O								
*CEPOCCI			A								
RUBIDAE				A							
SAMCANA			O	O							
*VACCORY			A								
RUBOCCI				A							
VIBRAFI				O-A							
VIBLENT				O							
*ROSA SP			O	O							
*SPIALBA			O								

Page \_\_\_ of \_\_\_  
Signature: Nina P...  
(Field Personnel)

Quality Control: This form is complete  & legible   
Signature: ewm  
(Project Manager)

\*wetland sp.





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Oct 28, 2011

Project Name: NRWC  
 Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10</u>	<u>1</u>	<u>20</u>	<u>none</u>	<u>rain</u>

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
	<u>Swamp complex w pools throughout</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 28, 2011

Field Personnel: Nicole Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>20%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: #7-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=egg/feet; HO=house/den; OB=observed; SC=scan; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 28, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10</u>	<u>1</u>	<u>20</u>	<u>none</u>	<u>rain</u>

ELC Polygon: #7-6 Assessment Type: -Visual; no access / -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains/potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains/potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Potentially pools in spring throughout</u>				<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 16 04 50269

Project Name: NRWC

Date: Oct 28, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>20</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: # 7-H Assessment Type: -Visual; no access / -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>throughout</u>	<u>0001</u>	<u>~15m</u>	<u>20cm</u>		<u>mostly at edge - sparse</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FF=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization



SE37; Tile F-7; Poly I

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Niagara</i>	POLYGON: <i>7-I</i>	
	SURVEYOR(S): <i>NC</i>	DATE: <i>Oct 28, 2011</i>	UTME:
	START:	END:	UTMZ:
			UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input checked="" type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input checked="" type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<b>SITE</b>		<input type="checkbox"/> ALVAR	<b>COVER</b>		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ROCKLAND	<input checked="" type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
<input checked="" type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	2	<i>SALIX</i>
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	5-7	4	<i>CAREX SPP &gt; PHAARUN &gt; BIDENTIS</i>

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>60%

STAND COMPOSITION:	BA:
SIZE CLASS ANALYSIS:	<i>D</i> <10 <i>R</i> 10-24 <i>N</i> 25-50 <i>N</i> >50
STANDING SNAGS:	<i>N</i> <10 <i>N</i> 10-24 <i>N</i> 25-50 <i>N</i> >50
DEADFALL LOGS:	<i>N</i> <10 <i>N</i> 10-24 <i>N</i> 25-50 <i>N</i> >50
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
COMM. AGE:	<i>PIONEER</i> <i>YOUNG</i> <i>MID-AGE</i> <i>MATURE</i> <i>OLD GROWTH</i>

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Broad fld sedge mineral meadow marsh</i>	CODE: <i>MAS2-4</i>
INCLUSION	CODE:
COMPLEX	CODE:

**Evidence of Disturbance / Notes:**

*pooled water ~30cm deep over 30% of area*

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
<i>SALIX</i>	<i>0</i>					<i>PHAARUN</i>				<i>A</i>	
						<i>BIDENTIS</i>				<i>O</i>	
						<i>CAREX</i>				<i>A</i>	
						<i>TYPHA</i>				<i>R</i>	
						<i>EUPHERE</i>				<i>R-O</i>	
						<i>VERHAST</i>				<i>R-O</i>	

Page \_\_\_ of \_\_\_

Signature: *[Signature]*

(Field Personnel)

Quality Control: This form is complete  & legible

Signature: *[Signature]*

(Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 28

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (In last 24 hrs):
	<u>10</u>	<u>1</u>	<u>20</u>	<u>none</u>	<u>rain</u>

ELC Polygon: # 7-1 Assessment Type: -Visual; no access / -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains/potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains/potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
<u>throughout</u>	<u>D001</u>	<u>~15m</u>	<u>30cm</u>		<u>Carex, bidens, grass</u>	<u>Some</u>	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 28

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>20</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: # 7-J Assessment Type: -Visual; no access / -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>potential pool in spring throughout</u>	<u>20x10</u>			<u>sedimentary</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FF=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 28, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>20</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>Rain</u>
---------------------	-------------------------	-------------------	---------------------	---------------------	--------------------------------------

ELC Polygon: # 7-K Assessment Type: -Visual; no access / -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FF=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SI=other sign; TK=track; VO=vocalization



SE 37; Tile F-7; Poly 9

**ELC** SITE: NIAGARA POLYGON: 7-9  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NC DATE: OCT 28 UTMZ: UTMN:  
 START: 12:30 END: 1:00

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input checked="" type="checkbox"/> SWMAP
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> ALVAR		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> THICKET
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> WOODLAND
					<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	SALIX > FRAPENN > ACERUBR
2 SUB-CANOPY			
3 UNDERSTOREY	3-4	4	CEPOCCI > SPIALBA
4 GRD. LAYER	5-7	2	SOLDULC > PHALARIS

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**STAND COMPOSITION:** BA:

SIZE CLASS ANALYSIS:	A <10	A 10-24	BA 25-50	R >50
STANDING SNAGS:	0 <10	0 10-24	A 25-50	N >50
DEADFALL/LOGS:	0 <10	A 10-24	R 25-50	N >50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:  
 COMMUNITY SERIES: CODE:  
 ECOSITE: CODE:  
 VEGETATION TYPE: willow mineral deciduous swamp CODE: SWD4-1

INCLUSION CODE:  
 COMPLEX CODE:

Evidence of Disturbance / Notes: heavy logging intr. center - oak border

**ELC** SITE: POLYGON: DATE: SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
QUEBICO	2-0				
FRAXPENN	0				
SALIX SP	A				
ACERUBR	R-0				
QUEMOR	R-0				
CEPOCCI			A		
SPIALBA			0		
CORNUS (edge)			0		

Page \_\_\_ of \_\_\_ Signature: Nick Chorn (Field Personnel)  
 Quality Control: This form is complete & legible  Signature: Chris (Project Manager)  
 CORNUS = CORFORA



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Oct 28, 2011

Project Name: Niagara Region Wind Project  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>20</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	-------------------------	-------------------	---------------------	---------------------	--------------------------------------

ELC Polygon: #7-9 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature  
 Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Swamp community</u>					

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=egg/nest; HD=house/den; OB=observed; SC=sect; SL=other sign; TK=track; VO=vegetation







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 28

Field Personnel: N. Charlton

<b>Weather Conditions:</b>	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>20</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: # 7-6 Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains/potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains/potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains/potential bat roosting features?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains/potential large stick nests?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=encase; DP=distinctive parts; FE=feeding evidence; FY=egg/feast; FO=house/deer; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 28, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>20</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: # 7-7 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Contains shallow pool throughout</u>		<u>&gt;0.5 ft</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=egg/trace; HD=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=voicization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Oct 28, 2011

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>20</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	-------------------------	-------------------	---------------------	---------------------	--------------------------------------

ELC Polygon: #7-8 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Sp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Sp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>shallow aquatic pool with riparian border</u>		<u>&gt; 2ft</u>			<input checked="" type="checkbox"/>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

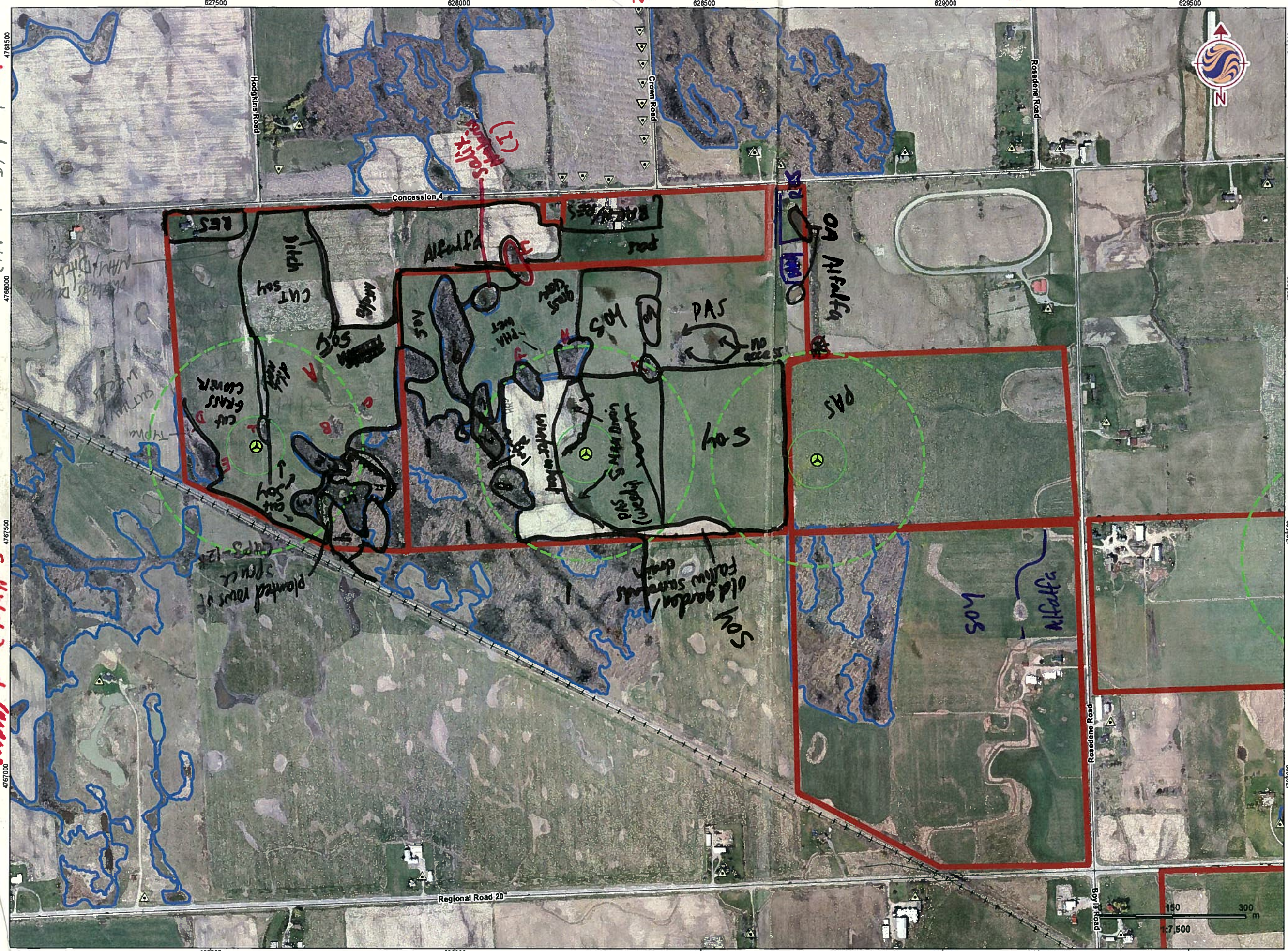
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization



K - Dry green ash swamp w/ SOLDULC, Phalaris, Cepocci - logged

W

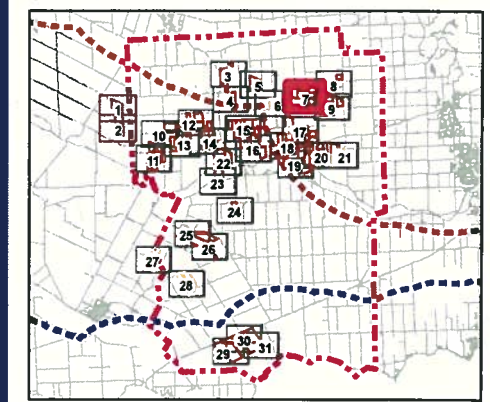
A - wet meadow (See water table) Phalaris, Desmodium, Urtica, ...  
 F - thickets w/ marsh (Mamm 2-2)



### Legend

- Preliminary Study Area
- Signed Project Sites
- Potential Signed Property
- Road
- Railway
- Municipality Lower Tier
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Turbines on Developable Land and 120m Diameter
- 160m Buffer of Turbine

- #6+7 get included in the complex for #1 instead



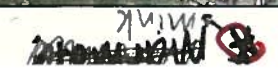
- ### Notes
- Coordinate System: NAD 1983 UTM Zone 17N).
  - Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

August, 2011  
180950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
F-7

Title  
**Field Map 7**





V:\016094\drive\160950269\p\m\m\drawing\mxd\20110827\field\_maps\160950269\_Basic\_Field\_Map\_Book.mxd  
 Revised: 2011-08-30 By: bcowper

**Field Map 7**

Figure No. F-7

Client/Project: Niagara Region Wind Corporation

August, 2011 160950269

**Stantec**

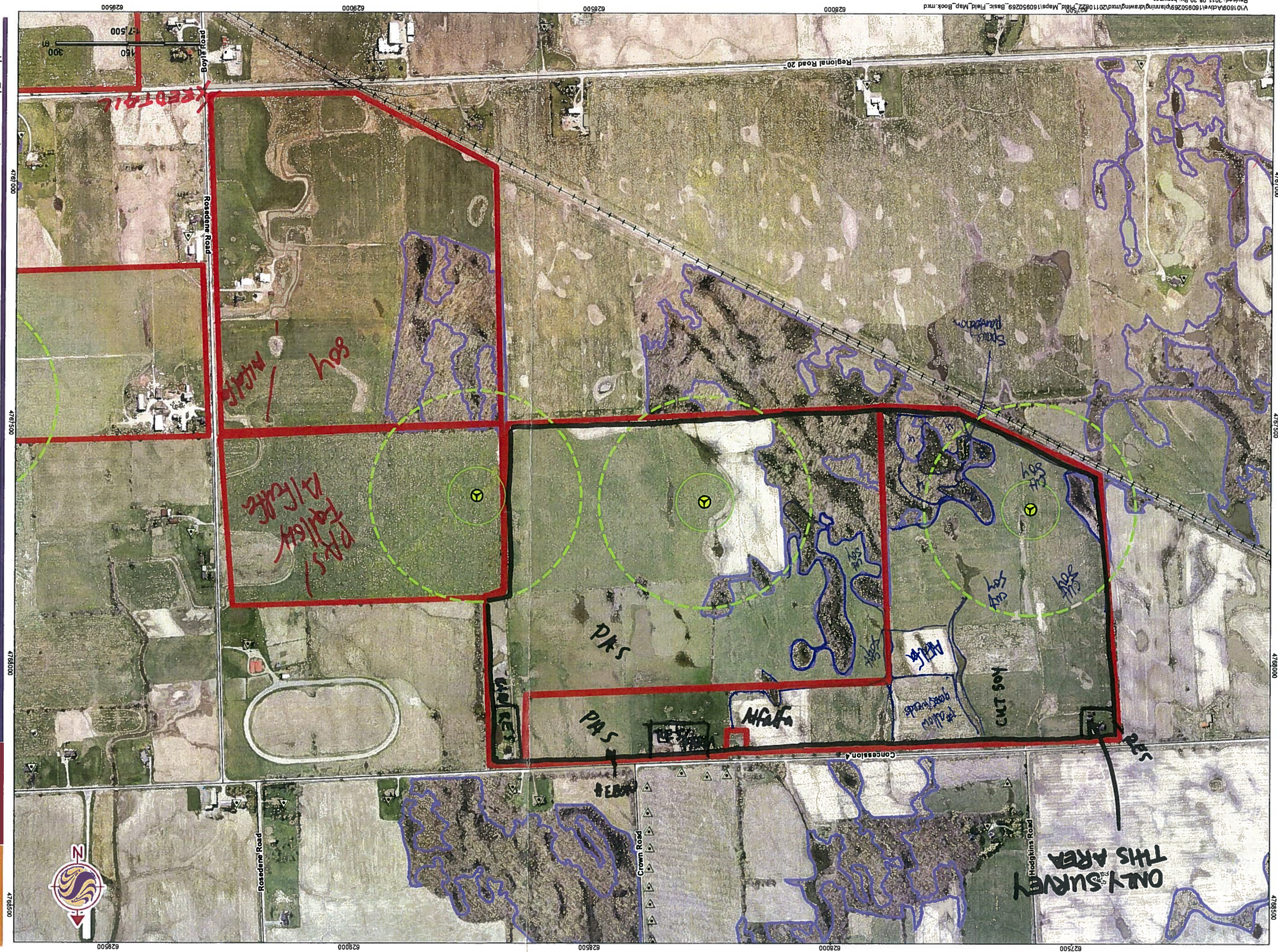
Printer for Ontario, 2011.  
 Base features produced under license with the Ontario Ministry of Natural Resources @ Queens

1. Coordinate System: NAD 1983 UTM Zone 17N)  
 2. Base features produced under license with the Ontario Ministry of Natural Resources @ Queens

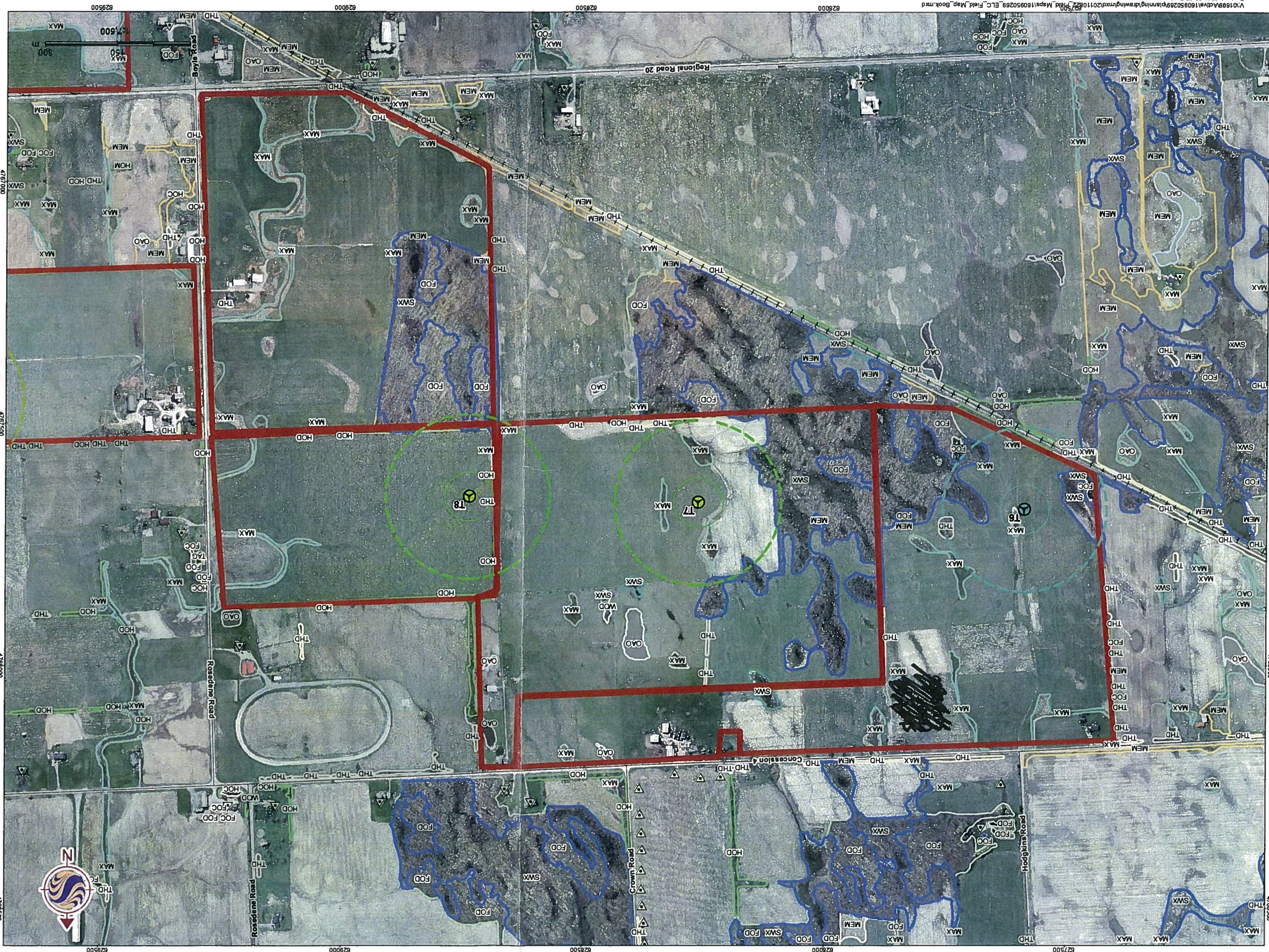
**Notes**

**Legend**

- Preliminary Study Area
- Signed Project Sites
- Potential Signed Property
- Road
- Railway
- Municipality Lower Tier
- Provincially Significant Wetland
- Other Locally Significant Wetland
- Turbines on Developable Land and 120m Diameter
- 150m Buffer of Turbine







V:\101699A\dwg\169950269\p\drawing\mxd\20110822\_Field\_Map\169950269\_ELC\_Field\_Map\_Book.mxd  
 Revised: 2011-09-07 By: bcomp

# ELC Field Map 7

Figure No  
 E-7

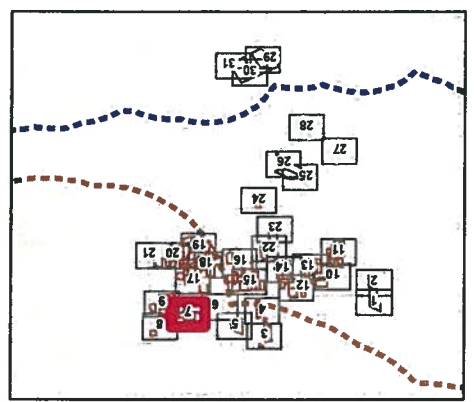
Client/Project  
 Niagara Region Wind Corporation

September, 2011  
 160950269



- Coordinate System: NAD 1983 UTM Zone 17N
- Base features produced under license with the Ontario Ministry of Natural Resources & Queen's Printer for Ontario, 2011.

## Notes



### Legend

	Turbines on Developable Land and 101m Diameter		Shoreline
	170.5m Buffer of Turbine		Swamp
	Turbines W/ 120m S/B PSW and 101m Diameter		Marsh
	170.5m Buffer of Turbine		Bog
	Turbines W/ 120m S/B Woodland and 101m Diameter		Wetland
	170.5m Buffer of Turbine		Meadow
	Turbines W/ 120m S/B Wood/Wetland and 101m Diameter		Thicket
	170.5m Buffer of Turbine		Savanna
	Tread Agriculture		Woodland
	Forest		Hedge-row
	Open Water		170.5m Buffer of Turbine
	Open Rock/Shrub Rock Barren		170.5m Buffer of Turbine
	To Be Determined		Bluff
	Other/Locally Significant Wetland		Potential Signed Property
	Provincially Significant Wetland		Signed Project Sites
	Municipally Lower Tier		Road
	Railway		Road











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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
Date: Nov 17, 2011

Project Name: NRWC  
Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>5</u>	<u>3</u>	<u>90%</u>	<u>None</u>	<u>some rain</u>

ELC Polygon: #9-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings. DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Contains water - is a drainage feature</u>		<u>5-20 cm</u>		<input checked="" type="checkbox"/>	<u>NO</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







Stantec Consulting Ltd.  
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Tel: (519) 836-6050  
Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov.

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>5</u>	<u>3</u>	<u>90%</u>	<u>none</u>	<u>some rain</u>

ELC Polygon: #9-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings. DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Swamp complex throughout</u>		<u>at least 0.5ft</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- Red tailed Hawk seen + heard flying overhead throughout the day across the polygon (OB, VO)

- woodpecker OB

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

ELC SITE: NIAGARA POLYGON: 9-1  
 SURVEYOR(S): NC DATE: Oct 26, 2011 UTME:  
 START: 5:00 END: 5:30 UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID	<input type="checkbox"/> RIVER <input type="checkbox"/> STREAM
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<b>COVER</b> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<b>SITE</b>					
<input type="checkbox"/> OPEN WATER					
<input type="checkbox"/> SHALLOW WATER					
<input type="checkbox"/> SURFICIAL DEP.					
<input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	ACEFREE > SALIX
2 SUB-CANOPY	3	3	CEPOCCI > CARCARO
3 UNDERSTOREY	4	4	CEPOCCI > ILEVERT > HAMVIRG
4 GRD. LAYER	5-7	2	ONOSENS > CHEGLAB > Cinnamon fern

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A	<10	R	10-24	N	25-50	N	>50
STANDING SNAGS:	0	<10	R	10-24	N	25-50	N	>50
DEADFALL/LOGS:	0	<10	0	10-24	N	25-50	N	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: buttonbush mineral thicket swamp	CODE: SWT2-4
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

ELC SITE: POLYGON: DATE: SE 62, Tile F-9; Poly 1 SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
SALIX	0					ONOSENS					A
ACEFREE	A					CHEGLAB					A
FRAXINUS	R					SOLDULC					O
CARCARO	R	R				GLY SP					R
BETALLE		R				BOEGALI					R
						SILSUAV					R
						Cinnamon fern					O
						LYCUNIF					R
CEPOCCI		A	A	D							
ILEVERT			O	A							
HAMVIRG			O								
VACCORY				O							

Page \_\_\_ of \_\_\_

Signature: *Natasha*

(Field Personnel)

Quality Control: This form is complete & legible

Signature: *Andrew*

(Project Manager)





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# Windfarm Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269  
 Date: Oct 26, 2011

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>some rain</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	-------------------------	-------------------	----------------------	--------------------------	--------------------------------------

ELC Polygon: # \_\_\_\_\_ Visual Assessment:  Roadside, no access Physical Assessment:  Walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 (i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows))

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 (i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in tree))

**POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Photo No.	Height/ Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>entire polygon</u>	<u>pool in spring?</u>	<u>20x40 m</u>	<u>unknown</u>		<u>yes</u>	<u>yes</u>

**SPECIES OBSERVATIONS (list species and type of observation & indicate on map)**


Ac=accident; DP=disturbance point; FE=feeding evidence; FN=feigning nest; HQ=household; OB=observed; SC=scan; SF=shelter sign; TK=track; VO=voice/observation

Signature: \_\_\_\_\_  
 (Field Personnel)

Quality Control: This form is complete  & legible .  
 Signature: \_\_\_\_\_  
 (Project Manager)









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## Windfarm Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 26

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>some rain</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	-------------------------	-------------------	----------------------	--------------------------	--------------------------------------

ELC Polygon: #9-2 Visual Assessment: -Roadside, no access

Physical Assessment: -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

(i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows))

### POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

(i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in tree))

### POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

### STICK NEST(S) IDENTIFIED

UTM	Tree ID	Tree Spp.	Photo No.	Height/Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

### SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>entire polygon</u>	<u>pooled H<sub>2</sub>O</u>		<u>at least 60cm</u>		<u>yes - some</u>	<u>yes</u>

### SPECIES OBSERVATIONS (list species and type of observation & indicate on map)


Ac=accident; DC=disturbance; FE=feeding evidence; FY=egg/snest; HC=house; OB=observed; SC=scar; S=species; T=track; Y=observation

3. \_\_\_ of \_\_\_

Signature: \_\_\_\_\_  
 (Field Personnel)

Quality Control: This form is complete  & legible .

Signature: \_\_\_\_\_  
 (Project Manager)



ELC SITE: **NIAG** POLYGON: **9-3**  
 SURVEYOR(S): **NC** DATE: **Oct 26, 2011** UTME:  
 START: **3:00** END: **6:00** UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.				

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACE SASA > QUERUQR > QUEALBA
2 SUB-CANOPY	3	3	AGGGRAN / OSTVIRG -> CARCARO
3 UNDERSTOREY	4	3	ACE SASA > OSTVIRG
4 GRD. LAYER	5-7	3	EURMACR > FERNS > CAREX SPP

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A <10 A 10-24 B 25-50 R >50

STANDING SNAGS: OA <10 O 10-24 R 25-50 V >50

DEADFALL/LOGS: A <10 A 10-24 O 25-50 V >50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS: TEXTURE: DEPTH TO MOTTLES/GLEY g= G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION: COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE: (prev. visit)

VEGETATION TYPE: F.M. sugar maple-hardwood deciduous forest CODE: F006-05

INCLUSION: swampy maple in several deciduous swamps CODE: SW3-32

COMPLEX CODE: SW3-32

Evidence of Disturbance / Notes: - some swamps have ~~maple~~ component

- logging - parcels of hemlock - dead birch, few live

- forest component sugar maple, oak, beech - lots of ACESASA saplings; SYNMACR

ELC SITE: **SE62; Tile F-9; Poly 3**  
 POLYGON: **SE62; Tile F-9; Poly 3**  
 DATE: **SE62; Tile F-9; Poly 3**  
 SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESASA	2A			A		EURMACR				A	
* ACEFREE	0A					SILRUGO				A	
OSTVIRG		0	0			* CAREX				A	
* ULMAMER		0	0			ERA-VIRG				0	
QUE (white)	0					* Royal Fern				A(1)	
QUE RUBR	A-1					* THE DALU				D(1)	
AGGRA	R	0A				* NEO SETUM				0(1)	
CARCARO	R	0				<del>HAEMER</del>					
* TSA	R	0	0			UNSENS				A	
* ALIX SP						DRYCART				0	
* RANIER	R					Bracken Fern				0	
* OPTRM	R					M. hibernica				R	
* BETRAPP	R					SOLDULC				0	
* RETALE	R					<del>POLYTR</del>					
						* BIDENS				0	
						* RUBUS SP				0-A	
						* R. RIMONY				R	
						EUOBN				0	
* PABA			0			SMAX				0	
RUBID				0		CHELONE				0R	
RUBORGH				0		SYLANC				0	
* ILEVER			A			IRVERS				R	
* CEPCC			A			BIDENS				R(1)	
* LWBENZ			0			LYCUIF				R	
* Vib. Rab.			R			PHARUN					
VIRLENT			R								
SAM (V.P.H.)			R								
R.BES SP				R							
AIRG			R-0								
VBAKER			0								

Page \_\_\_ of \_\_\_ Quality Control: This form is complete  legible

Signature: *Nail Chalk* (Field Personnel) Signature: *Chris* (Project Manager)

WETLAND SPECIES (SWAMP)

W Resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC-alc-field-form-ecrpt w windfarm-wildlife-habitat-form v9.docx / (DERIVED FROM LEE ET AL., 1999)

- old roads traverse site - unknown shrub photographed today encountered occasionally, especially towards mixed swamps and patches of hemlocks = LWBENZ

- forest component sugar maple, oak, beech - lots of ACESASA saplings; SYNMACR





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 Fax: (519) 836-2493

## Windfarm Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269

Project Name: NRWE

Date: Oct 26, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>some rain</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	-------------------------	-------------------	----------------------	--------------------------	--------------------------------------

ELC Polygon: #9-3 Visual Assessment: -Roadside, no access

Physical Assessment: -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

### POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains/potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in trees)

### POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains/large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

### STICK NEST(S) IDENTIFIED

UTM	Tree ID	Tree Spp.	Photo No.	Height/Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

### SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>wetland complex</u>	<u>POOLS</u>		<u>~20 cm</u>		<u>some</u>	<u>yes</u>

### SPECIES OBSERVATIONS (list species and type of observation & indicate on map)

<u>Potential pine siskin</u>	<u>0630359</u>	<u>476752</u>

N=nest; DB=diameter; P=pool; Fe=feeding evidence; PV=egg/nest; HO=house/orn; OB=observed; SC=scat; SI=stake sign; TK=track; VC=vegetation

Signature: \_\_\_\_\_  
 (Field Personnel)

Quality Control: This form is complete  & legible   
 Signature: \_\_\_\_\_  
 (Project Manager)



**ELC** SITE: NHAG POLYGON: 9-04  
 COMMUNITY DESCRIPTION & CLASSIFICATION: NIC SURVEYOR(S): NIC DATE: Oct 26, 2011 UTME:   
 START: 1:20 END: 2:00 UTMZ:  UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.				
<b>SITE</b>					
<input type="checkbox"/> OPEN WATER					
<input type="checkbox"/> SHALLOW WATER					
<input type="checkbox"/> SURFICIAL DEP.					
<input type="checkbox"/> BEDROCK					

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > QUERUBR > TILAMER = FRAX SP.
2 SUB-CANOPY	3	3	ACESASA > FAGGRAN > OSTVIRG
3 UNDERSTOREY	4	3	AC A R A
4 GRD. LAYER	5-7	3	<del>RUB DA</del> ACESASA > RUBIDAE > SYMLANC

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**STAND COMPOSITION:** BA:

**SIZE CLASS ANALYSIS:** A <10 A 10-24 A 25-50  >50

**STANDING SNAGS:** R <10 R 10-24  25-50  >50

**DEADFALL/LOGS:** R <10  10-24  25-50  >50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE:  PIONEER  YOUNG  MID-AGE  MATURE  OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE: \_\_\_\_\_ DEPTH TO MOTTLES/GLEY: \_\_\_\_\_ g= \_\_\_\_\_ G= \_\_\_\_\_ (cm)

MOISTURE: \_\_\_\_\_ DEPTH OF ORGANICS: \_\_\_\_\_ (cm)

HOMOGENEOUS / VARIABLE: \_\_\_\_\_ DEPTH TO BEDROCK: \_\_\_\_\_ (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: \_\_\_\_\_ CODE: \_\_\_\_\_

COMMUNITY SERIES: \_\_\_\_\_ CODE: \_\_\_\_\_

ECOSITE: \_\_\_\_\_ CODE: \_\_\_\_\_

VEGETATION TYPE: upa map - hardwood forest CODE: FOD 6-5

INCLUSION: \_\_\_\_\_ CODE: \_\_\_\_\_

COMPLEX: \_\_\_\_\_ CODE: \_\_\_\_\_

Evidence of Disturbance / Notes:  
 - past logging  
 - vernal pool potential (see reverse)  
 - past fire  
 - bee boxes

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 COMMUNITY DESCRIPTION & CLASSIFICATION: \_\_\_\_\_ SURVEYOR(S): \_\_\_\_\_  
 DATE: SE62; Tie F-9; Poly 4

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESASA	A	A	A	A-0		SYMLANC					
TILAMER	R		O	O		ALPETI					
QUERUBR	A		O	O		CIRLUTE					
FAGGRAN	R		O	R		GEKSP					
OSTVIRG	N	O	R	O		SYMLACR					
RUBIDAE						SOLRUGO					
FRAX P	R		R	R		EUGOBV					
U MAIE	N	R	N	N		TOXRADI					
ACEF E		R		N		GLYSTRI					
RUB DA				O							
CORN				R							

Page \_\_\_ of \_\_\_  
 Signature: Nick Powell (Field Personnel)  
 Quality Control: This form is complete & legitimate  
 Signature: Andrew (Project Manager)





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## Windfarm Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269

Project Name: NRWC

Date: Oct 26, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>some rain</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	-------------------------	-------------------	----------------------	--------------------------	--------------------------------------

ELC Polygon: #9-4 Visual Assessment: -Roadside, no access

Physical Assessment: -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

(i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows))

### POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

(i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in tree))

### POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

### STICK NEST(S) IDENTIFIED

UTM	Tree ID	Tree Spp.	Photo No.	Height/ Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

### SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>7629811 / 4767492</u>	<u>Vernal pool</u>	<u>7m x 20m</u>	<u>0</u>	<u>TBD</u>	<u>Yes - GLYSTRI / IMPACT</u>	<u>Yes - few</u>

### SPECIES OBSERVATIONS (list species and type of observation & indicate on map)


A=access; DB=diameter; partial; F=feeding evidence; FY=egg/snest; HQ=house/ha; OB=observed; SC=scat; SF=other sign; TR=track; Y/O=excursion

1. of

Signature: \_\_\_\_\_

(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: \_\_\_\_\_

(Project Manager)







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 27, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10</u>	<u>1</u>	<u>100</u>	<u>none</u>	<u>rain</u>

ELC Polygon: #9-5 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains/potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains/potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains/potential large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>entire polygon</u>	<u>0061</u>	<u>10 x 200 m</u>	<u>up to 60 cm</u>		<u>some</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

**ELC** SITE: Niagara POLYGON: 9-A  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NC DATE: Oct 26, 2011 UTME:  
 START: 8:00 END: 8:30 UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	<u>5-7</u>	<u>4</u>	<u>SOLIDAGO &gt; EUTGRAM &gt; LOTCORN</u>

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**STAND COMPOSITION:** BA:

SIZE CLASS ANALYSIS:	<10	10 - 24	25 - 50	>50
STANDING SNAGS:	<10	10 - 24	25 - 50	>50
DEADFALL/LOGS:	<10	10 - 24	25 - 50	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Dry Moist Old Field Meadow</u>	CODE: <u>CUM1-1</u>
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

**ELC** SITE: \_\_\_\_\_ POLYGON: NO SE # ; Tile F-9 ; Poly A  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
						<u>SYMBIOMA</u>					<u>A</u>
						<u>LOT CORN</u>					<u>A</u>
						<u>SOLIDAGO</u>					<u>A</u>
						<u>PHALARIS</u>					<u>O</u>
						<u>EUTGRAM</u>					<u>A</u>
						<u>PRAXIS</u>					<u>O</u>
						<u>DAUCARO</u>					<u>O</u>

Page \_\_\_ of \_\_\_

Signature: Nancy Chen

(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: Andrew

(Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 26, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	2	100	some rain	rain

ELC Polygon: #9-A Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA - carcass; DP - distinctive parts; FE - feeding evidence; FY - eggs/nest; HO - house/den; OB - observed; SC - scat; SI - other sign; TR - track; VO - vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWL

Date: Oct 26, 2011

Field Personnel: N. Chertan

<b>Weather Conditions:</b>	TEMP (°C): <u>18</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>some rain</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: #9-B Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. kurst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SF=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWL

Date: Oct-26, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>some rain</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	-------------------------	-------------------	----------------------	--------------------------	--------------------------------------

ELC Polygon: #9-C Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

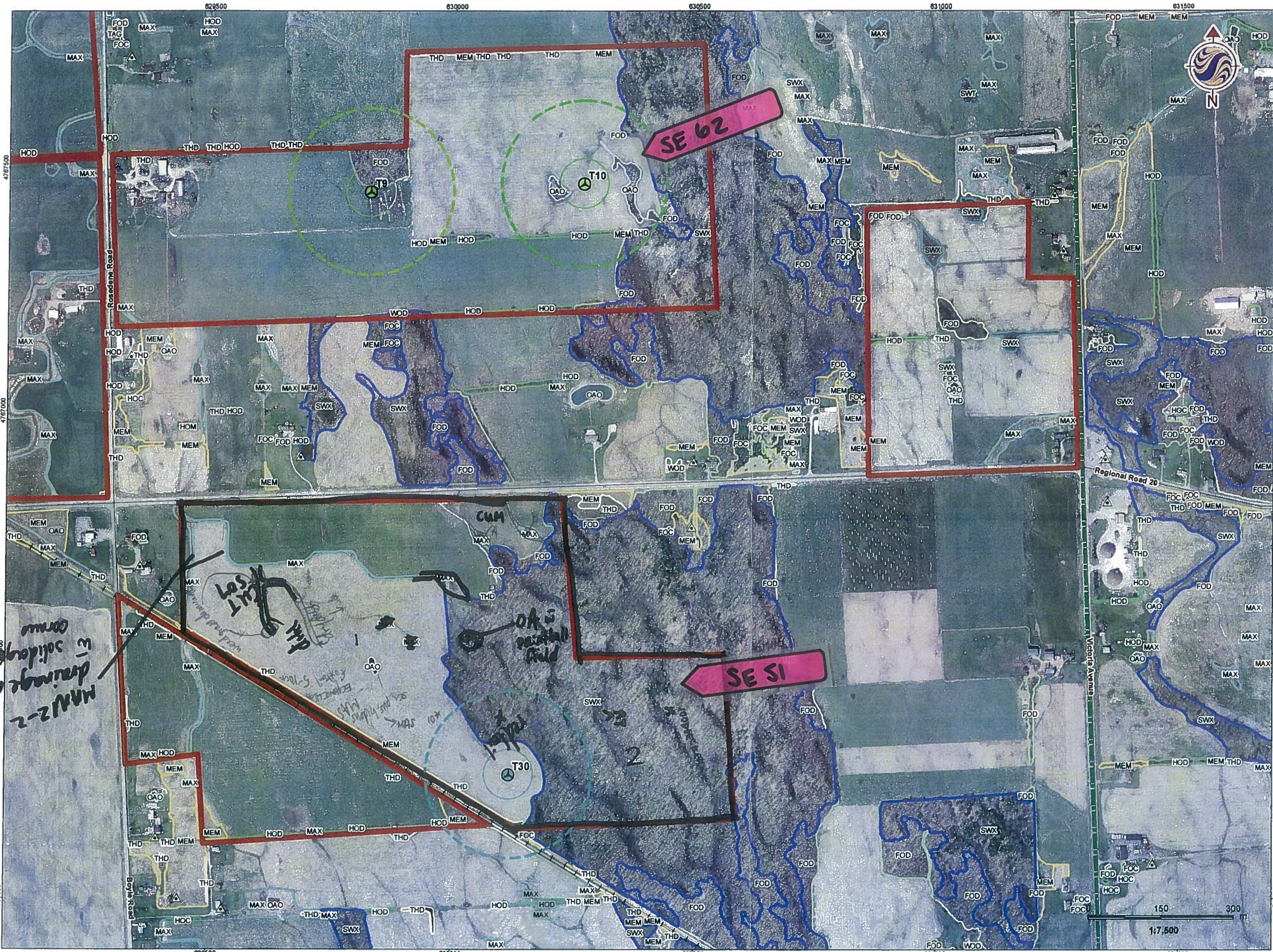
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>entire polygon</u>	<u>surface water</u>	<u>1 x 300 m</u>	<u>5-10 cm</u>		<u>Phalaris</u>	<u>no</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA -carcass; DP -distinctive parts; FE -feeding evidence; FY-eggs/nest; HO -house/den; OB -observed; SC -scat; SI -other sign; TK -track; VO -vocalization

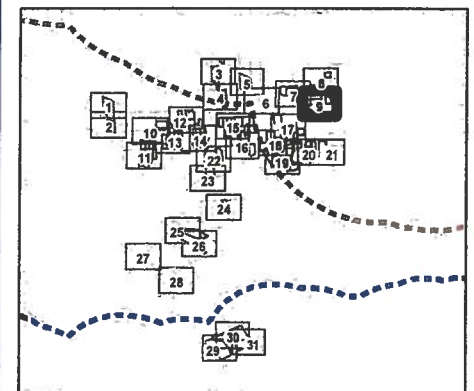


MAX = NAM2-2 PHARRUN, SCILYKE, SOLI DAGO



### Legend

	Preliminary Study Area		Turbines on Developable Land and 101m Diameter
	Signed Project Sites		170.5m Buffer of Turbine
	Potential Signed Property		Turbines W/ 120m S/B PSW and 101m Diameter
	Road		170.5m Buffer of Turbine
	Railway		Turbines W/ 120m S/B Woodland and 101m Diameter
	Municipality Lower Tier		170.5m Buffer of Turbine
	Provincially Significant Wetland		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Other/Locally Significant Wetland		170.5m Buffer of Turbine
	To Be Determined		
	Open Rock/Shrub Rock Barren		
	Shoreline		
	Bluff		
	Swamp		
	Marsh		
	Bog		
	Wetland		
	Meadow		
	Thicket		
	Savanna		
	Woodland		
	Forest		
	Hedgerow		
	Treed Agriculture		
	Open Water		



- ### 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.

September, 2011  
180950269

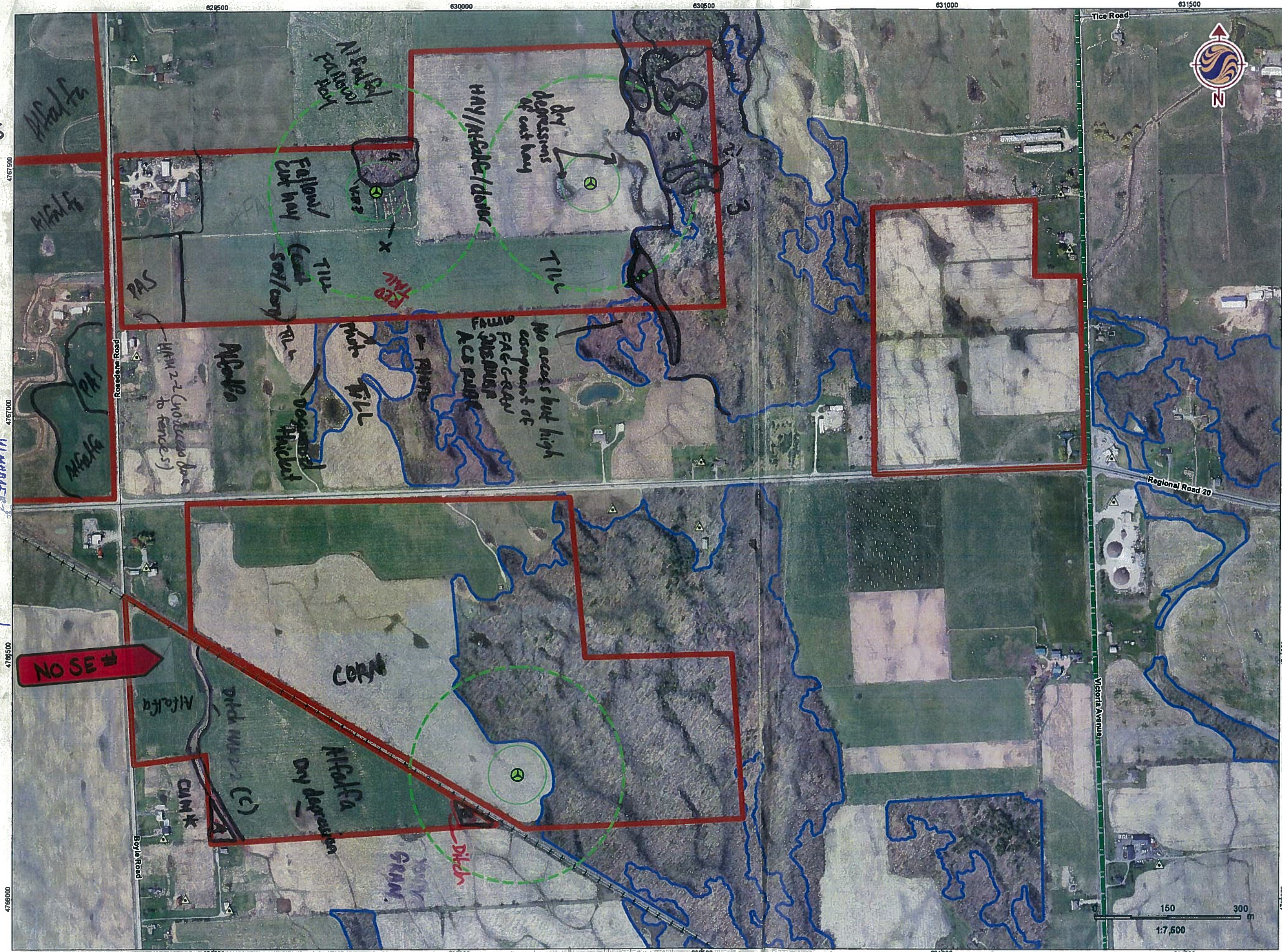
Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-9

Title  
**ELC Field Map 9**

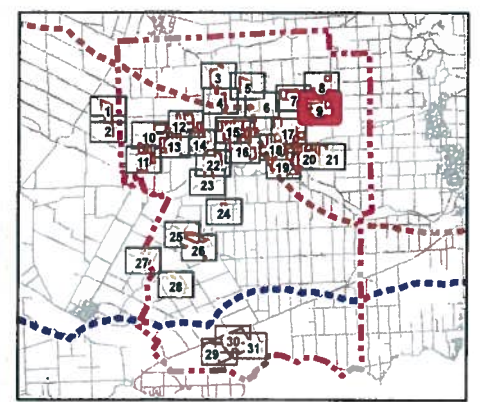


Drawn at northeast 2009st 4



- ### Legend
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Turbines on Developable Land and 120m Diameter
  - 160m Buffer of Turbine

W



### Notes

1. Coordinate System: NAD (1983 UTM Zone 17N).
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Tur Hered?  
9-1



**Stantec**

August, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
F-9

Title  
**Field Map 9**

A triplex, pineapple weed, reed-like grass, clover, sunflower, grass, rambles, dandelion

rows of mounded dirt w/ chenopodium growing + rows of phalaris (cut)











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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 8, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>2</u>	<u>35%</u>	<u>none</u>	<u>some rain</u>

ELC Polygon: # 10-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
	<u>Some pooling throughout, but disturbed</u>		<u>~10cm</u>	<u>10-dist-</u>	<u> </u>	<u>NO</u>	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

approximately 20 ducks were in the largest pool section of the polygon

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 15

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	6	2	90	none	some rain

ELC Polygon: # 10-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
	swamps throughout w pools		upto 2ft				

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HU=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 15

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>6</u>	<u>2</u>	<u>90</u>	<u>none</u>	<u>rain</u>

ELC Polygon: # 10-3 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>Community-wide</u>	<u>pooled water</u>	<u>50x50 m</u>	<u>~20 cm</u>	<u>N/A</u>	<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 15, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>6</u>	<u>2</u>	<u>90</u>	<u>none</u>	<u>rain</u>

ELC Polygon: #10-4 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains  potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains  potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains  potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains  large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

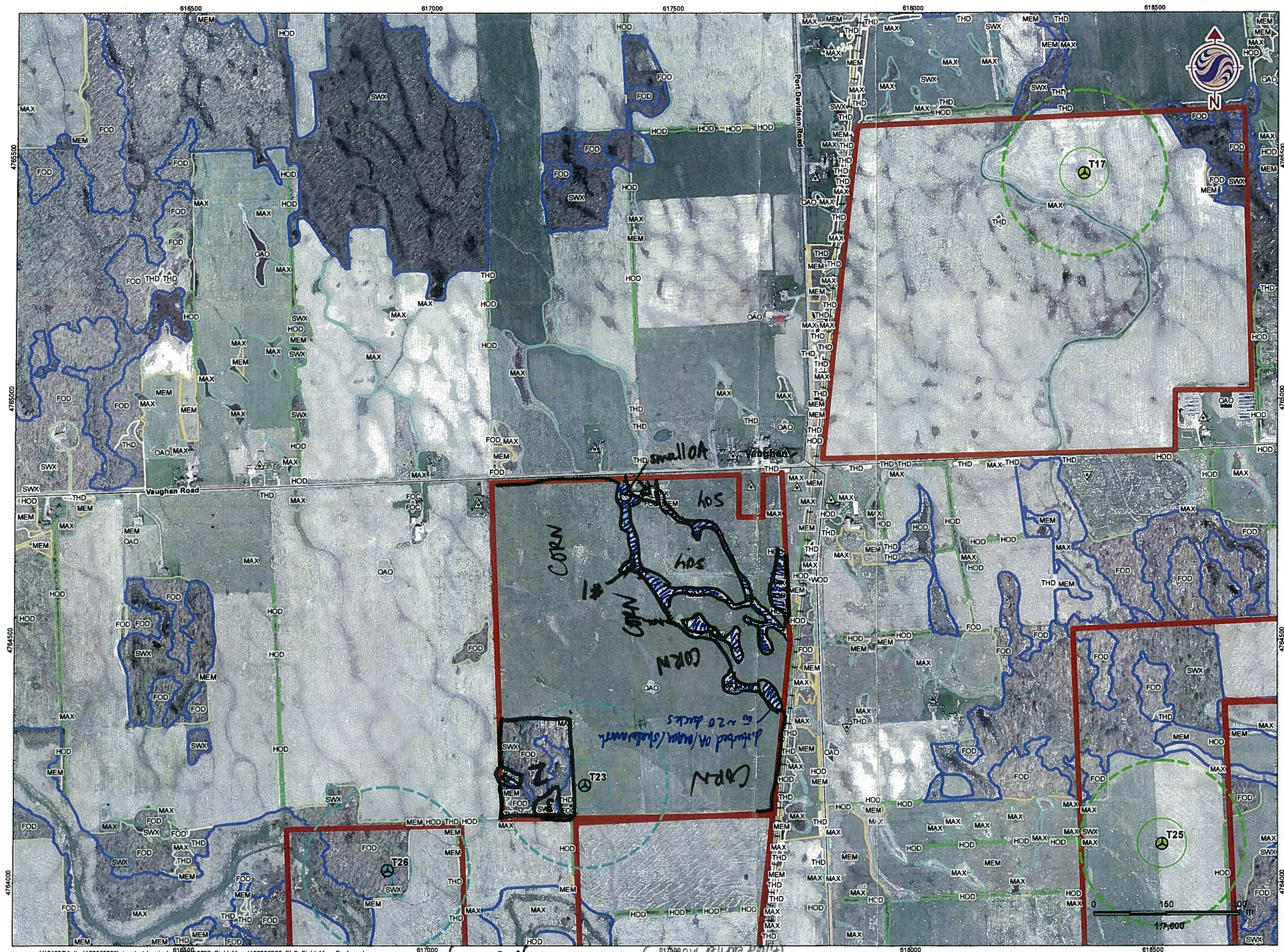
**Seeps/Springs/Vernal Pools:** Contains  seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>Community-wide</u>	<u>pooled water</u>	<u>20 x 20 m</u>	<u>at least 1 ft.</u>	<u>N/A</u>	<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

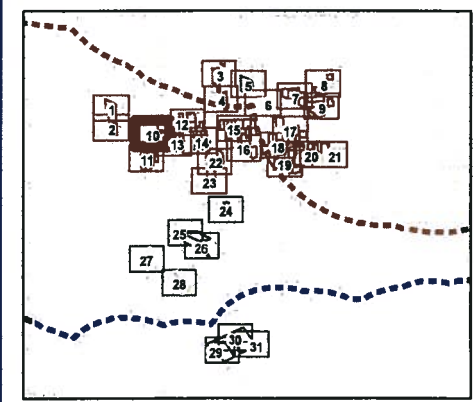
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization





### Legend

	Preliminary Study Area		Turbines on Developable Land and 101m Diameter
	Signed Project Sites		170.5m Buffer of Turbine
	Potential Signed Property		Turbines W/ 120m S/B PSW and 101m Diameter
	Road		170.5m Buffer of Turbine
	Railway		Turbines W/ 120m S/B Woodland and 101m Diameter
	Municipality Lower Tier		170.5m Buffer of Turbine
	Provincially Significant Wetland		Turbines W/ 120m S/B Wood/Wetland and 101m Diameter
	Other/Locally Significant Wetland		170.5m Buffer of Turbine
	To Be Determined		Turbines W/ 120m S/B Wood/Wetland and 101m Diameter
	Open Rock/Shrub Rock Barren		170.5m Buffer of Turbine
	Shoreline		
	Bluff		
	Swamp		
	Marsh		
	Bog		
	Wetland		
	Meadow		
	Thicket		
	Savanna		
	Woodland		
	Forest		
	Hedgerow		
	Treed Agriculture		
	Open Water		



- ### Notes
- Coordinate System: NAD 1983 UTM Zone 17N).
  - Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

September, 2011  
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Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-10

Title  
**ELC Field Map 10**

*(Handwritten notes at the bottom of the map)*  
- distributed on area/shadow mark  
- contains traps (unseen)







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 16, 2011

Field Personnel: M. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>5</u>	<u>3</u>	<u>100</u>	<u>none</u>	<u>rain</u>

ELC Polygon: # 11-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
<u>0616721 / 4762316</u>	<u>SEEP</u>	<u>10 x 3m (H<sub>2</sub>O)</u>	<u>15 cm</u>	<u>"11-1-seep"</u>	<u>yes-NASOFF1</u>	<u>yes</u>	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**  
Pileated woodpecker FE on trees - very recent - fresh wood chips

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HU=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 16

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>5</u>	<u>3</u>	<u>100</u>	<u>none</u>	<u>rain</u>

ELC Polygon: #11-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains  potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains  potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains  potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains  large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains  seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Pool throughout community</u>	<u>200 x 20 m</u>	<u>5 - 40 cm +</u>	<u>N/A</u>	<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
Date: Nov 16, 2011

Project Name: NRWC  
Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>5</u>	<u>3</u>	<u>100</u>	<u>none</u>	<u>rain</u>

ELC Polygon: #11-A Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Pooled + running water throughout</u>	<u>10x10</u>	<u>5 cm</u>	<u>N/A</u>	<u>yes</u>	<u>no</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SF=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 16, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>5</u>	<u>3</u>	<u>100</u>	<u>none</u>	<u>Some</u>

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat-roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>some pooled water</u>	<u>throughout</u>	<u>10 x 10 m</u>	<u>5-20 cm</u>	<u>N/A</u>	<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HU=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization



NO SE#; Tile E-11; Poly 5

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NIAGARA	POLYGON: 11-5	
	SURVEYOR(S): NC	DATE: Nov 16	UTME:
	START: 11:20	END:	UTMZ:
			UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input checked="" type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE			
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
<b>SITE</b>					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	5-7	4	GRASSES > DIPFULL > SYMNOVA = SOLIDAGO

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:					BA:
SIZE CLASS ANALYSIS:	<10	10 - 24	25 - 50	>50	
STANDING SNAGS:	<10	10 - 24	25 - 50	>50	
DEADFALL/LOGS:	<10	10 - 24	25 - 50	>50	
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT				
COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: P-M oldfield meadow	CODE: cumj-1
INCLUSION	CODE:
COMPLEX	CODE: Pasture

Evidence of Disturbance / Notes: disturbed cumj/pasture  
- driven over with vehicle  
- parts are mown or browsed very short  
- majority PHALARIS (of identifiable areas)

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:	POLYGON:
	DATE:	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
						PHALARIS					A	
						SOLIDAGO					O	
						SYMNOVA					R	
						CIRSIIUM					K	
						DAUCARD					R	
						DIPFULL					O-A	
						GRASSES					A	
						SYMNOVA					O	
						PHALARIS					A	
						SOLIDAGO					O	
						DAUCARD					O-A	

Page \_\_\_ of \_\_\_  
Signature: *Ward* (Field Personnel)  
Quality Control: This form is complete  & legible   
Signature: *everett* (Project Manager)

looks like cumj/pasture - more herbs but short grass in some sections



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 16, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5	3	100	none	rain

ELC Polygon: # 11-5 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SF=other sign; TK=track; VO=vocalization



No SE # ; Tile E-11 ; Poly 6

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara</u>	POLYGON: <u>11-6</u>	
	SURVEYOR(S): <u>NC</u>	DATE: <u>Nov 16</u>	UTME:
	START: <u>11:50</u> END: <u>12:00</u>	UTMZ:	UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			<u>TYPANGU &gt; CYPESCU &gt; POLYGONUM</u>

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 

<10	10 - 24	25 - 50	>50
-----	---------	---------	-----

STANDING SNAGS: 

<10	10 - 24	25 - 50	>50
-----	---------	---------	-----

DEADFALL/LOGS: 

<10	10 - 24	25 - 50	>50
-----	---------	---------	-----

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: 

PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
---------	-------	---------	--------	------------

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>cut and mineral shallow marsh</u>	CODE: <u>MAS 2-1</u>
INCLUSION	CODE:
COMPLEX	CODE:

**Evidence of Disturbance / Notes:**

- frog  
disturbed (cut) <sup>furrows</sup> - narrows in middle to almost pure *Cyperus esculentus* (3 m wide)  
w very narrow 1ft deep drainage ditch connecting  
- connects vic drainage ditch to other areas

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:	POLYGON:	
	SURVEYOR(S):	DATE:	UTME:
	START:	UTMZ:	UTMN:

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
						<u>TYPANGU</u>					A	
						<u>CYPESCU</u>					A	<u>Cover</u>
						<u>Duckweed</u>					O	
						<u>Polygonum</u>					O	
						<u>Verbena hastata</u>						
						<u>Echinocloa</u>						2

Page \_\_\_ of \_\_\_

Signature: [Signature]

(Field Personnel)

Quality Control: This form is complete  & legible

Signature: [Signature]

(Project Manager)

20 cm H<sub>2</sub>O ~ 40% of area (some small TYPA in parts)



**Stantec Consulting Ltd.**  
 1 – 70 Southgate Drive  
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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 16

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>5</u>	WIND: <u>3</u>	CLOUD: <u>100</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>some rain</u>
---------------------	------------------------	-------------------	----------------------	---------------------	---

ELC Polygon: #11-6 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains/potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains/potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains/large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
<u>entire community</u>	<u>Pool (marsh)</u>	<u>30m x 4m</u>	<u>20cm</u>	<u>N/A</u>	<u>yes</u>	<u>no</u>	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**  
some type of frog was observed jumping into water but moved too quickly to ID.

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization



NOSE # ; Tip E-11; No poly #

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Niagara</i>	POLYGON: <i>11-7</i>	
	SURVEYOR(S): <i>NC</i>	DATE: <i>Nov 16</i>	UTME:
	START:	END:	UTMZ:
			UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
		<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR	<b>COVER</b>		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			<i>TYPANGU &gt;&gt; ABUTHEO &gt; VERHAST &gt; Bidens</i>

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<10	10 - 24	25 - 50	>50
STANDING SNAGS:	<10	10 - 24	25 - 50	>50
DEADFALL/LOGS:	<10	10 - 24	25 - 50	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT  
 COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: <i>MAS2-1</i>
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
						<i>TYPANGU</i>						
						<i>ABUTHEO</i>						
						<i>VERHAST</i>						
						<i>BIDENS</i>						
						<i>Ranunculus</i>						
						<i>Fox tail</i>						
						<i>Amaranth</i>						

Page \_\_\_ of \_\_\_  
 Signature: *Van Chen* (Field Personnel)  
 Quality Control: This form is complete & legible   
 Signature: *Carroll* (Project Manager)



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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 16, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5	3	100	none	rain

ELC Polygon: # 11-7 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization















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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 8, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>2</u>	<u>35%</u>	<u>none</u>	<u>some rain</u>

ELC Polygon: #12-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
<u>within MAM complex</u>	<u>there is H<sub>2</sub>O</u>	<u>&lt; 1 ha</u>	<u>~10 cm</u>	<u>N/A</u>	<u>yes</u>	<u>yes</u>	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization











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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 8, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>2</u>	<u>35%</u>	<u>none</u>	<u>some rain</u>

ELC Polygon: #12-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>entire community</u>	<u>pond</u>	<u>10 x 10 m</u>	<u>up to 2ft</u>	<u>N/A</u>	<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FF=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

**ELC** SITE: Niagara POLYGON: 12-3  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NC DATE: Nov 8, 2011 UTME:  
 START: 10:30 END: 10:45 UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input checked="" type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWMAP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input checked="" type="checkbox"/> AQUATIC	<input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> COVER <input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
<b>SITE</b>					
<input checked="" type="checkbox"/> OPEN WATER <input checked="" type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			<u>Duckweed &gt; CAREX &gt; BIDENS</u>

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**STAND COMPOSITION:** BA:

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
STANDING SNAGS:	<u>R</u> <10	<u>R</u> 10-24	<u>N</u> 25-50	<u>N</u> >50
DEADFALL/LOGS:	<10	10-24	25-50	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE: DEPTH TO MOTTLES/GLEY g= G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Deciduous floating-leaved shallow aquatic CODE: SAFI-3

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes: duckweed all over surface, carex in an irregular ring around edge

**ELC** SITE: POLYGON: SE26; Tile E-12; Poly 3  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): DATE:

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES C DE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
						<u>CAREX</u>					<u>DA</u>
						<u>Duckweed</u>					<u>A</u>
						<u>Bidens</u>					<u>R</u>
						<u>SOLDUC</u>					<u>R</u>
						<u>PIA ARIS</u>					<u>R</u>

Page \_\_\_ of \_\_\_  
 Signature: Newland  
 (Field Personnel)

Quality Control: This form is complete & legible   
 Signature: Andrew  
 (Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 8, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>2</u>	<u>35%</u>	<u>none</u>	<u>rain</u>

ELC Polygon: # 12-3 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>Whole community</u>	<u>Pool</u>	<u>100x10m</u>	<u>at least 1ft</u>	<u>12-3</u>	<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 8, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>2</u>	<u>35%</u>	<u>none</u>	<u>rain</u>

ELC Polygon: # 12-4 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Swamp complex w pools</u>	<u>5 to 10 m</u>	<u>at least 60cm</u>	<u>N/A</u>	<u>Yes</u>	<u>Yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- Spring peeper OB
- common garter snake OB
- red-tailed hawk flying overhead around this polygon where it belongs to an adjacent property (south)
- mink OB

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization





**ELC** SITE: Niagara POLYGON: 12-5  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NC DATE: Nov 8, 2011 UTMZ: UTMN:  
 START: 11:30 END: 12:00

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> POND <input type="checkbox"/> RIVER
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS		<input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWMAP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<b>SITE</b>		<input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<b>COVER</b>		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> CARB. BEDRK.		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	<u>4-7</u>	<u>4</u>	<u>PHALARIS &gt;&gt; VERHAET = SOLIDAGO</u>

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

**STAND COMPOSITION:** BA:

SIZE CLASS ANALYSIS:	<10	10 - 24	25 - 50	>50
STANDING SNAGS:	<10	10 - 24	25 - 50	>50
DEADFALL/LOGS:	<10	10 - 24	25 - 50	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE: DEPTH TO MOTTLES/GLEY g= G=  
 MOISTURE: DEPTH OF ORGANICS: (cm)  
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:  
 COMMUNITY SERIES: CODE:  
 ECOSITE: CODE:  
 VEGETATION TYPE: CODE: MAM2-2  
red canopy grass mineral meadow marsh  
 INCLUSION CODE: MAS2-1  
 COMPLEX CODE:

Evidence of Disturbance / Notes:

**ELC** SITE: POLYGON: SE 26; TIR E-12; Poly 5  
 COMMUNITY DESCRIPTION & CLASSIFICATION DATE: SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
						PHALARIS					A	
						*TYPLATI					O	
						*Duckweed					O	
						VERHAET					O	
						SCICYPE					O	
						SCAREX					O	
						*echinocloe					R	
						SOLIDAGO					O	
						foxtail (Setaria)					R	
						Scirpus sp					O	

Page \_\_\_ of \_\_\_  
 Signature: [Signature] \*inclusion  
 (Field Personnel)

Quality Control: This form is complete & legible  
 Signature: [Signature]  
 (Project Manager)



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 8

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12	2	35%	none	some rain

ELC Polygon: #12-5 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	MAW in pool of shallow H <sub>2</sub> O	10x10	at least 1ft	N/A	yes	yes

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 3, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>2</u>	<u>35</u>	<u>none</u>	<u>some rain</u>

ELC Polygon: #12-6 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings. DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
	<u>pooled H<sub>2</sub>O</u>	<u>patchy</u>	<u>15cm</u>	<u>N/A</u>	<u>yes</u>	<u>yes</u>	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 8, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>12</u>	WIND: <u>2</u>	CLOUD: <u>35</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>some rain</u>
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ELC Polygon: # 12-7 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains/potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains/potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains/potential large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

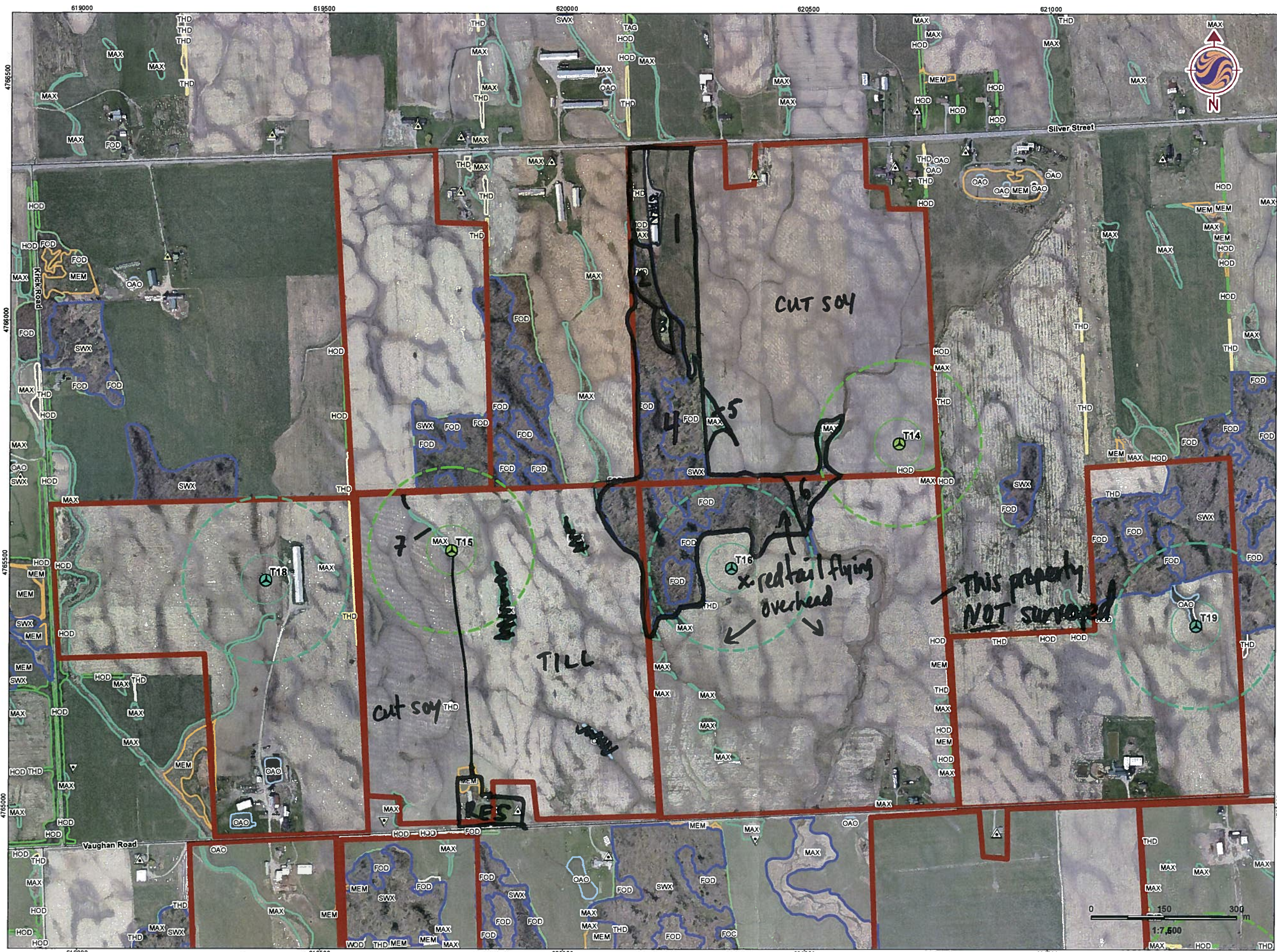
**Seeps/Springs/Vernal Pools:** Contains/potential seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

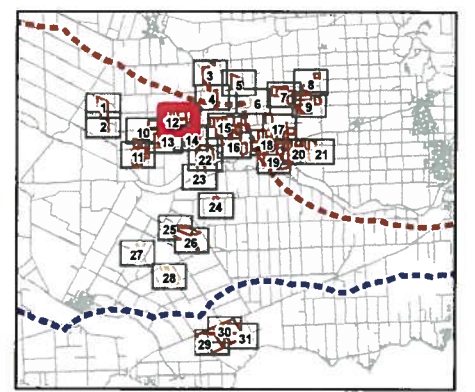
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization





### Legend

	Preliminary Study Area		Turbines on Developable Land and 101m Diameter
	Signed Project Sites		170.5m Buffer of Turbine
	Potential Signed Property		Turbines W/ 120m S/B PSW and 101m Diameter
	Road		170.5m Buffer of Turbine
	Railway		Turbines W/ 120m S/B Woodland and 101m Diameter
	Municipality Lower Tier		170.5m Buffer of Turbine
	Provincially Significant Wetland		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Other/Locally Significant Wetland		170.5m Buffer of Turbine
	To Be Determined		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Open Rock/Shrub Rock Barren		170.5m Buffer of Turbine
	Shoreline		
	Bluff		
	Swamp		
	Marsh		
	Bog		
	Wetland		
	Meadow		
	Thicket		
	Savanna		
	Woodland		
	Forest		
	Hedgerow		
	Treed Agriculture		
	Open Water		



- ### Notes
- Coordinate System: NAD 1983 UTM Zone 17N).
  - Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.



**Stantec**

September, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

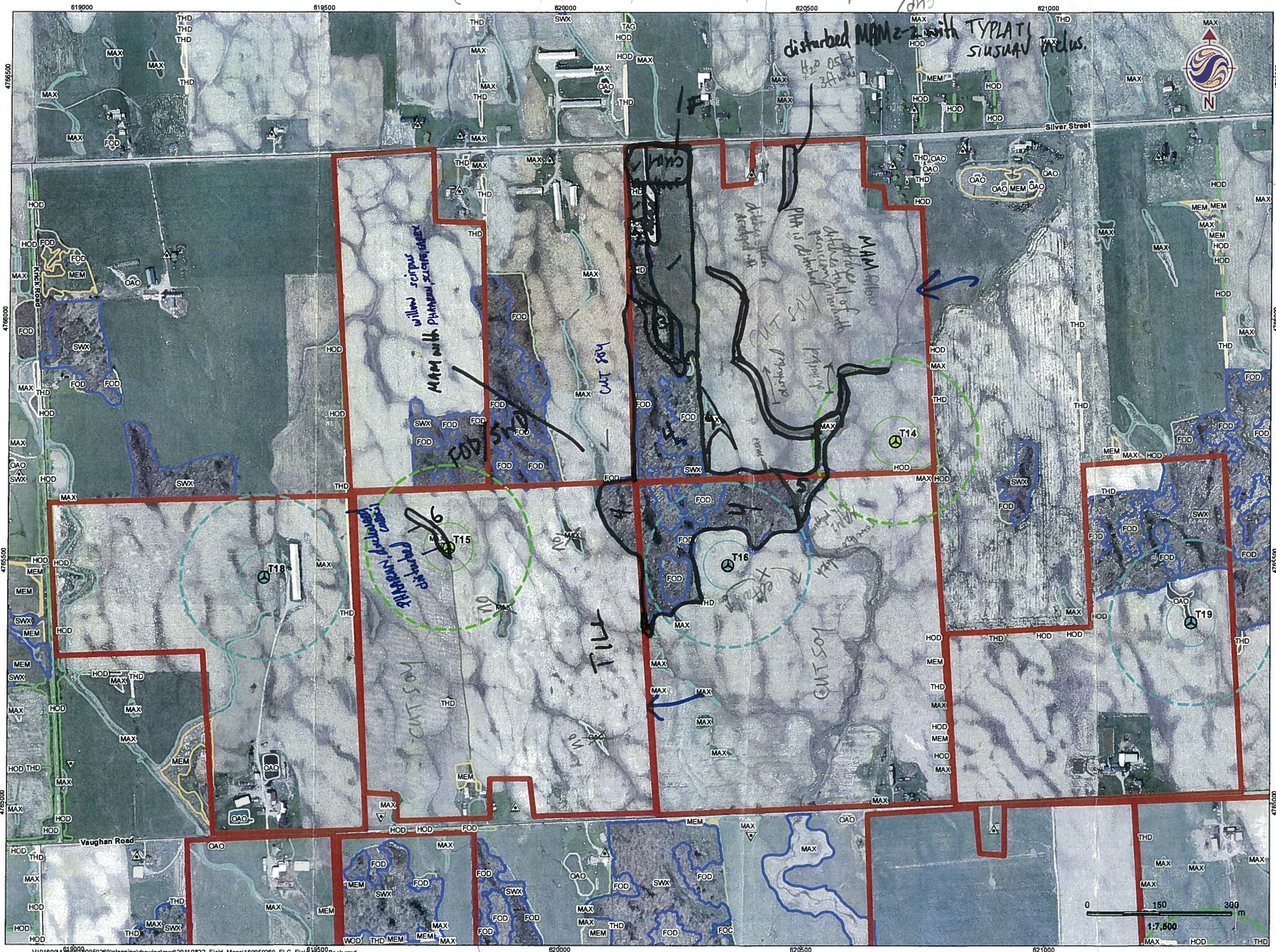
Figure No.  
E-12

Title  
**ELC Field Map 12**





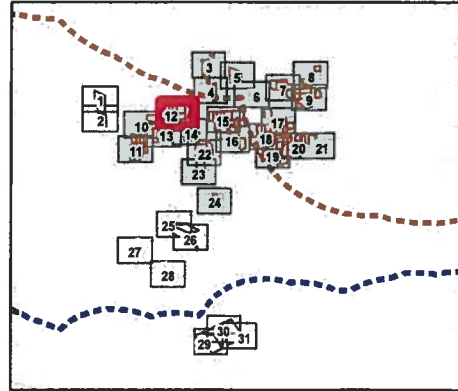
disturbed MAM 2-2 with TYPLAT / SINSUAV incls.  
 H<sub>2</sub>O 0.5L + 3A  
 (MAM 2-2 inclusion (also MAM 1) with 2 solidly)



### Legend

	Preliminary Study Area		Turbines on Developable Land and 101m Diameter
	Signed Project Sites		170.5m Buffer of Turbine
	Potential Signed Property		Turbines W/ 120m S/B PSW and 101m Diameter
	Road		170.5m Buffer of Turbine
	Railway		Turbines W/ 120m S/B Woodland and 101m Diameter
	Municipality Lower Tier		170.5m Buffer of Turbine
	Provincially Significant Wetland		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Other/Locally Significant Wetland		170.5m Buffer of Turbine
	To Be Determined		Turbines W/ 120m S/B Wetland and 101m Diameter
	Open Rock/Shrub Rock Barren		170.5m Buffer of Turbine
	Shoreline		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Bluff		170.5m Buffer of Turbine
	Swamp		Turbines W/ 120m S/B Wetland and 101m Diameter
	Marsh		170.5m Buffer of Turbine
	Bog		Turbines W/ 120m S/B Wetland and 101m Diameter
	Wetland		170.5m Buffer of Turbine
	Meadow		Turbines W/ 120m S/B Wetland and 101m Diameter
	Thicket		170.5m Buffer of Turbine
	Savanna		Turbines W/ 120m S/B Wetland and 101m Diameter
	Woodland		170.5m Buffer of Turbine
	Forest		Turbines W/ 120m S/B Wetland and 101m Diameter
	Hedgerow		170.5m Buffer of Turbine
	Treed Agriculture		Turbines W/ 120m S/B Wetland and 101m Diameter
	Open Water		170.5m Buffer of Turbine

See reverse for notes on drainage ditches



- ### Notes
- Coordinate System: NAD 1983 UTM Zone 17N)
  - Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

September 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-12

Title  
ELC Field Map 12









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 15

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>1</u>	<u>20</u>	<u>none</u>	<u>some rain</u>

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities
<u>0618545/4764504</u>		<u>ACEFREE</u>	<u>15cm</u>				

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HU=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 15

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12	1	20%	None	Some rain

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

\*A=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SJ=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 15

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>12</u>	WIND: <u>1</u>	CLOUD: <u>20</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>some rain</u>
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ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

downy woodpecker

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HU=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 15

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>1</u>	<u>20</u>	<u>none</u>	<u>some rain</u>

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HU=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 8

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>6</u>	WIND: <u>2</u>	CLOUD: <u>90</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>some rain</u>
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ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 8

Project Name: NRWC  
 Field Personnel: N. Charlton

<b>Weather Conditions:</b>	TEMP (°C): <u>6</u>	WIND: <u>2</u>	CLOUD: <u>90</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>some rain</u>
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ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=egg/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization







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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: Niagara

Date: Oct 26, 2011

Field Personnel: C. Daytte

Weather Conditions:	TEMP (°C): <u>9</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>rain</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: # 13- Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: Niagara

Date: Oct 26, 2011

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	9	2	100	Rain	Rain

ELC Polygon: # 13-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)  
↳ only on property

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

Deer (PE, SI (scratch pits))

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HC=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization



**ELC** SITE: Niagara POLYGON: 13-3  
 COMMUNITY SURVEYOR(S): C. Payne DATE: Oct 26, 2011 UTME:  
 DESCRIPTION & START: END: UTMZ: UTMN: CLASSIFICATION

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
		<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	4-7	4	Cattail > Reed canary >> Aster > Trillium

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 6=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<10	10 - 24	25 - 50	>50
STANDING SNAGS:	<10	10 - 24	25 - 50	>50
DEADFALL/LOGS:	<10	10 - 24	25 - 50	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE:  PIONEER  YOUNG  MID-AGE  MATURE  OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Cattail marsh (graminoid)</u>	CODE: <u>MAS2-1</u>
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes: Small Cattail marsh abutting hay field & Deciduous forest. Photo #: 53

**ELC** SITE: Niagara POLYGON: 13-3  
 COMMUNITY SURVEYOR(S): C. Payne DATE: Oct 26, 2011 UTME:  
 DESCRIPTION & START: END: UTMZ: UTMN: CLASSIFICATION No SE #; Tile F13; Poly 3

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
						Cattail					A	D
						Reed canary grass					A	
						Trillium					O	
						Aster sp					O	

Page \_\_\_ of \_\_\_

Signature: \_\_\_\_\_

(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: \_\_\_\_\_

(Project Manager)



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: \_\_\_\_\_

Project Name: Niagara

Date: Oct 26, 2011

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	9	2	100	Rain	Rain

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HC=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization



**ELC** SITE: *Niagara* POLYGON: *13-4*  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): *C. Payette* DATE: *Oct 26, 2011* UTME:  
 START: END: UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:** *N/A*

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	<i>5-7</i>	<i>4</i>	<i>Cattail sp &gt; Reed Canary grass</i>

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10%<CVR<25% 3=25%<CVR<60% 4=CVR>60%

STAND COMPOSITION: *N/A* BA:

SIZE CLASS ANALYSIS:	<10	10 - 24	25 - 50	>50
STANDING SNAGS:				
DEADFALL/LOGS:				

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT  
 COMM. AGE:  PIONEER  YOUNG  MID-AGE  MATURE  OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE: DEPTH TO MOTTLES/GLEY g= G=  
 MOISTURE: DEPTH OF ORGANICS: (cm)  
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:  
 COMMUNITY SERIES: CODE:  
 ECOSITE: CODE:  
 VEGETATION TYPE: CODE: *MA52-1*  
*Cattail mineral shallow marsh*  
 INCLUSION CODE:  
 COMPLEX CODE:

Evidence of Disturbance / Notes: *Small patch of Cattail marsh at back of hay field - 2 Deer obs nearby*

**ELC** SITE: *Niagara* POLYGON: *13-4*  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): *C. Payette* DATE: *Oct 26, 2011* UTME:  
 No SE #; Tile F13; Poly 4

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
						<i>Cattail sp</i>					<i>D</i>
						<i>Reed-canary</i>					<i>D</i>

Page \_\_\_ of \_\_\_ Quality Control: This form is complete  & legible   
 Signature: *[Signature]* (Field Personnel) Signature: *[Signature]* (Project Manager)



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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269  
 Date: Oct 26, 2011

Project Name: Niagara  
 Field Personnel: C. Payne

Weather Conditions:	TEMP (°C): <u>7</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>rain</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: # 13-4 Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Sp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Sp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

Deer (OB)

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: Niagara

Date: Oct 26, 2011

Field Personnel: C. Payne HC

Weather Conditions:	TEMP (°C): <u>7</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>rain</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: #3-5 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

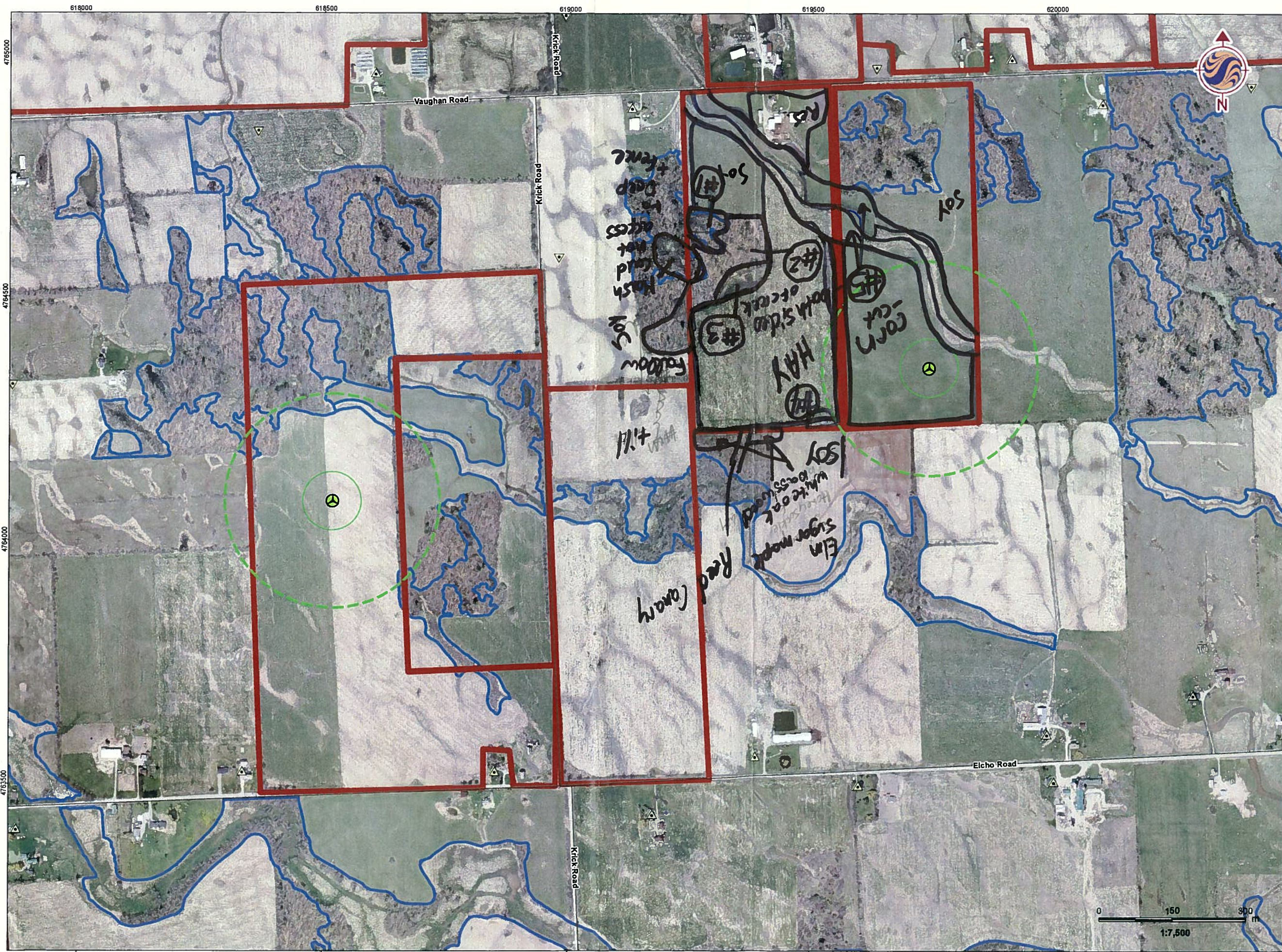
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HC=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization



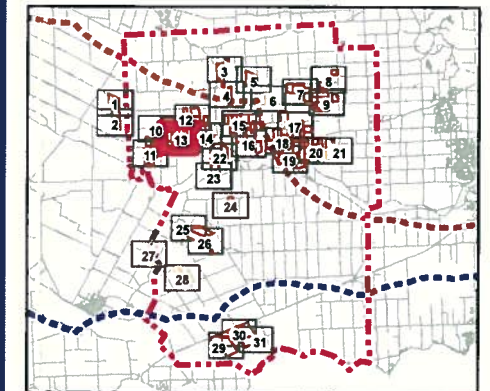






- Legend**
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Turbines on Developable Land and 120m Diameter
  - 160m Buffer of Turbine

W



- 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.



**Stantec**

August 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
F-13

Title  
**Field Map 13**









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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: Niagara

Date: Oct 26, 2011

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C): <u>6</u>	WIND: <u>3</u>	CLOUD: <u>100</u>	PPT: <u>Rain</u>	PPT (in last 24 hrs): <u>Rain</u>
---------------------	------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: # 4-1 Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization



SE 27; Tile F-14; Poly 2

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara</u>	POLYGON: <u>14-2d</u>		
	SURVEYOR(S): <u>C. Payette</u>	DATE: <u>Oct 26, 2011</u>	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> COVER		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	Sugar maple > white oak > red oak > Straight hickory
2 SUB-CANOPY			
3 UNDERSTOREY	3	5	Sugar maple
4 GRD. LAYER			goldenrod sp

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10%<CVR<25% 3=25%<CVR<50% 4=CVR>60%

STAND COMPOSITION:				BA:	
SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50	
STANDING SNAGS:	R <10	R 10-24	M 25-50	M >50	
DEADFALL/LOGS:	O <10	O 10-24	N 25-50	N >50	
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT				
COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: F-M Sugar maple-hardwood/dec. forest	CODE: F0D6-5
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara</u>	POLYGON: <u>14-2d</u>		
	SURVEYOR(S): <u>C. Payette</u>	DATE: <u>Oct 26, 2011</u>	UTME:	
	START:	END:	UTMZ:	UTMN:

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				CO
	1	2	3	4			1	2	3	4	
White oak	0			0		goldenrod sp				0	
Sugar maple	A		0	0							
Shagbark hickory	0			0							
White pine	R			0							
Red oak	0			0							

Page \_\_\_ of \_\_\_

Signature: [Signature]

(Field Personnel)

Quality Control: This form is complete  & legible

Signature: [Signature]

(Project Manager)



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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 16950269

Project Name: Niagara

Date: Oct 26, 2011

Field Personnel: C. Daulton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>6</u>	<u>2</u>	<u>100</u>	<u>Rain</u>	<u>Rain</u>

ELC Polygon: # 14-2a Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 160956269

Project Name: Niagara

Date: 0426, 2011

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C): <u>6</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>Rain</u>	PPT (in last 24 hrs): <u>Rain</u>
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ELC Polygon: #14-3a Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

[i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:**

Contains potential bat roosting features?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:**

Contains large stick nests?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:**

Contains seeps/springs/vernal pools?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization



SE17/SE27; Tile F-14; R14 U

ELC SITE: Niagara POLYGON: 14-4a  
 SURVEYOR(S): C. Payne DATE: Oct 26, 2011 TIME:  
 START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input checked="" type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	28	4	white oak > red oak > Shagbark hickory
2 SUB-CANOPY	3	1	Sugar maple > Ironwood
3 UNDERSTOREY	4-5	3	Sugar maple > red oak > white oak > Red raspberry
4 GRD. LAYER	6-7	2	Soldanella sp.

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0	<10	A	10-24	2	25-50	N	>50
STANDING SNAGS:	0	<10	R	10-24	N	25-50	M	>50
DEADFALL/LOGS:	A	<10	0	10-24	N	25-50	N	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: F-M oak-Sugar maple Dec. forest	CODE: F0D9-1
INCLUSION:	CODE:
COMPLEX:	CODE:

Evidence of Disturbance / Notes:

ELC SITE: Niagara POLYGON: 14-4  
 SURVEYOR(S): C. Payne DATE: Oct 26, 2011

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Shagbark hickory	0					addentia sp.					A
Ironwood	0	0				Red oak					
Sugar maple	R	A	A								
Red oak	0		0								
White oak	0		0								
Red raspberry	R										
White pine	R										
Red raspberry											
honeysuckle											

Page \_\_\_ of \_\_\_ Quality Control: This form is complete & legible   
 Signature: [Signature] (Field Personnel) Signature: [Signature] (Project Manager)



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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: Nagara

Date: Oct 26, 2011

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>6</u>	<u>2</u>	<u>100</u>	<u>Rain</u>	<u>Rain</u>

ELC Polygon: # 14-4a Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HC=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 16

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	5	3	100	none	rain

ELC Polygon: # 14-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	some pooled water throughout	patchy	at least 1ft	N/A	PHALARIS	few (Salix clump)

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization







**Stantec Consulting Ltd.**  
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 Canada N1G 4P5  
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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 16

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>5</u>	WIND: <u>3</u>	CLOUD: <u>100</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>some rain</u>
---------------------	------------------------	-------------------	----------------------	---------------------	---

ELC Polygon: #4-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 16

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>5</u>	WIND: <u>3</u>	CLOUD: <u>100</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>some rain</u>
---------------------	------------------------	-------------------	----------------------	---------------------	---

ELC Polygon: # 14-3 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

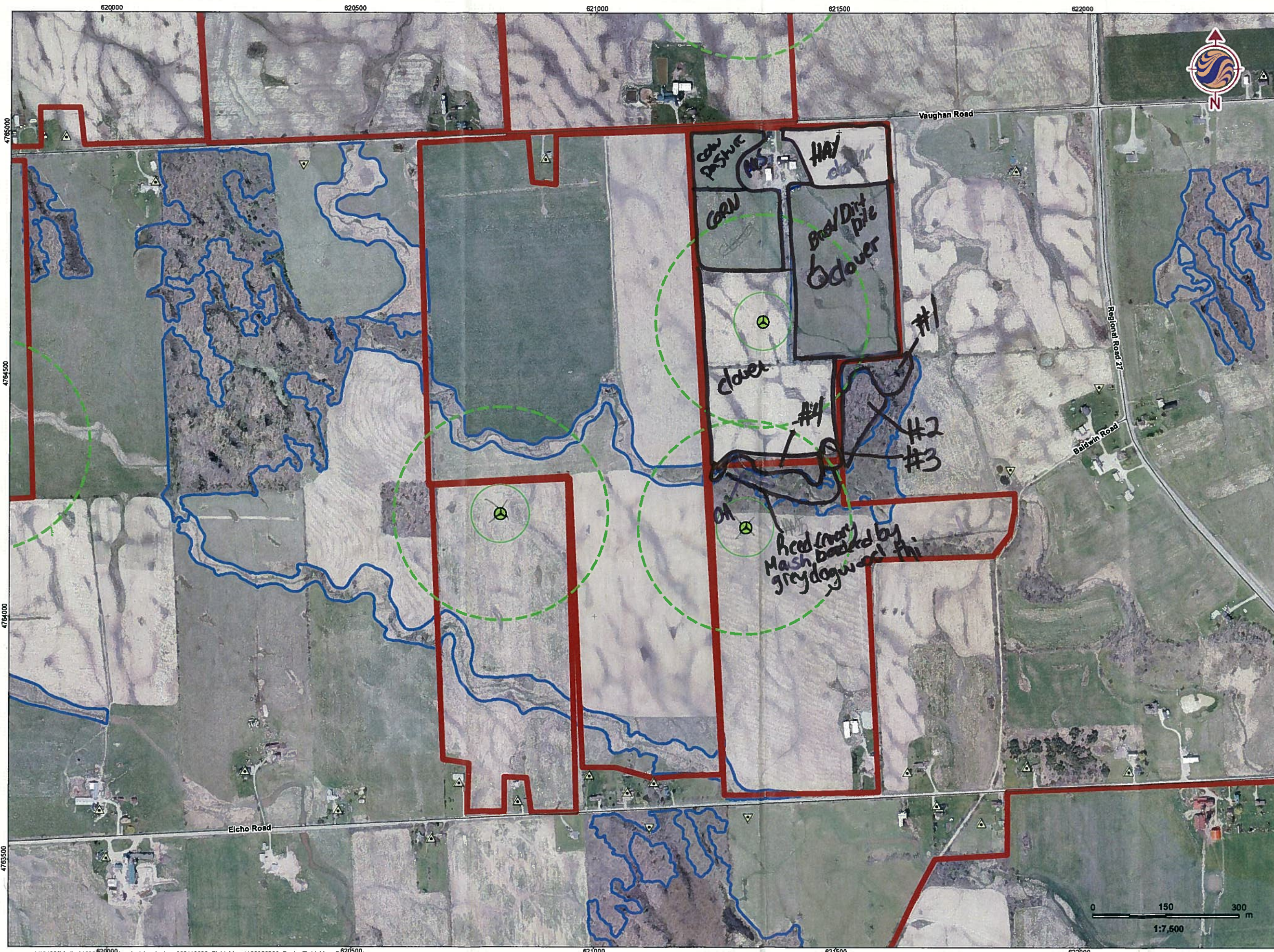
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>some pooled water throughout</u>	<u>patchy</u>	<u>1 ft.</u>	<u>N/A</u>	<u>PHALARIS</u>	<u>No</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

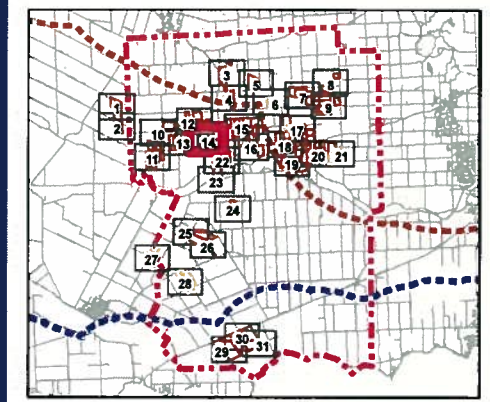
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization





- Legend**
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Turbines on Developable Land and 120m Diameter
  - 160m Buffer of Turbine

W



- 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.



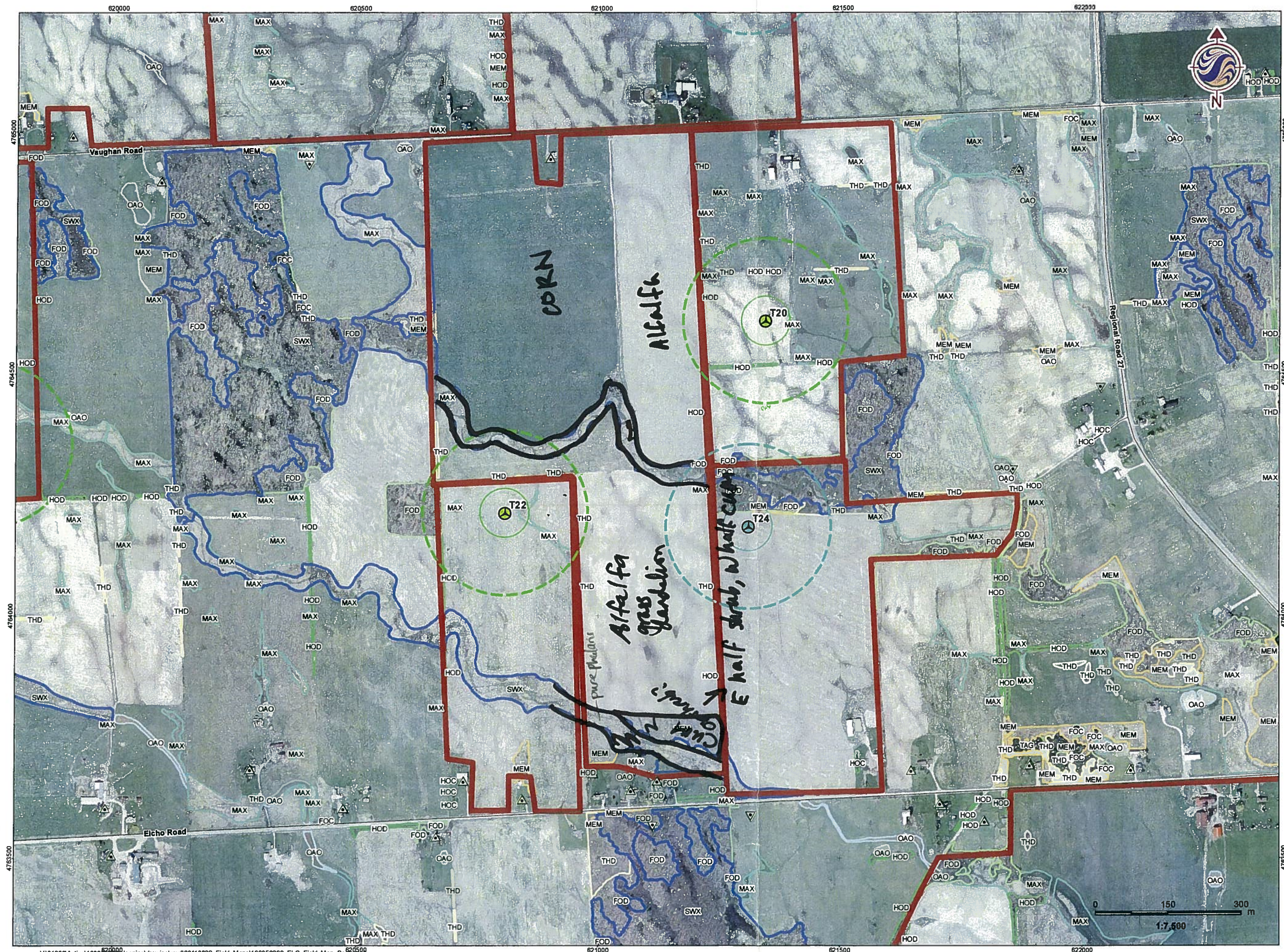
August, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
F-14

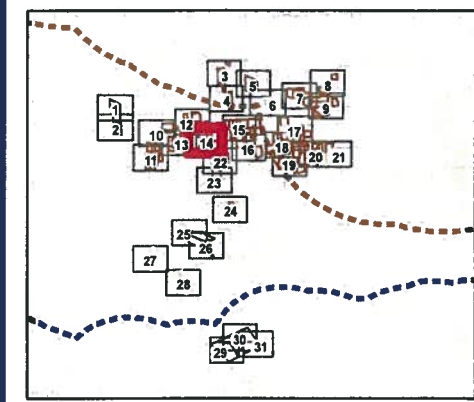
Title  
**Field Map 14**





### Legend

- Preliminary Study Area
- Signed Project Sites
- Potential Signed Property
- Road
- Railway
- Municipality Lower Tier
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- To Be Determined
- Open Rock/Shrub Rock Barren
- Shoreline
- Bluff
- Swamp
- Marsh
- Bog
- Wetland
- Meadow
- Thicket
- Savanna
- Woodland
- Forest
- Hedgerow
- Treed Agriculture
- Open Water
- Turbines on Developable Land and 101m Diameter
- 170.5m Buffer of Turbine
- Turbines W/ 120m S/B PSW and 101m Diameter
- 170.5m Buffer of Turbine
- Turbines W/ 120m S/B Woodland and 101m Diameter
- 170.5m Buffer of Turbine
- Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
- 170.5m Buffer of Turbine



- ### Notes
- Coordinate System: NAD 1983 UTM Zone 17N)
  - Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

September, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-14

Title  
**ELC Field Map 14**







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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 24, 2011

Field Personnel: JL, CP, NC

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>3</u>	<u>30</u>	<u>none</u>	<u>rain</u>

ELC Polygon: #15-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

**POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>throughout</u>	<u>pool</u>		<u>15 cm</u>		<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FB=feeding evidence; FY=eggs/nest; HO=hoopshelter; OB=observed; SC=scar; SI=other sign; TK=track; VC=vegetation



**ELC**  
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: Niagara POLYGON: 15-2  
 SURVEYOR(S): JL, NC, CD DATE: Oct 24 TIME:  
 START: 11:30 END: 12:00 UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	FRAPENN > ULMAMER
2 SUB-CANOPY	3	2	FRAPENN > CRATAEGUS
3 UNDERSTOREY	4	3	CORNUS > CRATAEGUS > SPIALBA
4 GRD. LAYER	5-7	4	PHARUN > SYMLANC > SOLDULC

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**STAND COMPOSITION:** BA:

**SIZE CLASS ANALYSIS:** A <10 0-A 10-24 R 25-50 N >50

**STANDING SNAGS:** R <10 R 10-24 R 25-50 N >50

**DEADFALL/LOGS:** R <10 R 10-24 R 25-50 N >50

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

**COMM. AGE:** PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

**TEXTURE:** DEPTH TO MOTTLES/GLEY g= G=

**MOISTURE:** DEPTH OF ORGANICS: (cm)

**HOMOGENEOUS / VARIABLE:** DEPTH TO BEDROCK: (cm)

**COMMUNITY CLASSIFICATION:**

**COMMUNITY CLASS:** CODE:

**COMMUNITY SERIES:** CODE:

**ECOSITE:** CODE:

**VEGETATION TYPE:** CODE: SWD2-2

**INCLUSION:** Green ash CODE: FOD7-2

**COMPLEX:** CODE:

Evidence of Disturbance / Notes:

PLC#3 - 70cm water in creek outside of drainage ditch

SE 16, T1R & F-15, Poly 2

**ELC**  
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: POLYGON: DATE: SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAXPEN	0-A					EUT GRAM				R	
						PHARUN				A-D	
						SOLDULC				O	
						SYMLANC				O	
						ALLPETI				R-O	
						ELYVIRG				R	
						SCIRPUS SP				R	
						LYSCILI				R	
* CRATAEGUS SP										R-O	
* FRAXPEN										A	
* ULMAMER										O	
SPIALBA										O	O
COROBLI										R	
* VITRIPA											R
* SOLCANA											O
* GEUM CANA											O
* RUBEIDA											O-A
* CORFORA										O-A	

Page \_\_\_ of \_\_\_

Signature: [Signature]  
 (Field Personnel)

Quality Control: This form is complete & legible

Signature: [Signature]  
 (Project Manager)



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# Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: \_\_\_\_\_

Project Name: \_\_\_\_\_

Date: \_\_\_\_\_

Field Personnel: \_\_\_\_\_

Weather Conditions:	TEMP (°C): 12	WIND: 3	CLOUD: 30-100	PPT: Some rain	PPT (in last 24 hrs): Rain
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ELC Polygon: #15-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

-HOLA, KILL, AMRO, AMCR, BLJA  
 -Deer feeding (FE)

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HD=house/den; OB=observed; SC=scar; SL=other sign; TK=track; VO=vocalization







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 Fax: (519) 836-2493

## Windfarm Wildlife Habitat Assessment Form

Station:

Project Number: 16950269

Project Name: NRWC

Date: Oct 24, 2011

Field Personnel: JL, CP, NC

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>3</u>	<u>30</u> <del>45</del>	<u>Sunny</u>	<u>rain</u>

ELC Polygon: #15-3 Visual Assessment:  Roadside, no access

Physical Assessment:  Walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 (i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows))

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains/potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 (i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities <10m high in trees))

POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains/large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Photo No.	Height/Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

SPECIES OBSERVATIONS (list species and type of observation & indicate on map)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Abbreviations: D=disturbance point; F=feeding evidence; P=eggs/nest; H=house/structure; O=observed; S=scat; A=at edge; T=trapped; V=vehicle; M=map

g. \_\_\_ of \_\_\_  
 Signature: \_\_\_\_\_  
 (Field Personnel)

Quality Control: This form is complete  & legible .  
 Signature: \_\_\_\_\_  
 (Project Manager)



SE 16/SE 11; Tile F-15; Poly MAM2-2

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Niagara</i>	POLYGON: <i>15/16 - MAM2-2</i>
	SURVEYOR(S): <i>NC</i>	DATE: <i>Oct 24, 2011</i>
	START:	END:
	UTMZ:	UTMN:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			<i>PHAARUN &gt;&gt; SOLCANA &gt; SYMPH SEP</i>

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:	BA:
--------------------	-----

SIZE CLASS ANALYSIS:	<10	10 - 24	25 - 50	>50
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STANDING SNAGS:	<10	10 - 24	25 - 50	>50
DEADFALL/LOGS:	<10	10 - 24	25 - 50	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: <i>NAM2-2</i>
<i>reed canopy grass mineral meadow marsh</i>	
INCLUSION	CODE:
COMPLEX	CODE:

**Evidence of Disturbance / Notes:**

- associated with drainage ditch / creek (surrounded by AG land use)  
- these species apply to all NAM2-2 community on site

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
						<i>PHAARUN</i>					<i>A</i>
						<i>SOLCANA</i>					<i>R-0</i>
						<i>SYMPANC</i>					<i>R-0</i>
						<i>SYMNOVA</i>					<i>2-0</i>
						<i>DIPFULL</i>					<i>R-0</i>
						<i>DANCARO</i>					<i>2</i>

Page \_\_\_ of \_\_\_  
Signature: *Nash*  
(Field Personnel)

Quality Control: This form is complete  & legible   
Signature: *acm*  
(Project Manager)



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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160050269

Project Name: NRWC

Date: Oct 24, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>3</u>	<u>30</u>	<u>none</u>	<u>rain</u>

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; no access / -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>surface water throughout</u>		<u>15 cm</u>		<u>yes</u>	<u>rarely</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FF=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization



ELC SITE: Niagara POLYGON: 15-A  
 COMMUNITY DESCRIPTION & CLASSIFICATION: SURVEYOR(S): NC DATE: Oct 25, 2011 UTME:  
 START: 12:00 END: 12:20 UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND
<input checked="" type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID	<input type="checkbox"/> RIVER <input type="checkbox"/> STREAM
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF		<input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG
	<input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		<input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	3		
3 UNDERSTOREY	4	4	
4 GRD. LAYER	4	4	PHAARUN >> SOLALT > SYMNOVA

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
STANDING SNAGS:	<10	10-24	25-50	>50
DEADFALL/LOGS:	<10	10-24	25-50	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Reed-canary Grass mineral meadow marsh</u>	CODE: <u>MAM 2-2</u>
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:  
 - may be "riparian" in spring - patches of water dispersed throughout, some running water, all about 5-15 cm deep, approx. 15% of area  
 (PICS 2+3) - joins to wet depression / riparian area on adjoining property

ELC SITE: POLYGON: DATE: SE6; TIE F-15; Poly A SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
SAMBUCUS		R				PHAARUN					D
COROB		R				SOLALT					D
SPIALBA		R				SYMNOVA					R-O
						VERHAST					R
						DIPFULL					R
						TYPLATI					R
						SCIRPUS SP					R
						JUNCA SP					R

Page \_\_\_ of \_\_\_ Signature: Nick Chen A (Field Personnel)  
 Quality Control: This form is complete & legible. Signature: Andrew (Project Manager)



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 Fax: (519) 836-2493

## Windfarm Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269

Project Name: NRWC

Date: Oct 25, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>light rain</u>	PPT (in last 24 hrs): <u>some rain</u>
---------------------	-------------------------	-------------------	----------------------	---------------------------	---

ELC Polygon: # 15-A Visual Assessment:  Roadside, no access

Physical Assessment:  Walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

(i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts, with cracks/entry points, exposed rock crevices or inactive animal burrows))

### POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

(i.e. tall trees with open surrounding canopy (DBH > 25cm, side-facing cavities ~10m high in tree))

### POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

### STICK NEST(S) IDENTIFIED

UTM	Tree ID	Tree Spp.	Photo No.	Height/Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

### SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>fire polygon</u>	<u>pooled water</u>	<u>patchy</u>	<u>up to 15 cm</u>		<u>Phalaris</u>	<u>no</u>

### SPECIES OBSERVATIONS (list species and type of observation & indicate on map)


Abbreviations: DC=distribution point; FE=feeding evidence; FY=egg/s/nest; HO=hunter/den; OB=observed; SC=scat; SF=sight/seen; TR=track; VD=excavation

1. \_\_\_ of \_\_\_

Signature: \_\_\_\_\_

(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: \_\_\_\_\_

(Project Manager)



ELC SITE: Niagara POLYGON: 15-B  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): JC DATE: Oct 25, 2011 UTMZ: UTMN:  
 START: 1:00 END: 1:30

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID	<input type="checkbox"/> RIVER <input type="checkbox"/> STREAM
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> MARSH <input type="checkbox"/> SWMAP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<b>COVER</b> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
<b>SITE</b>					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	3	SPIALBA > CORNUS
2 SUB-CANOPY			
3 UNDERSTOREY	4		
4 GRD. LAYER	4-7		SCICYPE > PHAARUN = TYPLATI > CAREX SPP

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
STANDING SNAGS:	<10	10-24	25-50	>50
DEADFALL/LOGS:	<10	10-24	25-50	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Meadowsweet mineral thicket swamp</u>	CODE: <u>SWT2-6</u>
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes: pics 4+5 - concentric zones from shrub to cattail to emergent forbs and graminoids

ELC SITE: POLYGON: DATE: SE6; Tile F-15; Poly B SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
COROBLI	R					PHAARUN			0		
SPIALBA	A					Scirpus			A		
SAMBUCUS	0					TYPLATI			0		
RIBUS IDAEUS	0					Bullrush			0	0	
						Carex				0	
						Xanthium					R
						Bidens				0	
						Sium suave					0

Page \_\_\_ of \_\_\_ Signature: [Signature] (Field Personnel) Quality Control: This form is complete  & legible  Signature: [Signature] (Project Manager)



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 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Windfarm Wildlife Habitat Assessment Form

Project Number: 160950269  
 Date: Oct 25, 2011

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>light air</u>	PPT (in last 24 hrs): <u>some rain</u>
---------------------	-------------------------	-------------------	----------------------	--------------------------	---

ELC Polygon: #15-B Visual Assessment: -Roadside, no access      Physical Assessment: -Walk through feature  
 Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
*(i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows))*

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
*(i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in tree))*

POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Photo No.	Height/ Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

EEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>atire polygon</u>	<u>pooled water</u>	<u>20x10</u>	<u>at least 1ft</u>		<u>Grasses + forbs</u>	<u>Spiraea</u>

SPECIES OBSERVATIONS (list species and type of observation & indicate on map)


A=arrivals; D=Distinctive parts; F=feeding environment; FV=egg/snest; HO=house/air; OB=observed; SC=soot; SI=siberian; TK=track; YD=excavation

Signature: \_\_\_\_\_  
 (Field Personnel)

Quality Control: This form is complete  & legible   
 Signature: \_\_\_\_\_  
 (Project Manager)



**ELC** SITE: NIAGARA POLYGON: 15-C  
 SURVEYOR(S): NC DATE: Oct 25, 2011 UTME:  
 START: 1:30 END: 2:00 UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ROCKLAND	<input checked="" type="checkbox"/> SHRUB		<input checked="" type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREE		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3-4	4	CEPOCCI >> ILEVERT > VACCORYI b
2 SUB-CANOPY			
3 UNDERSTOREY	4-7	2	ONOSENS > CAREX = IMPCAPE = LYCUNIF
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**STAND COMPOSITION:** BA:

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
STANDING SNAGS:	<10	10-24	25-50	>50
DEADFALL/LOGS:	<10	10-24	25-50	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENECUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Buttonbush mineral thicket swamp</u>	CODE: <u>SWT2-4</u>
INCLUSION	CODE:
COMPLEX	CODE:

**Evidence of Disturbance / Notes:**

main large swamp joined to 3 other pockets with sparser buttonbush cover + with more ILEVERT and tree species and collected shrub. The 3 other pockets were included as part of SWT2-4 because of their short distance from and connectivity to main body, as well as small size

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 COMMUNITY DESCRIPTION & CLASSIFICATION: \_\_\_\_\_ DATE: SE6; Tie F-15; Poly C SURVEYOR(S): \_\_\_\_\_

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
CEPOCCI	D					CAREX SPP					O
ILEVERT	R					ONOSENS					O
COROBLI	R					RIDEANS					R
VACCORYI	O				R ✓	IMPCAPE					O
QUERCUS RUBR	R					SOLDULLC					O
SPIALBA	R					LYCUNIF					O
SAMBUCUS (w)	R					RUBHISP					O
						BOECYLI					R

This community was added to polygon 15-D as a complex instead. This card now describes that complex

Page \_\_\_ of \_\_\_ Signature: Nick Decker (Field Personnel) Quality Control: This form is complete  legible  Signature: [Signature] (Project Manager)

→ these pockets connected by strips of jewelweed, RUBHISP, ONOSENS  
 W:\resources\intern\info and Teams\FIELD FORMS\Vegetation\ELC\calc-field-form-excerpt\_w\_windfarm-wildlife-habitat-form\_v2.docx / (DERIVED FROM LEE ET AL., 1999)



Stantec Consulting Ltd.  
 1 - 70 Southgate Drive  
 Guelph, ON  
 Canada N1G 4P5  
 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Windfarm Wildlife Habitat Assessment Form

STANTEC

Project Number: \_\_\_\_\_ Project Name: \_\_\_\_\_  
 Date: \_\_\_\_\_ Field Personnel: \_\_\_\_\_

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: # \_\_\_\_\_ Visual Assessment: -Roadside, no access Physical Assessment: -Walk through feature  
 Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
*[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]*

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
*[i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities >10m high in tree)]*

**POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Photo No.	Height/ Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES OBSERVATIONS (list species and type of observation & indicate on map)**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Abbreviations: D=Disturbance potential; F=Feeding evidence; E=eggs/nests; H=Habitat; O=observed; S=Seen; A=Abundance; C=Cumulative Value/evaluation

Page \_\_\_ of \_\_\_  
 Signature: \_\_\_\_\_  
 (Field Personnel)

Quality Control: This form is complete  & legible   
 Signature: \_\_\_\_\_  
 (Project Manager)







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# Windfarm Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269  
 Date: Oct 25, 2011

Project Name: NRWe  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>700000</u>	PPT: <u>light rain</u>	PPT (in last 24 hrs): <u>some rain</u>
---------------------	-------------------------	-------------------	-------------------------	---------------------------	---

ELC Polygon: # 15-D Visual Assessment: -Roadside, no access Physical Assessment: -Walk through feature  
 Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 (i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows))

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 (i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in tree))

POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Photo No.	Height/Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

SPECIES OBSERVATIONS (list species and type of observation & indicate on map)		
<u>Partridge berry</u>	<u>17 0624741</u>	<u>in FOD</u>
	<u>4764917</u>	
<u>Smashie down arrowwood</u>	<u>pic taken 17 0624784</u>	
	<u>4764994</u>	

Ac=acorn; DB=diameter; para=partridge berry; FOD=feeding evidence; PV=egg/salmon; HO=hoopoe; OB=observed; SC=scatter; SPP=species; UTM=UTM coordinates; etc.

Signature: \_\_\_\_\_ (Field Personnel)  
 Signature: \_\_\_\_\_ (Project Manager)  
 Quality Control: This form is complete  & legible



ELC SITE: NIAGARA POLYGON: 15-E  
 SURVEYOR(S): NC DATE: Oct 25, 2011  
 START: 9:00 END: 11:00

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2-3	3	PINSTRO
2 SUB-CANOPY			
3 UNDERSTOREY	4	2	SPIALBA
4 GRD. LAYER	5-7	4	GRASSES > SOLALTI = EUTGRAM = DAUCARO = SYM SPP

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
STANDING SNAGS:	<10	10-24	25-50	>50
DEADFALL/LOGS:	<10	10-24	25-50	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES/GLEY g= G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: CUP3-2/CUM 1-HE/SWT26

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes:

- broad mix of species - many others could have been listed in stand description (part of CUM-1)  
 - in general, area is very moist OWES? - moist end of the CUM scale. Trees are planted in rows, CUM is kept mowed between them

ELC SITE: POLYGON: DATE: SE6; Tile F-15; Poly E SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
PINSTRO	A					GRASS (CUT)					A
<del>bullrush (small)</del>						bullrush (small)					A
<del>SYM SPP.</del>						SYM SPP.					A
ILLMW				R		SOLALTI					A
SPIALBA				O		EUTGRAM					O
						DAUCARO					A
						PRUVULG					O
						TRI REPE					O
						TAROFFE					A
						ACHILLE					O
						SYMNOVA					A
						DIPFULL					R-D
						SCIRUS (from marsh)					R

Page \_\_\_ of \_\_\_  
 Signature: *N. Chen*  
 (Field Personnel)

Quality Control: This form is complete & legible  
 Signature: *C. [unclear]*  
 (Project Manager)

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## Windfarm Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950264

Project Name: NRWC

Date: Oct 25, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>light rain</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: # 15E Visual Assessment:  Roadside, no access

Physical Assessment:  Walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?

Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

(i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows))

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?

Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

(i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in tree))

**POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?

Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Photo No.	Height/ Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?

Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Some pooling throughout (very wet)</u>		<u>up to 1 ft.</u>		<u>Graminoids + forbs</u>	<u>occasionally</u>

**SPECIES OBSERVATIONS (list species and type of observation & indicate on map)**


Abbreviations: PDB=disturbance potential; F=feeding evidence; EY=eggs/nest; HQ=home/roost; OB=observed; S=seen; S1=within sight; T=track; Y=Yellow-billed Cuckoo

Page    of   

Signature: \_\_\_\_\_  
 (Field Personnel)

Quality Control: This form is complete  & legible .

Signature: \_\_\_\_\_  
 (Project Manager)



**ELC** SITE: NIAGARA POLYGON: 15-F  
 SURVEYOR(S): NC DATE: Oct 25, 2011 UTMZ: \_\_\_\_\_ UTMN: \_\_\_\_\_  
 START: 2:00 END: 3:00

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input checked="" type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > QUERUBR > FAGGRAN
2 SUB-CANOPY	3	3	ACESASA > OSTVIRG > QUERUBR
3 UNDERSTOREY	4	2	ACESASA > PRUSERO
4 GRD. LAYER	6-7	3	ACESASA >> SYMMACR > RUBIDAE

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**STAND COMPOSITION:** BA: \_\_\_\_\_

SIZE CLASS ANALYSIS:	A <10	A 10-24	A 25-50	R >50
STANDING SNAGS:	O <10	O 10-24	R 25-50	N >50
DEADFALL/LOGS:	A <10	O 10-24	R 25-50	N >50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
<u>F-M Sugar Maple-hardwood deciduous forest</u>	<u>POD6-5</u>
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:  
same notes as 15-D - No soil sample

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 SURVEYOR(S): SE6; Tile F-5; Poly F

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESASA	A		O	A		RUBIDAE					O
ACERUBR	R					RUBCANF					O
QUERUBR	O			O		SYMMACR					O
FAGGRAN	O	O				SOLRUGO					O
TILAMER	R										
OSTVIRG		O									
CAROVAT	O										
PRUSERO	R		O								

Page \_\_\_\_ of \_\_\_\_  
 Signature: Nick Chern (Field Personnel)  
 Quality Control: This form is complete & legible.  
 Signature: [Signature] (Project Manager)









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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
Date: Oct 25, 2011

Project Name: NRWC  
Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	2	100	light rain in pm	some rain

ELC Polygon: #15-6 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
entire polygon	pooled water	~100m x 3m	up to 1 ft		yes	yes - Spiraea

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HU=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 25

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10</u>	<u>2</u>	<u>100</u>	<u>light rain</u>	<u>some rain</u>

ELC Polygon: #15-H Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains/potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains/potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains/large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>throughout</u>	<u>pooled water</u>	<u>100x5</u>	<u>at least 1ft</u>		<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA--carcass; DP--distinctive parts; FE--feeding evidence; FY--eggs/nest; HO--house/den; OB--observed; SC--scat; SI--other sign; TK--track; VO--vocalization













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## Windfarm Wildlife Habitat Assessment Form

**Stanec:**

Project Number: 100450269

Project Name: NRWG

Date: Oct 24, 2011

Field Personnel: JLINC, CP

Weather Conditions:	TEMP (°C): <u>11</u>	WIND: <u>3</u>	CLOUD: <u>30</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: # \_\_\_\_\_ Visual Assessment:  Roadside, no access

Physical Assessment:  Walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts, with cracks/entry points, exposed rock crevices or inactive animal burrows)

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities >10m high in tree)

POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Photo No.	Height/ Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES OBSERVATIONS** (list species and type of observation & indicate on map)

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Acro=Acrid; D=diurnal; E=evening; F=feeding; H=hibernation; IY=egg/instar; HO=hibernation; OB=observed; S=scat; A=at edge; M=margin; P=pool; Q=quail

Page    of     
 Signature: \_\_\_\_\_  
 (Field Personnel)

Quality Control: This form is complete  & legible   
 Signature: \_\_\_\_\_  
 (Project Manager)

ELC SITE: Niagara POLYGON: 16-2  
 COMMUNITY DESCRIPTION & CLASSIFICATION: SURVEYOR(S): JL, CP, NC DATE: Oct 24, 2011  
 START: 3:30 END: 4:00 UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > QUERUBR > CAROVAT
2 SUB-CANOPY	3	3	OSTVIRG > TILAMER = ULMAMER = PRUSERO
3 UNDERSTOREY	4	2	CARCORD = PRUSERO
4 GRD. LAYER	5-7	3	RUBUS SPP > SYMLANC > ALLPETI

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 

A	<10	B-A	10-24	O	25-50	R	>50
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STANDING SNAGS: 

R-O	<10	R-O	10-24	R	25-50	N	>50
-----	-----	-----	-------	---	-------	---	-----

DEADFALL/LOGS: 

O	<10	O	10-24	R	25-50	N	>50
---	-----	---	-------	---	-------	---	-----

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS: TEXTURE: DEPTH TO MOTTLES/GLEY g= G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENECUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION: COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: E-M Oak-sugar maple deciduous forest CODE: FOD9-1

INCLUSION: SWT Buttonbush CODE: SWT2-4

COMPLEX: CODE:

Evidence of Disturbance / Notes:

ELC SITE: POLYGON: SE 16; TIE F-16; Poly 2  
 COMMUNITY DESCRIPTION & CLASSIFICATION: DATE: SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
QUERUBR						SYMLANC					O
ACESASA	A					ALLPETI					O
OSTVIRG						HESMATR					R
CAROVAT	R-O					RUBIDAE					O
PRUSERO		R	R			RUBCANA					O
TILAMER	R	R				EUOBOV					O
ULMAMER		R				ELYVIRG					O
*ACEFREE	R					*SOLDULC					O
*LLEVERT	RR					*LEEORYZ					R-O
*CEPCCI			A			*CAREX SPP					O
CARCORD				R		*GLYGRAN					O
FRAX SP.	R										

Page \_\_\_ of \_\_\_ Quality Control: This form is complete:  (Field Personnel)

Signature: [Signature] Signature: [Signature]  
 (Field Personnel) (Project Manager)

\*asterisk means species belongs to inclusion





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 Canada N1G 4P5  
 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Windfarm Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269

Project Name: Niagara

Date: Oct 24, 2011

Field Personnel: CP, NC, JL

Weather Conditions:	TEMP (°C): <u>11</u>	WIND: <u>3</u>	CLOUD: <u>30</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>Some rain</u>
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ELC Polygon: # \_\_\_\_\_ Visual Assessment:  Roadside, no access

Physical Assessment:  Walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
*(i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows))*

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
*(i.e. tall trees with open surrounding canopy (DBH > 25cm, side-facing cavities > 10cm high in tree))*

POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Photo No.	Height/Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>17624108 9764404</u>	<u>Vernal pool 1</u>	<u>5m x 15m</u>	<u>0</u>	<u>6</u>	<u>Yes - Carex</u>	<u>Yes</u>

SPECIES OBSERVATIONS (list species and type of observation & indicate on map)

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Legend: D=disturbance point; F=feeding evidence; P=sign/post; HO=home/roost; O=observed; S=scatter; A=other type of disturbance; Y=yellow; N=black

3. \_\_\_ of \_\_\_  
 Signature: \_\_\_\_\_  
 (Field Personnel)

Quality Control: This form is complete  & legible .  
 Signature: \_\_\_\_\_  
 (Project Manager)

ELC SITE: NIAGARA POLYGON: 16-3  
 SURVEYOR(S): JTL: N.C., CP DATE: OCT 24-11  
 START: 4:00 END: 4:30 UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE			
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
SITE					
<input type="checkbox"/> OPEN WATER					
<input type="checkbox"/> SHALLOW WATER					
<input type="checkbox"/> SURFICIAL DEP.					
<input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	1	
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	4-7	4	RIVERIA >> TYP ANGL > ARCEMINU

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:  <10  10-24  25-50  >50

STANDING SNAGS:  <10  10-24  25-50  >50

DEADFALL/LOGS:  <10  10-24  25-50  >50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE:  PIONEER  YOUNG  MID-AGE  MATURE  OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES/GLEY g= G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENECUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: MAN22

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes:

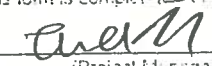
- SURFACE H2O IN INTERIOR (~1/4 OF COMMUNITY)

ELC SITE: POLYGON: DATE: SE 16, Tile F-16; Poly 3 SURVEYOR(S):

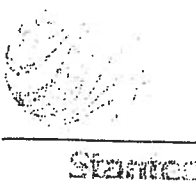
LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
SALE SP.												
						RIVERIA						A
						TYP ANGL						R-D
						ARCEMINU						O
						POLYGONIA SP.						R
						VEL. HAST						R
						TRASEL						R-D

Page \_\_\_ of \_\_\_  
 Signature:   
 (Field Personnel)

Quality Control: This form is complete & legible.   
 Signature:   
 (Project Manager)





Stantec Consulting Ltd.  
 1 - 70 Southgate Drive  
 Guelph, ON  
 Canada N1G 4P5  
 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Windfarm Wildlife Habitat Assessment Form

Project Number: 160950269  
 Date: OCT. 24-11

Project Name: NRWC  
 Field Personnel: NC, CP, JL

Weather Conditions:	TEMP (°C): <u>11</u>	WIND: <u>3</u>	CLOUD: <u>30</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	-------------------------	-------------------	---------------------	---------------------	--------------------------------------

ELC Polygon: # \_\_\_\_\_ Visual Assessment:  Roadside, no access Physical Assessment:  Walk through feature  
 Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts, with cracks/entry points), exposed rock crevices or inactive animal burrows)

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature
<u>623874, 4264437</u>	<u>PILE OF CONCRETE SLABS</u>	<u>708</u>	<u>NONE</u>

Bat Hibernacula Features: Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 i.e. tall trees with open surrounding canopy (DBH > 25cm, side-facing cavities > 10cm high in tree)

POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Photo No.	Height/Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

SPECIES OBSERVATIONS (list species and type of observation & indicate on map)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

A=appearance; DB=diameter; par=partial; Fr=fracturing evidence; FV=feigning nest; HO=home/roost; OB=observed; S=seep; st=stick nest; U=unknown; Y=yellow; N=black

Signature: \_\_\_\_\_  
 (Field Personnel)

Quality Control: This form is complete  & legible .  
 Signature: \_\_\_\_\_  
 (Project Manager)

U35

**ELC** SITE: **NIAGARA** POLYGON: **16A**

COMMUNITY DESCRIPTION & CLASSIFICATION

SURVEYOR(S): **NC** DATE: **Oct 26** UTMZ: UTMN:

START: **8:30** END: **12:00**

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.				
SITE					
<input type="checkbox"/> OPEN WATER					
<input type="checkbox"/> SHALLOW WATER					
<input type="checkbox"/> SURFICIAL DEP.					
<input type="checkbox"/> BEDROCK					

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	ACEFREE > ACERUBR > QUERICO
2 SUB-CANOPY	3	3	OSTVIRG >> FRANIGR
3 UNDERSTOREY	4	2	ILEVERT = CEPOCCI > VACCORV = CORNUS
4 GRD. LAYER	5-7	4	ONSENS > SOLRUGO > CAREX SPP

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 

0	<10	A	10-24	OA	25-50	R	>50
---	-----	---	-------	----	-------	---	-----

STANDING SNAGS: 

0	<10	0	10-24	R	25-50	M	>50
---	-----	---	-------	---	-------	---	-----

DEADFALL/LOGS: 

0	<10	0	10-24	R	25-50	M	>50
---	-----	---	-------	---	-------	---	-----

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: 

0	PIIONEER	0	YOUNG	0	MID-AGE	0	MATURE	0	OLD GROWTH
---	----------	---	-------	---	---------	---	--------	---	------------

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: **swamp maple mineral deciduous swamp** CODE: **SWJ3-3**

INCLUSION CODE:

COMPLEX **F-M sugar maple - hardwood deciduous forest** CODE: **FOD6-5**

**Evidence of Disturbance / Notes:**

Freeman's maple swamp with pockets of swamp white oak and buttonbush / Ilex thickets in pools of water from 0.5-1.5 ft deep > dark patches on map  
Complexed within this ~~is~~ is a network / patchwork of fresh-moist sugar maple-hardwood deciduous forest (Maple, beech, oak, ironwood, hickory)

**ELC** SITE: **SE 54; TIR F-16; Poly A**

COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: **SE 54; TIR F-16; Poly A**

DATE: **SE 54; TIR F-16; Poly A**

SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACEFREE	A	0		0		SOLCANA					0-A
ACERUBR	0					ONSENS					0
ULMAMER	R					RUBHISP					0-A
FRANIGR		R				SOLRUGO					0-A
QUERICO	R-0					SYMLANC					0
OSTVIRG		0				LEEORYZ					0
						GLYSTRI					R
						CAREX					A-0
						Duckweed					0
						SCICYPE					0
						EUPPERF					R
						LYCINIIF					R
						EPILBIUM					R
						Royal fern					0
ILEVERT			0								
COROBLI			0								
RUBCANA				0							
VACCORV				0							
CEPOCCI				0							
SPIALBA			R-0								

Page \_\_\_ of \_\_\_

Signature: *[Signature]*

(Field Personnel)

Quality Control: This form is complete  legible

Signature: *[Signature]*

(Project Manager)





Stanec Consulting Ltd.  
 1 - 70 Southgate Drive  
 Guelph, ON  
 Canada N1G 4P5  
 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Windfarm Wildlife Habitat Assessment Form

Stanec

Project Number: 160950269

Project Name: NRWC

Date: Oct 26, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>rain</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: # \_\_\_\_\_ Visual Assessment:  Roadside, no access Physical Assessment:  Walk through feature  
 Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 i.e. tall trees with open surrounding canopy (DBH > 25cm, side-facing cavities > 10m high in tree)

POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Photo No.	Height/Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>Swamp complex - many pools</u>				<u>yes</u>	<u>yes</u>

SPECIES OBSERVATIONS (list species and type of observation & indicate on map)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Abbreviations: D=disturbance point; F=feeding evidence; P=perch; N=nest; HO=hoop; OB=observed; S=seep; L=log; A=at; C=catch; M=mark; U=unmarked; V=visual; W=water

Signature: \_\_\_\_\_  
 (Field Personnel)

Quality Control: This form is complete  & legible .  
 Signature: \_\_\_\_\_  
 (Project Manager)

ELC SITE: NIAGARA POLYGON: 16-A  
 SURVEYOR(S): NC DATE: Oct. 25  
 START: 4:00 END: 6:30  
 UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE			
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.		<b>COVER</b> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
<b>SITE</b>					
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF			
<input type="checkbox"/> SHALLOW WATER					
<input type="checkbox"/> SURFICIAL DEP.					
<input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<10	10 - 24	25 - 50	>50	
STANDING SNAGS:	<10	10 - 24	25 - 50	>50	
DEADFALL/LOGS:	<10	10 - 24	25 - 50	>50	
ABUNDANCE CODES:	N=NONE	R=RARE	O=OCCASIONAL	A=ABUNDANT	
COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	g=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

\* species in SWD community

- exposed roots?

ELC SITE: SES4; Tile F-16; Poly A  
 POLYGON:  
 DATE:  
 SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FAGGRAN	0					EUROBON					
ACESASA	A					XMAS FERN					
CARCORO	R	R				EQUISETUM					
PRUSER			R			<del>downward</del>					
CAROVAT	R-O					SYMMACR					
QUERUBR	A					SOLIDAGO					
QUK SP	0					SILAX (smooth)					
OSTVIRG		A				GEUM SP					
TILAMER						FRAGVIRG					
* ACEFREE						SOLRUGO					
* LILLAMER						* RUBRISP					
* FRANIGR						* EPILBIUM					
* ILEVERT						* EUPPERE					
* ACERUBR						* ONOSENS					
DINSTRG						CAREX					
FRAX SP						VIOLA SP					
* SWAMPDOK?					✓	* FERN SP (cinn?)					✓
CRATHEGUS		R				* SOLDULC					
downward						MITREPE					
RUBCANVA						* ROYAL FERN					
* ROSA SP						Ground cedar					
* collected shrub					✓	COPTRIE					
* CEPOLCI						MYDVIRG					
RUBIDAE						LEORYZE					
RIBCVNO						CARPLAN					
AMELANCHIE?					✓	VEROFFI					

Page \_\_\_ of \_\_\_

Signature: \_\_\_\_\_

(Field Personnel)

Quality Control: This form is complete  legible

Signature: \_\_\_\_\_

(Project Manager)

MITREPE

17 0625178

unknown tree - Baybaw?

0625271

nichon











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## Windfarm Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269

Project Name: NRWC

Date: Oct 26, 2011

Field Personnel: N. Chertton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>rain</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	-------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: # Visual Assessment:  Roadside, no access

Physical Assessment:  Walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts, with cracks/entry points, exposed rock crevices or inactive animal burrows)]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in tree)]

POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Photo No.	Height/ Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
	<u>pool throughout feature</u>	<u>30 x 30 m</u>	<u>upto 2ft</u>		<u>yes</u>	<u>yes</u>

SPECIES OBSERVATIONS (list species and type of observation & indicate on map)

Abbreviations: DBH=diameter at breast height; FE=feeding evidence; FN=nests; HO=house/roost; OB=observed; S=seen; A=other signs; TC=tree; Y=Yes; N=no; U=unknown

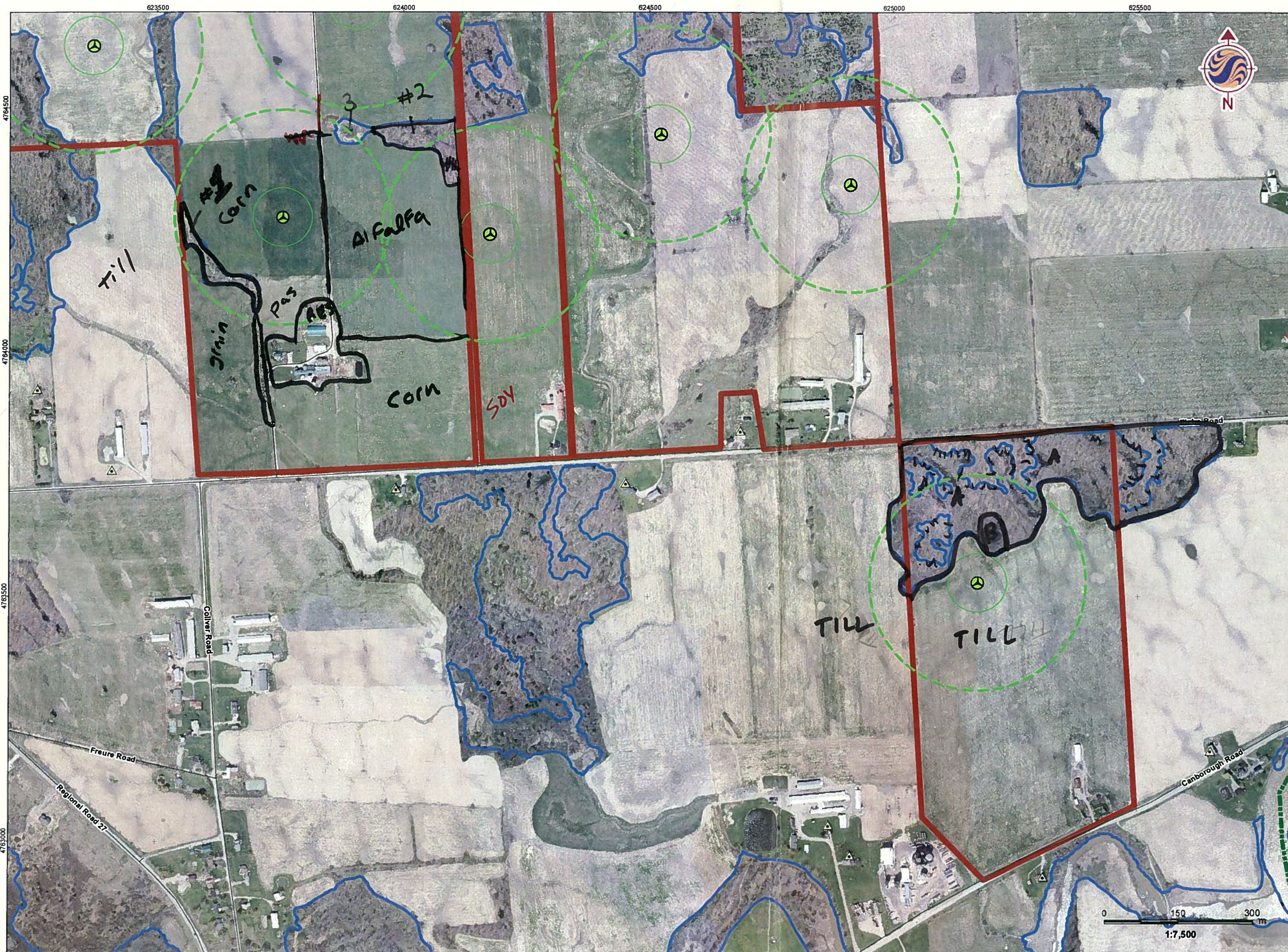
3. \_\_\_ of \_\_\_

Signature: \_\_\_\_\_  
 (Field Personnel)

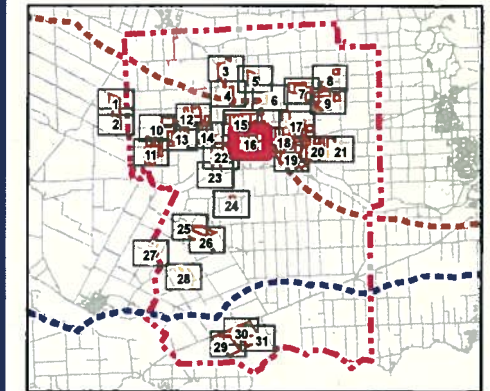
Quality Control: This form is complete  & legible .  
 Signature: \_\_\_\_\_  
 (Project Manager)



w



- Legend**
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Turbines on Developable Land and 120m Diameter
  - 160m Buffer of Turbine



- 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.



**Stantec**

August, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No  
F-16

Title  
**Field Map 16**







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: \_\_\_\_\_

Project Name: Niagara wind

Date: Nov 3, 2011

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C): <u>9</u>	WIND: <u>4</u>	CLOUD: <u>100</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
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ELC Polygon: #6-G Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature
<u>17T 0624553 4768599</u>	<u>Pile of old concrete blocks on side of hill</u>	<u>14</u>	<u>No - its November.</u>

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SF=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: \_\_\_\_\_

Project Name: Niagara wind

Date: Nov 3, 2011

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>9</u>	<u>4</u>	<u>100</u>	<u>None</u>	<u>None</u>

ELC Polygon: #16-f Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings. DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HQ=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: \_\_\_\_\_

Project Name: Niagara Wind

Date: Nov 3, 2011

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C): <u>9</u>	WIND: <u>4</u>	CLOUD: <u>100</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
---------------------	------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: # 16-E Assessment Type: -Visual; roadside, no access / -Physical; walk through feature - *fenced off but small enough to see most of it*  
 Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SI=other sign; TK=track; VO=vocalization







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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: \_\_\_\_\_

Project Name: Niagara wind

Date: Nov 3, 2011

Field Personnel: C. Payne

Weather Conditions:	TEMP (°C): <u>9</u>	WIND: <u>4</u>	CLOUD: <u>100</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
---------------------	------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: #16-C Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: \_\_\_\_\_

Project Name: Nigeria Wood

Date: Nov 3, 2011

Field Personnel: C. Dayle

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	4	100	None	None

ELC Polygon: # 16B Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities
<del>17+06247844764122</del>	As	<del>Ash</del>	<del>100</del>			10	

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	
17+06247844764122	(X)	Ash	20cm across	139-140	No	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SJ=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: \_\_\_\_\_

Project Name: Niagara Wind

Date: Nov 2, 2011

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12	None	100	None	None

ELC Polygon: # 16-A Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SI=other sign; TK=track; VO=vocalization







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 Fax: (519) 836-2493

**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: \_\_\_\_\_

Project Name: Niagara Wind

Date: Nov 3, 2011

Field Personnel: C. Payette

<b>Weather Conditions:</b>	TEMP (°C): <u>9</u>	WIND: <u>4</u>	CLOUD: <u>100</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
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ELC Polygon: #16-D Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HC=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization

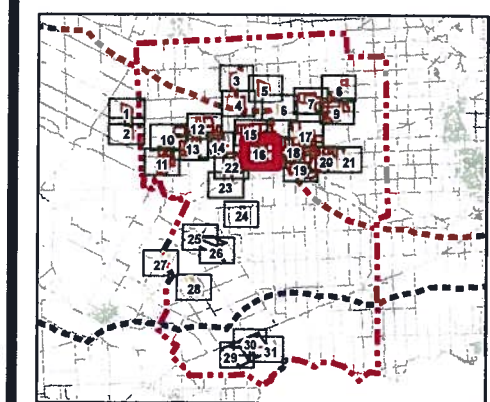


623500 624000 624500 625000 625500



### Legend

- Preliminary Study Area
- Signed Project Sites
- Potential Signed Property
- Road
- Railway
- Municipality Lower Tier
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Turbines on Developable Land and 120m Diameter
- 160m Buffer of Turbine



- ### 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.



**Stantec**

August, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
F-16

Title  
**Field Map 16**





SESS; Tip F-17; Poly A

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara</u>	POLYGON: <u>17-A</u>	
	SURVEYOR(S): <u>NC</u>	DATE: <u>Nov 2, 2011</u>	UTME:
	START:	END:	UTMZ:
			UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
		<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	6-7	4	<u>Eleocharis &gt;&gt; Bidens &gt;&gt; Sparganium</u>

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<10	10 - 24	25 - 50	>50
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STANDING SNAGS:	<10	10 - 24	25 - 50	>50
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DEADFALL/LOGS:	<10	10 - 24	25 - 50	>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
------------	---------	-------	---------	--------	------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Spike rush mineral shallow marsh</u>	CODE: <u>MAS 2-10*</u>
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

- was dried out, but species composition and the appearance of the vegetation (lots of the eleocharis was dead+dried out) indicates it is normally MAS

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
						<u>Eleocharis Sp</u>					<u>A</u>
						<u>bidens</u>					<u>O</u>
						<u>Sparganium</u>					<u>R</u>

Page \_\_\_ of \_\_\_  
 Signature: [Signature] (Field Personnel)  
 Quality Control: This form is complete  & legible   
 Signature: [Signature] (Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 2

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>12</u>	WIND: <u>2</u>	CLOUD: <u>30</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>unknown</u>
---------------------	-------------------------	-------------------	---------------------	---------------------	---

ELC Polygon: #17-A Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>pool throughout</u>	<u>1 - pool</u>	<u>20 x 20 m</u>	<u>? (seasonal)</u>		<u>yes</u>	<u>no</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA = carcass; DP = distinctive parts; FE = feeding evidence; FY = eggs/nest; HO = house/den; OB = observed; SC = scat; SI = other sign; TK = track; VO = vocalization













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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 2, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>12</u>	WIND: <u>2 (breezy)</u>	CLOUD: <u>30</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>?</u>
---------------------	-------------------------	----------------------------	---------------------	---------------------	-----------------------------------

ELC Polygon: # 17-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	
<u>0628507 4764722</u>		<u>ACEFREE</u>	<u>50cm</u>	<u>3+4</u>	<u>none</u>	<u>edge of forest near back of property</u>

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
<u>near stick nest</u>	<u>ditch w H<sub>2</sub>O</u>	<u>2x20m</u>	<u>20cm</u>		<u>yes</u>	<u>young trees</u>	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

leopard frog in/near ditch

CA=cross; DP=distinctive parts; FE=fading evidence; FN=signature; HO=household; OB=observed; SC=scar; SH=shelter sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 2, 2011

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>2</u>	<u>30</u>	<u>none</u>	<u>unknown</u>

ELC Polygon: #17-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
<u>pools throughout</u>	<u>swamp complex</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

Rare smilax - near buttonbush SWT UTM 0628732 patch of about 7 stems  
\* ✓ pics (w/3 or 4) 4764956

CA - carcass; DP - distinctive parts; FE - feeding evidence; FY - eggs/nest; HO - house/den; OB - observed; SC - scat; SI - other sign; TK - track; VO - vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 2, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>2</u>	<u>30</u>	<u>none</u>	<u>unknown</u>

ELC Polygon: #17-3 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>entire polygon</u>	<u>POD</u>	<u>150 x 10 m</u>	<u>unknown</u>		<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA = carcass; DP = distinctive pair; FE = feeding evidence; FY = eggs/nest; HO = house/den; OB = observed; SC = scat; SI = other sign; TR = track; VO = vocalization





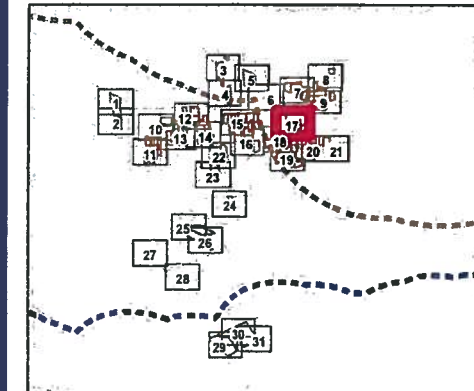






### Legend

	Preliminary Study Area		Turbines on Developable Land and 101m Diameter
	Signed Project Sites		170.5m Buffer of Turbine
	Potential Signed Property		Turbines W/ 120m S/B PSW and 101m Diameter
	Road		170.5m Buffer of Turbine
	Railway		Turbines W/ 120m S/B Woodland and 101m Diameter
	Municipality Lower Tier		170.5m Buffer of Turbine
	Provincially Significant Wetland		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Other/Locally Significant Wetland		170.5m Buffer of Turbine
	To Be Determined		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Open Rock/Shrub Rock Barren		170.5m Buffer of Turbine
	Shoreline		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Bluff		170.5m Buffer of Turbine
	Swamp		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Marsh		170.5m Buffer of Turbine
	Bog		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Wetland		170.5m Buffer of Turbine
	Meadow		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Thicket		170.5m Buffer of Turbine
	Savanna		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Woodland		170.5m Buffer of Turbine
	Forest		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Hedgerow		170.5m Buffer of Turbine
	Treed Agriculture		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Open Water		170.5m Buffer of Turbine



- ### Notes
- Coordinate System: NAD 1983 UTM Zone 17N)
  - Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

September, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-17

Title  
**ELC Field Map 17**







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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: NRWC

Date: Nov 18

Field Personnel: N. Chearltom

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>0</u>	<u>3</u>	<u>60%</u>	<u>none</u>	<u>none</u>

ELC Polygon: # 19-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FF=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization







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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 18, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>0</u>	WIND: <u>3</u>	CLOUD: <u>60%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
---------------------	------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: #19-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings. DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NBWC

Date: Nov 18, 2011

Field Personnel: N Charlton

Weather Conditions:	TEMP (°C): <u>0</u>	WIND: <u>3</u>	CLOUD: <u>60</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: #19-3 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains  large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains  seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SI=other sign; TK=track; VO=vocalization



SE14; T1E E-19; Poly 4

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Niagara</i>	POLYGON: <i>19-4</i>	
	SURVEYOR(S): <i>NC</i>	DATE: <i>Nov 18, 2011</i>	UTME:
	START: <i>11:00</i>	END: <i>12:00</i>	UTMZ:
			UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
		<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.		<b>COVER</b>		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREE		<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> FOREST
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESAJA > QUERUBR > POPGRAN - TSUCA
2 SUB-CANOPY	3	2	ACESAJA > OSTVIRG > FAGGRAN
3 UNDERSTOREY	4	2	ACESAJA
4 GRD. LAYER	5-7	1	ACESAJA > SYMLANK < GEUM - RRUCCA

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:				BA:
SIZE CLASS ANALYSIS:	0 <10	A 10-24	A 25-50	R >50
STANDING SNAGS:	0 <10	R 10-24	R 25-50	M >50
DEADFALL/LOGS:	0 <10	O 10-24	R 25-50	M >50
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT			
COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE
				OLD GROWTH

SOIL ANALYSIS: *sandy*

TEXTURE:	DEPTH TO MOTTLES/GLEY	g= <i>2g</i>	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
<i>Dry-Fresh singa maple deciduous exsite</i>	<i>FOD5</i>
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

- confining slope community  
- pretty mixed species-wise

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAX SP	0					SYMLANK					
ULMAMER	R	R-O				GEUM					
PRUSERO	0										
ACE RUBR	OR										
POPGRAN	R-O										
QUERUBR	A										
CARCARO	R	R									
CAROVAT	R										
ACESAJA	A										
OSTVIRG		0	0								
FAGGRAN	R	R									
TSUCANA	0										
TILAMER	R										
VIBRAFI											
RRUCCA											

Page \_\_\_ of \_\_\_

Signature: *Nick Chen*

(Field Personnel)

Quality Control: This form is complete  & legible

Signature: *and*

(Project Manager)



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 18

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>0</u>	WIND: <u>3</u>	CLOUD: <u>60</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: #19-4 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization







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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: NPWC

Date: Nov 18, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>0</u>	<u>3</u>	<u>60</u>	<u>none</u>	<u>none</u>

ELC Polygon: # 19-5 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SJ=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 18, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>0</u>	<u>3</u>	<u>60</u>	<u>none</u>	<u>none</u>

ELC Polygon: #19-b Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HU=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 3, 2011

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>100</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: # 19-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth <sup>cm</sup>	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>swamp portion</u>	<u>pool</u> / <u>5-several</u>	<u>largest: 50x50</u>	<u>at least 50-60</u>		<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization











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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: NOV 3, 2011

Field Personnel: N-Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	1	100	none	none

ELC Polygon: # 19-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (*indicate on map*)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
entire community	Pools	~20 x 75 m	30 cm		yes	yes	

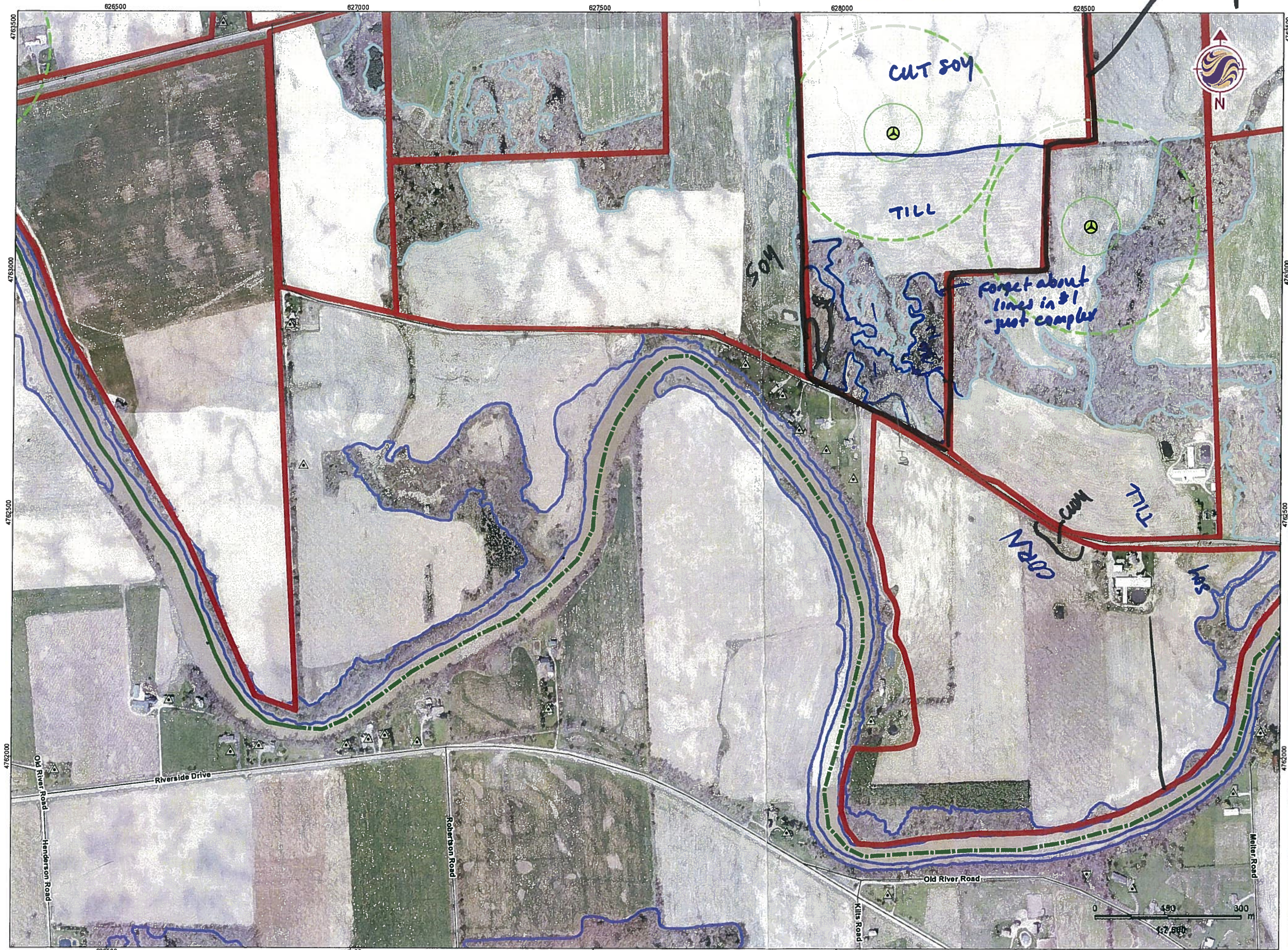
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation, & indicate on map)**  
 - Unknown fern (see map) → keyed to *Botrychium dissectum*  
 - lots of scat (probably raccoon - omnivore)

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization



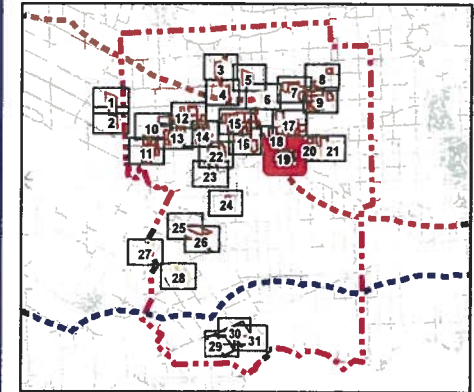
#1 - SWD/FOU #2 SWM2-2 #2: SWM2-2

survey area



### Legend

- Preliminary Study Area
- Signed Project Sites
- Potential Signed Property
- Road
- Railway
- Municipality Lower Tier
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Turbines on Developable Land and 120m Diameter
- 160m Buffer of Turbine



- ### 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.

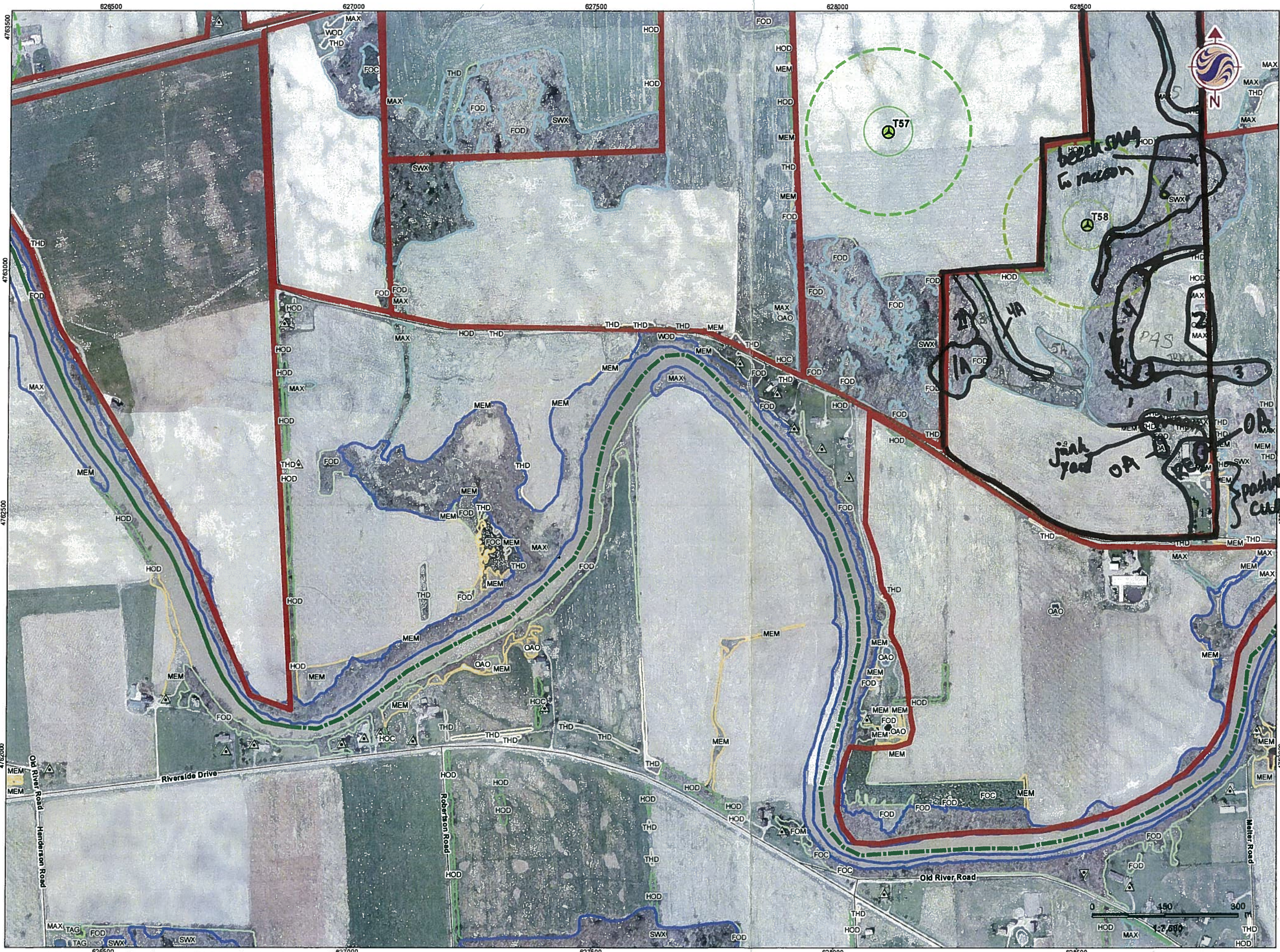
August 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
F-19

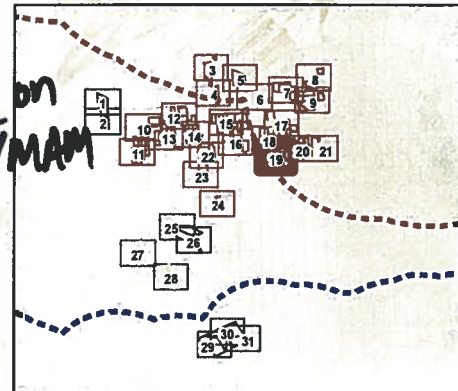
Title  
**Field Map 19**





**Legend**

- Preliminary Study Area
- Signed Project Sites
- Potential Signed Property
- Road
- Railway
- Municipality Lower Tier
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- To Be Determined
- Open Rock/Shrub Rock Barren
- Shoreline
- Bluff
- Swamp
- Marsh
- Bog
- Wetland
- Meadow
- Thicket
- Savanna
- Woodland
- Forest
- Hedgerow
- Tread Agriculture
- Open Water
- Turbines on Developable Land and 101m Diameter
- 170.5m Buffer of Turbine
- Turbines W/ 120m S/B PSW and 101m Diameter
- 170.5m Buffer of Turbine
- Turbines W/ 120m S/B Woodland and 101m Diameter
- 170.5m Buffer of Turbine
- Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
- 170.5m Buffer of Turbine



**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.

*Maintain new down escarpment Both sides of road poles + trees + road*



September, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-19

Title  
**ELC Field Map 19**

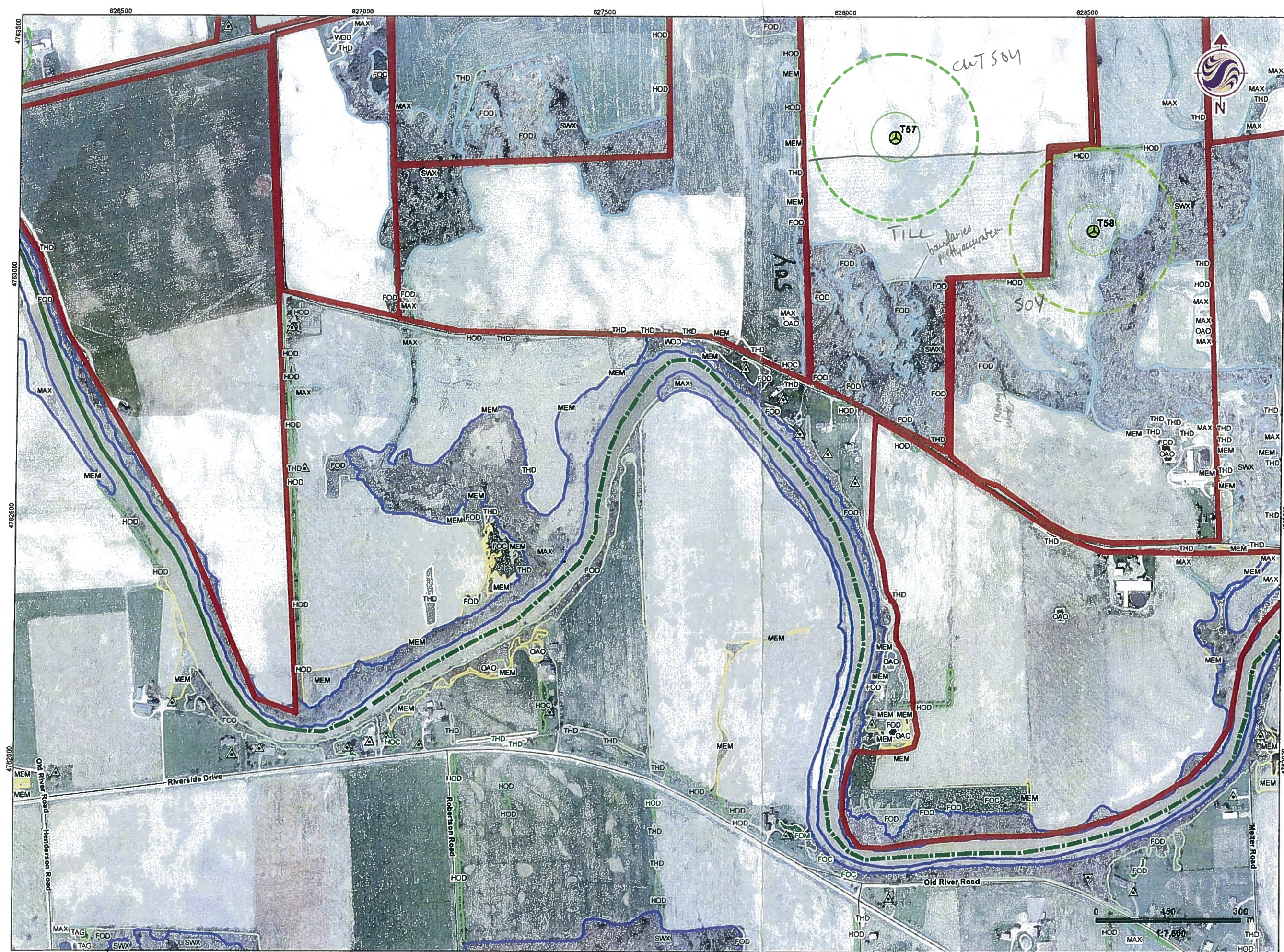






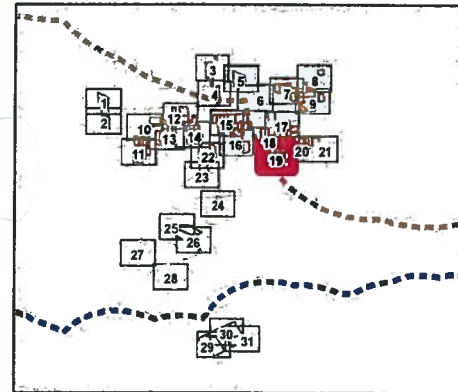
picture of unknown terms  
in SWM

0628202  
4762876



### Legend

	Preliminary Study Area		Turbines on Developable Land and 101m Diameter
	Signed Project Sites		170.5m Buffer of Turbine
	Potential Signed Property		Turbines W/ 120m S/B PSW and 101m Diameter
	Road		170.5m Buffer of Turbine
	Railway		Turbines W/ 120m S/B Woodland and 101m Diameter
	Municipality Lower Tier		170.5m Buffer of Turbine
	Provincially Significant Wetland		Turbines W/ 120m S/B Wood/Wetland and 101m Diameter
	Other/Locally Significant Wetland		170.5m Buffer of Turbine
	To Be Determined		170.5m Buffer of Turbine
	Open Rock/Shrub Rock Barren		170.5m Buffer of Turbine
	Shoreline		170.5m Buffer of Turbine
	Bluff		170.5m Buffer of Turbine
	Swamp		170.5m Buffer of Turbine
	Marsh		170.5m Buffer of Turbine
	Bog		170.5m Buffer of Turbine
	Wetland		170.5m Buffer of Turbine
	Meadow		170.5m Buffer of Turbine
	Thicket		170.5m Buffer of Turbine
	Savanna		170.5m Buffer of Turbine
	Woodland		170.5m Buffer of Turbine
	Forest		170.5m Buffer of Turbine
	Hedgerow		170.5m Buffer of Turbine
	Treed Agriculture		170.5m Buffer of Turbine
	Open Water		170.5m Buffer of Turbine



- ### Notes
- Coordinate System: NAD 1983 UTM Zone 17N.
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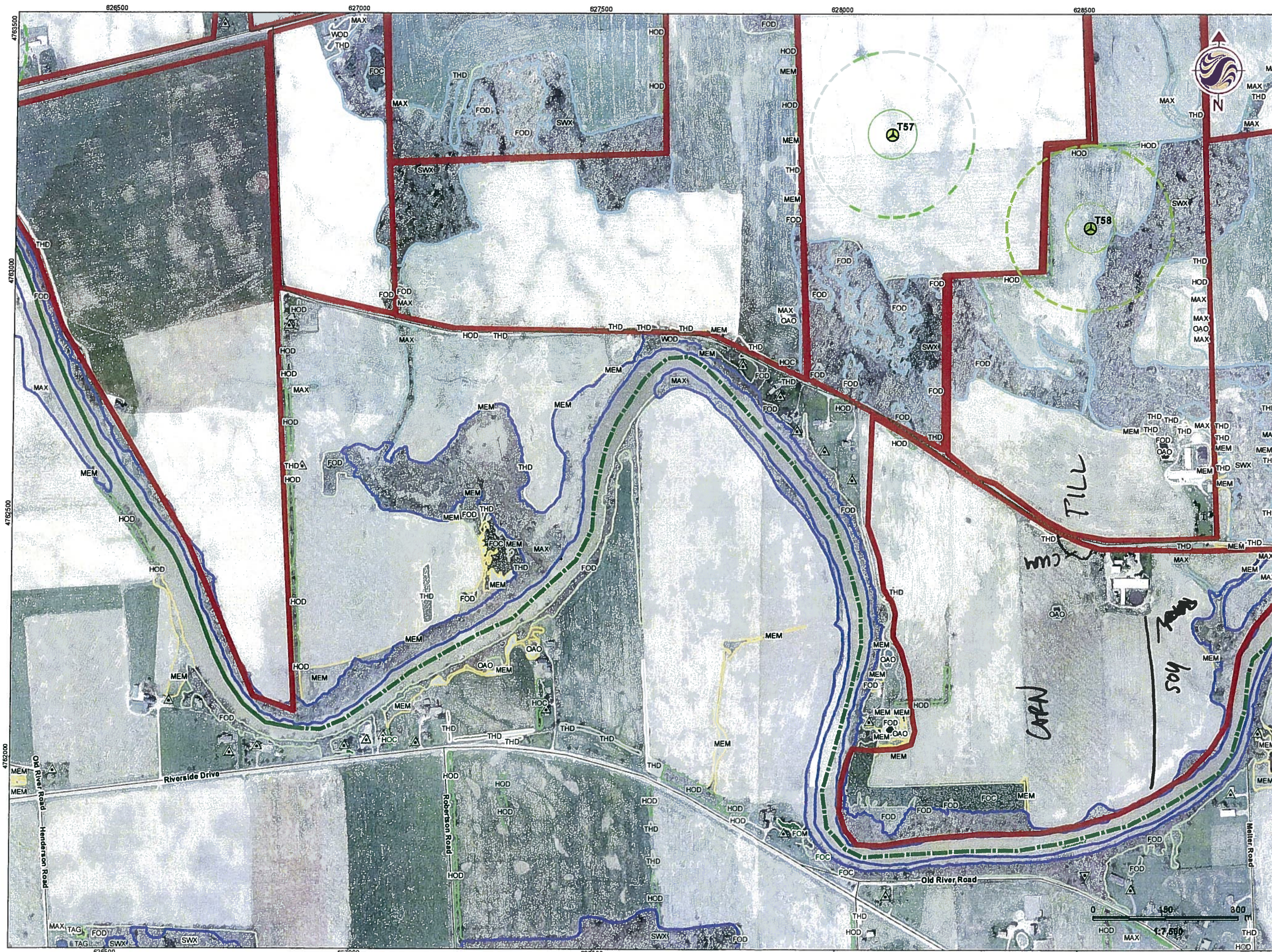
September, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-19

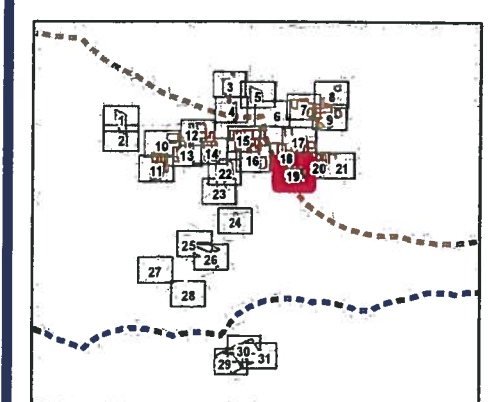
Title  
**ELC Field Map 19**





### Legend

	Preliminary Study Area		Turbines on Developable Land and 101m Diameter
	Signed Project Sites		170.5m Buffer of Turbine
	Potential Signed Property		Turbines W/ 120m S/B PSW and 101m Diameter
	Road		170.5m Buffer of Turbine
	Railway		Turbines W/ 120m S/B Woodland and 101m Diameter
	Municipality Lower Tier		170.5m Buffer of Turbine
	Provincially Significant Wetland		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Other/Locally Significant Wetland		170.5m Buffer of Turbine
	To Be Determined		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Open Rock/Shrub Rock Barren		170.5m Buffer of Turbine
	Shoreline		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Bluff		170.5m Buffer of Turbine
	Swamp		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Marsh		170.5m Buffer of Turbine
	Bog		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Wetland		170.5m Buffer of Turbine
	Meadow		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Thicket		170.5m Buffer of Turbine
	Savanna		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Woodland		170.5m Buffer of Turbine
	Forest		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Hedgerow		170.5m Buffer of Turbine
	Treed Agriculture		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Open Water		170.5m Buffer of Turbine



- ### Notes
- Coordinate System: NAD 1983 UTM Zone (17N)
  - Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.



**Stantec**

September, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

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Figure No.  
E-19

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Title  
**ELC Field Map 19**







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 21, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	12	2	20	none	none

ELC Polygon: #15/19-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FB=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; S1=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 21, 2011

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>12</u>	<u>2</u>	<u>20</u>	<u>none</u>	<u>none</u>

ELC Polygon: # 15/19-2 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>Swamp complex</u>					<u>yes</u>	<u>yes</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**  
 - frog was buried in soil (could not see enough to ID)  
 - downy woodpecker

CA = carcass; DP = distinctive parts; FE = feeding evidence; FY = eggs/nest; HO = house/den; OB = observed; SC = scat; SI = other sign; TK = track; VO = vocalization



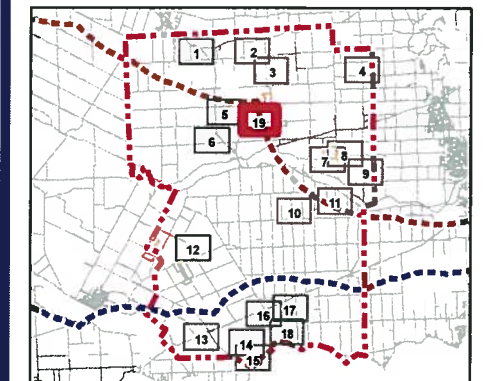
NOV 21



**Legend**

- Preliminary Study Area
- Road
- Railway
- Municipality Lower Tier
- Provincially Significant Wetland
- Other/Locally Significant Wetland

1: SWT2-4  
2: FOD6-5/SWD3-3



- 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.

November, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-19

Title  
ELC Field Map 19









**Stantec Consulting Ltd.**  
 1 – 70 Southgate Drive  
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 Canada N1G 4P5  
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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 3, 2011

Project Name: NRWC  
 Field Personnel: N. Charbon

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	2	100	none	none

ELC Polygon: #22-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:**  Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves.]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature
<u>622249 4763269</u>	<u>piece of old bridge foundation</u>		<u>NONE</u>

**Bat Roosting Features:**  Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:**  Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:**  Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>entire feature</u>	<u>pooled water</u>		<u>&gt;60 cm</u>		<u>reed canopy</u>	<u>few/no logs</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

leopard frog  
noisy birds in hedgerow (starlings?)

11:20

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWL

Date: Nov 3, 2011

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	2	100	none	none

ELC Polygon: # 22-A Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA = carcass; DP = distinctive parts; FE = feeding evidence; FY = eggs/nest; HO = house/den; OB = observed; SC = scat; SI = other sign; TK = track; VO = vocalization

SE21; Plot: Tile 22; Poly 2

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara</u>	POLYGON: <u>22-2</u>	
	SURVEYOR(S): <u>NC</u>	DATE: <u>Nov 3, 2011</u>	UTME:
	START: <u>11:30</u>	END: <u>12:00</u>	UTMZ:
			UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
		<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENN >> ULMAMER = QUERCUS > CAROVAT
2 SUB-CANOPY	3	2	ULMAMER > FRAPENN
3 UNDERSTOREY	4	2	ACEFREE > FRAPENN
4 GRD. LAYER	5-7	4	PHAARUN > SYMLANC

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0	<10	A	10-24	0	25-50	R	>50
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STANDING SNAGS:	R	<10	0	10-24	OR	25-50	N	>50
-----------------	---	-----	---	-------	----	-------	---	-----

DEADFALL/LOGS:	0	<10	0	10-24	R	25-50	N	>50
----------------	---	-----	---	-------	---	-------	---	-----

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:  
TEXTURE: DEPTH TO MOTTLES/GLEY g= G=  
MOISTURE: DEPTH OF ORGANICS: (cm)  
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:  
COMMUNITY CLASS: CODE:  
COMMUNITY SERIES: CODE:  
ECOSITE: CODE:  
VEGETATION TYPE: CODE: SWD 2-2  
INCLUSION CODE:  
COMPLEX CODE:

Evidence of Disturbance / Notes: - water 70% of area ~ 0.5-2 ft deep  
- associated with creek

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAPENN	A	O	O	N		PHAARUN					A
ULMAMER	O	O	R	O		SYMLANC					O
ACEFREE	R	R	R	N							
CAROVAT	R-O	R	N	N							
QUERCUS SPP	O	O	R	N							

Page \_\_\_ of \_\_\_  
Signature: Nina Christ (Field Personnel)  
Quality Control: This form is complete & legible   
Signature: [Signature] (Project Manager)





**Stantec Consulting Ltd.**  
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 Guelph, ON  
 Canada N1G 4P5  
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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 3, 2011

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>10</u>	WIND: <u>2</u>	CLOUD: <u>100</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
---------------------	-------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: #22-2 Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
 -Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
 -Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
 -Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
 -Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 -Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>entire polygon</u>	<u>pooled water</u>		<u>at least 60cm</u>		<u>yes (reed canary)</u>	<u>few</u>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**  
noisy birds in hedgerow (starlings?)

CA - carcass; DP - distinctive parts; FE - feeding evidence; FY - eggs/nest; HO - house/den; OB - observed; SC - scat; SI - other sign; TK - track; VO - vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 3, 2011

Project Name: NRWC  
 Field Personnel: \_\_\_\_\_

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	2	100	none	none

ELC Polygon: #22-3 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains/large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains/seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

00  
2

CA - carcass; DP - distinctive pair; FE - feeding evidence; FY - eggs/nest; HO - house/den; OB - observed; SC - scent; SI - other sign; TK - track; VO - vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Nov 3, 2011

Field Personnel: N. Char Hon

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	2	100	none	none

ELC Polygon: #22-4 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)  
*but could not access southern side due to deep water*

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<i>entire polygon</i>	<i>Pools/surface H<sub>2</sub>O</i>		<i>760 cm</i>		<i>yes</i>	<i>yes</i>

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- woodpeckers (look like either downy or hairy) in swamp margin at western property boundary (w)
- other interesting birds here too - unknown sp.
- Chickadees, nuthatch (?)
- lots of scat (mammal) throughout on deadfall
- greenfrog

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Nov 3, 2011

Project Name: NRWC  
 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	2	100	none	none

ELC Polygon: #22-5 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains/potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains/potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

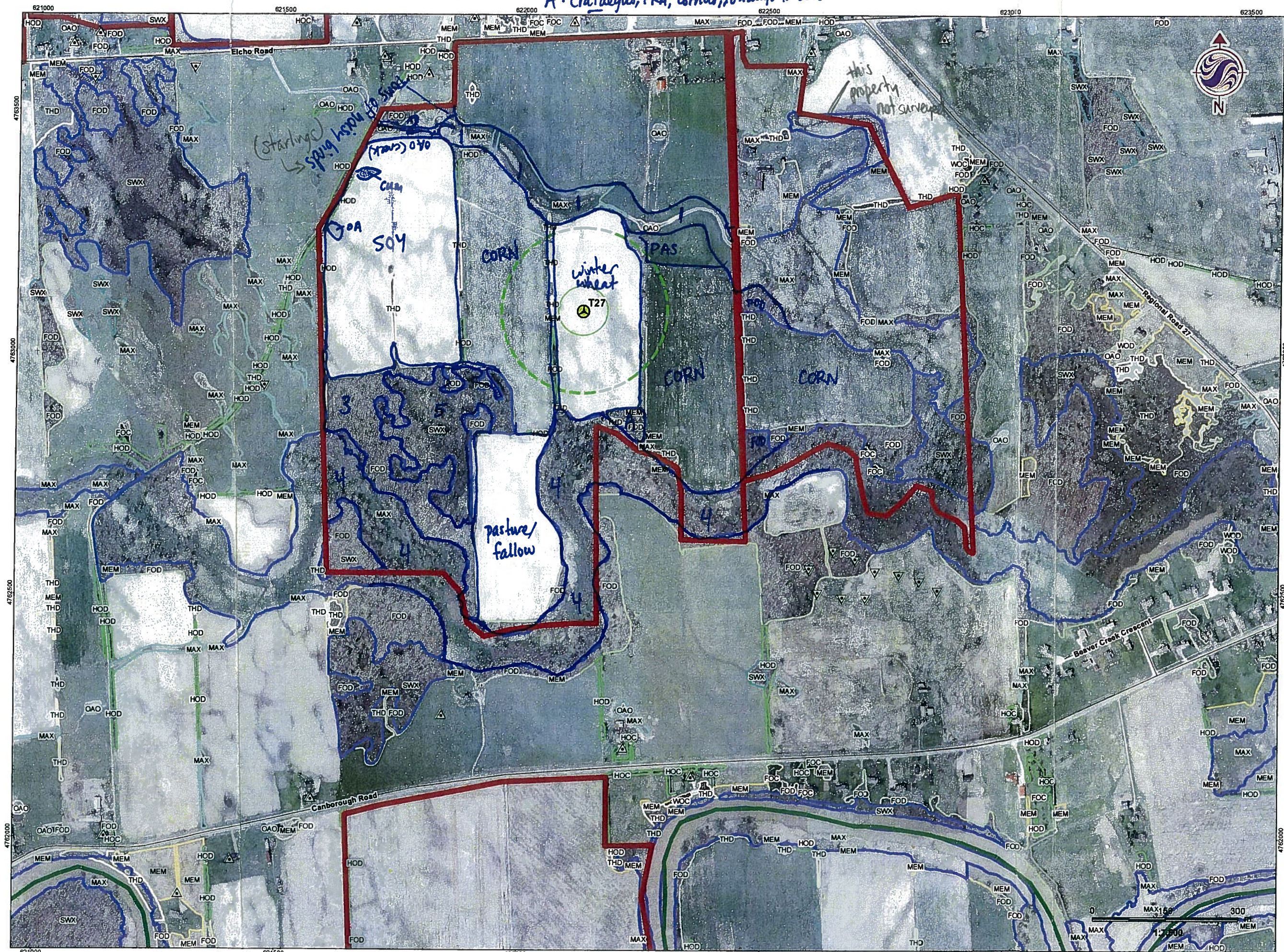
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	
entire community	pools	largest: 100x15 m	~60 cm		yes	yes	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SI=other sign; TK=track; VO=vocalization

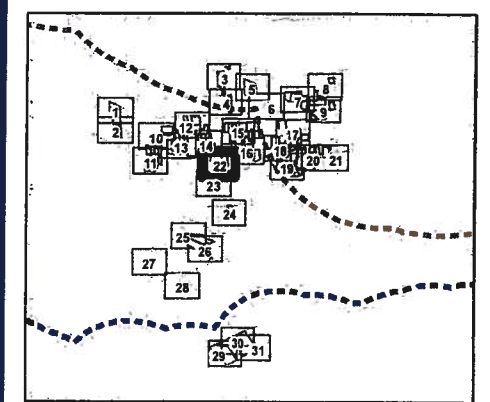


A: *Crotogeus, FRA, cornus, solidago thicket*



### Legend

	Preliminary Study Area		Turbines on Developable Land and 101m Diameter
	Signed Project Sites		170.5m Buffer of Turbine
	Potential Signed Property		Turbines W/ 120m S/B PSW and 101m Diameter
	Road		170.5m Buffer of Turbine
	Railway		Turbines W/ 120m S/B Woodland and 101m Diameter
	Municipality Lower Tier		170.5m Buffer of Turbine
	Provincially Significant Wetland		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Other/Locally Significant Wetland		170.5m Buffer of Turbine
	To Be Determined		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Open Rock/Shrub Rock Barren		170.5m Buffer of Turbine
	Shoreline		Turbines W/ 120m S/B Wood/ Wetland and 101m Diameter
	Bluff		170.5m Buffer of Turbine
	Swamp		
	Marsh		
	Bog		
	Wetland		
	Meadow		
	Thicket		
	Savanna		
	Woodland		
	Forest		
	Hedgerow		
	Treed Agriculture		
	Open Water		



- ### Notes
- Coordinate System: NAD 1983 UTM Zone 17N).
  - Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

September, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
E-22

Title  
**ELC Field Map 22**







0111  
WITU (~12)

COGR  
RAVU

MAWD  
SE47; Tile 24; Poly 24-1

Photos # 799 + 800

**ELC** SITE: Niagara Wind Tile 24 POLYGON: 24-1  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): CKX DATE: 6 Oct 2011 UTME:  
 START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input checked="" type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
		<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> HILL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			C. Cattail >> Can Goldenrod > NE Aster
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
----------------------	-----	-------	-------	-----

STANDING SNAGS:	<10	10-24	25-50	>50
-----------------	-----	-------	-------	-----

DEADFALL/LOGS:	<10	10-24	25-50	>50
----------------	-----	-------	-------	-----

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
------------	---------	-------	---------	--------	------------

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES/GLEY g= G=  
 MOISTURE: DEPTH OF ORGANICS: (cm)  
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:  
 COMMUNITY SERIES: CODE:  
 ECOSITE: CODE:  
 VEGETATION TYPE: CODE:  
 INCLUSION CODE:  
 COMPLEX CODE:

Evidence of Disturbance / Notes: SWM Pond = OAD surrounded by berm w/ mainly NL Cattail

**ELC** SITE: Niagara Wind  
 COMMUNITY DESCRIPTION & CLASSIFICATION POLYGON: 24-1  
 DATE: 6 Oct 2011 SURVEYOR(S): C. Catk.

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL	SPECIES CODE	LAYER				COLL
	1	2	3	4			1	2	3	4	
Cattail		R			Planted	Common					
						NE Aster					D
						ALCO Aster					R
						Chicory					O
						Tall Goldenrod					O
						Bird's foot Trefoil					O
						Can Goldenrod					O

Page \_\_\_ of \_\_\_

Signature:

*[Signature]*  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature:

*[Signature]*  
(Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: 6 Oct 201

Project Name: Niagara Wind  
 Field Personnel: Culick

Weather Conditions:	TEMP (°C): <u>20°C</u>	WIND: <u>1-2</u>	CLOUD: <u>n/a</u>	PPT: <u>n/a</u>	PPT (in last 24 hrs): <u>n/a</u>
---------------------	---------------------------	---------------------	----------------------	--------------------	-------------------------------------

ELC Polygon: # 21 Assessment Type:  Visual; roadside, no access  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map) in study boundaries only

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

AMRO SOSP → potential frog breeding within swamp.  
 AMCR  
 BLJA  
 TUVU  
 WITM  
 GBHE

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seal; SF=other sign; TK=track; VO=vocalization

#100950269.

SE47; Poly Tile 24; Poly 24-2

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara Wind Tile 24</u>	POLYGON: <u>24-2</u>	
	SURVEYOR(S): <u>Carla K</u>	DATE: <u>6 Oct 201</u>	UTME:
	START:	END:	UTMZ:
	UTMN:		

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara Wind</u>	POLYGON: <u>24-2</u>	
	SURVEYOR(S): <u>Carla K</u>	DATE: <u>6 Oct 201</u>	UTME:
	START:	END:	UTMZ:
	UTMN:		

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input checked="" type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input checked="" type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SURFICIAL DEP. BEDROCK		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1		Red Maple > Silv Maple = Red Oak > Am Beech = Bl Birch
2 SUB-CANOPY	2		Red Maple = Silv Maple > Red Oak
3 UNDERSTOREY	3-4		Gr Downward
4 GRD. LAYER	5-7		

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A <10	A 10-24	R 25-50	D >50
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STANDING SNAGS:	O <10	O 10-24	R 25-50	R >50
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DEADFALL/LOGS:	A <10	O 10-24	O 25-50	R >50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE:	PIONEER	YOUNG	<input checked="" type="checkbox"/> MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE: S&F SCL DEPTH TO MOTTLES/GLEY: 20cm B= 20cm G= 20cm  
 MOISTURE: 5-10 DEPTH OF ORGANIC: 4cm (cm)  
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: > 120cm (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODES/UD 3-1
INCLUSION:	CODE:
COMPLEX:	CODE: SAF13/MAS2-9

Evidence of Disturbance / Notes: water @ 240 cm in soil sample in adjacent SWD (across neighbouring fence)

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL	SPECIES CODE	LAYER				COLL
	1	2	3	4			1	2	3	4	
Red Downward				R		Sw. Fern				O	
Silv Maple				R		Sw. Beronides				O	
Am Beech				R		Bogarticks				O	
Red Oak				R		Royal Fern				O	
Wh Oak	R	R				Wd Spin Fern				O	
Blue Beech				R							
Free Maple	R	R									
Silv Maple	R	R									
Red Maple	A	R									
Wh Birch	R	R									
E. Cottonwood	R	R									
Prem. Ash	R	R									
Black Ash	R	R	O								
<p>MAS2-9 + SAF13                      Sub mineral shallow marsh                      associated with downward                      floating-leaved shallow                      aquatic type.</p> <p>↓                      These found throughout and                      delineated on aerial.                      Community is complexed</p>											

Page \_\_\_ of \_\_\_

Signature: 

(Field Personnel)

Quality Control: This form is complete  & legible

Signature: 

(Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 100950269

Project Name: Niagara Wld

Date: 6 Oct 2011

Field Personnel: Paul K.

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20°C</u>	<u>1</u>	<u>☉</u>	<u>☉</u>	<u>☉</u>

ELC Polygon: # \_\_\_\_\_ Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map) w/in study boundaries

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

Deciduous swamp complicated with small ponds associated with very small shallow marshes. The latter usually containing primarily swamp beggartick, along with sparse numbers of sedges/rushes, and various other species (i.e. sensitive fern). Adjacent tree cover usually offering some canopy along pond edges, as these are not very wide. Vernal pooling throughout site highly likely in spring.

CA = carcass; DP = distinctive parts; FE = feeding evidence; FY = eggs/nest; HO = house/den; OB = observed; SC = scat; ST = other sign; TK = track; VO = vocalization  
 AMER TUHU Chorus Frogs (occasional)  
 BLJA Gr. Squirrel  
 SOSP HAWO Chipmunk  
 Ag fields have wet pockets which are highly disturbed. These look plowed but can vegetate w/ wetland species if left undisturbed.  
 Disturbed area around house and







SE18; F-26; No Polygon

**ELC** SITE: SE18 POLYGON: 1

COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NKC DATE: July 27 TIME: \_\_\_\_\_

START: 3:30 END: \_\_\_\_\_ UTMZ: \_\_\_\_\_ UTMN: \_\_\_\_\_

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND
WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE	<input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID	<input type="checkbox"/> RIVER <input type="checkbox"/> STREAM
AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> MARCH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<b>COVER</b> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION	
OPEN WATER SHALLOW WATER SURFICIAL DEP. BEDROCK	<input type="checkbox"/>				

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY			
SUB-CANOPY			
UNDERSTOREY			
GRD. LAYER			

\* CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 R CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

**TAND COMPOSITION:** BA: \_\_\_\_\_

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
STANDING SNAGS:	<10	10-24	25-50	>50
FALL LOGS:	<10	10-24	25-50	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

MIN. AGE:  PIONEER  YOUNG  MID-AGE  MATURE  OLD GROWTH

**XL ANALYSIS:**

TEXTURE: Sandy clay DEPTH TO MOTTLES/GLEY: 10 cm for both

TEXTURE: DEPTH OF ORGANICS: \_\_\_\_\_ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: \_\_\_\_\_ (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: \_\_\_\_\_ CODE: \_\_\_\_\_

COMMUNITY SERIES: \_\_\_\_\_ CODE: \_\_\_\_\_

OSITE: \_\_\_\_\_ CODE: \_\_\_\_\_

VEGETATION TYPE: Disturbed CODE: N/A

INCLUSION: \_\_\_\_\_ CODE: \_\_\_\_\_

COMPLEX: \_\_\_\_\_ CODE: \_\_\_\_\_

Incidence of Disturbance / Notes:

- Area recently cleared  
 - was a wetland pocket, now a disturbed area

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_

COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAX						ARTEMISA					O
PROPR T						SOLIDAGO					A
						SYMLANC					R
						PARINIE					A
						CRABGRASS					O
						ATRAPATU					O
						AMARETRO					O
						URTICER					O
						MUSTARD					
						ALPETI					R
						VITRIPA					R
						PHRAUST					R
						VERHAST					R

Page \_\_\_\_ of \_\_\_\_  
 Signature: [Signature]  
 (Field Personnel)

Quality Control: This form is complete  & legible .  
 Signature: [Signature]  
 (Project Manager)



Stantec Consulting Ltd.  
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Guelph, ON  
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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: July 27

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>25</u>	WIND: <u>3</u>	CLOUD: <u>80</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: # 1 Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
[i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities - 10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization



SE 18; Tile F-20; Poly 26-1a

**ELC** SITE: Niagara wood 10095026 POLYGON: 26-1a  
 SURVEYOR(S): OK DATE: 13 Oct 2011  
 COMMUNITY DESCRIPTION & CLASSIFICATION START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input checked="" type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1		S. maple > Rd oak > Am Bass > Gttn > Am Elm
2 SUB-CANOPY	2		S. maple > Rd oak = Am Bass
3 UNDERSTOREY	3-4		S. maple > Rd oak
4 GRD. LAYER	5-7		

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A <10	0 10-24	0 25-50	0 >50
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STANDING SNAGS:	R <10	R 10-24	R 25-50	R >50
-----------------	-------	---------	---------	-------

DEADFALL/LOGS:	0 <10	0 10-24	R 25-50	R >50
----------------	-------	---------	---------	-------

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE:	<input type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input checked="" type="checkbox"/> MID-AGE	<input checked="" type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
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SOIL ANALYSIS:

TEXTURE: FSL DEPTH TO MOTTLES/GLEY: g= G=  
 MOISTURE: 2 DEPTH OF ORGANICS: (cm)  
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:  
 COMMUNITY SERIES: CODE:  
 ECOSITE: CODE:  
 VEGETATION TYPE: CODE: FOD 5-3  
 Dry-fresh sugar maple-oak deciduous forest  
 INCLUSION CODE:  
 COMPLEX CODE:

Evidence of Disturbance / Notes: Vernal pool x 2 -> obvious deep depressions

**ELC** SITE: Niagara wood tile 26 POLYGON: 26-1a  
 SURVEYOR(S): [Signature] DATE: 13 Oct 2011  
 COMMUNITY DESCRIPTION & CLASSIFICATION

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
Am Basswood	0	0	R									
Rd Oak	A	A	0									
Sugar maple	D	D	0									
E. Cottonwood	R	R	R									
Am Elm	R	R	R									
Brit. Hick.			R									
Pi. Birch	R	0	0									

Page \_\_\_ of \_\_\_  
 Signature: [Signature]  
 (Field Personnel)

Quality Control: This form is complete  & legible   
 Signature: [Signature]  
 (Project Manager)



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: Niagara Wild

Date: 13 Oct 2011

Field Personnel: Oulack

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10°C</u>	<u>1</u>	<u>90%</u>	<u>na</u>	<u>trace</u>

ELC Polygon: # 26-1a Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

Potential vernal pools sparsely scattered throughout  
AMRO  
2d squirrel  
Chorus frog  
Sp Peeper  
 - Backs onto SWD  
 - Not really bordered on north by MAM - this is highly disturbed edge due to ag.

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SF=other sign; TK=track; VO=vocalization



SE18; Tile F-26; Poly 26-2a

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara Wind</u>	POLYGON: <u>26-2a</u>
	SURVEYOR(S):	DATE: <u>13 Oct 2011</u>
	START:	UTME:
	END:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
		<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1		Sugar Maple = Red Maple > Red Oak > Wh Birch > Red Elm
2 SUB-CANOPY	3		Sugar Maple > Red Maple > Shag Hick > Red Oak > Shag
3 UNDERSTOREY	3-4		Bl Birch > Am Elm
4 GRD. LAYER	5-7		Su Maple = Red Maple = Shag Hick

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 

A	<10	A	10-24	0	25-50	R	>50
---	-----	---	-------	---	-------	---	-----

STANDING SNAGS: 

0	<10	0	10-24	R	25-50	R	>50
---	-----	---	-------	---	-------	---	-----

DEADFALL/LOGS: 

0	<10	0	10-24	R	25-50	R	>50
---	-----	---	-------	---	-------	---	-----

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: 

	PIONEER	<input checked="" type="checkbox"/> YOUNG	<input checked="" type="checkbox"/> MID-AGE	MATURE	OLD GROWTH
--	---------	---	---	--------	------------

SOIL ANALYSIS:

TEXTURE: fscl DEPTH TO MOTTLES/GLEY: g= G=  
MOISTURE: 3 DEPTH OF ORGANICS: (cm)  
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:  
COMMUNITY SERIES: CODE:  
ECOSITE: CODE:  
VEGETATION TYPE: CODE: FOD 5-9  
D-F Sugar Maple Red Maple Decid Forst  
INCLUSION CODE:  
COMPLEX CODE:

Evidence of Disturbance / Notes:

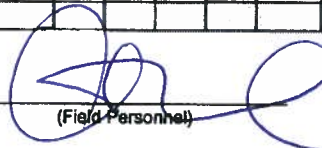
ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara Wind Tile 26</u>	POLYGON: <u>26-2a</u>
	SURVEYOR(S):	DATE: <u>13 Oct 2011</u>
	START:	UTME:
	END:	UTMN:

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
Ash	R	R	R									
Blue Birch												
Shag Hickory	0	0										
Sugar Maple	0	0		0								
Red Maple	0	0		0								
Red Oak	0	0		0								
Red Elm	R	R										
Bl Birch	0	0										
Wh. Birch	0	0	R									
Am Elm	0	0	0									
Am Elm		R	R	R								

Page \_\_\_ of \_\_\_

Signature:

  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature:

  
(Project Manager)



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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
Date: 13 Oct 2011

Project Name: Niagara Wild  
Field Personnel: K. P. Jackson

Weather Conditions:	TEMP (°C): <u>20°C</u>	WIND: <u>1</u>	CLOUD: <u>90</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>2cm</u>
---------------------	---------------------------	-------------------	---------------------	---------------------	-------------------------------------

ELC Polygon: #26-2a Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization







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## Windfarm Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 13, 2011

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C): <u>18°C</u>	WIND: <u>0-1</u>	CLOUD: <u>100%</u>	PPT: <u>☉</u>	PPT (in last 24 hrs): <u>Rain</u>
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ELC Polygon: #26-4 Visual Assessment: -Roadside, no access      Physical Assessment: -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature
<u>17T 0621009 4756557</u>	<u>open wood piles, boards</u>	<u>1163</u>	

Bat Hibernacula Features: Contains potential bat hibernacula features?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

[i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in tree)]

**POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Photo No.	Height/Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES OBSERVATIONS (list species and type of observation & indicate on map)**

<u>CHORUS FROG (AUD)</u>
<u>MONARCH</u>
<u>RACCOON (TRACKS)</u>

CA=carcass; DI=distant tree mist; FE=feeding evidence; FY=egg/young; HO=hibernaculum; OB=observed; SC=scented member sign; TK=track; VO=vocalization

Pg. \_\_\_ of \_\_\_

Quality Control: This form is complete  & legible .

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

(Field Personnel)

(Project Manager)







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## Windfarm Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 13, 2011

Field Personnel: N. Leung

Weather Conditions:	TEMP (°C): <u>17°</u>	WIND: <u>0-1</u>	CLOUD: <u>100%</u>	PPT: <u>0</u>	PPT (in last 24 hrs): <u>Rain</u>
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ELC Polygon: # 26-S Visual Assessment: -Roadside, no access

Physical Assessment: -Walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

[i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in tree)]

**POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Photo No.	Height/Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?

-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES OBSERVATIONS (list species and type of observation & indicate on map)**


C=Aircraft; D=disturbance; E=feeding evidence; FY=egg/young; H=habitat; OB=observed; S=seen; M=other; U=unknown; V=vernalization

Pg. \_\_\_ of \_\_\_

Quality Control: This form is complete  & legible .

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

(Field Personnel)

(Project Manager)



SE18; Tile F-26; Poly 26-6

**ELC** SITE: Niagara Wind POLYGON: 26-6  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NAC DATE: Oct 13, 2011 UTME:  
 START: 2:30 END: 3:46 UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input checked="" type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input checked="" type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input checked="" type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**AND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY			ACESASA > FRAMMER > QUERUBRS AM BASSWOOD
SUB-CANOPY			ACESASA > AM BASSWOOD = FRAMMER = QUERUBRS
UNDERSTOREY			SPICE BUSH > ACESASA > FRAMMER
GRD. LAYER			SPICE BUSH > Enc. Nightshade > Sol Seal = Sens Fern

CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 R CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**AND COMPOSITION:** BA:

CLASS ANALYSIS:	<u>R</u> <10	<u>A</u> 10-24	<u>A</u> 25-50	<u>O</u> >50
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STANDING SNAGS:	<u>O</u> <10	<u>O</u> 10-24	<u>R</u> 25-50	<u>R</u> >50
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AD FALL/LOGS:	<u>A</u> <10	<u>O</u> 10-24	<u>O</u> 25-50	<u>R</u> >50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT  
 MM. AGE:    PIONEER    YOUNG    MID-AGE X MATURE    OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE: <u>Sandy Clay</u>	DEPTH TO MOTTLES/GLEY	g= > 40cm	G= > 40cm
MOISTURE: <u>2</u>	DEPTH OF ORGANICS:	<u>0</u>	(cm)
MOGNEOUS/VARIABLE	DEPTH TO BEDROCK:	<u>&gt;120</u>	(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:  
 COMMUNITY SERIES: CODE:

OSITE: CODE:  
 VEGETATION TYPE: CODE: FDD5-8

INCLUSION CODE:  
 COMPLEX CODE:

Prevalence of Disturbance / Notes:

Pics # 1167-1168, 1171, 1172  
 -understorey changed through  
 a 2000-2005 fire

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 COMMUNITY DESCRIPTION & CLASSIFICATION DATE: \_\_\_\_\_ SURVEYOR(S): \_\_\_\_\_

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
HICKORY	R					SOL SEAL					O
AM BASSWOOD	O	O	R			SENS FERN					O
ACESASA	A	A	O			L-Leaved Aster					R
COTONWOOD	R	R				Ost Fern					R
FRAMMER	A	O	O			Enc. Nightshade					O
QUERUBR	O	O	R	R		Current sp					O
L TOOTH ASPEN	R					N-leaved Goldenrod					R-O
SLIP ELM	R	R	R			Crosses					O
ACESACC	R					Current sp					O
ULMAMEE		R	R								

Page \_\_\_ of \_\_\_  
 Signature: T. Wake (Field Personnel)  
 Quality Control: This form is complete  & legible   
 Signature: [Signature] (Project Manager)

py. with sugar maple remaining the dominant specie  
 W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\elc-field-form-excm1 w windfam-wildlife-habitat-form-02.doc (1/27/2011 10:58:22 AM)



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## Windfarm Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 13, 2011

Field Personnel: N. Leaver

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>18°</u>	<u>0-1</u>	<u>100%</u>	<u>Ø</u>	<u>Rain</u>

ELC Polygon: #266 Visual Assessment:  Roadside, no access

Physical Assessment:  Walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

(i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

(i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities >10m high in tree))

**POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature
<u>17T 06211364756636</u>		<u>ACESASA</u>	<u>&gt;30</u>	<u>1169</u>	<u>Cavities lower ~ 2.5m, cavities</u>
<u> </u>	<u> </u>	<u> </u>	<u>&gt;50</u>	<u>1170</u>	<u>open into tree trunk</u>
<u> </u>	<u> </u>	<u> </u>	<u>&gt;40</u>	<u>1173</u>	<u>~ 10-15m high</u>

Presence of Stick Nests: Contains large stick nests?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Photo No.	Height/ Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES OBSERVATIONS (list species and type of observation & indicate on map)**

<u>BLJA</u>						
<u>AMCR</u>						

C=A=carcass; DP=distraction point; FE=feeding evidence; FY=egg/young; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

Pg. \_\_\_ of \_\_\_

Quality Control: This form is complete  & legible .

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

(Field Personnel)

(Project Manager)







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 Guelph, ON  
 Canada N1G 4P5  
 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Windfarm Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: Oct 13, 2011

Project Name: NRWC  
 Field Personnel: N. Leaver

Weather Conditions:	TEMP (°C): <u>14</u>	WIND: <u>1</u>	CLOUD: <u>100%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>Rain</u>
---------------------	-------------------------	-------------------	-----------------------	------------------	--------------------------------------

ELC Polygon: # Visual Assessment:  Roadside, no access Physical Assessment:  Walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?

Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

(i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows))

**POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED**

UTM	Feature Description	Photo No.	Spp. Observed Using Feature
<u>17T 06 21804 4755530</u>	<u>Trees - Roosting Feature</u>	<u>1174-5</u>	<u>/</u>

Bat Hibernacula Features: Contains potential bat hibernacula features?

Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

(i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in tree))

**POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?

Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

**STICK NEST(S) IDENTIFIED**

UTM	Tree ID	Tree Spp.	Photo No.	Height/ Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?

Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

SPECIES OBSERVATIONS (list species and type of observation & indicate on map)

\* - Potential Badger Den @ 17T 06 21610 4755921 along a deciduous hedgerow North of this community (EOD 7-6\*)

C=A-scars; D=disturbance pits; E=feeding evidence; FV=vegetation; HD=habitat; OB=observed; S=active; S=inactive; T=track; Y=verification

Pg. \_\_\_ of \_\_\_

Quality Control: This form is complete  & legible .

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

(Field Personnel)

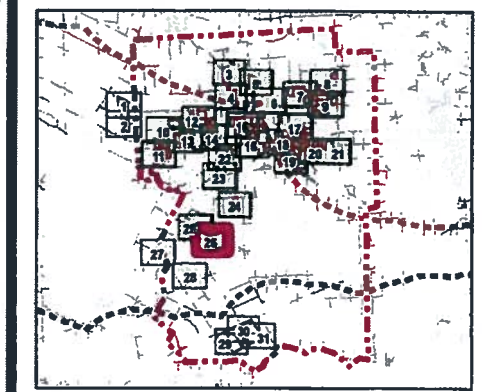
(Project Manager)





### Legend

- Preliminary Study Area
- Signed Project Sites
- Potential Signed Property
- Road
- Railway
- Municipally Lower Tier
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Turbines on Developable Land and 120m Diameter
- 180m Buffer of Turbine



- ### 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.



**Stantec**

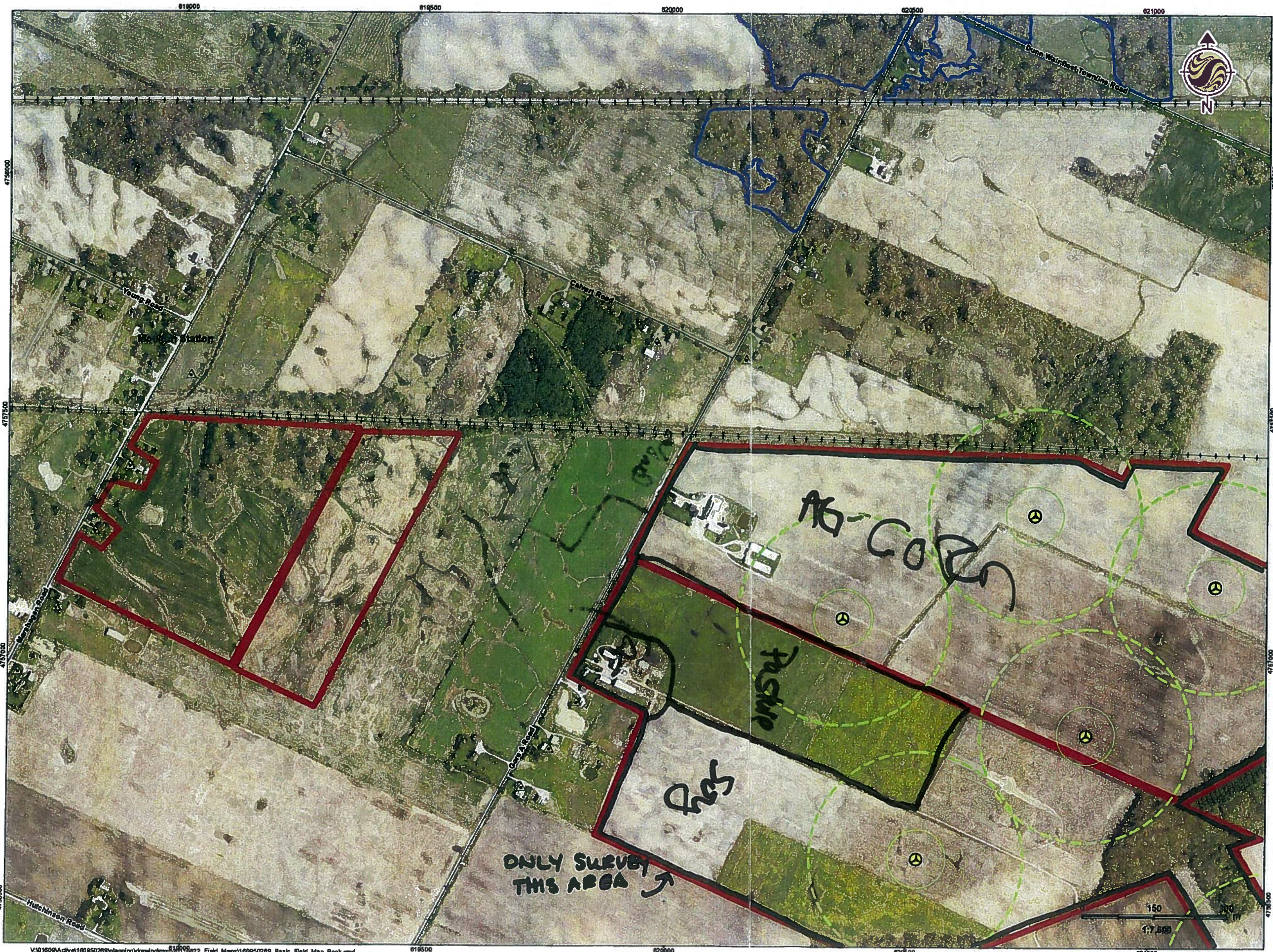
August 2011  
160850269

Client/Project  
Niagara Region Wind Corporation


Figure No.  
F-26

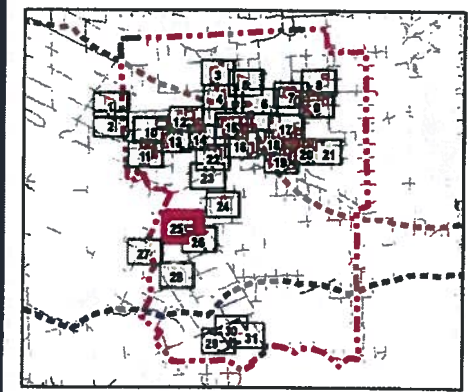
Title  
**Field Map 26**





**Legend**

-  Preliminary Study Area
-  Signed Project Sites
-  Potential Signed Property
-  Road
-  Railway
-  Municipality Lower Tier
-  Provincially Significant Wetland
-  Other/Locally Significant Wetland
-  Turbines on Developable Land and 120m Diameter
-  160m Buffer of Turbine



**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.



**Stantec**

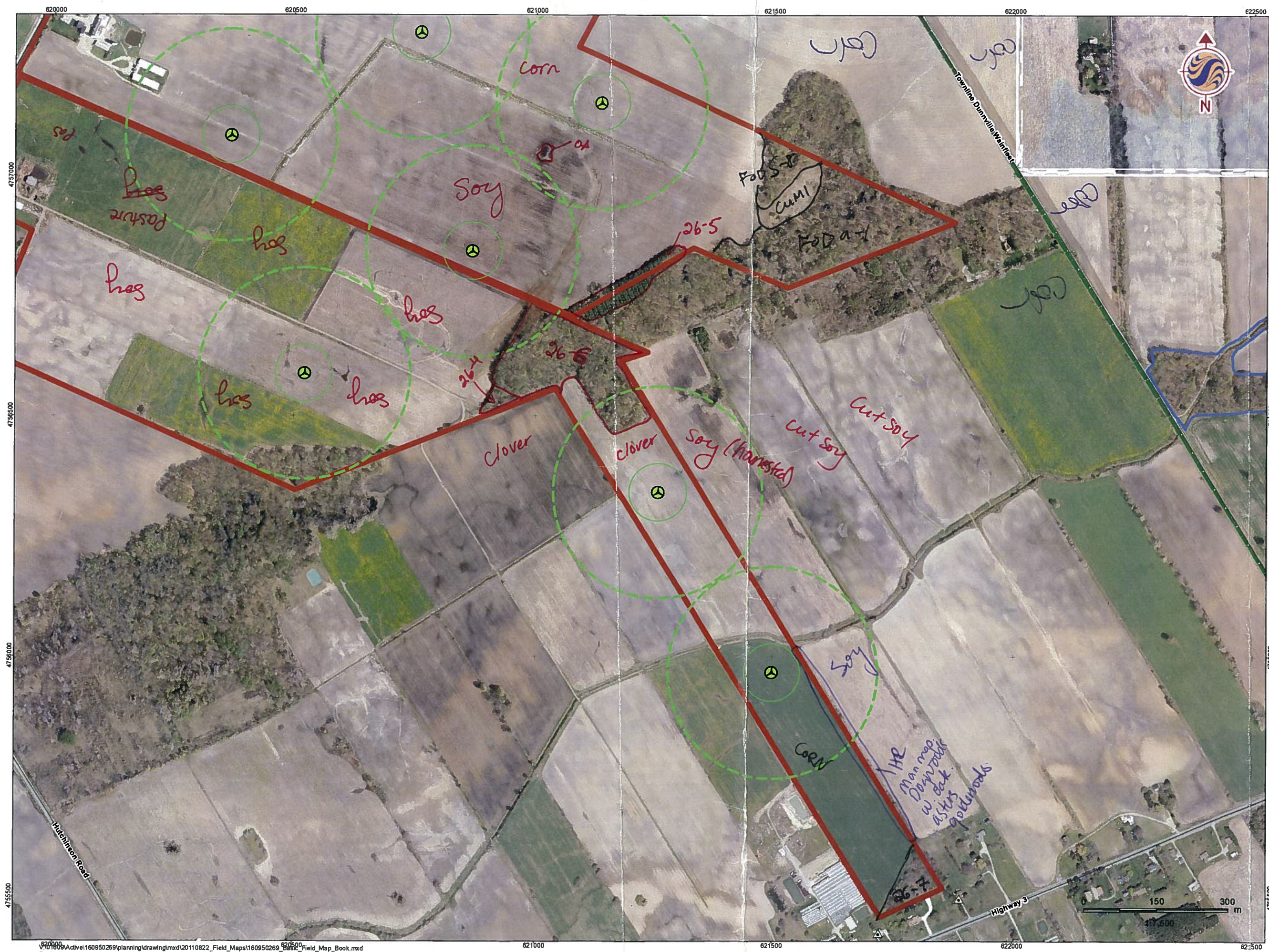
August, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

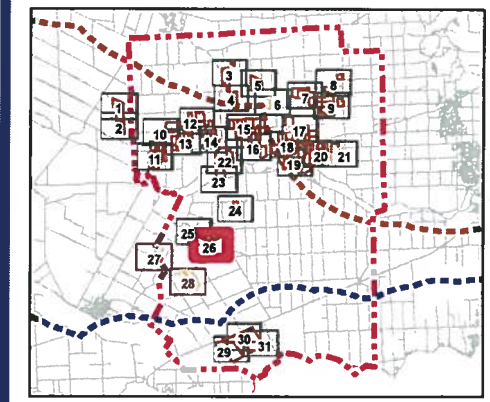
Figure No.  
F-25

Title  
**Field Map 25**





- ### Legend
- Preliminary Study Area
  - Signed Project Sites
  - Potential Signed Property
  - Road
  - Railway
  - Municipality Lower Tier
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Turbines on Developable Land and 120m Diameter
  - 180m Buffer of Turbine



- ### 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.



**Stantec**

August, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
F-26

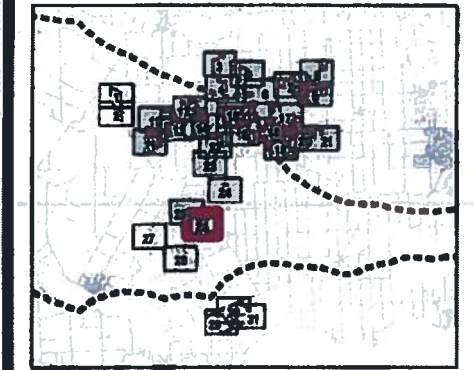
Title  
**Field Map 26**





**Legend**

- Preliminary Study Area
- Signed Project Site
- Potential Signed Property
- Road
- Railway
- Municipality Lower Tier
- Probably Significant Wetland
- Other/Locally Significant Wetland
- To Be Determined
- Open Rock/Strath Rock Barren
- Shoreline
- Buff
- Swamp
- Marsh
- Bog
- Wetland
- Meadow
- Thicket
- Savanna
- Woodland
- Forest
- Hedgerow
- Tread Agriculture
- Open Water
- Turbines on Developable Land and 101m Diameter
- 170.5m Buffer of Turbine
- Turbines W/ 120m S/B P&W and 101m Diameter
- 170.5m Buffer of Turbine
- Turbines W/ 120m S/B Woodland and 101m Diameter
- 170.5m Buffer of Turbine
- Turbines W/ 120m S/B Wood/Wetland and 101m Diameter
- 170.5m Buffer of Turbine



**Notes**

1. Coordinate System: NAD 1983 UTM Zone 17N.
2. Base features produced under license with the Ontario Ministry of Natural Resources © Green's Printer for Ontario, 2011.



**Stantec**

September, 2011  
10095029

Client/Project  
**Niagara Region Wind Corporation**

Figure No.  
**E-26**

Title  
**ELC Field Map 26**



① 29-1 → Drainage ditch

Photo 731

- NE Aster
- W. Carrot
- Bushy Foxtail
- Tall wh. Aster
- "Tiny Burrs"
- C. Goldenrod
- T. Goldenrod
- NL Cattail
- Water ~ 2m wide.  
~ 0.5m depth

② Drainage ditch → assoc. → 29-3

- Bl Cattail
- Stag Sumac.
- Tall Goldenrod
- Can Goldenrod.
- T.W. Aster.
- Calico Aster
- Raspberry
- Burdock
- Joe Pie weed
- Phrag.
- Salix sp.







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 Canada N1G 4P5  
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 Fax: (519) 836-2493

## Windfarm Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 12, 2011

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>14</u>	<u>1</u>	<u>90-100%</u>	<u>Ø</u>	<u>Rain</u>

ELC Polygon: # 2A-2 Visual Assessment:  Roadside, no access

Physical Assessment:  Walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

Reptile Hibernacula Features: Contains potential reptile hibernacula features?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

[i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]

### POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Hibernacula Features: Contains potential bat hibernacula features?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

[i.e. tall trees with open surrounding canopy (DBH >25cm, side-facing cavities ~10m high in tree)]

### POTENTIAL BAT HIBERNACULA / ROOSTING FEATURE(S) IDENTIFIED

UTM	Tree ID	Tree Spp.	DBH	Photo No.	Spp. Observed Using Feature

Presence of Stick Nests: Contains large stick nests?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

### STICK NEST(S) IDENTIFIED

UTM	Tree ID	Tree Spp.	Photo No.	Height/ Placement	Nest Size	Spp. Observed Using Feature

Presence of Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?

-Y\* /  -N /  -Unknown, no access (\*if yes, describe in table below)

### SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>GPS not working "See Map"</u>		<u>10-15m</u>	<u>/</u>		<u>unknown</u>	<u>YES</u>

### SPECIES OBSERVATIONS (list species and type of observation & indicate on map)


CA=carcass; DP=disturbance point; FE=feeding evidence; FY=egg/nest; HO=hibernaculum; OB=observed; SC=scat; SF=silver sign; TK=track; VO=visualization

Pg. \_\_\_ of \_\_\_

Signature: \_\_\_\_\_

(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: \_\_\_\_\_

(Project Manager)

SE49-4; tile 29; Poly 29-3

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara Wind</u>	POLYGON: <u>29-3</u>
	SURVEYOR(S): <u>NAL</u>	DATE: <u>Oct 12, 2011</u>
	START:	END:
	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			R. Osier Dogwood = Rhus Typha = Am Elm > Bitternut
3 UNDERSTOREY			
4 GRD. LAYER			Rasp = Tall Goldenrod = Can. Goldenrod = T.W. Aster

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:	BA:
SIZE CLASS ANALYSIS:	<u>A</u> <10 <u>N</u> 10-24 <u>N</u> 25-50 <u>N</u> >50
STANDING SNAGS:	<u>N</u> <10 <u>N</u> 10-24 <u>N</u> 25-50 <u>N</u> >50
DEADFALL/LOGS:	<u>N</u> <10 <u>N</u> 10-24 <u>N</u> 25-50 <u>N</u> >50
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
COMM. AGE:	<u>PIONEER</u> <input checked="" type="checkbox"/> YOUNG <u>MID-AGE</u> <u>MATURE</u> <u>OLD GROWTH</u>

SOIL ANALYSIS:	
TEXTURE:	DEPTH TO MOTTLES/GLEY <u>g=</u> <u>G=</u>
MOISTURE:	DEPTH OF ORGANICS: <u>N/A</u> (cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: <u>CUT 1-7*</u>
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

JUNU  
STANOW SP  
Mycatcher sp.  
Cabbage white.

ELC	SITE:
COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Am Elm		0				T.W. Aster					0
<del>Am Elm</del>						Can Goldenrod					0
Rhus Typha		0				Tall Goldenrod					0
R.O. Dogwood		0				Joe Pie Wd					R
Bit. Hickory		R				Vit Ripe					0
						<del>Rhus Typha</del>					
						<del>R.O. Dogwood</del>					
						<del>Am Elm</del>					
						Raspberry					0
						SAIF-Head					R
						Calico Aster					R
						Wood Sorrel					R

Page \_\_\_ of \_\_\_  
Signature: Nataheara  
(Field Personnel)

Quality Control: This form is complete  & legible   
Signature: Arden  
(Project Manager)





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1 - 70 Southgate Drive  
Guelph, ON  
Canada N1G 4P5  
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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 12, 2011

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>14</u>	<u>1</u>	<u>90-100%</u>	<u>Ø</u>	<u>Rain</u>

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map) → around thicket, not through

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SF=other sign; TK=track; VO=vocalization







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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 1609SD269

Project Name: NRWC

Date: Oct 12, 2011

Field Personnel: N. Leaver

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>18°</u>	<u>2</u>	<u>40%</u>	<u>None</u>	<u>Rain</u>

ELC Polygon: # 29-4 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

(Visual) deer.

CA=carcass; DP=distinctive Paris; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization

SE494; Tile 29; Poly 29-5

photos 751 to

Am Road.

ELC SITE: 29-5 Niagara wild POLYGON:  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NL + CK DATE: 4 Oct. 2011 UTME:  
 START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input checked="" type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> FEN	<input type="checkbox"/> BRYOPHYTE
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1		Blk Ash > Maple > Y. Birch
2 SUB-CANOPY	2		
3 UNDERSTOREY	3-4		
4 GRD. LAYER	5-7		Saw fern > Mosses > Sp. wd fern

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10%<CVR<25% 3=25%<CVR<50% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 <10 A 10-24 0 25-50 R >50

STANDING SNAGS: 0 <10 0 10-24 F 25-50 N >50

DEADFALL/LOGS: 0 <10 A 10-24 0 25-50 R >50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS: OM

TEXTURE: Clay loam DEPTH TO MOTTLES/GLEY 0' >20 6' >120

MOISTURE: 7 DEPTH OF ORGANICS: 32 inches (81cm) (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Back Ash Organic Deciduous Swamp CODE: 200 D 201 S-1

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes: - 90% leaf cover - Small pooling areas throughout  
 - Primarily fern + moss ground cover

ELC SITE: Niagara POLYGON: 29-5  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): Leana + Kospilack DATE: 4 Oct 2011

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Blk Ash	A					Saw fern					A
Sw Maple	R					Sp. wd fern					O
Yel Birch	O					Mosses					A
R. maple	O					Vit Rzn					R
Am Elm	R					Vit creep					R
<del>Sp. Birch</del>						Litsa (spicebush)					O-A
						As. tivalis					

Page \_\_\_ of \_\_\_

Signature:

(Field Personnel)

Quality Control: This form is complete  & legible .

Signature:

(Project Manager)





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Fax: (519) 836-2493

**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 1100950269  
Date: 4 Oct 2011

Project Name: Niagara  
Field Personnel: Leah + Kristi Jack

Weather Conditions:	TEMP (°C): <u>18</u>	WIND: <u>1</u>	CLOUD: <u>50</u>	PPT: <u>nil</u>	PPT (in last 24 hrs): <u>nil</u>
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ELC Polygon: #29-5 Assessment Type: -Visual; roadside, no access -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**  
Am Toad.

CA = carcass; DP = distinctive parts; FE = feeding evidence; FY = eggs/nest; HO = house/den; OB = observed; SC = scat; SI = other sign; TK = track; VO = vocalization

SE 494; Tile 29; Poly 29-6

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara wild</u>	POLYGON: <u>29-6</u>
	SURVEYOR(S): <u>KL + NL</u>	DATE: <u>4 Oct 2011</u>
	START:	END:
	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> COVER		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE	<input checked="" type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1		R. Maple > Yel Birch > Blk Ash
2 SUB-CANOPY	2		
3 UNDERSTOREY	3-4		
4 GRD. LAYER	5-7		Sensu Fern > Mosses > Sp. Wd Fern > Moss Fern

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA: \_\_\_\_\_

SIZE CLASS ANALYSIS:	<input type="checkbox"/> <10	<input checked="" type="checkbox"/> 10-24	<input type="checkbox"/> 25-50	<input checked="" type="checkbox"/> >50
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STANDING SNAGS:	<input checked="" type="checkbox"/> <10	<input type="checkbox"/> 10-24	<input type="checkbox"/> 25-50	<input checked="" type="checkbox"/> >50
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DEADFALL LOGS:	<input checked="" type="checkbox"/> <10	<input type="checkbox"/> 10-24	<input type="checkbox"/> 25-50	<input checked="" type="checkbox"/> >50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE:  PIONEER  YOUNG  MID-AGE  MATURE  OLD GROWTH

SOIL ANALYSIS:

TEXTURE: clay DEPTH TO MOTTLES/GLEY: g= G=g=  
MOISTURE: 10 inch DEPTH OF ORGANICS: 10 inch (cm)  
HOMOGENEOUS / VARIABLE: variable DEPTH TO BEDROCK: >200cm (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Yel Birch - Red Maple Min Dec. Spruce</u>	CODE: <u>SWD 4-5</u>
INCLUSION:	CODE:
COMPLEX: <u>B. Ash Min. Deciduous Spruce</u>	CODE: <u>SWD 2-1</u>

Evidence of Disturbance / Notes: Water table ~ 75 inches

- Community reflects a series of poly 29-5 (SWD 2-1) throughout; dominant canopy cover changes to Black Ash dominant in small spread out complexes

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara</u>	POLYGON: <u>29-6</u>
	SURVEYOR(S): <u>LEWA + Kordijack</u>	DATE: <u>4 Oct 2011</u>
	START:	END:
	UTMZ:	UTMN:

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
R. Maple	A					Sensu Fern					O
Yel. Birch	O/A					Sp. Wd Fern					R
Blk. Ash	O					Oct. Fern					R
Shag Hick	R					Mushrooms					O
Wh. Elm	R					Mosses					R
Red Oak											
Silv. Maple											

Page \_\_\_ of \_\_\_

Signature: \_\_\_\_\_

(Field Personnel)

Quality Control: This form is complete  & legible

Signature: \_\_\_\_\_

(Project Manager)





Stantec Consulting Ltd.  
 1 - 70 Southgate Drive  
 Guelph, ON  
 Canada N1G 4P5  
 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269  
 Date: 4 Oct 2011

Project Name: Niagara Wild  
 Field Personnel: Lewat Kopylova

Weather Conditions:	TEMP (°C): <u>18</u>	WIND: <u>1</u>	CLOUD: <u>50</u>	PPT: <u>nil</u>	PPT (in last 24 hrs): <u>nil</u>
---------------------	-------------------------	-------------------	---------------------	--------------------	-------------------------------------

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

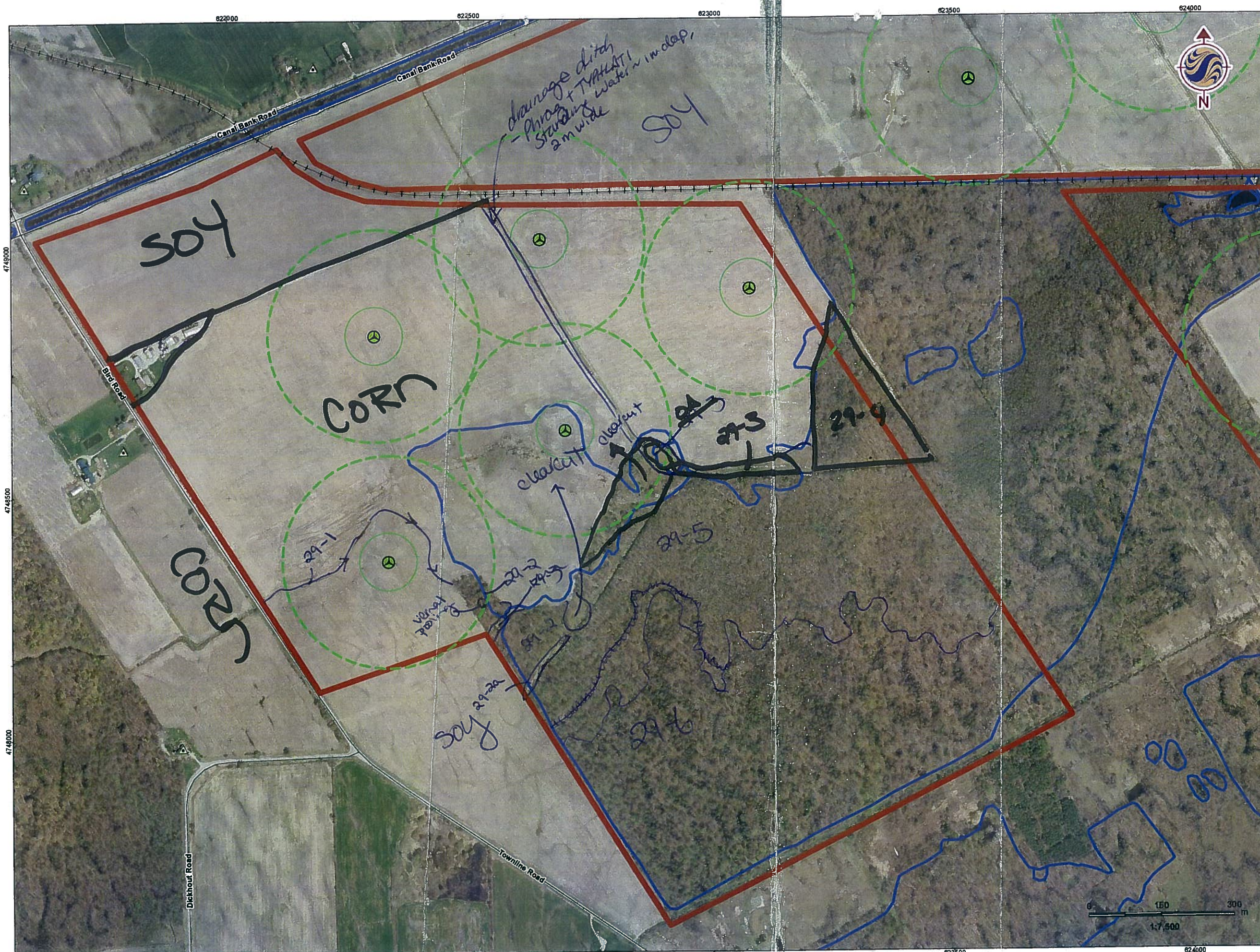
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

-small areas of pocket pooling throughout community.  
↓  
vernal pooling (no GPS location due to GPS not working).

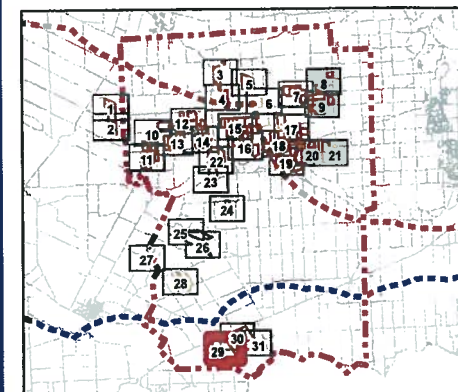
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization





**Legend**

- Preliminary Study Area
- Signed Project Sites
- Potential Signed Property
- Road
- Railway
- Municipality Lower Tier
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Turbines on Developable Land and 120m Diameter
- 160m Buffer of Turbine



**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.



**Stantec**

August, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
F-29

Title  
**Field Map 29**





SE 49-6, T16 31, Poly 31-1

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NWRC	POLYGON: 31-1
	SURVEYOR(S): NAL & CRK	DATE: Oct 4, 2011
	START:	END:
	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input checked="" type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	2	Cottonwood
2 SUB-CANOPY	2-3	3	ACEFREE >> COTTONWOOD
3 UNDERSTOREY	4	3	ACEFREE > SOLCANA
4 GRD. LAYER	5-7	4	

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	A	<10	R	10-24	O	25-50	K	>50
STANDING SNAGS:	R	<10	R	10-24	R	25-50	N	>50
DEADFALL/LOGS:	O	<10	O	10-24	R	25-50	N	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT  
COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: Clay loam	DEPTH TO MOTTLES/GLEY	g=	G=
MOISTURE: 14-50	DEPTH OF ORGANICS:	22.8 (cm)	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	>120	(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Freeman Maple Cultural woodland type	CODE: CUW1-3*
INCLUSION:	CODE: MAM2-6
COMPLEX:	CODE:

Evidence of Disturbance / Notes:

Pics 768 - Community is fragmented (<10m road) from 'FOD' community.  
768 NAM. - cottonwood borders road & field along west & south boundaries - area cleared & now new regrowth

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:
	POLYGON: 31-1
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
COTONWOOD	0	0				ACEFREE		0	0		
						Red Osier				R	
						T. W ASIER				0	
						SOLCANA				0	
						BOUSET				0	

Page \_\_\_ of \_\_\_

Signature:

*T. Totatava*  
(Field Personnel)

Quality Control: This form is complete & legible

Signature:

*[Signature]*  
(Project Manager)



**Stantec Consulting Ltd.**  
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 Guelph, ON  
 Canada N1G 4P5  
 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 4, 2011

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	1	50-100	<del>0</del>	Rain

ELC Polygon: # 31-1 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

-AMCR

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization



SE49-6; Tile 31; Poly 31-2

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWc	POLYGON: 31-2
	SURVEYOR(S): NAL + CKK	DATE: Oct 4, 2011
	START:	END:
	UTMZ:	UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> TERRACE <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input checked="" type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> OPEN <input checked="" type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.				
<b>SITE</b>					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	/	/	
2 SUB-CANOPY	3	3	SPICE BUSH
3 UNDERSTOREY	4	3	SOLCANA > Red Osier = T.W. Aster = SPICE BUSH
4 GRD. LAYER	5-7	3	T.W. Aster

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

<b>STAND COMPOSITION:</b>				BA:
<b>SIZE CLASS ANALYSIS:</b>	A <10	R 10-24	N 25-50	N >50
<b>STANDING SNAGS:</b>	N <10	N 10-24	N 25-50	N >50
<b>DEADFALL/LOGS:</b>	N <10	N 10-24	N 25-50	N >50
<b>ABUNDANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT			
<b>COMM. AGE:</b>	PIONEER	<input checked="" type="checkbox"/> YOUNG	MID-AGE	MATURE
				OLD GROWTH

**SOIL ANALYSIS:**

<b>TEXTURE:</b>	DEPTH TO MOTTLES/GLEY	g=	G=
<b>MOISTURE:</b>	DEPTH OF ORGANICS:	(NA)	
<b>HOMOGENEOUS / VARIABLE</b>	DEPTH TO BEDROCK:		

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b> Red Osier Dogwood Cultural Thicket	CODE: CUT-1-7*
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
Red Osier			D									
ACEFRFB			R									
T.W. Aster			D	D								
SOLCANA			A									
SPICE BUSH	O-A		D									
ALIX												

Page \_\_\_ of \_\_\_

Signature: *Natalie*  
(Field Personnel)

Quality Control: This form is complete  & legible

Signature: *Allen*  
(Project Manager)



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 4, 2011

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10</u>	<u>1</u>	<u>50-100</u>	<u>Ø</u>	<u>Rain</u>

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization



SE49-6; Tile 31; Poly 3-3

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NWRC	POLYGON: 31-3	
	SURVEYOR(S): CKRENAL	DATE: Oct 4 2011	UTME:
	START:	END:	UTMZ:
	UTMN:		

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
		<input checked="" type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF			<input checked="" type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACESACC > FRAPENS > QUERUBR > ACERUBR
2 SUB-CANOPY	2	3	ACESACC > FRAPENS > ACERUBR
3 UNDERSTOREY	3	4	SPICEBUSH > ACESACC > FRAPENS
4 GRD. LAYER	4-7	4	SEUSFERN > T.W. ASTER

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

STAND COMPOSITION:	BA:
SIZE CLASS ANALYSIS:	<input type="checkbox"/> <10 <input type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input checked="" type="checkbox"/> >50
STANDING SNAGS:	<input checked="" type="checkbox"/> <10 <input checked="" type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input type="checkbox"/> >50
DEADFALL/LOGS:	<input type="checkbox"/> <10 <input checked="" type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input checked="" type="checkbox"/> >50
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
COMM. AGE:	<input type="checkbox"/> PIONEER <input type="checkbox"/> YOUNG <input checked="" type="checkbox"/> MID-AGE <input type="checkbox"/> MATURE <input type="checkbox"/> OLD GROWTH

SOIL ANALYSIS:

TEXTURE: Sandy Clay	DEPTH TO MOTTLES/GLEY	g= 0	G= 0
MOISTURE: 5-6	DEPTH OF ORGANICS:	2cm	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	>120	(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Silver Maple Mineral Dec. Sup	CODE: SWD 3-2
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

- small shed along road in small tank in it.  
- peeding throughout community; adjacent to large OA, & drainage ditch along border.

ELC	SITE:
COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACERUBR	R	R				SPICEBUSH			A	D	
SALIX SP.	R	R									
QUERUBR	D										
ACESACC	O-A	O	O								
FRAPENS	D	D	D								
						SEUSFERNA				O-A	
						TYPHALI				R	
						T.W. ASTER				O	
						BEDSTRAW				R	

Page \_\_\_ of \_\_\_

Signature:

*Natalie*  
(Field Personnel)

Quality Control: This form is complete  & legible

Signature:

*CKRENAL*  
(Project Manager)



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 4, 2011

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	10	1	50-100	Ø	Rain

ELC Polygon: # 343 Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

- Chorus Frog  
 - Spring Peeper  
 - AMRO  
 - AMCR

CA = carcass; DP = distinctive parts; FE = feeding evidence; FY = eggs/nest; HO = house/den; OB = observed; SC = scat; SI = other sign; TK = track; VO = vocalization



SE49-6; Tile 31; Poly 3-4

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:	POLYGON: 31-4.	
	SURVEYOR(S):	DATE:	UTME:
	START: 7:50	END: 8:00	UTMZ:
			UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input checked="" type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input checked="" type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input checked="" type="checkbox"/> FORB	<input checked="" type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
<b>SITE</b>		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> CLIFF	<b>COVER</b>	<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input checked="" type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> TALUS	<input checked="" type="checkbox"/> OPEN	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> SHRUB	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> ALVAR	<input type="checkbox"/> TREE		<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	/	/	/
2 SUB-CANOPY	/	/	/
3 UNDERSTOREY	4	4	TYPHLATI > Reed Canary > SOLCANA = Tall Goldenrod
4 GRD. LAYER	5-7	2	S.W. Aster

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

<b>STAND COMPOSITION:</b>	BA:
<b>SIZE CLASS ANALYSIS:</b>	
	N <10 N 10-24 N 25-50 N >50
<b>STANDING SNAGS:</b>	N <10 N 10-24 N 25-50 N >50
<b>DEADFALL/LOGS:</b>	N <10 N 10-24 N 25-50 N >50
<b>ABUNDANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
<b>COMM. AGE:</b>	PIONEER YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

<b>TEXTURE:</b>	<b>DEPTH TO MOTTLES/GLEY</b>	g=	G=
<b>MOISTURE:</b>	<b>DEPTH OF ORGANICS:</b>	(N/A)	(cm)
<b>HOMOGENEOUS / VARIABLE</b>	<b>DEPTH TO BEDROCK:</b>		(cm)

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	<b>CODE:</b>
<b>COMMUNITY SERIES:</b>	<b>CODE:</b>
<b>ECOSITE:</b>	<b>CODE:</b>
<b>VEGETATION TYPE:</b>	<b>CODE:</b>
Cattail mineral shallow marsh	MAS2-1
<b>INCLUSION</b>	<b>CODE:</b>
	SAF1-3
<b>COMPLEX</b>	<b>CODE:</b>

Evidence of Disturbance / Notes:  
 Bordering OA (SAF 1-3)  
 (1)

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:	POLYGON:
	DATE:	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
 ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
TYPHLATI			A			Red Oser			R		
Reed Canary			OA			S.W. Aster (Cattail)			R		
						Rose sp. Bush			R		
						VITRIPA			R		
						SOLCANA			O		
						TALL GOLDEN			O		

Page \_\_\_ of \_\_\_  
 Signature: *Natafara*  
 (Field Personnel)

Quality Control: This form is complete  & legible   
 Signature: *[Signature]*  
 (Project Manager)



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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 4, 2011

Field Personnel: N. Leava

<b>Weather Conditions:</b>	TEMP (°C): <u>10</u>	WIND: <u>1</u>	CLOUD: <u>50-100</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>Rain</u>
----------------------------	-------------------------	-------------------	-------------------------	------------------	--------------------------------------

ELC Polygon: # 31-4 Assessment Type:  Visual; roadside, no access /  Physical; walk through feature

Extent of Physical Investigation of Feature:  Entire /  Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA = carcass; DP = distinctive parts; FE = feeding evidence; FY = eggs/nest; HO = house/den; OB = observed; SC = scat; SI = other sign; TK = track; VO = vocalization

Photo# 769.



SE49-6; Tile 31's Poly 3-S

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Niagara Wind</i>	POLYGON: <i>31-S</i>
	SURVEYOR(S): <i>NALÉCRK</i>	DATE: <i>Oct 5, 2011</i>
	START:	END:
	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input checked="" type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input checked="" type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
		<input checked="" type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input checked="" type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input checked="" type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRANIGR > ACEFREE > Crack willow = Salix sp
2 SUB-CANOPY	3	3	ACEFREE = FRANIGR > SALIX.SP. = CRACK willow
3 UNDERSTOREY	4	2	SPICE BUSH > SALIX SP. = Crack willow
4 GRD. LAYER	5-7	4	Sens. Fern > T.W. Aster > Nettle sp = VITRIPA

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:	BA:
SIZE CLASS ANALYSIS:	<i>0</i> <10 <i>A</i> 10-24 <i>0</i> 25-50 <i>N</i> >50
STANDING SNAGS:	<i>0</i> <10 <i>0</i> 10-24 <i>0</i> 25-50 <i>N</i> >50
DEADFALL/LOGS:	<i>0</i> <10 <i>0</i> 10-24 <i>0</i> 25-50 <i>N</i> >50
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
COMM. AGE:	<input type="checkbox"/> PIONEER <input type="checkbox"/> YOUNG <input checked="" type="checkbox"/> MID-AGE <input type="checkbox"/> MATURE <input type="checkbox"/> OLD GROWTH

SOIL ANALYSIS:

TEXTURE: <i>Om</i>	DEPTH TO MOTTLES/GLEY: <i>g=</i>	G=
MOISTURE: <i>7</i>	DEPTH OF ORGANICS: <i>50.8</i>	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: <i>7120.</i>	(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: <i>SWISS-1</i>
INCLUSION:	CODE:
COMPLEX:	CODE:

Evidence of Disturbance / Notes:

ELC	SITE:
COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON: <i>31-S</i>
	DATE:
	SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER  
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
<i>ACEFREE</i>	<i>A</i>	<i>O</i>				<i>SPICEBUSH</i>			<i>A</i>		
<i>FRANIGR</i>	<i>A</i>	<i>O</i>				<i>NETTLES</i>				<i>R</i>	
<i>ACEBURR</i>	<i>R</i>					<i>VITRIPA</i>				<i>R</i>	
<i>ALESACC</i>	<i>R</i>					<i>Sens. Fern</i>				<i>O-A</i>	
<i>SALIX SP.</i>	<i>O</i>	<i>R</i>	<i>R</i>			<i>T.W. Aster</i>				<i>O</i>	
<i>CRACKWILLow</i>	<i>O</i>	<i>R</i>	<i>R</i>			<i>Begonia-ticks</i>				<i>R</i>	

Page \_\_\_ of \_\_\_

Signature: *[Signature]*

(Field Personnel)

Quality Control: This form is complete  & legible

Signature: *[Signature]*

(Project Manager)



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 4, 2011

Field Personnel: N. Leaver

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10</u>	<u>1</u>	<u>50-100</u>	<u>0</u>	<u>Rain</u>

ELC Polygon: # 31-5 Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. features that would provide a route underground, including buried concrete or rock (c.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Sp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Sp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: Oct 4, 2011

Field Personnel: N. Leaver

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>10</u>	<u>1</u>	<u>50-100</u>	<u>Ø</u>	<u>Ran</u>

ELC Polygon: #31-b Assessment Type: -Visual; roadside, no access / -Physical; walk through feature

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map)

**Reptile / Bat Hibernacula Features:** Contains potential reptile hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)]  
 Contains potential bat hibernacula features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED			
UTM	Feature Description	Photo No.	Spp. Observed Using Feature

**Bat Roosting Features:** Contains potential bat roosting features?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)  
 [i.e. tall trees with open surroundings, DBH >25cm, side-facing cavities ~10m high in tree]

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED							
UTM	Tree ID	Tree Spp.	DBH	Photo No.	Decay Class (1-5)	No. of Cavities	Height and Type of Cavities

**Stick Nests:** Contains large stick nests?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

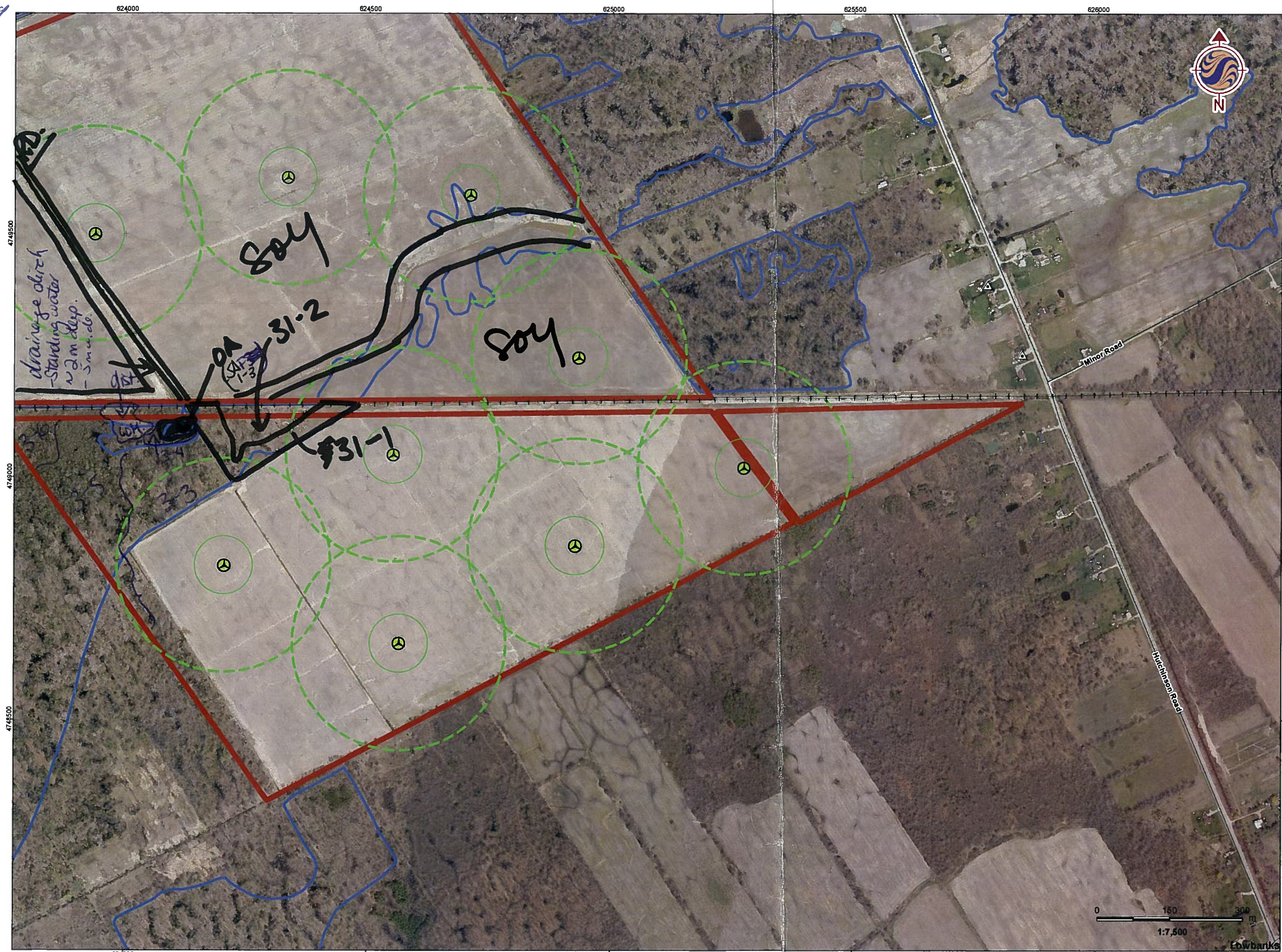
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

-RWBL      -BCHH      -Crickets  
 -HOLA      -sparrow sp.      -woodfrogs  
 -CAGO      -deer tracks      -AMRO  
 -BLJA      -Raccoon tracks

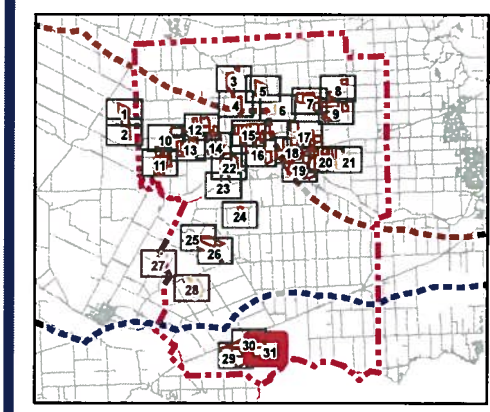
CA=carcass; DP=distinctive Paris; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization





### Legend

- Preliminary Study Area
- Signed Project Sites
- Potential Signed Property
- Road
- Railway
- Municipality Lower Tier
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Turbines on Developable Land and 120m Diameter
- 160m Buffer of Turbine



- ### 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.

**Stantec**  
August, 2011  
160950269

Client/Project  
Niagara Region Wind Corporation

Figure No.  
F-31

Title  
**Field Map 31**