

V:\1609\Active\160950269\planning\drawing\mxd\20130620\_Public\_Query\_Maps\160950269\_Fig\_1\_1\_Draft\_Site\_Plan\_Overview.mxd  
 Revised: 2013-06-24 By: bczwper



Legend	
	Project Study Area
	Interconnector Study Area
	Proposed Turbine Location
	Turbine Relocated
	Potential Access Road
	Transformer Substation
	Tap-in Location
	Existing Met Tower
	Preferred Transmission Line Route
	Alternate Transmission Route
	Road
	Expressway / Highway
	Active Railway
	Abandoned Railway
	Existing Structures
	Existing Transmission Line
	Watercourse
	Waterbody
	Wooded Area
	Municipality Lower Tier

**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, 2012.

Client/Project  
 Niagara Region Wind Corporation  
 Niagara Region Wind Farm

Figure No.  
 1

Title  
**Draft Site Plan Overview Revised**

June 2013  
 160950269

1-144

17 0615730  
4771185

**ELC** SITE: SE101

COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NAL DATE: June 6, 2012

POLYGON: 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"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<b>SITE</b>		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<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
1 CANOPY	3	/	<b>VARIABLE</b> (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
2 SUB-CANOPY	4	/	
3 UNDERSTOREY	5	/	
4 GRD. LAYER	6-7	/	

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<60% 4=CVR>60%

**STAND COMPOSITION:**

BA:

SIZE CLASS ANALYSIS:	0 <10	A 10-24	R 25-50	N >50
STANDING SNAGS:	N <10	O 10-24	N 25-50	N >50
HEADFALL 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<sub>10</sub>

MOISTURE: DEPTH OF ORGANICS: **NA** (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

COSITE: CODE:

VEGETATION TYPE: **Hedgerow** CODE: **HR1**

INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

**ELC** SITE: SE101

COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): DATE: SE101; Tile 4; Poly 1

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	
ADP						RED WING					
HAWTHORN						TEAL					
W. OAK						DAISY					
WILLOW						VEGETA					
SALIX SP						DAUCAED					
Cherry						THISTLE					
Mistle						ASTER					
						DAMES ROCK ET					
						WILLOW ASPEN					
						CUCKOO FLAVOR					
						W. CLOVER					
						R. CLOVER					
						G. MUSTARD					
						ASTRAL					

Buckthorn  
A. Dogwood

Page      of     

Signature: **Nataheara**  
(Field Personnel)

Quality Control: This form is complete & legible

Signature: **Nate**  
(Project Manager)



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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 6, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	0-2	0-75	Ø	Ø

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)**

- RTHA (OB)  
 - KILL  
 - Gull sp.

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

**ELC** SITE: SE POLYGON:

COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NA DATE: June 6, 12 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 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"/> COVER	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
<input type="checkbox"/> BEDROCK					<input type="checkbox"/> PLANTATION

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	/	/	
SUB-CANOPY	/	/	
UNDERSTOREY	4.5	1	Hawthorn
GRD. LAYER	5-7	4	weed canopy = BODINEE - orch grass = ASTER sp.

TCODES: 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  
 VR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>60%

**TAND COMPOSITION:**

BA:

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
STANDING SNAGS:	N	N	N	N
FALL LOGS:	N	N	N	N

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:

POSITE: CODE:

VEGETATION TYPE: DE old field meadow type CODE: CUMI-1

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes:

**ELC** SITE: POLYGON:

COMMUNITY DESCRIPTION & CLASSIFICATION DATE: SE 101; Tile 4; Poly 2 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	
BROILER				A							
FEARLE				O							
DAISY				O							
FOXTAIL				O							
ASTER SP				A							
HAWTH ORN			R								
POASP				O							
ORCHARD GRASS				A							
REED CANARY				A							

Page \_\_\_ of \_\_\_  
 Signature: Nataheara  
 (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  
Date: June 6, 2012

Project Name: NRWC  
Field Personnel: N. Leava

Weather Conditions:	TEMP (°C): <u>25</u>	WIND: <u>0-2</u>	CLOUD: <u>0-75</u>	PPT: <u>0</u>	PPT (in last 24 hrs): <u>0</u>
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ELC Polygon: # 2 Assessment Type:  Visual; roadside, no access /  Physical; walk through feature - *on residential property*  
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

ELC SITE: 50 POLYGON: SURVEYOR(S): DATE: J 6/12 UTMZ: UTMN: COMMUNITY DESCRIPTION & CLASSIFICATION START: END: N/A

**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 type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<b>SITE</b>		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ALVAR	<input checked="" type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<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

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	/	/	
SUB-CANOPY	/	/	
UNDERSTOREY	5	4	reed-canary
GRD. LAYER	/	/	

T 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  
 VR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**TAND COMPOSITION:**

BA:	
<b>SIZE CLASS ANALYSIS:</b>	<10     10-24     25-50     >50
<b>TANDING SNAGS:</b>	<10     10-24     25-50     >50
<b>EADFALL/LOGS:</b>	<10     10-24     25-50     >50
<b>UNDANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
<b>MM. AGE:</b>	PIONEER     YOUNG     MID-AGE     MATURE     OLD GROWTH

**OIL ANALYSIS:**  
 EXTURE: DEPTH TO MOTTLES/GLEY: B= G=  
 OISTURE: DEPTH OF ORGANICS: (cm)  
 OMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
OSITE:	CODE:
EGETATION TYPE:	CODE: reed-canary grass Min. Mea. Marsh MAM2-2
INCLUSION:	CODE:
COMPLEX:	CODE:

idence of Disturbance / Notes:

ELC SITE: POLYGON: DATE: SE101; Tile 4; Poly 3 SURVEYOR(S): 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	
reed-canary			D								

Page \_\_\_\_ of \_\_\_\_ Signature: Nataheara (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: June 6

Field Personnel: N. Leana

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	0-2	0-75	Ø	Ø

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

**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: S 1 POLYGON: 4  
 SURVEYOR(S): N DATE: \_\_\_\_\_ 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 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	4	TYPHANGU > reed canopy > Salix sp.
4 GRD. LAYER	5-7	1	reed canopy > bog eye & milkweed

TCODES: 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  
 VR 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
TANDING SNAGS:	N	N	N	N
FADFALL LOGS:	N	N	N	N

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

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

**OIL 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: \_\_\_\_\_  
 COSITE: \_\_\_\_\_ CODE: \_\_\_\_\_  
 VEGETATION TYPE: Cattail in shallow water CODE: MAS 2-1

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

Evidence of Disturbance / Notes:  
-Small areas of pooling water

**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 DATE: SE 101; Tile 4; Poly 4 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		
TYPHANGU			D									
SALIX SP			A									
Reed Canopy			A	A								
Milkweed				O								
Top Ry weed				O								

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

Quality Control: This form is complete  & legible .  
 Signature: [Signature]  
 (Project Manager)





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1 - 70 Southgate Drive  
Guelph, ON  
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Tel: (519) 836-6050  
Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRINC

Date: June 6

Field Personnel: N. Hara

Weather Conditions:	TEMP (°C): <u>25</u>	WIND: <u>0-2</u>	CLOUD: <u>0-75%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>Ø</u>
---------------------	-------------------------	---------------------	------------------------	------------------	-----------------------------------

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)**

Den observed - entrance facing onto MAS - Den in CUM1-1 community  
Pic # 70 UTM 17T 0615730, 4771185

**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION: \_\_\_\_\_  
 SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 SURVEYOR(S): N DATE: June 12 TIME: \_\_\_\_\_  
 START: \_\_\_\_\_ 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"/> BOTTOMLAND	<input checked="" 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
WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND			
AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE			
	<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		
SITE					
OPEN WATER					
SHALLOW WATER					
SURFICIAL DEP.					
BEDROCK					

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	/	/	
SUB-CANOPY	/	/	
UNDERSTOREY	4	4	DOGWOOD SP
GRD. LAYER	/	/	

**TCODES:** 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  
**VR 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
FANDING SNAGS:	N	N	N	N
FAD FELL LOGS:	N	N	N	N
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=
DISTURBANCE:	DEPTH OF ORGANICS:	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)

NA

**COMMUNITY CLASSIFICATION:**

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

Incidence of Disturbance / Notes: \_\_\_\_\_

Assessed from property lines.

**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION: \_\_\_\_\_  
 SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 DATE: SE101; Tile 4; Poly 5 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	
DOGWOOD SP			D		

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



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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 6, 2012

Field Personnel: N. Leawa

Weather Conditions:	TEMP (°C): <u>25</u>	WIND: <u>0-2</u>	CLOUD: <u>0-75%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>Ø</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)**

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

**ELC**  
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 SURVEYOR(S): \_\_\_\_\_ DATE: Jul 6 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 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
SITE		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	COVER		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<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 type="checkbox"/> TREE		<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	/	/	
SUB-CANOPY	/	/	
UNDERSTOREY	4	4	SALIX > DOGWOOD
GRD. LAYER	/	/	

T 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  
 VR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60%

**TAND COMPOSITION:**

BA: \_\_\_\_\_

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
HANDING SNAGS:				
HEADFALL/LOGS:				

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

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

**OIL 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: \_\_\_\_\_  
 POSITE: \_\_\_\_\_ CODE: \_\_\_\_\_  
 VEGETATION TYPE: \_\_\_\_\_ CODE: SWT-2

INCLUSION	CODE:
_____	_____
COMPLEX	CODE:
_____	_____

Evidence of Disturbance / Notes:

Assessed from property boundary

**ELC**  
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 SURVEYOR(S): \_\_\_\_\_ DATE: SE 01; Tile 4; Rly 6

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 SP			A											
DOGWOOD SP			NA											

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

Quality Control: This form is complete  & legible   
 Signature: M. K. ...  
 (Project Manager)



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 Canada N1G 4P5  
 Tel: (519) 836-6050  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 6, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>0-2</u>	<u>0-75%</u>	<u>0</u>	<u>0</u>

ELC Polygon: # 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)

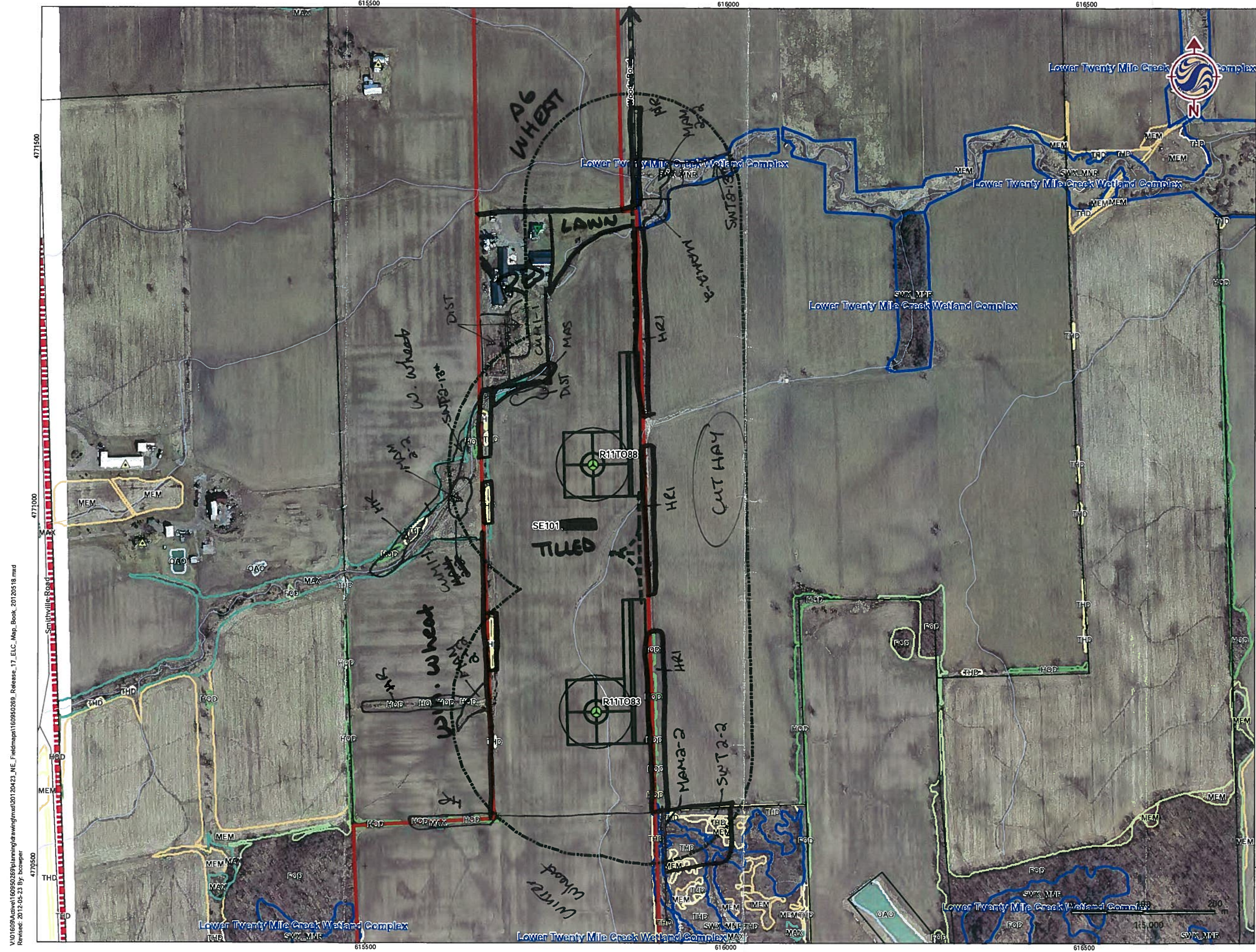
STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

**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?

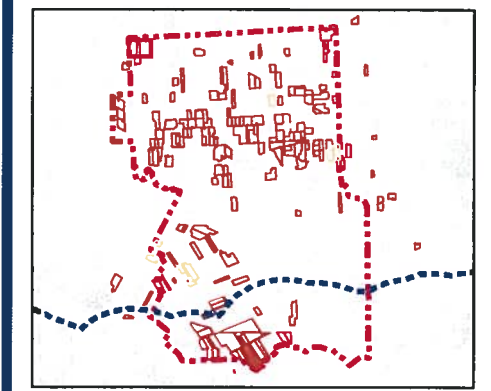
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

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

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
- ▲ Non-Participating Receptor
- ▼ Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



### 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.



May 2012  
160950269

---

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

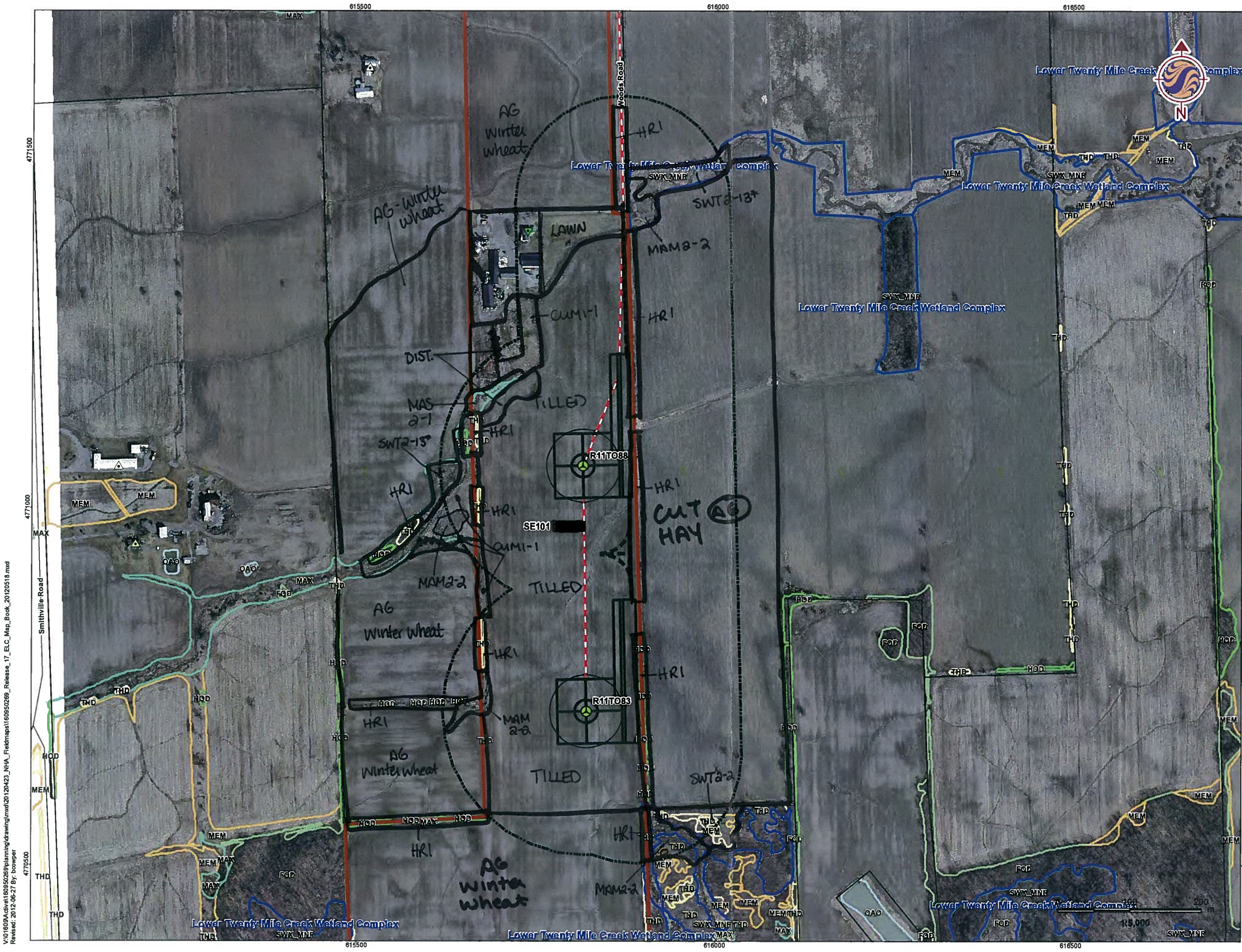
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Figure No.  
4

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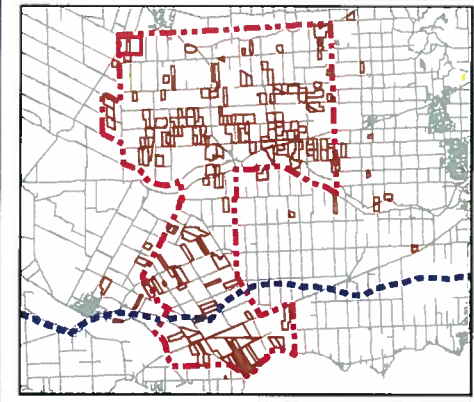
Title  
**Property with Turbine  
SE101**

V:\01609\Active\160950269\amphibian\awing\mxd\20120423\_NE\_Fieldmap\160950269\_Release\_17\_ELC\_Map\_Book\_20120516.mxd  
 Revised: 2012.05.23 By: boomer



**Legend**

- Turbines in Signed Lands**
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands**
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
  - Proposed Collector Cable
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



**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**

June, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
1

Title  
**Property with Turbine  
SE101**

V:\01609A\active\160950269\planning\drawing\mxd\20120423\_NHA\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120516.mxd  
 Revised: 2012-06-27 By: boowper

SE102, 1100, 10140

slightly wider disturbed area beside drainage = 7, 100m roadside ditch

<b>ELC</b>	SITE: SE102	POLYGON: 3
COMMUNITY DESCRIPTION & CLASSIFICATION	SURVEYOR(S): L Robson	DATE: May 24, 2012
	START:	END:
	UTMZ:	UTMN:

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 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"/> 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"/> 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

STAND DESCRIPTION:			
LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	2	green ash = trembling aspen
2 SUB-CANOPY			
3 UNDERSTOREY	4	3	staghorn sumac > grey dogwood > raspberry = rose hollyhock
4 GRD. LAYER	5-7	4	goldenrod sp >> reed canopy grass > garlic mustard

<b>IT CODES:</b>	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
<b>CVR CODES:</b>	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>	<10 10-24 25-50 >50
<b>STANDING SNAGS:</b>	<10 10-24 25-50 >50
<b>DEADFALL/LOGS:</b>	<10 10-24 25-50 >50
<b>ABUNDANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
<b>COMM. AGE:</b>	<input checked="" type="checkbox"/> PIONEER <input type="checkbox"/> YOUNG <input type="checkbox"/> MID-AGE <input type="checkbox"/> MATURE <input type="checkbox"/> OLD GROWTH

<b>SOIL ANALYSIS:</b>	
<b>TEXTURE:</b>	DEPTH TO MOTTLES/GLEY g= G=
<b>MOISTURE:</b>	DEPTH OF ORGANICS: (cm)
<b>HOMOGENEOUS / VARIABLE</b>	DEPTH TO BEDROCK: (cm)

<b>COMMUNITY CLASSIFICATION:</b>	
<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b> Dry to moist old field meadow	CODE: CUM1-1
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

Evidence of Disturbance / Notes:  
Polygon is v. small cultural meadow on either side of drainage ditch where it meets roadside ditch. - v. disturbed; not habitat

<b>ELC</b>	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.
	1	2	3	4	
trembling aspen					
staghorn sumac			A		
grey dogwood			O		
green ash	R		R		
raspberry			R-O		
rose hollyhock			R-O		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
reed canopy grass				A	
goldenrod sp				D	
wild carrot				O	
milkweed				R	
garlic mustard				A	
thistle				R-O	
burdock				R-O	

Page \_\_\_ of \_\_\_  
Signature: Laura Robson  
(Field Personnel)

Quality Control: This form is complete  & legible .  
Signature: Cheryl Anderson  
(Project Manager)





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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: SE102

Project Name: NRWC

Date: May 24, 2012

Field Personnel: L Robson

<b>Weather Conditions:</b>	TEMP (°C): <u>27</u>	WIND: <u>4</u>	CLOUD: <u>&lt;10%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: # 3 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=scar; SI=other sign; TK=track; VO=vocalization

**ELC** SITE: SE102 POLYGON: 1  
**COMMUNITY DESCRIPTION & CLASSIFICATION** SURVEYOR(S): LR Olson DATE: May 24, 2012 UTME:  
 START: END: UTMZ: UTMN:

**ELC** SITE: POLYGON:  
**COMMUNITY DESCRIPTION & CLASSIFICATION** DATE:  
 SURVEYOR(S):

**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 checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND
<input 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"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND		<input type="checkbox"/> FORB <input type="checkbox"/> LICHEN	<input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> FEN <input type="checkbox"/> BOG
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<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"/> OPEN <input type="checkbox"/> SHRUB		<input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE	<input checked="" type="checkbox"/> FREED		<input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BLUFF			<input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<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	1	4	Sugar maple > Red oak > Green/white Ash
2 SUB-CANOPY	2	3	Sugar maple > Green/white ash > American Elm
3 UNDERSTOREY	3	3	Grey Dogwood > Trembling Aspen > Nanny berry
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: Unknown

**SIZE CLASS ANALYSIS:**

SIZE CLASS	<10	10-24	25-50	>50
BA	R-0	0	A	N

**STANDING SNAGS:**

SNAG CLASS	<10	10-24	25-50	>50
BA			R-0	

**DEADFALL/LOGS:** Unknown

LOG CLASS	<10	10-24	25-50	>50
BA				

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

**COMM. AGE:**

AGE CLASS	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
BA					

**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:  
**COSITE:** CODE:  
**VEGETATION TYPE:** Dry - Fresh Sugar maple or deciduous fa CODE: FOD 5-3  
**INCLUSION:** CODE:  
**COMPLEX:** CODE:

**Evidence of Disturbance / Notes:**

**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			
Black Cherry	R-0												
Red maple	O												
Sugar maple	A	A											
White Ash	O												
American Elm	O	O											
White Birch	R-0												
Red oak	A												
Trembling Aspen	O		O										
Grey Dogwood			A										
Green/white ash	A	O											
Nannyberry			O										
Virginia Creeper				O									

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

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



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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: SE102

Project Name: NRWC

Date: May 24, 2012

Field Personnel: L Robson

<b>Weather Conditions:</b>	TEMP (°C): <u>27</u>	WIND: <u>4</u>	CLOUD: <u>&lt;10%</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
----------------------------	-------------------------	-------------------	--------------------------	---------------------	--------------------------------------

ELC Polygon: # 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 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?

**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

SE102; Tile 6; Poly 2

**ELC** SITE: SE102 POLYGON: 2  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): L. Robson DATE: May 24 2012 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 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"/> PRAIRIE
					<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	1	4	Red Maple > Green Ash = Sugar maple > Red oak
2 SUB-CANOPY	2	2	Red maple > Green Ash > American Elm
3 UNDERSTOREY	4	3	Spicebush >> Red maple
4 GRD. LAYER	5-7	3	spicebush > jewelweed > garlic mustard

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 10-24	A 25-50	N >50
----------------------	-------	---------	---------	-------

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

DEADFALL/LOGS:	A <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: fine sand	DEPTH TO MOTTLES/GLEY: g=	G= 0cm
MOISTURE: 7	DEPTH OF ORGANICS: 36	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: 740	(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE: Red Maple Mineral Deciduous	CODE: SWD3-1
VEGETATION TYPE: Swamp to spicebush	CODE:
INCLUSION: D-F Sugar maple-oak	CODE: FODS-3
COMPLEX:	CODE:

Evidence of Disturbance / Notes:  
 Polygon is predominantly Swamp with small upland ridge at Western edge (incl. 2)

**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	
Green Ash	0	0	0			garlic mustard				0	
Red maple	A	A	0			Raspberry				0	
Black Ash		R-0				Jack in the pulpit				R	
Red Oak	0					Jewelweed				A	
Sugar maple	0					Strich fern				R-0	
Ironwood		R-0				Sensitive fern				R-0	
American Elm		0				Maize				0	
Blue Beech		R-0				Sedge spp				R-0	
Black cherry		R-0									
American beech		R-0									
Sugar maple		A									
American elm		0									
Red oak		0									
Red maple		0									
Spicebush			A	A							
Virginia creeper				A							
Rubus			R-0	0							

Page \_\_\_ of \_\_\_  
 Signature: Laura Robson  
 (Field Personnel)

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



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

## Woodland & Wildlife Habitat Assessment Form

Project Number: SE102

Project Name: NRWC

Date: May 24, 2012

Field Personnel: L Robson

Weather Conditions:	TEMP (°C): <u>27</u>	WIND: <u>4</u>	CLOUD: <u>10%</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
---------------------	-------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: # 2 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?
17 T 0623135	1-long pool	4m	2-10cm	16	NO	yes
47549 89	throughout - UTM for separate small pond					

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

- water is pooled throughout polygon in one long branching depression  
 - 2 Northern Leopard frogs seen in pool  
 - red-tailed hawk heard & seen over polygon.

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

SE102; Tile 5; Poly 1

ELC SITE: NIA CARA POLYGON: 1
COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): JR DATE: JUN 8-12 TIME:
START: 1:00 END: 5:00 PM UTMZ: UTMN:

POLYGON DESCRIPTION: INTERMITTENT
SYSTEM SUBSTRATE TOPOGRAPHIC FEATURE HISTORY PLANT FORM COMMUNITY
TERRESTRIAL ORGANIC LACUSTRINE NATURAL PLANKTON LAKE
WETLAND MINERAL SOIL RIVERINE CULTURAL SUBMERGED POND
AQUATIC PARENT MIN. TERRACE BOATING-LVD. RIVER
ACIDIC BEDRK. TERRACE VALLEY SLOPE GRAMINOID STREAM
MARSH SWAMP
BASIC BEDRK. CLIFF ROLL UPLAND BRYOPHYTE FEN
BOG
ALVAR CREVICE / CAVE COVER OPEN MEADOW PRAIRIE THICKET
CARB. BEDRK. ALVAR SHRUB TREED PRAIRIE SAVANNAH WOODLAND FOREST PLANTATION
ROCKLAND BEACH / BAR SAND DUNE BLUFF

STAND DESCRIPTION:

LAYER HT CVR SPECIES IN ORDER OF DECREASING DOMINANCE
1 CANOPY 1-2 4 FRAXINUS > ACER FLORIDENSE > POPOLETTA
2 SUB-CANOPY 3 4 FRAXINUS >> ACER FLORIDENSE > RALPHIA CANADENSIS
3 UNDERSTOREY 4-5 4 SPICEBUSH > RUBUS IDAEUS > RALPHIA CANADENSIS
4 GRD. LAYER 6-7 4 CILICARY > V. CLEOPHILA > IMPATIENS > W. ANEMONS

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: 0-10 10-24 25-50 >50
0 0 0 N

STANDING SNAGS: N <10 R 10-24 R 25-50 N >50
DEADFALL LOGS: R <10 0 10-24 0 25-50 N >50

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

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

SOIL ANALYSIS: TEXTURE: MEDIUM S DEPTH TO MOTTLES/GLEY: G= 55cm G= 55cm
MOISTURE: 4 DEPTH OF ORGANICS: (cm)
HOMOGENEOUS/VARIABLE DEPTH TO BEDROCK: 720 (cm)

COMMUNITY CLASSIFICATION: COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
COSITE: CODE:
VEGETATION TYPE: F-M Ash Lowland Deciduous Forest CODE: R097-2
INCLUSION CODE:
COMPLEX CODE:

Evidence of Disturbance / Notes:
Yolk - 20cm SL
- 30cm S
- ...
- CANOPY N 60% COVER (LESS IN SOME AREAS)
- MOST MATURE TREES ARE ASH & POPLAR

ELC SITE: SE102 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.
FRAXINUS BA A O W. ANEMONS
POPOLETTA O R / CILICARY
RUBUS R R / EQUISETUM
ACER FLORIDENSE O R / GLY STRI
RUBUS R R / W. ANEMONS
POPOLETTA R R / MALVA
SOLIDAGO
CILICARY
IMPATIENS
POLYGONUM SP.
ERYTHRONEURA R
RED BERRANT
S. PULPIT R
DRY CART
CAMMIS OVALES R
LYCOPodium
CAR. GRAC R
POLYGONUM SP. R
CAR. ROSE O
CAR. CANESC
MALVA R
W. SALICARIA
BRACK. Fern O
RUB. PUB. R O
BLK. ALDER R
RIB. AMER R
CRATAEGUS R
CORFACE O
VIB. LENT O
TOP RAD. R O low
SOUTHERN APPALACHIAN R
SPICEBUSH A
RUBUS IDAEUS A
RHACATIA R O

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

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

pic 5
- UNDERSTOREY DENSE
W:\resource\Internal Info and Teams\FIELD FORMS\Vegetation\ELC\clic-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1996)



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC SE102

Date: June 8, 2012

Field Personnel: J. Leslie

<b>Weather Conditions:</b>	TEMP (°C): <u>25</u>	WIND: <u>2-3</u>	CLOUD: <u>50%</u>	PPT: <u>☐</u>	PPT (in last 24 hrs): <u>RAIN</u>
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ELC Polygon: #5-1 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?	

**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

SE102; Tile 5; Poly 2

**ELC** SITE: N AGARD POLYGON: 2  
 SURVEYOR(S): STL DATE: JUNE 8-12 TIME:  
 COMMUNITY DESCRIPTION & CLASSIFICATION START: 2:00 END: 2:30 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"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> FORB <input type="checkbox"/> LICHEN	<input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS		<input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> FEN <input type="checkbox"/> BOG
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<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"/> OPEN WATER		<input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB		<input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND
<input type="checkbox"/> SURFICIAL DEP.					<input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<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	ACEFREE > BETPAPY = POPDELTA
2 SUB-CANOPY	3	4	ACEFREE >> FRAPENN = PLUSERO = BETPAPY
3 UNDERSTOREY	3	3	
4 GRD. LAYER	4-7	4	FRAPENN = CIRLUTE. > V-CREEPER

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 N >50

**STANDING SNAGS:**  
 0 <10 R 10-24 Z 25-50 N >50

**HEADFALL LOGS:**  
 0 <10 0 10-24 Z 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:**

TEXTURE: MED. S DEPTH TO MOTTLES/GLEY: g= 55cm G= 780  
 MOISTURE: 3 DEPTH OF ORGANICS: 8 (cm)  
 HOMOGENEOUS/VARIABLE DEPTH TO BEDROCK: 7120 (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:  
 COMMUNITY SERIES: CODE:  
 ECOSITE: CODE:  
 VEGETATION TYPE: F-M LOWLAND DECID. FOREST CODE: FOD7

INCLUSION CODE:  
 COMPLEX CODE:

**Evidence of Disturbance / Notes:**  
 - NO CLAY @ 80cm DEPTH  
 - UNDERSTORY MUCH LESS DENSE THAN POLY 1  
 - BASE LACUSTRINE HAS INFLUENCED CANOPY COMPOSITION

**ELC** SITE: SE102 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	
ACEFREE	A	A	R	R		CIRLUTE				A	
POPDELTA	O					INS. V. CREEPER				O	
FRAPENN	R	R	O	A		DFY CART				O	
PLUSERO	R	R	R			V-AVENS				R	
BETPAPY	O	R				FRA VESC				O	
						LL. ASTER				R	
						PER GRYP				R	

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

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

PIC#6





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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 60950269

Project Name: NRNC SE102

Date: JUNE 8-12

Field Personnel: STL

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	2-3	50%	X	RAIN

ELC Polygon: # 5-2 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=scar; SI=other sign; TK=track; VO=vocalization

SE102; Tile 5; Poly 3

**ELC** SITE: NIAGARA POLYGON: 3

**COMMUNITY DESCRIPTION & CLASSIFICATION** SURVEYOR(S): JM DATE: JUNE 8-12 UTME:

START: 2:45 END: 3:10 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 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 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"/> OPEN WATER	<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER	<input type="checkbox"/> SHALLOW WATER	<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SURFICIAL DEP.	<input type="checkbox"/> SURFICIAL DEP.	<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK	<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	FRAPENN >> ACEFREE > ULMAMER
2 SUB-CANOPY	3	3	FRAPENN > ACEFREE
3 UNDERSTOREY	4	2	FRAPENN > LINBENZ
4 GRD. LAYER	5-7	4	GLYSTM > CARLACU > ONSENS > BIDENS

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:	<10	10-24	25-50	>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: <u>SIC</u>	DEPTH TO MOTTLES/GLEY: <u>g= 25cm G= 25cm</u>
MOISTURE: <u>6</u>	DEPTH OF ORGANICS: <u>20cm (cm)</u>
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: <u>&gt;120 (cm)</u>

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Green Ash Mineral Deciduos CODE: SWD2-2

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes: -NO H2O

**ELC** SITE: SE102

**COMMUNITY DESCRIPTION & CLASSIFICATION** 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	
FRAPENN	D	O	O		
ACEFREE	R	R	R		
ULMAMER	R	R	R		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CARLACU					
GLYSTM					D A
BIDENS SP.					
DCY CAST					R
CALSE NETTLE					
ONSENS					
MALSH FERN					R-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: 160950269

Project Name: NRWC SE102

Date: June 8, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>2-3</u>	<u>50%</u>	<u>Ø</u>	<u>RAIN</u>

ELC Polygon: # 5-3 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>621499, 4751313</u>	<u>V POOL</u>	<u>15 x 15 m</u>	<u>Ø</u>	<u>#8</u>	<u>GENERALLY NO</u>	<u>LOGS, SOME SHRUBS</u>

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

- APPEARS TO HAVE SURFACE H<sub>2</sub>O DURING EARLY/MID SPRING BUT STAINING SUGGEST IT'S TYPICALLY < 15CM IN DEEPEST AREAS  
 - GROUND H<sub>2</sub>O WAS ABOUT 15CM BELOW SURFACE DURING SURVEY

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

Date: Aug 27, 2012

Field Personnel: Katherine S

<b>Weather Conditions:</b>	TEMP (°C): <u>27</u>	WIND: <u>2</u>	CLOUD: <u>100%</u>	PPT: <u>rain</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?

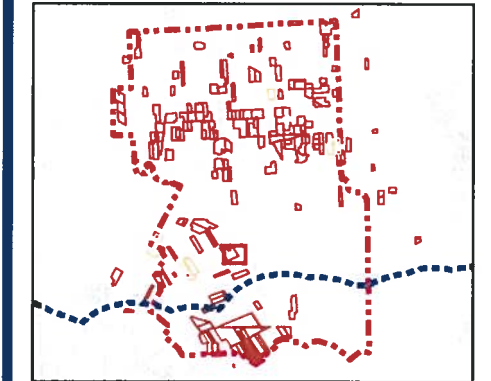
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

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

V:\01609\active\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Released: 2012-05-18 By: bawpwr



- ### Legend
- Turbines in Signed Lands
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
  - Receptors
    - Non-Participating Receptor
    - Participating Receptor
  - Property and Study Area
    - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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.



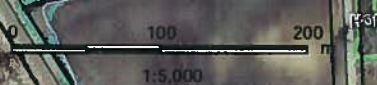
**Stantec**

May 2012  
160950269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 6

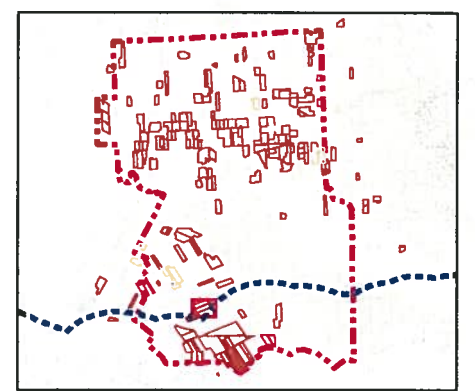
Title  
 Property with Turbine  
 SE102



V:\016094\active\160950289\planning\drawing\20120423\_NE\_Fieldmaps\160950289\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Release: 2012-05-23 By: bowper



- ### Legend
- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - △ Potential Turbine Locations
  - Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - △ Non-Participating Receptor
  - ▽ Participating Receptor
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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.



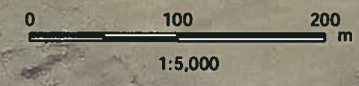
**Stantec**

May, 2012  
160950289

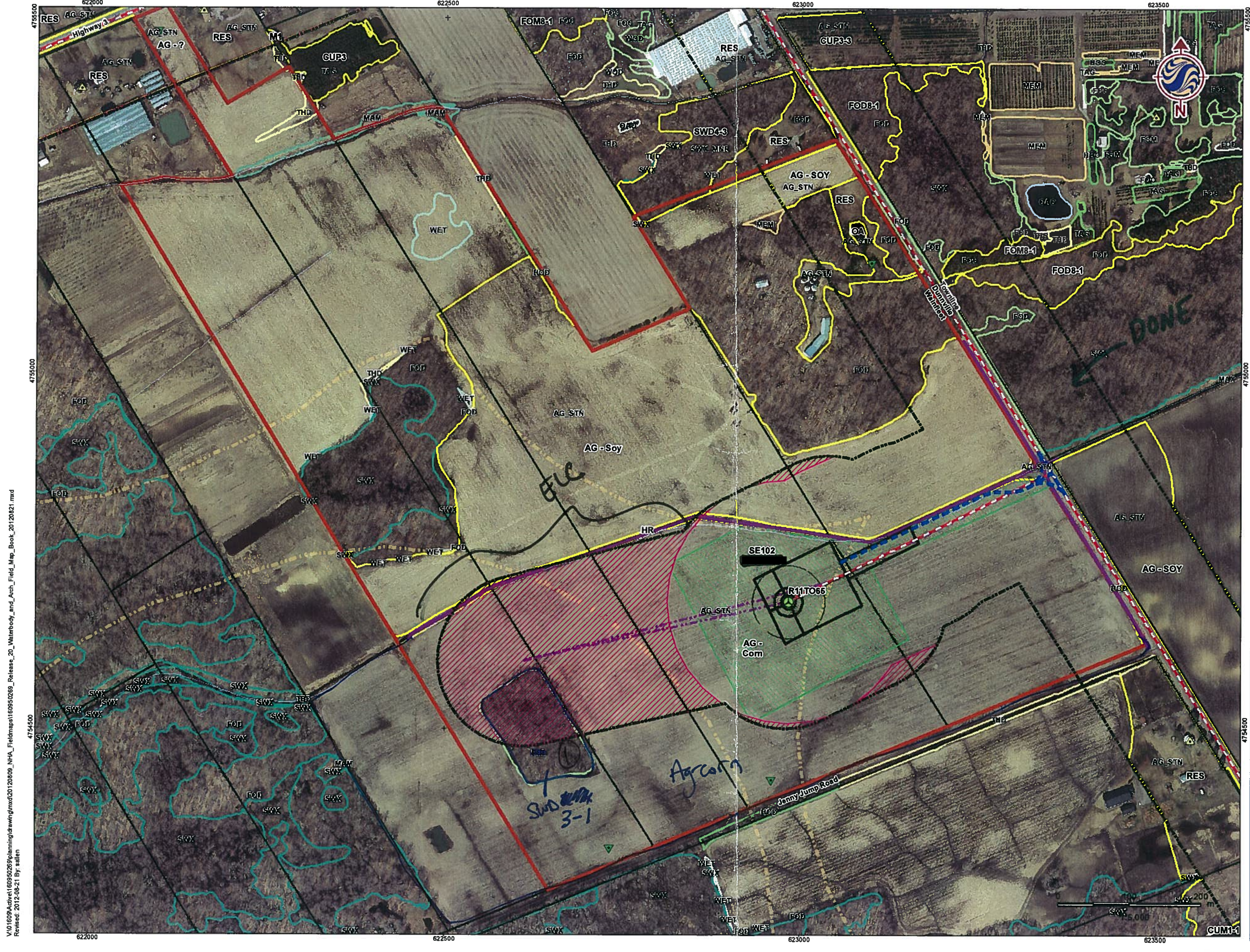
Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
5

Title  
Property with Turbine  
SE102



3



### Legend

- Turbines In Signed Lands**
  - Standard Turbine (105 dBA)
  - 51m Turbine Setback
- 150m Zone of Investigation**
- Preliminary Study Area**
- Signed Property**
- Signed Property - Outside Study Area**
- Potential Signed Property**
- Potential Signed Property - Outside Study Area**
- Zone of Investigation Comparison (Areas not previously included in terrestrial and waterbody site investigation)**
- ELC Boundary**
- Property Boundary**
- Stage 2AA Archaeology**
  - Completed
  - Incomplete
  - Ready
- Archaeology**
  - Stage 3 AA Required
  - No Stage 3 AA Required
  - Waterbody
  - Possible Undertified Waterbody

*Needs ELG in new hatched area*

- ### 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 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Waterbody Map

Figure No.  
4

Title  
Property with Turbine  
SE102

V:\01609\Active\160950269\Planning\dwg\mxd\20120809\_NHA\_Fieldmap\160950269\_Release\_20\_Waterbody\_and\_Arch\_Field\_Map\_Book\_20120821.mxd  
 Revised: 2012-08-21 By: sallen



SE 105 ; Tile 7; Poly A

**ELC** SITE: NRWC SE105 POLYGON: A  
 SURVEYOR(S): M.ROSS DATE: May 30/12  
 START: 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"/> 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"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
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			
AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC 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		
SITE	<input type="checkbox"/> CARB. BEDRK.				
OPEN WATER					
SHALLOW WATER					
SURFICIAL DEP. BEDROCK					

**POND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	7	4	QUERUBR > ACE SASA = FRAPENN
SUB-CANOPY	3	3	ACE SASA > FRAPENN > Pop hornbeam > Blue beech
UNDERSTOREY	3-4	3	ACE SASA = AM BEECH = Blue beech = Spicebush
GRD. LAYER	6-7	3	IMP CAPE = large leaved Aster = Man apple > PARVITA

**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%

**POND COMPOSITION:**

CLASS ANALYSIS:	<10	10-24	25-50	>50
STANDING SNAGS:	R	O	R	M
AD FALL LOGS:	A	A	R	M
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT			
MIN. AGE:	PIONEER	YOUNG	MID-AGE	MATURE
OLD GROWTH				

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

**COMMUNITY CLASS:** CODE:  
**COMMUNITY SERIES:** CODE:  
**OSITE:** CODE:  
**VEGETATION TYPE:** CODE:  
 juv sp + FOD 9  
**INCLUSION:** CODE:  
**COMPLEX:** CODE:  
**Prevalence of Disturbance / Notes:**

**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	
FRAPENN	0A	0				ONO SENS				0	
ULM AMER	R	R				IMP CAPE				A	
QUERUBR	A	0				Large Leaved Aster				A	
ACE SASA	2A	A	0			Polygon Fung				0	
TIL AMER		0				TRE VERS				0	
Pop Hornbeam		0				PIA ARUN				0	
Am. Beech	R		0			Man Apple				A	
Blue Beech		0	0			Can Sp				R	
ACE RUPR	R	0									
Shagbark Hicok	R										
VITRIPA					0	R=0					
Spicebush					0						
PAR VITA						0					

Page \_\_\_ of \_\_\_  
 Signature: [Signature] (Field Personnel)  
 Quality Control: This form is complete  legible   
 Signature: [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

Project Name: NRWC

Date: May 30/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>21°C</u>	<u>4 gust to 5</u>	<u>70%</u>	<u>None</u>	<u>None</u>

ELC Polygon: # 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>621097-4747848</u>	<u>①</u>	<u>25x10M</u>	<u>N/A</u>	<u>55</u>	<u>Yes</u>	<u>Yes</u>	

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

→ obvious wet areas (open, wet species present) visible from edge and can be seen on air photo; evidence of ephemeral pooling

AMR1  
SOSP  
CA60 (Flower)  
PUMA (foraging overhead)  
BLSA Monarch

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

V:\1609\Acres\160950\889\planning\arawing\mtd\20120423\_NE\_Fieldmap\160950289\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bowper



- ### Legend
- Turbines in Signed Lands
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands
    - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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  
 Amphibian Field Maps

Figure No.  
 7

Title  
 Property with Turbine  
 SE105

May 2012  
 160950289





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: June 6, 2012

Field Personnel: N. Leaver

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>0-2</u>	<u>0-75%</u>	<u>Ø</u>	<u>Ø</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? -see notes below: pooling present  
-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)**

- SPPE OB/VO  
 - GRFR OB/VO  
 - GRTR OB/VO

\* hedgerow community, however, being used internally as an access road to property - use of road w vehicles has caused large areas of pooling due to disturbance, Area is now acting as frog habitat w approx 10/ per pool (~15-20 pools), Drainage features on both sides of hedgerow, but dry (no standing/pooling of water)  
 \*Dry community w wet characteristics

SE 06, T1P 3, R14 1-2

**ELC** SITE: NW 1/4 Sec 26 POLYGON: 1-2

COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): MSL DATE: July 6, 2007 UTMZ: UTMN:

START: N END:

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_

COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
TERRRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE	<input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND
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 checked="" 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"/> CARB. BEDRK.	<input checked="" 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"/> 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 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
<b>SITE</b>			<b>COVER</b>		
OPEN WATER			<input checked="" type="checkbox"/> OPEN		
SHALLOW WATER			<input type="checkbox"/> SHRUB		
WATER			<input type="checkbox"/> TREED		
SUBOFFICIAL DEP.					
BEDROCK					

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	
Beaked Sedge			D								

**LAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	/	/	
SUB-CANOPY	/	/	
UNDERSTOREY	/	/	
GRD. LAYER	5	4	Beaked Sedge

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  
 C CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤50% 4=CVR>50%

**WOOD COMPOSITION:** BA:

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

**WOUNDING SNAGS:** N <10 O 10-24 N 25-50 N >50

**WINDFALL LOGS:** N <10 N 10-24 N 25-50 N >50

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

**WILDLIFE AGE:** PIONEER  YOUNG MID-AGE MATURE OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE: Sandy clay DEPTH TO MOTTLES/GLEY: g= ~20 G= ~20

STRUCTURE: b DEPTH OF ORGANICS: Ø (cm)

HOLOGENOUS / VARIABLE DEPTH TO BEDROCK: >120 (cm)

**COMMUNITY CLASSIFICATION:**

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

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

SITE: \_\_\_\_\_ CODE: \_\_\_\_\_

VEGETATION TYPE: Narrow-leaved Sedge Mineral Meadow Marsh CODE: MAM 2-3

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

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

Page    of     
 Signature: Nataheera (Field Personnel)

Quality Control: This form is complete  & legible .  
 Signature: [Signature] (Project Manager)

Presence of Disturbance / Notes:  
 old fence stakes in ground & on ground - Small areas of open ground  
 - NOT 0.5 ha in size, however, mapped due to separateness of polygon 1 - stands out as own community



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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: June 6, 2012

Field Personnel: N. Leaver

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>0-2</u>	<u>0-75%</u>	<u>Ø</u>	<u>Ø</u>

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? *- See notes below*  
-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)**

*- no vernal pools present at time of survey. based on surrounding pools in disturbed HR (Poly I), it is likely this area supports vernal pooling in early spring months*

100, 1110, 1014 1-3

**ELC** SITE: NRWC (SEIDG) POLYGON: 1-3  
 SURVEYOR(S): NAL DATE: June 6, 2012  
 COMMUNITY DESCRIPTION & CLASSIFICATION START: 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"/> 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 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	<b>COVER</b>		<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 type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**LAND DESCRIPTION:**

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

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<80% 4=CVR>80%

**AND COMPOSITION:**

BA:

E CLASS ANALYSIS:	0	<10	A	10-24	R	25-50	N	>50
STANDING SNAGS:								
AD FALL LOGS:								
STANDANCE CODES:								

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

**IL ANALYSIS:**

ATURE: DEPTH TO MOTTLES/GLEY G=

ISTURE: DEPTH OF ORGANICS: NA G=

MOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

SITE: CODE:

ETATION TYPE: Hedgerow CODE: HR2

INCLUSION CODE:

COMPLEX CODE:

ence of Disturbance / Notes:

**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	
Shagbark tk						Aster sp					
Com Apple						Clearers					
AM BASSWOOD						BLOWN PR					
AM. ELM						Orchard grass					
ACER RUBR						Vete h					
						DAUCALD					
						CUCUMBER					

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





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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 6, 2012

Field Personnel: N. LEIVA

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	22°	0-3	0-60%	0	0

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 trees]

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)**

- BCCH  
- RTHA

\* NOTE: DEAD TREE + CAVITY - PIC #66

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

SE100, 1120, Poly 1-4

ROADSIDE / Partial walk along HRI

**ELC** SITE: NRWC POLYGON: 1-4  
 SURVEYOR(S): NRWC DATE: TUN 26, 2012 UTME:  
 START: 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"/> 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 checked="" 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	<b>COVER</b>		<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 type="checkbox"/> TREE		<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input 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	1	4	DAK > MAPLES
SUB-CANOPY	2	NA	
UNDERSTOREY	7	NA	
GRD. LAYER	5-7	NA	

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  
 % CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

**AND COMPOSITION:**

<b>E CLASS ANALYSIS:</b>	<input type="checkbox"/> A	<input type="checkbox"/> <10	<input type="checkbox"/> A	<input type="checkbox"/> 10-24	<input type="checkbox"/> D	<input type="checkbox"/> 25-50	<input type="checkbox"/> R	<input type="checkbox"/> >50
<b>INDING SNAGS:</b>	<input type="checkbox"/> 0	<input type="checkbox"/> <10	<input type="checkbox"/> 0	<input type="checkbox"/> 10-24	<input type="checkbox"/> 0	<input type="checkbox"/> 25-50	<input type="checkbox"/> R	<input type="checkbox"/> >50
<b>DFALL LOGS:</b>	<input type="checkbox"/> 0	<input type="checkbox"/> <10	<input type="checkbox"/> 0	<input type="checkbox"/> 10-24	<input type="checkbox"/> 0	<input type="checkbox"/> 25-50	<input type="checkbox"/> R	<input type="checkbox"/> >50
<b>NDANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT							
<b>AM. AGE:</b>	<input type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input checked="" type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH			

**L ANALYSIS:**

<b>TURE:</b>	DEPTH TO MOTTLES/GLEY	g=	G=
<b>STURE:</b>	DEPTH OF ORGANICS:		
<b>OGENEOUS / VARIABLE</b>	DEPTH TO BEDROCK:	(cm)	

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>SITE:</b>	CODE:
<b>ETATION TYPE:</b> <u>WHITE SINKHOLE MINERAL-DEC. SWAMP</u>	CODE: <u>SWD1-1</u>
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

**ence of Disturbance / Notes:**

- partial walkthrough due to property access - Deep standing water  
 - Assessed from edge field to partial walkins to community from edge

**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
	1	2	3	4	
ACEFREE	0				
W.OAK	0				
ACERUBR	0				
R.OAK	0				
Shes Hickon	R				
FRAPENS	0				

SPECIES CODE	LAYER				COLL
	1	2	3	4	
B. IRIS				0	
LADY FERN				0	
SENS. FERN				0	
CAREX SP.				0	

Mountain Maps

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

Signature: Natahara  
 (Field Personnel)

Quality Control: This form is complete & legible

Signature: [Signature]  
 (Project Manager)

3 appears to be same community at edge of St Annes Slough wetland complex



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950267

Project Name: NRWC

Date: June 6, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>22°</u>	<u>0-3</u>	<u>0-60%</u>	<u>0</u>	<u>0</u>

ELC Polygon: # 1-4 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? *- see notes below*  
 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)**

GRFR  
GRTR

\* Large areas of pooling throughout  
 Could not walk in for GPS points due to no property access.





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 6, 2012

Field Personnel: N. LEBUA

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>22°</u>	<u>0-3</u>	<u>0-60%</u>	<u>Ø</u>	<u>Ø</u>

ELC Polygon: # 1-5 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
<u>17T0618425,4768833</u>	<u>(1)</u>	<u>(NA)</u>	<u>25</u>	<u>67</u>	<u>5</u>	<u>0</u>	<u>Peeling bark up to 20m</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?
<u>17T0618416,4768867</u>	<u>POOL</u>	<u>30x2m</u>	<u>0.5m</u>	<u>68</u>	<u>YES</u>	<u>NO</u>

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

GRFR

SE 106, 11100, POLY 1-6

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SE106	POLYGON: 1-6	
	SURVEYOR(S): NAL	DATE: JUNE 6, 2012	UTME:
	START:	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"/> 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 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"/> TALLUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
SITE	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR	<b>COVER</b>		<input type="checkbox"/> PRAIRIE
OPEN WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
SURFICIAL DEP. BEDROCK		<input type="checkbox"/> SAND DUNE	<input checked="" type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	/	/	
SUB-CANOPY	3	1	ULMAMEER > APPLE > OAK
UNDERSTOREY	4	3	HAWTHORN = DOGWOOD
GRD. LAYER	5-7	4	SOLIDAGO > BROINER = Orchard grass

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%

**AND COMPOSITION:**

<b>CLASS ANALYSIS:</b>	A	<10	R	10-24	N	25-50	N	>50
<b>ANDING SNAGS:</b>	R	<10	R	10-24	N	25-50	N	>50
<b>ADFALL/LOGS:</b>	R	<10	R	10-24	N	25-50	N	>50
<b>INDANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT							
<b>MM. AGE:</b>	PIONEER	<input checked="" type="checkbox"/> YOUNG	MID-AGE	MATURE	OLD GROWTH			

**IL ANALYSIS:**

<b>TURE:</b>	DEPTH TO MOTTLES/GLEY	G=	G=
<b>ISTURE:</b>	DEPTH OF ORGANICS:		
<b>MOGENEOUS / VARIABLE</b>	DEPTH TO BEDROCK:	(cm)	
		(cm)	

**MMUNITY CLASSIFICATION:**

<b>MMUNITY CLASS:</b>	CODE:
<b>MMUNITY SERIES:</b>	CODE:
<b>ISITE:</b>	CODE:
<b>ETATION TYPE:</b> Hedgerow	CODE: HR3
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:
<b>ence of Disturbance / Notes:</b>	

<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		
Apple			R			Goldenrods						
W. Oak			R			Chrys. sp						0
Hawthorn			●			Dan. Carex						0
ULMAMEER			R			BROINER						0
						Orchard grass						0

Page 1 of 1  
 Signature: Nataheera  
 (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: JUNE 6, 2012

Field Personnel: N. LEAUA

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>22°</u>	<u>0-3</u>	<u>0-60%</u>	<u>Ø</u>	<u>Ø</u>

ELC Polygon: # 1-6 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?

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

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

SE106; Tile S; Poly 1-7



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Fax: (519) 836-2493

### Roadside ELC, Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269 Project Name: NRNC SE106  
Date: June 6, 2012 Field Personnel: N. LEAVA

Weather Conditions:	TEMP (°C): <u>22°</u>	WIND: <u>0-3</u>	CLOUD: <u>0-60%</u>	PPT: <u>0</u>	PPT (in last 24 hrs): <u>0</u>
---------------------	--------------------------	---------------------	------------------------	------------------	-----------------------------------

**POLYGON DESCRIPTION**

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON: <u>1-7</u>	TOPOGRAPHIC FEATURE	HISTORY
	START TIME:	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> TALUS <input checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> CULTURAL
	END TIME:	<input type="checkbox"/> RIVERINE <input type="checkbox"/> CREVICE / CAVE	
		<input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> ALVAR	
	<input type="checkbox"/> TERRACE <input type="checkbox"/> ROCKLAND		
	<input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> BEACH / BAR		
	<input type="checkbox"/> TABLELAND <input type="checkbox"/> SAND DUNE		
	<input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> BLUFF		
	<input type="checkbox"/> CLIFF		

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	<u>3</u>	<u>1</u>	<u>ULMAMER = W. OAK = POPTREM</u>
2 SUB-CANOPY	<u>/</u>	<u>/</u>	
3 UNDERSTOREY	<u>4</u>	<u>4</u>	<u>SALIX &gt; DOGWOOD</u>
4 GRD. LAYER	<u>57</u>	<u>NA</u>	<u>ORCHARD GRASS</u>

T 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

VR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60% N/O=not observed

TANDING SNAGS:  0  <10  10-24  N 25-50  N >50

BUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

TAND MATURITY:  PIONEER  YOUNG  MID-AGE  MATURE  OLD GROWTH

VEGETATION TYPE: <u>Willow mineral Thicket Swamp</u>	CODE: <u>SWT 2-2</u>
COMPLEX	CODE:

**vidence of Disturbance / Notes:**

Assessed from fence line - willow sp along edge of Swamp community No visual on any Standing water present.

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 N/O=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL.
	1	2	3	4	≤5 m	>5 m	
TREES:							
<u>W OAK</u>							
<u>ULMAMER</u>							
<u>POPTREM</u>							
SHRUBS:							
<u>DOGWOOD</u>							
<u>SALIX SP</u>							
GROUND:							
<u>ORCHARD GRASS</u>							

Signature: Natasha  
(Field Personnel)

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



ELC Polygon: # 1-7 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 ruins 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

SE106; Tile 8; POLY 1-8



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Roadside ELC,  
Woodland & Wildlife Habitat  
Assessment Form

**Stantec**  
Project Number: 160950269      Project Name: NRWC SE106  
Date: June 6, 2012      Field Personnel: N. Leawa  
Weather Conditions:      TEMP (°C): 22°      WIND: 0-3      CLOUD: 0-60%      PPT: 0      PPT (in last 24 hrs): 0

POLYGON DESCRIPTION

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	<b>POLYGON:</b> 1-8	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> TALUS	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL
	<b>START TIME:</b>	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CREVICE / CAVE	
	<b>END TIME:</b>	<input type="checkbox"/> BOTTOMLAND	<input type="checkbox"/> ALVAR	
		<input type="checkbox"/> TERRACE	<input type="checkbox"/> ROCKLAND	
		<input type="checkbox"/> VALLEY SLOPE	<input type="checkbox"/> BEACH / BAR	
		<input type="checkbox"/> TABLELAND	<input type="checkbox"/> SAND DUNE	
		<input type="checkbox"/> ROLL UPLAND	<input type="checkbox"/> BLUFF	
		<input type="checkbox"/> CLIFF		

TAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	/	/	
SUB-CANOPY	3	1	ULMAMER?
UNDERSTOREY	4	4	DOGWOOD = SALIX?
GRD. LAYER	NA	NA	Grasses?

**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% N/O=not observed

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

**ABUNDANCE CODES:** N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT N/O=Not observed

**TAND MATURITY:** PIONEER  YOUNG MID-AGE MATURE OLD GROWTH

**VEGETATION TYPE:** Mineral Thicket Swamp      **CODE:** SWT 2  
**COMPLEX**      **CODE:**

evidence of Disturbance / Notes:

Due to restricted property access & difficulty in visibility through hedgerow, this community could not be delineated to a species specific community. Mostly shrub, with odd tree >8m.

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 N/O=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL.
	1	2	3	4	≤5 m	>5 m	
<b>TREES:</b>							
ULMAMER							
Alder sp?							
<b>SHRUBS:</b>							
DOGWOOD							
SALIX SHRUB							
<b>GROUND:</b>							
ORCHARD GRASS							
reed canopy							

Signature: *Natalea* (Field Personnel)      Signature: *[Signature]* (Project Manager)  
Quality Control: This form is complete  & legible .

ELC Polygon: # 1-8 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*)

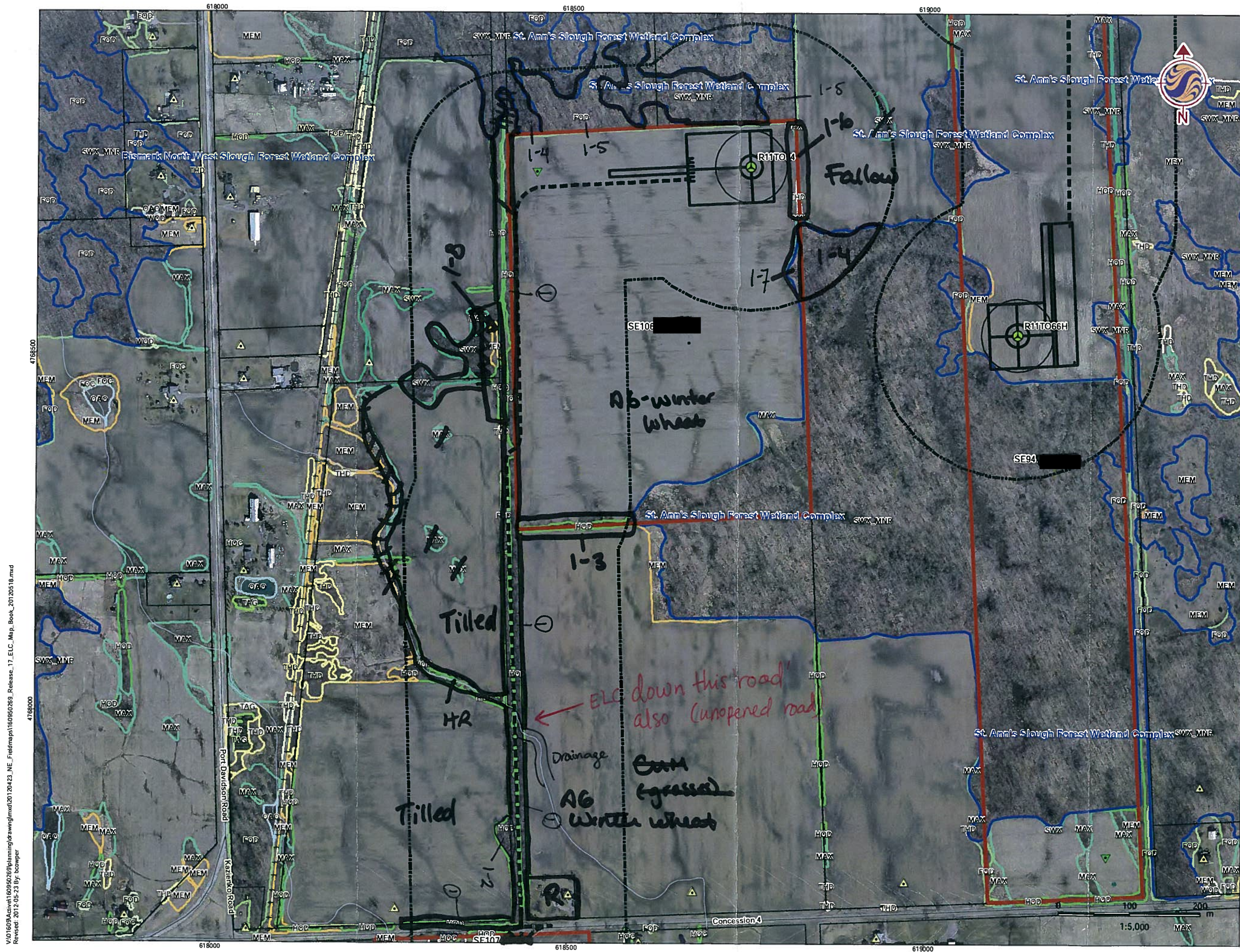
STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

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

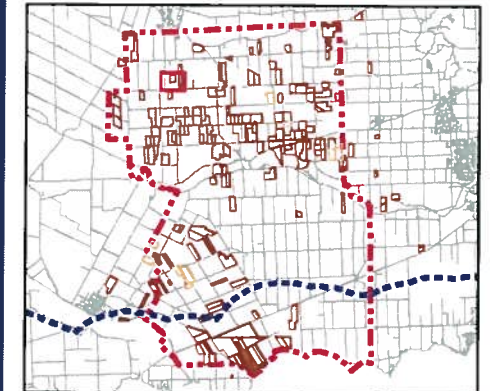
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**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=scat; SI=other sign; TK=track; VO=vocalization



- ### Legend
- Turbines in Signed Lands**
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands**
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Study Area and Property**
    - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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.

May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
8

Title  
Property with Turbine  
SE106

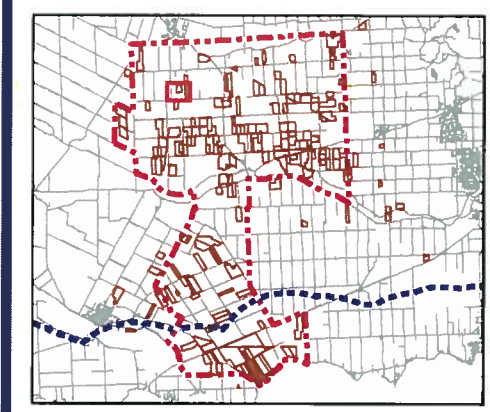
V:\01609\Act\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmap\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012 05 23 By: bawpwr

V:\1609\Acres\160950269\planning\drawing\mxd\20120423\_NHA\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-06-27 by: bowper



**Legend**

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Proposed Collector Cable
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



**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**

June, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
5

Title  
Property with Turbine  
SE106





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

## Woodland & Wildlife Habitat Assessment Form



Project Number: 160950269

Project Name: NRWC

Date: June 6, 2012

Field Personnel: N. Leana

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20</u>	<u>0-2</u>	<u>0%</u>	<u>Ø</u>	<u>Ø</u>

ELC Polygon: # 1-1 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?

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

- 3 BULL (AUD) } pond on other side of Res (OA)  
 - 1 GRFR (AUD) }  
 - KILL  
 - RWBL

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: June 6, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20	0-2	0%	Ø	Ø

ELC Polygon: # 1-2 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)**

*RWBL playing in adjacent crown*

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

SE107; Tile ~~107~~ 9; Poly 1-3

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 107 -NRWK		POLYGON: 1-3	
	SURVEYOR(S): NAL		DATE: June 6, 2012	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <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"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <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 checked="" 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 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 checked="" 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
<b>SITE</b>					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					
<b>COVER</b>					
<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE					

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	Reed-Canary
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: Reed-Canary grass Mineral Meadow Marsh	CODE: MAM 2-2
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes: Located in area of North section of Hedgerow, acting as a drainage feature along road

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		
reed Canary			D									

Page \_\_\_ of \_\_\_  
Signature: Nataheeva (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

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

Date: June 6, 2012

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

Weather Conditions:	TEMP (°C): <u>20°</u>	WIND: <u>0-2</u>	CLOUD: <u>0%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>Ø</u>
---------------------	--------------------------	---------------------	---------------------	------------------	-----------------------------------

ELC Polygon: # 3 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=scat; SI=other sign; TK=track; VO=vocalization

SE107; TIK 9; Poly 1-4

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE17	POLYGON: 1-4
	SURVEYOR(S): N	DATE: June 6, 2012
	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 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	4	Salix >> PopTRM
3 UNDERSTOREY	4	4	reed canopy > Salix
4 GRD. LAYER	5-7	23	POA sp = Sedge sp > Dock

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>	<10	10 - 24	25 - 50	>50	
<b>STANDING SNAGS:</b>	<10	10 - 24	25 - 50	>50	
<b>DEADFALL/LOGS:</b>	<10	10 - 24	25 - 50	>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>	DEPTH TO MOTTLES/GLEY	g=	G=
<b>MOISTURE:</b>	DEPTH OF ORGANICS:	NA	(cm)
<b>HOMOGENEOUS / VARIABLE</b>	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b> willow mineral Thicket Swamp Type	CODE: SWT 2-2
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

**Evidence of Disturbance / Notes:**

borders on a wetland at north end of property  
- Difficult to walk through due to areas of pooling water

<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	
reed canopy			A	A		reed canopy				R	
PopTRM		R				clover				R	
Salix sp.		O-A	O-A			fox tail				R	
						Dock sp				O	
						POA sp.				O-A	
						Sedge sp				O-A	

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

Signature:

*Nataheara*  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature:

*[Signature]*  
(Project Manager)



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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: June 6, 2012

Field Personnel: N. Leana

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20°</u>	<u>0-2</u>	<u>0%</u>	<u>Ø</u>	<u>Ø</u>

ELC Polygon: # 4 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)**

- WT Deer (OB)  
 - GRFR (VO)

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

SE107, Tile 9, Poly 1-5

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE107	POLYGON: 1-5
	SURVEYOR(S): NAL	DATE: June 6, 2012
	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 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 type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<b>SITE</b>		<input type="checkbox"/> CLIFF	<b>COVER</b>	<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> TALUS	<input type="checkbox"/> OPEN	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> SHRUB	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	<input type="checkbox"/> TREE		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<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.	3	ACESASA >> AM Beech > Shag hic = Bl. Chem
2 SUB-CANOPY	2	4	ACESASA >> Beech = Hick = Ironwood
3 UNDERSTOREY	3-4	4	ACESASA >> Ironwood > Beech > Hickory
4 GRD. LAYER	5-7		VARIABLE

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%

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

**SOIL ANALYSIS:**

TEXTURE: Sandy clay	DEPTH TO MOTTLES/GLEY	g= >120	G= >120
MOISTURE: 3	DEPTH OF ORGANICS:		8 (cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		>120 (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: dry-fresh Sugar Maple Beech dec. Forest	CODE: FODS-2a
INCLUSION	CODE: MAM
COMPLEX	CODE:

Evidence of Disturbance / Notes:

upland community - dry

<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	
POPTREM	R	O	O			BLUECANDSH					O
ACESASA	A	A	A	O		NETT LIS					O
SHAG HICKORY	O	O	O			SOLIDAGO sp					DA
Ironwood		O	O			cleavers					O
Blue Beech			R			On Mayapple					O
ACERUBR		R	R			wildginger					R
R. DAK	R	R	R	R							
ABee	O	O	O								
W. PINE	R										
Bl. Cherry	O	R	R								

INCLUSION

Barked spruce  
Salix shrub

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

Signature: *Natahea*  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: *Natahea*  
(Project Manager)



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 Tel: (519) 836-6050  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 6, 2012

Field Personnel: N. Heawa

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20	0-2	0%	0	0

ELC Polygon: # 5 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=scat; SI=other sign; TK=track; VO=vocalization

SE107; Tile 9; Poly 1-6

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE107	POLYGON: 1-6
	SURVEYOR(S): NAL	DATE: June 6, 2012
	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 type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<b>SITE</b>		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> TALUS	<b>COVER</b>	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	<input checked="" type="checkbox"/> SHRUB		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> TREED		<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	4	meadowsweet
3 UNDERSTOREY	4	4	reed canopy > meadowsweet
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:	A <10	A 10-24	N 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: (NA) (cm)  
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:  
COMMUNITY CLASS: CODE:  
COMMUNITY SERIES: CODE:  
ECOSITE: CODE:  
VEGETATION TYPE: meadowsweet mineral thicket Swamp CODE: SWT 2-6  
INCLUSION CODE:  
COMPLEX CODE:

Evidence of Disturbance / Notes:

-Community thick thicket - difficult to walk through - no clear area for soil core sample

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:	POLYGON:
	SURVEYOR(S):	DATE:
	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	
reed canopy			D								
meadowsweet		D	O								
hens tail											

Page \_\_\_ of \_\_\_  
Signature: Nataheara (Field Personnel)  
Quality Control: This form is complete  & legible   
Signature: Nate Walk (Project Manager)





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 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: June 6, 2012

Field Personnel: N. Heaven

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20</u>	<u>0-2</u>	<u>0/</u>	<u>0</u>	<u>0</u>

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

Extent of Physical Investigation of Feature: -Entire / -Partial, walk through polygon (indicate on map) *-very thick; walk around borders of community*

**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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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 6, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20</u>	<u>0-2</u>	<u>0%</u>	<u>Ø</u>	<u>Ø</u>

ELC Polygon: # 1-7 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
<u>17T 0618381, 4766976</u>	<u>large stick piles</u>	<u>56</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
<u>17T 0618305, 4766969</u>	<u>2</u>	<u>ACESASA</u>	<u>~90</u>	<u>51-55</u>	<u>1</u>	<u>~8</u>	<u>5-10m, open cavities</u>
<u>17T 0618313, 4766990</u>	<u>1</u>	<u>ACESASA</u>	<u>~80</u>	<u>50</u>	<u>2</u>	<u>Ø</u>	<u>loose bark ~8m</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)**

AMRO  
KILL  
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

SE107 ; Tile 4 ; Poly 1-8 (Hedgerow)

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>SE107</u>		POLYGON: <u>1-8</u>	
	SURVEYOR(S): <u>NAL</u>		DATE: <u>June 6</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 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"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN <b>(HR)</b>
		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<b>SITE</b>		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BEACH / BAR	<input checked="" type="checkbox"/> TREED		<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	3		<b>VARIABLE</b>
2 SUB-CANOPY	4		
3 UNDERSTOREY	5		
4 GRD. LAYER	6-7		

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<60% 4=CVR>60%

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

<b>ABUNDANCE CODES:</b>	N=NONE	R=RARE	O=OCCASIONAL	A=ABUNDANT
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<b>COMM. AGE:</b>	PIONEER	<input checked="" type="checkbox"/> YOUNG	MID-AGE	MATURE	OLD GROWTH
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<b>SOIL ANALYSIS:</b>	DEPTH TO MOTTLES/GLEY	g=	G=
-----------------------	-----------------------	----	----

<b>MOISTURE:</b>	DEPTH OF ORGANICS:	(cm)
<b>HOMOGENEOUS / VARIABLE</b>	DEPTH TO BEDROCK:	(cm)

<b>COMMUNITY CLASSIFICATION:</b>	CODE:
----------------------------------	-------

<b>COMMUNITY CLASS:</b>	CODE:
-------------------------	-------

<b>COMMUNITY SERIES:</b>	CODE:
--------------------------	-------

<b>ECOSITE:</b>	CODE:
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<b>VEGETATION TYPE:</b> <u>Hedgerow</u>	CODE: <u>HR2</u>
---	------------------

<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	
<u>Salix sp</u>						<u>Solidago sp</u>					
<u>A. Elm</u>						<u>Aster sp.</u>					
<u>Locust sp</u>						<u>Oxycodaisy</u>					
<u>B. Walnut</u>						<u>Vetch sp</u>					
<u>C. Apple</u>						<u>BLOOMER</u>					
<u>A. Dogwood</u>						<u>Reed canopy</u>					
<u>ALBESCA</u>						<u>Orchard grass</u>					
<u>W. oak</u>											

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

Quality Control: This form is complete  & legible .  
Signature: Neil Chelms  
(Project Manager)



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 6, 2012

Field Personnel: N. Leawa

Weather Conditions:	TEMP (°C): <u>20</u>	WIND: <u>0-2</u>	CLOUD: <u>0%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>Ø</u>
---------------------	-------------------------	---------------------	---------------------	------------------	-----------------------------------

ELC Polygon: # 8 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=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: June 6, 2012

Field Personnel: N. Leana

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20	0-2	0/.	Ø	Ø

ELC Polygon: # \_\_\_\_\_ Assessment Type:  Visual; no access /  Walk through feature - *fenced off - on residential property*  
 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

SE107; Tile 9; Poly 1-10

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>SE107</u>	POLYGON: <u>1-10</u>	
	SURVEYOR(S): <u>NAC</u>	DATE: <u>June 6</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 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"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<b>SITE</b>		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> TALUS	<b>COVER</b>	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> TREE		<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	3	4	ACEFREE = FRAPENS
2 SUB-CANOPY	/	/	
3 UNDERSTOREY	/	/	
4 GRD. LAYER	5-7	4	Variable

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>	<input checked="" type="checkbox"/> N <10	<input type="checkbox"/> D 10-24	<input type="checkbox"/> N 25-50	<input type="checkbox"/> N >50
<b>STANDING SNAGS:</b>	<input checked="" type="checkbox"/> N <10	<input type="checkbox"/> N 10-24	<input type="checkbox"/> N 25-50	<input type="checkbox"/> N >50
<b>DEADFALL/LOGS:</b>	<input checked="" type="checkbox"/> N <10	<input type="checkbox"/> N 10-24	<input type="checkbox"/> N 25-50	<input type="checkbox"/> N >50
<b>ABUNDANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT			
<b>COMM. AGE:</b>	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE
			<input type="checkbox"/> OLD GROWTH	

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b> Green Ash - Freemans maple Cultural Wood	CODE: CWL-3*
<b>INCLUSION:</b>	CODE:
<b>COMPLEX:</b>	CODE:

**Evidence of Disturbance / Notes:**

row Community - could not walk through - fenced off.

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:	POLYGON:	
	SURVEYOR(S):	DATE:	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				COLL.
	1	2	3	4			1	2	3	4	
ACEFREE	A					Orchard grass					O
FRAPENS	A					Blueberry					O
						Ladyfern					R
						Vetch					O
						Solidago sp					O
						cleavers					R
						Dandelion					RO

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

Signature:

*Natchearo*  
(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: June 6

Field Personnel: N. Leaver

Weather Conditions:	TEMP (°C): <u>20</u>	WIND: <u>0-2</u>	CLOUD: <u>0</u>	PPT: <u>0</u>	PPT (in last 24 hrs): <u>0</u>
---------------------	-------------------------	---------------------	--------------------	------------------	-----------------------------------

ELC Polygon: # \_\_\_\_\_ Assessment Type:  Visual; no access /  Walk through feature - fenced - walked along borders  
 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

SE107, T1E4, Poly 1-11

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE107	POLYGON: 1-11
	SURVEYOR(S): NAL	DATE: June 6
	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 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 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"/> 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 checked="" type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

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

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:	D	<10	N	10-24	N	25-50	N	>50
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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: N/A (cm)  
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:  
COMMUNITY SERIES: CODE:  
ECOSITE: CODE:  
VEGETATION TYPE: CODE: white pine conif. plantation CuP 3-2  
INCLUSION CODE:  
COMPLEX CODE:

**Evidence of Disturbance / Notes:**

low community - planted in CuM1-1; half early successional

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:	POLYGON:
	SURVEYOR(S):	DATE:
	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	
PINSTRO	A					Grasses					D
Scots pine	A										

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

Signature:

*Nataheara*  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature:

*[Signature]*  
(Project Manager)



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## Woodland & Wildlife Habitat Assessment Form



Project Number: 160950269

Project Name: NRWC

Date: June 6, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20°</u>	<u>0-2</u>	<u>0</u>	<u>0</u>	<u>0</u>

ELC Polygon: # \_\_\_\_\_ Assessment Type: -Visual; no access / -Walk through feature - fenced - walked border of polygon

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

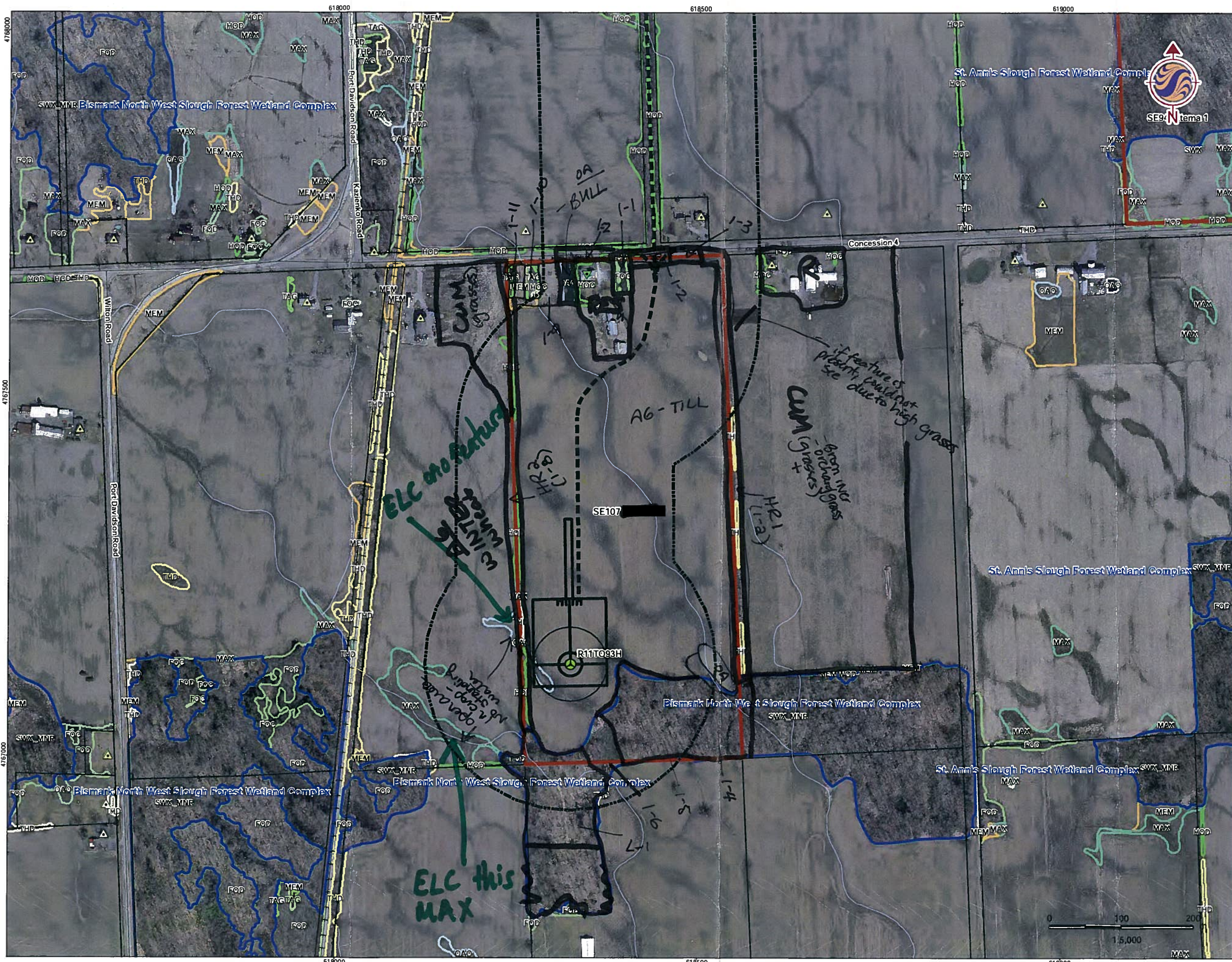
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

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

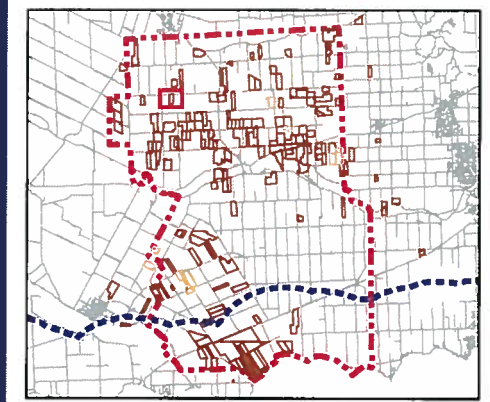
V:\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmap\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012/05/23 by bcwpcr



**Legend**

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer

ELC only what is noted



**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**

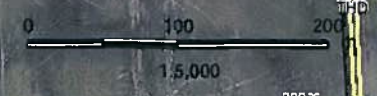
May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

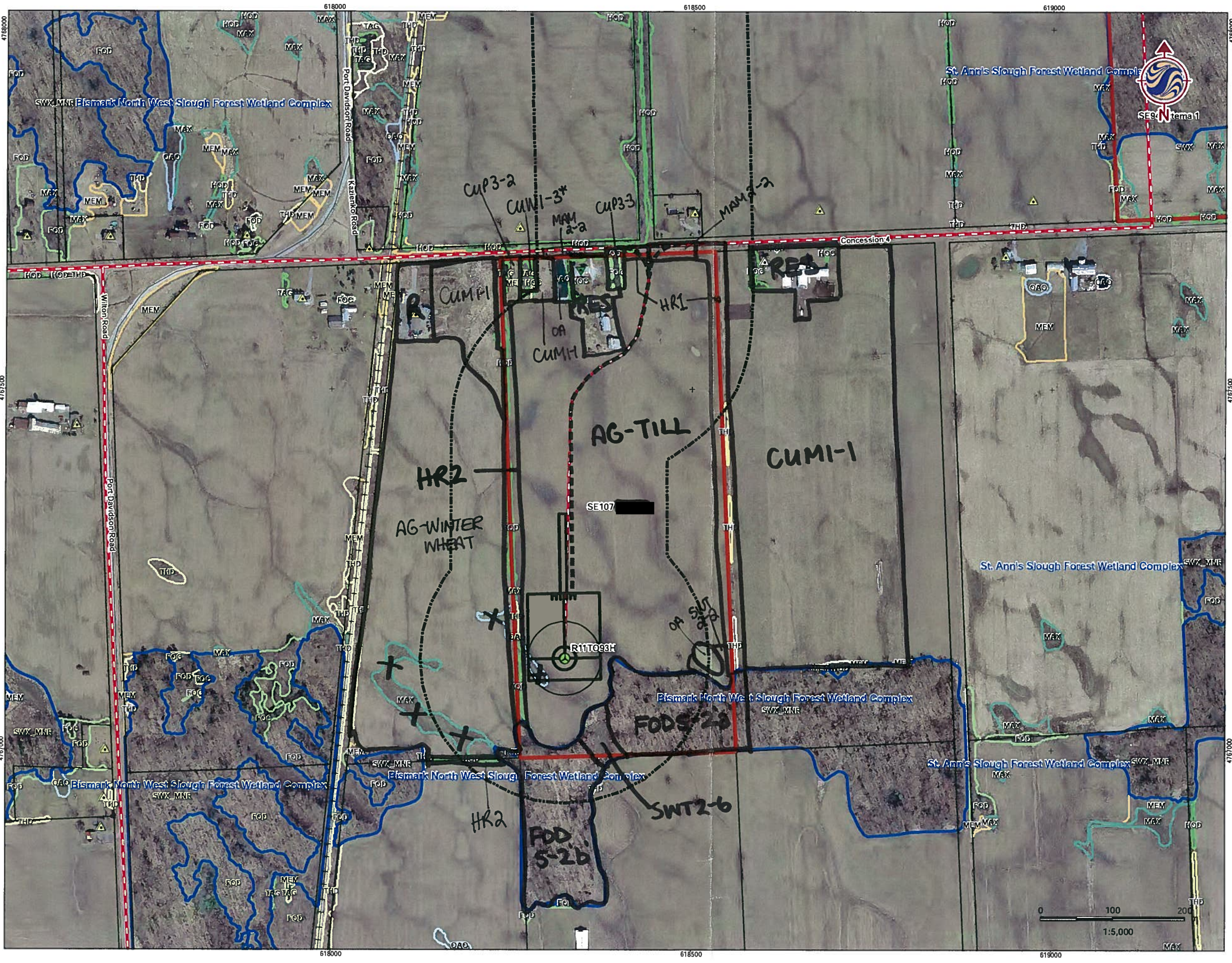
Figure No.  
9

Title  
Property with Turbine  
SE107

(partial ELC)

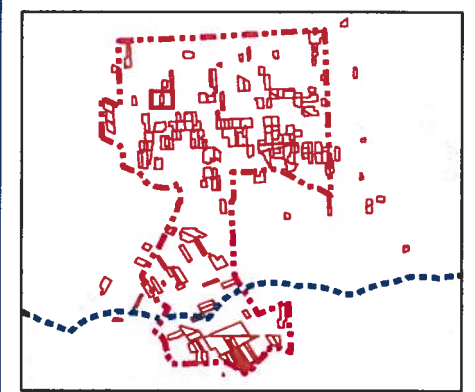


V:\01609\Acad\160950268\planning\drawing\mxd\20120423\_NHA\_Fieldmapst160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-06-27 By: bawapir



### Legend

- Turbines in Signed Lands
- Standard Turbine (105 dBA)
- Potential Turbine Locations
- Turbines in Unsigned Lands
- Standard Turbine (105 dBA)
- 51 m Turbine Setback
- Non-Participating Receptor
- Participating Receptor
- Proposed Collector Cable
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



- ### 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  
 Amphibian Field Maps

Figure No.  
 6

Title  
 Property with Turbine  
 SE107 [REDACTED]





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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 11-12

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>28</u>	<u>23</u>	<u>100%</u>	<u>0</u>	<u>RAIN</u>

ELC Polygon: #10-1 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?

**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

SE108; Titk 10; Poly 2

<b>ELC</b>	SITE: N IAGANA		POLYGON: 2	
<b>COMMUNITY DESCRIPTION &amp; CLASSIFICATION</b>	SURVEYOR(S): JN		DATE: JUNE 11-12	
	START: 1:07	END: 1:33	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"/> 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"/> CARB. BEDRK.	<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SURFICIAL DEP. BEDROCK		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<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
1 CANOPY	2	4	ACESASA > FAGGRAN
2 SUB-CANOPY	3	4	ACESASA > FAGGRAN > OSTVIRG
3 UNDERSTOREY	4-5	3	FAGGRAN > ACESASA = OSTVIRG
4 GRD. LAYER	6-7	4	PARQUIN > MAICANA > EURMACR

HT CODES: 1=0-25m 2=10-25m 3=2-11m 4=1-11m 5=0.5-11m 6=0.2-11m 7=HT<0.2m  
 CVR CODES: 0=NONE 1=0%-CVR<10% 2=10%-CVR<25% 3=25%-CVR<80% 4=CVR>80%

**STAND COMPOSITION:** BA:

<b>SIZE CLASS ANALYSIS:</b>	A <10	A 10-24	D 25-50	R >50
<b>STANDING SNAGS:</b>	R <10	R 10-24	N 25-50	N >50
<b>HEADFALL/LOGS:</b>	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: SL 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:

COSITE: CODE:

VEGETATION TYPE: F 9 made be d CODE: F005.2

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes: - SOME SANDY AREAS, PARTICULARLY AROUND EDGES. - SUITABLE FOR HOGNOSE - NONE OBS.

SE108

<b>ELC</b>	SITE:		POLYGON:	
<b>COMMUNITY DESCRIPTION &amp; CLASSIFICATION</b>	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	O	O			GET ROBE					O
FAGGRAN	A	O	A	O		MAICANA					O/A
OSTVIRG	/	O	O			CIL LUTE					O
PLUCERO	R	R	/			VIOLA SP.					O
TSUCANA	R	R	R			CLEAVERS					R-O
GET PARY	R	/	/			BLI PHIL					R
						CAR ALBS					R-O
						L.L. ASTOR					O/A
						PYROIA SP.					R
						ALL PETI.					R-O
						POKNOSE					R

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

Signature: [Signature] (Field Personnel)

Signature: [Signature] (Project Manager)

Quality Control: This form is complete  & legible .





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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: JUNE 11-12

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>28</u>	<u>2-3</u>	<u>100%</u>	<u>0</u>	<u>RAIN</u>

ELC Polygon: #10-2 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)**

AMPO

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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 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: June 11-12

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C): <u>28</u>	WIND: <u>2-3</u>	CLOUD: <u>100%</u>	PPT: <u>☐</u>	PPT (in last 24 hrs): <u>RAIN</u>
---------------------	-------------------------	---------------------	-----------------------	------------------	--------------------------------------

ELC Polygon: #10-3 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)**

C=A=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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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRCC

Date: JUNE 11-12

Field Personnel: JR

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>28</u>	<u>2-3</u>	<u>100%</u>	<u>Ø</u>	<u>RAIN</u>

ELC Polygon: # 10-4 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	

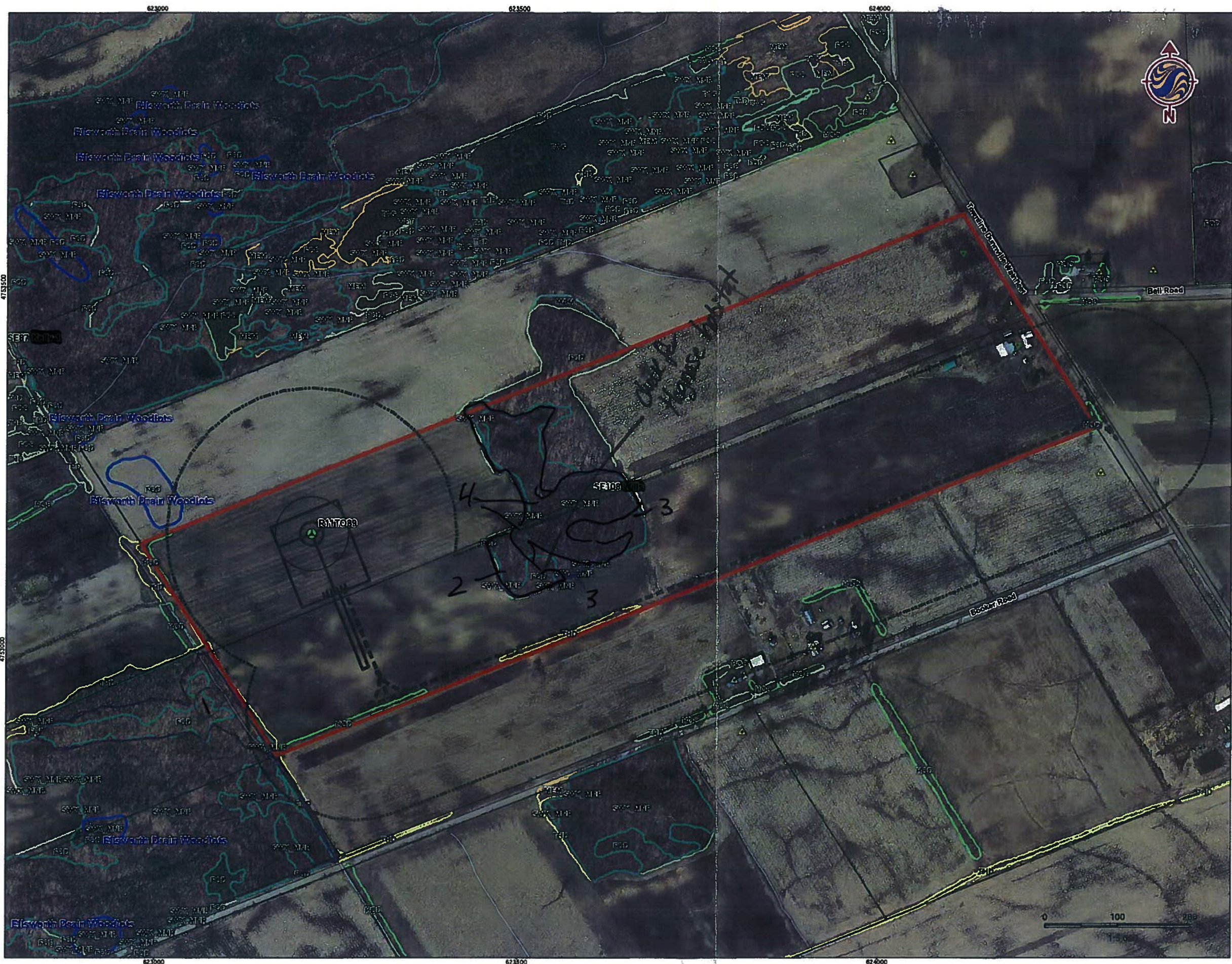
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

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>pools</u>		<u>30 cm (now dry)</u>		<u>✓</u>	<u>✓</u>

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

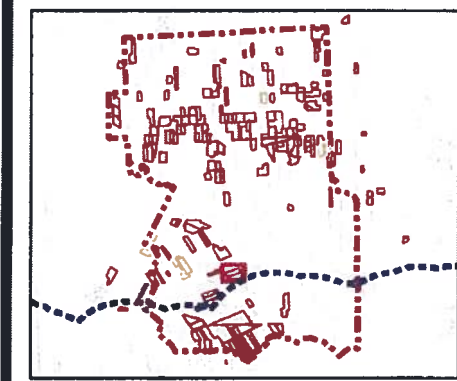
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

V:\1609\Arch\16095025\Planning\Kara\wgh\mxd\01\_20-12\_NE\_ELC\_Map\_Book\_20120518.mxd  
 Released: 2012-05-23 By: bowper



### Legend

- Turbines in Signed Lands**
- Standard Turbine (105 dBA)
- Potential Turbine Locations
- Turbines in Unsigned Lands**
- Standard Turbine (105 dBA)
- 51 m Turbine Setback
- Non-Participating Receptor
- Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



### 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**

May 2012  
160950269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 10

Title  
 Property with Turbine  
 SE108

SE11, Tile 11, Poly 1

**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION: \_\_\_\_\_  
 SITE: SE11(120) (Niagara) POLYGON: 11-1  
 SURVEYOR(S): NC DATE: June 8, 2012  
 START: 1:00 END: 1:30  
 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 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"/> MARCH
	<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"/> TALLUS		<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	<b>COVER</b>		<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 type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**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	4-7	4	PHALARIS >> GEUM = IMPCAPE

TCODES: 1=25m 2=10-41T±25m 3=2-41T±10m 4=1-41T±2m 5=0.5-41T±1m 6=0.2-41T±0.5m 7=HT<0.2m  
 VR CODES: 0=NONE 1=0%<CVR<10% 2=10%<CVR<25% 3=25%<CVR<50% 4=CVR>50%

**TAND COMPOSITION:**

ZE CLASS ANALYSIS:	<10	10-24	25-50	>50
FANDING SNAGS:	<10	10-24	25-50	>50
FADFALL LOGS:	<10	10-24	25-50	>50
UNDANCE CODES:	N=NONE	R=RARE	O=OCCASIONAL	A=ABUNDANT
MM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE
XL ANALYSIS:				OLD GROWTH

**XTURE:** DEPTH TO MOTTLES/GLEY: \_\_\_\_\_

**XTURE:** DEPTH OF ORGANICS: \_\_\_\_\_ (cm)

**MOGENEOUS / VARIABLE:** DEPTH TO BEDROCK: \_\_\_\_\_ (cm)

**MMUNITY CLASSIFICATION:**

**MMUNITY CLASS:** \_\_\_\_\_

**MMUNITY SERIES:** \_\_\_\_\_

**OSITE:** \_\_\_\_\_

**ETATION TYPE:** Field-carex grass mineral meadow Marsh

**CODE:** MAMZ-2

**INCLUSION:** \_\_\_\_\_

**COMPLEX:** \_\_\_\_\_

**ence of Disturbance / Notes:** \_\_\_\_\_

**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		
						PHALARIS						D
						Geum						R
						IMPCAPE						R
						LYTSALI						R
						CIRVULG						R
						BARVULG						R

Page \_\_\_ of \_\_\_  
 Signature: *N. [unclear]*  
 (Field Personnel)

Quality Control: This form is complete & legible.  
 Signature: *M. [unclear]*  
 (Project Manager)



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 8

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>25</u>	WIND: <u>2</u>	CLOUD: <u>50</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</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	

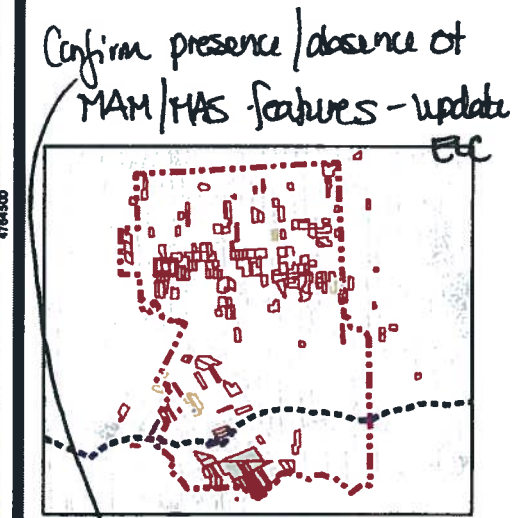
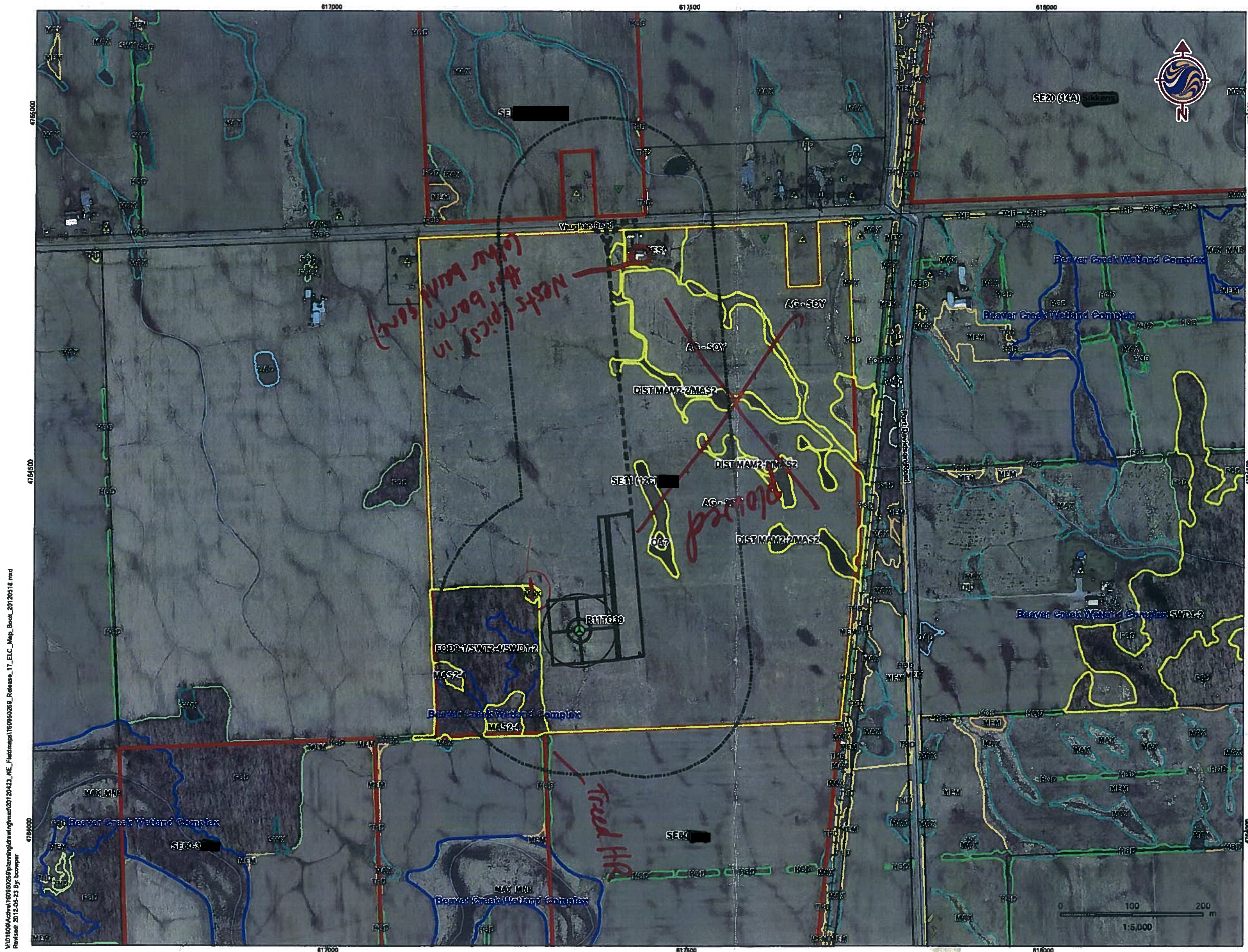
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

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?	

**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=scan; SI=other sign; TK=track; VO=vocalization





- ### 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.

MAX ✓  
around OA? ✓



Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
11

Title  
Property with Turbine  
SE11 (12C)

V:\016094\active\160950289\burning\dr\ref\img\map\20120423\_NE\_Fieldmap\160950289\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: Danyep

SE110; Tile 12; Poly 4

ELC COMMUNITY DESCRIPTION & CLASSIFICATION SITE: SURVEYOR(S): DATE: UTME: START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

Table with columns: SYSTEM, SUBSTRATE, TOPOGRAPHIC FEATURE, HISTORY, PLANT FORM, COMMUNITY. Includes checkboxes for various categories like TERRESTRIAL, WETLAND, AQUATIC, etc.

STAND DESCRIPTION:

Table with columns: LAYER, HT, CVR, SPECIES IN ORDER OF DECREASING DOMINANCE. Includes handwritten entries like 'trembling aspen', 'green ash', 'sugar maple', etc.

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: STANDING SNAGS: DEADFALL/LOGS: ABUNDANCE CODES: 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: DRY-FRESH POPLAR DECIDUOUS FOREST TYPE FOD3-1 INCLUSION: CODE: COMPLEX: CODE:

Evidence of Disturbance / Notes: lots of garbage & slash piled up in here. very culturally influenced.

ELC COMMUNITY DESCRIPTION & CLASSIFICATION SITE: NRWC POLYGON: SE110 4 DATE: May 24, 2012 SURVEYOR(S): C. Payette

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

Large table for SPECIES CODE, LAYER (1-4), COLL. Includes handwritten entries for green ash, trembling aspen, sugar maple, willow sp, woodhedge, poison ivy, sensitive fern, virginiana c. ope.

Page 1 of 1 Signature: [Handwritten] (Field Personnel)

Quality Control: This form is complete [ ] & legible [ ]. Signature: [Handwritten] (Project Manager)



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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC SE110

Date: May 24, 2012

Field Personnel: C. Paquette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	31	1	0%	None	None

ELC Polygon: # 4 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=scat; SI=other sign; TK=track; VO=vocalization

SE110 ; Tile 12 ; Hedgerow

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	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"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK.	<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"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR <input type="checkbox"/> BOCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF			
<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	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: <b>HR</b>	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

**Evidence of Disturbance / Notes:**

Animal Den along Farm Field/HR - Fairly large opening about 40cm across  
 ↳ photos: 41-42

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC		POLYGON: SE110	
	DATE: May 24 2012		UTME: 3	
	SURVEYOR(S): C. Parfitt			

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	
Whiteoak						Bringing Pitt					
Sugar maple						Goldenrod sp					
Sudamp maple						Juglans sp					
Green oak						Red canopy sp					
White elm						Galic mustard					
HR											
Willow Sp											
Riverbank sp											
Staghorn Sumac											
Tartarian haysuckle											
Red maple											
Virginia creeper											
gray dogwood											

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

Project Name: NRWC SE110

Date: May 24, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C): <u>31</u>	WIND: <u>1</u>	CLOUD: <u>0%</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</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?

**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

SE 110; Tile 12; Poly 2

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	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 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 type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
<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		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input checked="" type="checkbox"/> SURFICIAL DEP.	<input type="checkbox"/> OPEN	<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> BEDROCK	<input type="checkbox"/> SHRUB	<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
	<input type="checkbox"/> TREE	<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR	<input checked="" type="checkbox"/> TREE		<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	Sugar maple >> red maple > black cherry > Basswood
2 SUB-CANOPY	3	3	Alt. leaved dogwood > Basswood > Ironwood
3 UNDERSTOREY	4	3	red raspberry > Spicebush > blue berry
4 GRD. LAYER	5-7	3	red huckleberry > trillium = woodhelle = twisted stalk

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>	0 <10	A 10-24	0 25-50	R >50
<b>STANDING SNAGS:</b>	N <10	R 10-24	N 25-50	N >50
<b>DEADFALL/LOGS:</b>	A <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:**

<b>TEXTURE:</b> Fine sand	<b>DEPTH TO MOTTLES/GLEY</b>	g= 35cm	G= n/a
<b>MOISTURE:</b> 5	<b>DEPTH OF ORGANICS:</b>	2	(cm)
<b>HOMOGENEOUS / (VARIABLE)</b>	<b>DEPTH TO BEDROCK:</b>	>120cm	(cm)

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b>	CODE:
F-M Sugar maple Hardwood Deciduous	F0D6-S
<b>INCLUSION:</b>	CODE:
<b>COMPLEX:</b>	CODE:

**Evidence of Disturbance / Notes:**

photos 39-40

lots of leaf litter in understory many little understory veg.

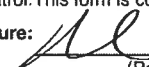
Wood Frog

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC		POLYGON: SE10	
	DATE: May 24, 2012		2	
	SURVEYOR(S): C. Rayte			

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		
Alt. leaved dogwood		0				red huckleberry					0	
Sugar maple	A					false dawn star					0	
Red maple	0					twisted stalk					0	
Black cherry	R-0					blue cohosh					0	
Alt. Basswood	R-0					Mossy maple					R-0	
green ash		R				trillium					0	
Red oak			R-0			wood helle					0	
White oak			R			Sensitive fern					R-0	
Ironwood		R				Sedgemo					R	
						Christmas fern					R	
						Bracken fern					R	

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

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



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 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 SE110

Date: May 24, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>31</u>	<u>1</u>	<u>0%</u>	<u>None</u>	<u>None</u>

ELC Polygon: # 2 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=scat; SI=other sign; TK=track; VO=vocalization

# SE110; Tile 12; Poly 1

<b>ELC</b>	SITE: POLYGON:		
COMMUNITY DESCRIPTION & CLASSIFICATION	SURVEYOR(S):	DATE:	UTME:
	START: END:	UTMZ:	UTMN:

### POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL	<input checked="" 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"/> 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
<b>SITE</b>		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREE		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> 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	3	1	green ash, eastern cottonwood, apple
2 SUB-CANOPY			
3 UNDERSTOREY	4	3	Staghorn Sumac, raspberry, riverbank grape
4 GRD. LAYER	5-7	4	reed canary grass, goldenrod sp, green amaranth

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>	0	<10	N	10-24	N	25-50	N	>50
-----------------------------	---	-----	---	-------	---	-------	---	-----

<b>STANDING SNAGS:</b>	2	<10	N	10-24	N	25-50	N	>50
------------------------	---	-----	---	-------	---	-------	---	-----

<b>DEADFALL/LOGS:</b>	A	<10	N	10-24	N	25-50	N	>50
-----------------------	---	-----	---	-------	---	-------	---	-----

ABUNDANCE CODES: 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>		(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>
sumac Cultural thicket	CUT 1-1

<b>INCLUSION</b>	<b>CODE:</b>
<b>COMPLEX</b>	<b>CODE:</b>

Evidence of Disturbance / Notes: photos 36-38

Vegetated edge of Drain >1m width on both sides.

<b>ELC</b>	SITE: NRIWC		
COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON: SE110	DATE: May 24, 2012	UTME:
			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.
	1	2	3	4	
apple sp.	R				
green ash	R				
eastern cottonwood	R				
goldenrod sp					A
Common milkweed					O
Reed canary grass					A, O
giant mustard					O
green amaranth					A
(Rattail)					R, O
Common burdock					O
thistle sp					R, O
rodent dogwood					R, O
Staghorn Sumac					O, A
willow sp					R
raspberry					O, A
riverbank grape					O, A

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: 160950269

Project Name: NRWC SE110

Date: May 24, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>31</u>	<u>1</u>	<u>0%</u>	<u>None</u>	<u>None</u>

ELC Polygon: # 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	

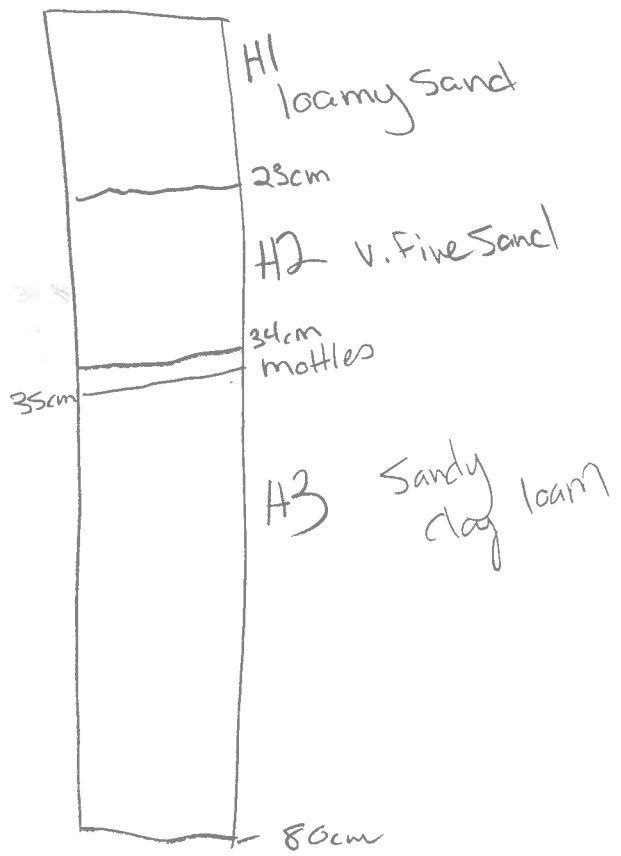
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

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?

**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

Soils Site 2, SE110 [REDACTED]

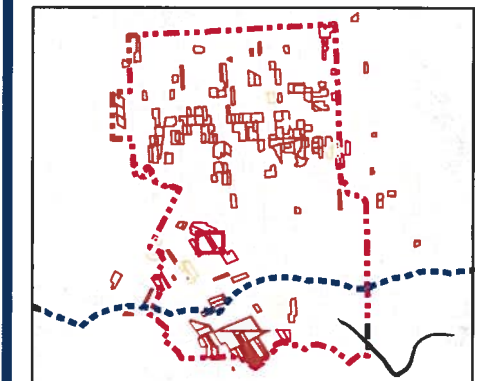


V:\1609\Active\16090309\Planning\drawing\mxd\20120423\_NE\_Fieldmaps\16090309\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-18 By: bawpiper



**Legend**

- Turbines in Signed Lands**
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands**
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Study Area and Property**
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



**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.



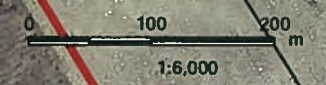
**Stantec**

May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
12

Title  
Property with Turbine  
SE110 [redacted]



SE113; Tile 1; Poly 1

**ELC** SITE: NIAGARA ( ) POLYGON: ( )  
 SURVEYOR(S): STJ DATE: JUNE 11-12 UTME:  
 COMMUNITY DESCRIPTION & CLASSIFICATION START: 4:58 END: 5:13 PM 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 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"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<b>SITE</b>		<input type="checkbox"/> CLIFF	<b>COVER</b>	<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> TALUS	<input type="checkbox"/> OPEN	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> SHRUB	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	<input checked="" type="checkbox"/> TREED		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<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	2	3	JUGNIGR > ACESASA = FRAPENN
2 SUB-CANOPY	3	4	JUGNIGR > FRAPENN > ALNEEGU
3 UNDERSTOREY	4	3	RUBIDAE > PRUVIRG > LONTART
4 GRD. LAYER	5-7	4	Grasses > HESMAT > ALLPETI = W. AVENS

**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:  
 Black walnut - greenash cultural woodland CWW1-4\*

<b>INCLUSION</b>	<b>CODE:</b>
<b>COMPLEX</b>	<b>CODE:</b>

**Evidence of Disturbance / Notes:**  
 Cultural woodland - DRAIN VALLEY CUTS THROUGH (DRAIN)

**ELC** SITE: SE113; 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	
JUGNIGR	O-A	A			
ACESASA	O	R			
ULMAMEL	R	R			
FRAPENN	O	O			
PRUVIRG	R				
ALNEEGU	R				
ALNEEGU		O			
RUBIDAE			O-A		
PRUVIRG			O		
LONTART			O		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
G. RAGWEED				O	
ALLPETI				O	
HESMAT				A	
GAL MOLL				O	
SOLIDAGO				O	
LYS NUMM				R	
W. AVENS				O	
RUBIDAE SP.				A	
DAC GLOM				O	
PUR LITE				R	
TAR OFFI				O	

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: 160450269

Project Name: NRWC

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

Field Personnel: J. Leslie

<b>Weather Conditions:</b>	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
----------------------------	------------	-------	--------	------	-----------------------

ELC Polygon: # 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?

**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: \_\_\_\_\_

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
---------------------	------------	-------	--------	------	-----------------------

ELC Polygon: # 2      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	

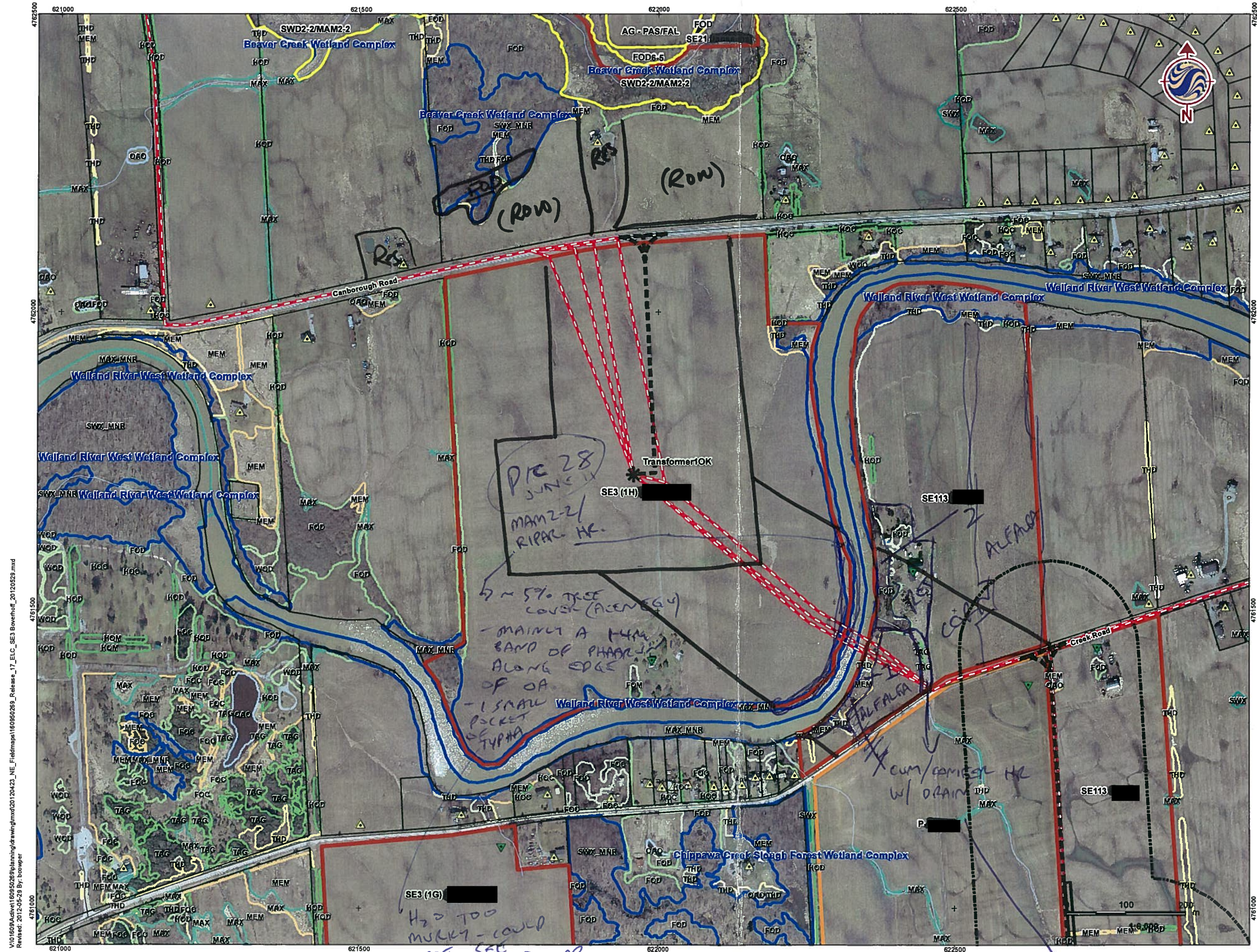
**Seeps/Springs/Vernal Pools:**      Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

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)**

- DEER BEDS      ~ 5 obs.

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

- Potential Transformer Station
- Turbines in Signed Lands**
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands**
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Proposed Collector Cable
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



- ### 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.

May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
1

Title  
 Property

V:\0160950269\planning\dwg\mxd\20120423\_NE\_ELC\_SE3 Boverhoff\_20120529.mxd  
 Release: 2012-05-29 By: bowerp



SE 114; Tile 14; Poly 1 (hedgerow)

**ELC**  
**COMMUNITY DESCRIPTION & CLASSIFICATION**  
 SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_ UTME: \_\_\_\_\_  
 START: \_\_\_\_\_ 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"/> BOTTOMLAND <input type="checkbox"/> TERRACE	<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 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
WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF			
AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDR. <input type="checkbox"/> BASIC BEDR. <input type="checkbox"/> CARB. BEDR.	<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 type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE		
<b>SITE</b>			<b>COVER</b>		
OPEN WATER					
SHALLOW WATER					
SURFICIAL DEP. BEDROCK					

**LAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	23	3	eastern cottonwood > whitetech > Am elm
SUB-CANOPY	7	3	Staghorn Sumac > gray dogwood
UNDERSTOREY	5	4	virginia Creeper = riverbank grape
GRD. LAYER	6-7	4	garlic mustard > Red Canary grass > goldenrod sp

**F 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%

**LAND COMPOSITION:** BA: \_\_\_\_\_

**SIZE CLASS ANALYSIS:**

<b>A</b>	<10	<b>O</b>	10 - 24	<b>R</b>	25 - 50	<b>N</b>	>50
----------	-----	----------	---------	----------	---------	----------	-----

**LANDING SNAGS:**  
**ADFALL/LOGS:**

<b>N</b>	<10	<b>R</b>	10 - 24	<b>N</b>	25 - 50	<b>N</b>	>50
<b>O</b>	<10	<b>O</b>	10 - 24	<b>N</b>	25 - 50	<b>N</b>	>50

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

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

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

**COMMUNITY CLASS:** \_\_\_\_\_ **CODE:** \_\_\_\_\_  
**COMMUNITY SERIES:** \_\_\_\_\_ **CODE:** \_\_\_\_\_  
**POSITION:** \_\_\_\_\_ **CODE:** \_\_\_\_\_  
**VEGETATION TYPE:** Dec. Fresh Poplar Dec. Forest type **CODE:** FOD3-1  
**INCLUSION** \_\_\_\_\_ **CODE:** \_\_\_\_\_  
**COMPLEX** \_\_\_\_\_ **CODE:** \_\_\_\_\_

**Evidence of Disturbance / Notes:**

GRCA KILL AMPO  
 PRES WAVE MCOO  
 11.02 VF1A JUVU

Follows old rail line.  
 photo #1, 2

**ELC**  
**COMMUNITY DESCRIPTION & CLASSIFICATION**  
 SITE: SE114 POLYGON: HR-11  
 DATE: May 23, 2012 SURVEYOR(S): C. Payne et al.

**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	
American elm					
Eastern cottonwood					
Whitetech					
Willow sp					
Common apple					
Mus. idavensis / gray dogwood					
Solid sp.					
Virg. Creeper					
Riverbank grape					
Stag Sumac					

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
garlic mustard					A
goldenrod sp					O
Pandora					O
horsetail sp.					R
Daisy Fleabane					R
Daisy sp					R
Red Canary grass					O-A

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

Signature: C. Payne et al.  
 (Field Personnel)

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



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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: May 23, 2012

Project Name: Niagara region wind SE114  
 Field Personnel: C. Payette

Weather Conditions:	TEMP (°C): <u>24</u>	WIND: <u>2</u>	CLOUD: <u>40%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>light drizzle</u>
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ELC Polygon: # HR1 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=scat; SI=other sign; TK=track; VO=vocalization

SE114; Tile 14; Poly 2

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	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 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	<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"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<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	green ash > Swamp maple = red maple
2 SUB-CANOPY	1.4		
3 UNDERSTOREY	3-4	3	Spice bush > Virginia creeper = poison ivy
4 GRD. LAYER	5-7	2	Red canopy grass > Sedge sp > Jewelweed

IT 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	O 10-24	O 25-50	R >50
STANDING SNAGS:	O <10	R 10-24	R 25-50	M >50
HEADFALL/LOGS:	A <10	O 10-24	R 25-50	R >50

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

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

SOIL ANALYSIS: 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:

COSITE: CODE:

VEGETATION TYPE: CODE: *Green ash mineral deciduous Swamp SWD2-2*

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes: multiple vernal pools (no GPS, but they are throughout community) photos 13-16 (17-18 racoon family in SW-NW)

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE114		POLYGON: 2	
	SURVEYOR(S): C. Payne		DATE: May 23, 2017	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				COLL.
	1	2	3	4			1	2	3	4	
white elm	0					Red canopy grass					0
eastern cottonwood	2					Jack-in-the-box					0
red maple	0					Sedge sp.					0
Swamp maple	0					Jack-in-the-box					0
green ash	A					Jewelweed					
Spice bush											
Ribes											
Rose sp											
Common buckthorn											
Red osier dogwood											
Virginia creeper											
Poison ivy											

Page \_\_\_ of \_\_\_  
 Signature: *[Signature]* (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 SE 114

Date: May 23, 2012

Field Personnel: C. Payne

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>23</u>	<u>2-3</u>	<u>10%</u>	<u>None</u>	<u>None</u>

ELC Polygon: # 2 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)**

*throughout*

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

SE114 ; Tile14; Poly 3

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: _____		POLYGON: _____	
	SURVEYOR(S): _____		DATE: _____	
	START: _____		UTME: _____	
	END: _____		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 checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input checked="" type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND	<input type="checkbox"/> CULTURAL	<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"/> 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"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<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 checked="" 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	3	green ash, riverbank grape, cottonwood, trembling aspen
2 SUB-CANOPY	n/a	n/a	
3 UNDERSTOREY	3-4	4	riverbank grape, gray dogwood, speckled wood
4 GRD. LAYER	5-7	4	goldenrood sp, reed canary grass, milkweed

T 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  
 VR CODES: 0=NONE 1=0%-<CVR<10% 2=10-<CVR<25% 3=25-<CVR<50% 4=CVR>60%

STAND COMPOSITION:				BA:			
SIZE CLASS ANALYSIS:				BA:			
STANDING SNAGS:				BA:			
FALL/LOGS:				BA:			
ABUNDANCE CODES:				BA:			
DOMM. AGE:				BA:			

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:
POSITE:	CODE:
VEGETATION TYPE:	CODE:
<i>F-M Ash lowland Deciduous</i>	FOD7-2
INCLUSION	CODE:
<i>Broad-leaved Sedge Meadow</i>	MAM2-6
COMPLEX	CODE:
<i>Cultural meadow</i>	CUM1-1

evidence of Disturbance / Notes:  
 KEEP quite open patches, likely cut at one point photos 3-6  
 further in becomes quite swampy, likely SWP 2-7

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE114		POLYGON: 3	
	DATE: May 23, 2012			
	SURVEYOR(S): C. Payette			

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	
green ash	O					reed canary grass					A
cottonwood	O					goldenrood sp					A
white birch	R					Common milkweed					R-C
trembling aspen	R					Tweed weed					O
Hawthorn						Sensitive fern					O
Amelanchier	R					Man apple					R
red oak	R					Sagebrush					A

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



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC SE114

Date: May 23, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	23	2-3	100%	None	None

ELC Polygon: # 3 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)**

*thought*

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

## SE114; Tile 14; Polygon 4

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

## POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
TERRRESTRIAL	<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
WETLAND	<input checked="" 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"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF			
AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.				
OPEN WATER					
SHALLOW WATER SURFICIAL DEP. BEDROCK					

## LAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	4	green ash > red maple > silver maple
SUB-CANOPY			
UNDERSTOREY	3-4	3	Spicelash >> virginia creeper > maple leaved viburnum
GRD. LAYER	5-7	3	Jewelweed > Sensitive fern > Sedge (black) sp

CODES: 1=&gt;25m 2=10&lt;HT≤25m 3=2&lt;HT≤10m 4=1&lt;HT≤2m 5=0.5&lt;HT≤1m 6=0.2&lt;HT≤0.5m 7=HT&lt;0.2m

R CODES: 0=NONE 1=0%&lt;CVR≤10% 2=10&lt;CVR≤25% 3=25&lt;CVR≤60% 4=CVR&gt;60%

LAND CLASS ANALYSIS:	BA:
<input type="checkbox"/> A <10 <input type="checkbox"/> O 10-24 <input type="checkbox"/> A 25-50 <input type="checkbox"/> R >50	
<input type="checkbox"/> R <10 <input type="checkbox"/> R 10-24 <input type="checkbox"/> N 25-50 <input type="checkbox"/> N >50	
<input type="checkbox"/> A <10 <input type="checkbox"/> O 10-24 <input type="checkbox"/> R 25-50 <input type="checkbox"/> N >50	
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT	
DOMM. AGE: <input type="checkbox"/> PIONEER <input type="checkbox"/> YOUNG <input type="checkbox"/> MID-AGE <input checked="" type="checkbox"/> MATURE <input type="checkbox"/> OLD GROWTH	

## SOIL ANALYSIS:

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

## VEGETATION CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
OSITE:	CODE:
VEGETATION TYPE:	CODE:
Green ash mineral dec Swamp SWD2-2	
INCLUSION	CODE:
green ash Min. dec Swamp SWD2-2	
COMPLEX	CODE:

## Evidence of Disturbance / Notes:

Vernal pooling throughout photos 6-11 (1 of representative vernal pool)

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE114
	POLYGON: 4
	DATE: May 23, 2012
	SURVEYOR(S): C. Payette

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 maple	A					Jewelweed					O
green ash	A-D					Jack-in-the-pulpit					R-O
Silver maple	O					Sensitive fern					O
white elm	R					Sedge sp.					O
						Viola sp.					R
						Man apple					R-O
						Black dog sp.					O
						Interrupted fern					R-O
						Hillium					R-O
						ostrich fern					R-O
						Rose tick sp.					R
						Daddy nightshade					R

maple leaved viburnum	R-O
Buttonbush	R
Rose sp	R-O
virginia creeper	O
Spicelash	D

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: 160950269

Project Name: NRWC SE114

Date: May 23, 2012

Field Personnel: C. Payne

Weather Conditions:	TEMP (°C): <u>23</u>	WIND: <u>2-3</u>	CLOUD: <u>100%</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
---------------------	-------------------------	---------------------	-----------------------	---------------------	--------------------------------------

ELC Polygon: # 4 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.	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 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.	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. Sp. Present?	Shrubs/ Logs at Edge Present?

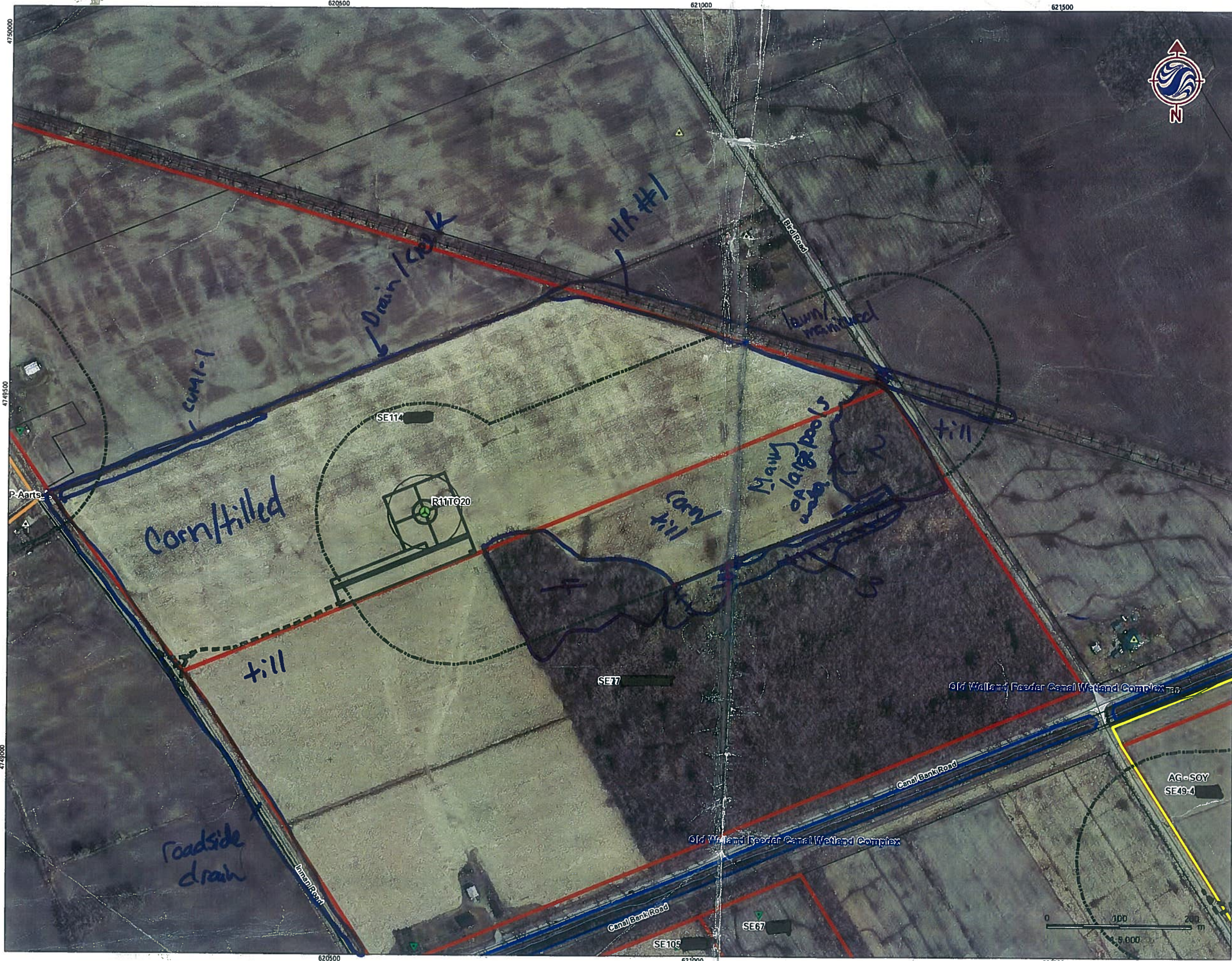
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

→ vernal pools throughout woodland, too many to list all of them

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



V:\1609\Active\160950269\planning\drawing\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-18 By: bcowper



**Legend**

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
- Non-Participating Receptor
- Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



**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**

May 2012  
160950269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 14

Title  
 Property with Turbine  
 SE114



SE115; Tile 15; Poly 1 (hedgerow)

**ELC**  
**COMMUNITY DESCRIPTION & CLASSIFICATION**  
 SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_ UTME: \_\_\_\_\_  
 START: \_\_\_\_\_ END: \_\_\_\_\_ UTMZ: \_\_\_\_\_ UTMN: \_\_\_\_\_

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <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"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <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"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<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 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
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" 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			

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: *Deciduous treed (Hedgerow)* CODE: *HR - Dec*

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

Evidence of Disturbance / Notes:

**ELC**  
**COMMUNITY DESCRIPTION & CLASSIFICATION**  
 SITE: SE115. POLYGON: #1-HK  
 DATE: May 23, 2012 SURVEYOR(S): C. Payette

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	
Crack willow	R					garlic mustard					A
Silver maple	O					goldenrod sp.					A
Chokecherry	R-O					Polygonia					A
Sour maple	O					Dandelion					O
trampling aspen	O					Strawberry					O
Ashsp (green/white)	O					Red clover					O
						insular sp.					O
<b>HR.</b>											

*Southern arrowwood*  
*unknown #3*  
*gray dogwood*  
*red maple*  
*black cherry*  
*red maple*  
*riverbank grape*

Page \_\_\_\_ of \_\_\_\_  
 Signature: \_\_\_\_\_ (Field Personnel)  
 Signature: \_\_\_\_\_ (Project Manager)

Quality Control: This form is complete  & legible



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWE SE115

Date: May 23, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C): <u>24</u>	WIND: <u>2</u>	CLOUD: <u>40%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
---------------------	-------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: # 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?	

**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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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC SE115

Date: May 23, 2012

Field Personnel: C. Payne

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>24</u>	<u>2</u>	<u>40%</u>	<u>none</u>	<u>none</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?

**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

SE115; Tile 15; Poly 3 Surveyed from edge / No property access on East Side

**ELC**  
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_

SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_ UTMZ: \_\_\_\_\_

START: \_\_\_\_\_ END: \_\_\_\_\_ UTMN: \_\_\_\_\_

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. SITE: <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input checked="" type="checkbox"/> BOTTOMLAND <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"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL  COVER: <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<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"/> 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	1-2	4	green ash > silver maple = trembling aspen
2 SUB-CANOPY			
3 UNDERSTOREY	3-4	3	Poison ivy > spice bush = speckled alder
4 GRD. LAYER	5-7	3	Sedge sp = Sensitive Fern = Fern weed

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	O	25-50	R	>50
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**STANDING SNAGS:**

R	<10	O	10-24	R	25-50	N	>50
---	-----	---	-------	---	-------	---	-----

**DEADFALL/LOGS:**

A	<10	A	10-24	R	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: \_\_\_\_\_ 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: green ash Min. Dec. Swamp CODE: SWD2-2

<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

Evidence of Disturbance / Notes:  
EWPE  
VEER  
RTHA

photo 19 & 20 Community at Northend.

**ELC**  
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: SE115 POLYGON: #3

DATE: May 23, 2012 SURVEYOR(S): C. Bayliffe

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	
green ash	R				
silver maple	R				
trembling aspen	A				
trillium	O				
white oak	R-O				
white birch	B				
unk #4		R			
Poison ivy		A			
Spicebush		O			
willow sp		R			
red osier dogwood		R-O			
speckled alder		O			

Page \_\_\_ of \_\_\_  
Signature: [Signature] (Field Person)

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



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 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 SE115

Date: May 23, 2012

Field Personnel: C. Paquette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>24</u>	<u>2</u>	<u>40%</u>	<u>none</u>	<u>none</u>

ELC Polygon: # 3 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; FB=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: 1609S0269

Project Name: NRWC SE115

Date: May 23, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C): <u>24</u>	WIND: <u>2</u>	CLOUD: <u>40%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: # 4 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=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 SE115

Date: May 24, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C): <u>24</u>	WIND: <u>2</u>	CLOUD: <u>40%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: # 5 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=scat; SI=other sign; TK=track; VO=vocalization

SE115; Tile 15; no poly #

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:	POLYGON:	
	SURVEYOR(S):	DATE:	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 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 type="checkbox"/> FORB	<input checked="" 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
<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 checked="" 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	1	red maple
2 SUB-CANOPY	/	/	
3 UNDERSTOREY	/	/	
4 GRD. LAYER	5-7	4	Red canopy grass >> phil. Fleabane = horse tail

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:	M	<10	H	10-24	M	25-50	M	>50
STANDING SNAGS:	M	<10	M	10-24	M	25-50	M	>50
DEADFALL/LOGS:	O	<10	M	10-24	M	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:**

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

**COMMUNITY CLASSIFICATION:**


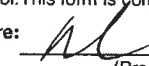
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Red canopy meadow marsh	CODE: MAM2-2
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes: Some standing water ~ 2-5cm

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC	POLYGON: SE115	-MAM
	DATE: May 23, 2019		
	SURVEYOR(S): C. Puyette		

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 maple	R											
Red canopy grass												A
phil. Fleabane												O
Sensitive Fern												RO
prickly weed												R
horse tail												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: 160950269

Project Name: NRWC SE115

Date: May 23, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>24</u>	<u>2</u>	<u>40%</u>	<u>none</u>	<u>none</u>

ELC Polygon: #MAM 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=scar; SI=other sign; TK=track; VO=vocalization

SELLS; Tile 15; no poly number

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	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 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"/> 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"/> 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.		<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	1	green ash
3 UNDERSTOREY	4	2	willow sp, rose sp, Red-osier dogwood
4 GRD. LAYER			Red canopy green, goldenrod sp, timothy grass

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=<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:	2 <10	N 10-24
STANDING SNAGS:	N <10	N 10-24
DEADFALL/LOGS:	0 <10	N 10-24
ABUNDANCE CODES:	N=NONE	R=RARE
COMM. AGE:	PIONEER	YOUNG

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

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
old field type cultural meadow	CUM1-1
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC		POLYGON: SELLS Cultural meadow	
	SURVEYOR(S): C. Payette		DATE: May 23, 2012	

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		
green ash		R									A	
Red canopy green											A	
goldenrod sp											A	
spike mustard											O	
Pole sp.											O	
Daisy											R-O	
Dandelion											O	
timothy grass											O-A	
horse tail sp											O	
begonia tick											R-O	
Plantain											R-O	
Mullen											O	
Red-osier dogwood											R	
rose sp.											R-O	
willow 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: 160950269

Project Name: NRWC SE115

Date: May 23, 2012

Field Personnel: C. Payne

<b>Weather Conditions:</b>	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
				<u>N/A</u>	<u>N/A</u>

ELC Polygon: # CUM 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?	

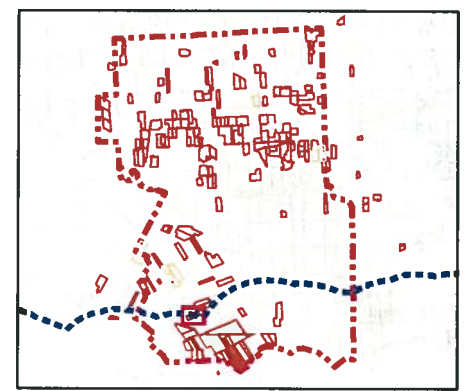
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

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

V:\01609\Active\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revise: 2012-05-18 By: bcompier



- ### Legend
- Turbines in Signed Lands**
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands**
    - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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**

May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
**15**

Title  
**Property with Turbine  
SE115**







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950159

Project Name: NRWC SE 116

Date: Aug 27/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25°</u>	<u>3-4</u>	<u>100</u>	<u>Rain</u>	<u>None</u>

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)**

BCCH  
 AM60  
 50SP

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**

- Turbines in Signed Lands**
  - Standard Turbine (105 dBA)
  - 51m Turbine Setback
  - Proposed Collector Cable
  - Proposed Fibre Optic Cable
  - Zone of Influence (150m)
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - Zone of Investigation Comparison (Areas not previously included in terrestrial and waterbody site investigation)
  - ELC Boundary
  - Property Boundary
- Stage 2AA Archaeology**
  - Completed
  - Incomplete
  - Ready
- Archaeology**
  - Stage 3 AA Required
  - No Stage 3 AA Required
  - Waterbody
  - Possible Undertified Waterbody



**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, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Waterbody Map

Figure No.  
15

Title  
**Property with Turbine**  
**SE116**



V:\0160950269\planning\drawing\mxd\20120809\_Archaeology\_Field\_Maps\160950269\_Release\_20\_Waterbody\_and\_Arch\_Field\_Map\_Book\_20120817.mxd  
Revised: 2012-08-17 By: tallen

4753500

4753000

4753500

4753000

617500

618000

617500

618000

SE 116-2; Tile 2; Poly A

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SEI (Figure 2)	POLYGON: A	
	SURVEYOR(S): M. Ross	DATE: May 29/12	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 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"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
	<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"/> OPEN WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> COVER		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> SHRUB		<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF	<input type="checkbox"/> TREED		<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	Scots Pine > Prunus Sp = Man Maple
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	<input checked="" type="checkbox"/> 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: Scots Pine Cultural Woodland	CODE: CUW1-3*
INCLUSION:	CODE:
COMPLEX:	CODE:

Evidence of Disturbance / Notes:

Photo 34 - Shed, Coop, trailer at South edge of feature

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		
ts Pine	A											
P Maple	R											
M Maple	R											
Rubus Sp												

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

Project Name: NRWC

Date: May 29/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C): <u>29°C</u>	WIND: <u>S gust to 6</u>	CLOUD: <u>75-90% haze</u>	PPT: <u>None</u>	PPT (In last 24 hrs): <u>None</u>
---------------------	---------------------------	-----------------------------	------------------------------	---------------------	--------------------------------------

ELC Polygon: # 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=scar; SI=other sign; TK=track; VO=vocalization

SE116-2; Tile 2; Poly B

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SE (Figure 2)	POLYGON: B		
	SURVEYOR(S): M. Ross	DATE: May 29/12	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 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"/> SWAMP
<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		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> TALUS	<b>COVER</b>	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SURFICIAL DEP. BEDROCK		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> OPEN	<input checked="" type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND	<input checked="" type="checkbox"/> TREED		<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	SCOTS PINE > E. Cottonwood
2 SUB-CANOPY	3	2	AM. Elm > MAN. MAPLE
3 UNDERSTOREY	3-4	4	Silky Dogwood = Grey Dogwood > C. Buckthorn > Nanny
4 GRD. LAYER	5-7	4	PARVITA = RUBUS IDAEUS > Poison Ivy = IMAK

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%

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

<b>SOIL ANALYSIS:</b>	
<b>TEXTURE:</b>	DEPTH TO MOTTLES/GLEY g= g=
<b>MOISTURE:</b>	DEPTH OF ORGANICS: (cm)
<b>HOMOGENEOUS / VARIABLE</b>	DEPTH TO BEDROCK: (cm)

<b>COMMUNITY CLASSIFICATION:</b>	
<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b>	CODE:
	was 1a
<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	
M. ple		O				S. dogw				O	
W. le		R				P. Ivy				O	
Green's		R				A, P				R	
A. E.			OA			I. A				R	
Pine		A									
Red Maple		R									
B. k		R									
Sugar M. ple		R									
B. C. Dogw			R								
Southern Arrowwood			R-O								
Riverbank Gage				R							
Chokecherry			O								
Nanny berry			O								
Ribes Sp.				R-O							
Comm. Buckthorn			OA								
Rubus Idaeus				A							
Grey Dogwood			A								
Silky Dogwood			A								
PARVITA				A							

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

Signature:  (Field Personnel)

Quality Control: This form is complete  & legible .

Signature:  (Project Manager)

AMRO, GRCA, WAVI, CHSP



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

## Woodland & Wildlife Habitat Assessment Form

**Stanter**

Project Number: 160950269

Project Name: NRWC

Date: May 29/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C): <u>29</u>	WIND: <u>5 gust to 6</u>	CLOUD: <u>75-90% haze</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
---------------------	-------------------------	-----------------------------	------------------------------	---------------------	--------------------------------------

ELC Polygon: # 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; HQ=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

SE 116-2, Tile 2, Polvc

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SE (Figure 2)	POLYGON: C
	SURVEYOR(S): M. Ross	DATE: May 29/12
	START:	END:
	UTME:	UTMN:

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"/> BOG	<input type="checkbox"/> BARREN
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> MEADOW
SITE		<input type="checkbox"/> CREVICE / CAVE	COVER	<input type="checkbox"/> MIXED	<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> OPEN WATER	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> WOODLAND
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> FOREST
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<input type="checkbox"/> PLANTATION
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> SAND DUNE			
		<input type="checkbox"/> BLUFF			

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	E. cottonwood
2 SUB-CANOPY	3	3	G. Ash > AM ELM > MAI Maple > B. Cherry
3 UNDERSTOREY	3-4	2	Gray Dogwood = Silky Dogwood > C. Buckthorn > S. Mac
4 GRD. LAYER	5-7	3	RUB. ALLE = PARVITA > Riverbank grape > IMP CAPE

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<80%

STAND COMPOSITION:	BA:
SIZE CLASS ANALYSIS:	
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: Sandy ecm	DEPTH TO MOTTLES/GLEY: 90cm
MOISTURE: 3	DEPTH OF ORGANICS: 0.7 (cm)
HOMOGENEOUS/VARIABLE	DEPTH TO BEDROCK: > 120 (cm)

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Dec. Hedgerow	CODE: N/A
INCLUSION:	CODE:
COMPLEX:	CODE:

Evidence of Disturbance / Notes: ~15-20m wide No. surface H<sub>2</sub>O Photo 37

ELC	SITE:
COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:
	DATE:
	SURVEYOR(S):

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
AM elm		0				Solidago sp					O?
Rhn. Maple		0				Poison Ivy					0
Black walnut		R				Amers Sp					0
Black Cherry		0				IMP CAPE					O?
Green Ash		OA				Jack in the Box					R
E. cottonwood	A					Baneberry sp					R

Page \_\_\_ of \_\_\_  
 Signature: [Signature] (Field Personnel)  
 Signature: [Signature] (Project Manager)





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: May 29/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C): <u>29°C</u>	WIND: <u>5 gust to 6</u>	CLOUD: <u>75-90% haze</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
---------------------	---------------------------	-----------------------------	------------------------------	---------------------	--------------------------------------

ELC Polygon: # 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=scar; SI=other sign; TK=track; VO=vocalization

SE 116-2; Tile 2; Poly D

ELC	SITE: NRWC SE (Ague 2)	POLYGON: D
COMMUNITY DESCRIPTION & CLASSIFICATION	SURVEYOR(S): M. Ross	DATE: May 29/12
	START:	END:
	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <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"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <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"/> TALLUS <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"/> 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 checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <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	3	GR. ASH > E. Cottonwood
2 SUB-CANOPY	3	4	GR ASH > AM. Elm = W. Birch > T. Aspen
3 UNDERSTOREY	3-4	4	Silky Dogwood = Gray Dogwood > Buck Horn > Nannyberry
4 GRD. LAYER	6-7	3	PARVITA > Poisonivy > Avenas > IMPCAPE

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≤80% 4=CVR>80%

STAND COMPOSITION:	BA:								
SIZE CLASS ANALYSIS:	<table border="1"> <tr> <td>A</td> <td>&lt;10</td> <td>A</td> <td>10-24</td> <td>R</td> <td>25-50</td> <td>M</td> <td>&gt;50</td> </tr> </table>	A	<10	A	10-24	R	25-50	M	>50
A	<10	A	10-24	R	25-50	M	>50		
STANDING SNAGS:	<table border="1"> <tr> <td>0</td> <td>&lt;10</td> <td>0</td> <td>10-24</td> <td>R</td> <td>25-50</td> <td>M</td> <td>&gt;50</td> </tr> </table>	0	<10	0	10-24	R	25-50	M	>50
0	<10	0	10-24	R	25-50	M	>50		
DEADFALL LOGS:	<table border="1"> <tr> <td>A</td> <td>&lt;10</td> <td>0</td> <td>10-24</td> <td>R</td> <td>25-50</td> <td>R</td> <td>&gt;50</td> </tr> </table>	A	<10	0	10-24	R	25-50	R	>50
A	<10	0	10-24	R	25-50	R	>50		
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT								
COMM. AGE:	<table border="1"> <tr> <td>PIONEER</td> <td>YOUNG</td> <td><input checked="" type="checkbox"/> MID-AGE</td> <td>MATURE</td> <td>OLD GROWTH</td> </tr> </table>	PIONEER	YOUNG	<input checked="" type="checkbox"/> MID-AGE	MATURE	OLD GROWTH			
PIONEER	YOUNG	<input checked="" type="checkbox"/> MID-AGE	MATURE	OLD GROWTH					

SOIL ANALYSIS:

TEXTURE: Sandy lo	DEPTH TO MOTTLES/GLEY:	0=	1=	2=
MOISTURE: 3	DEPTH OF ORGANICS:	0	1	2
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:			

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: EM Ash lowland Dec. Forest	CODE: FOD 7 2
INCLUSION:	CODE:
COMPLEX:	CODE:

Evidence of Disturbance / Notes:

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			
Green Ash	A	A				A					O	A	
E. Cottonwood	A					M	APE					O	A
W. Birch				O		S						O	
Red oak				R		P						O	A
T. Aspen	R	R	O			FRAG VIR						O	
Am. Elm		O				Jack in the Pelt						O	R
Red Maple		R											

SALIX SP.												O	
Silky dogwood												A	
Southern Arrowwood												R	
Hawthorn Sp												R	
Comm. Buckhorn												O	
PARVITA													A
Gray Dogwood												A	
Nannyberry												O	

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

Signature: \_\_\_\_\_  
 (Field Personnel)  
 NOCA, RBGR

Quality Control: This form is complete and 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

Project Name: NRWC

Date: May 29/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C): <u>29°</u>	WIND: <u>5 gust to 6</u>	CLOUD: <u>75-90% haze</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
---------------------	--------------------------	-----------------------------	------------------------------	---------------------	--------------------------------------

ELC Polygon: # 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)

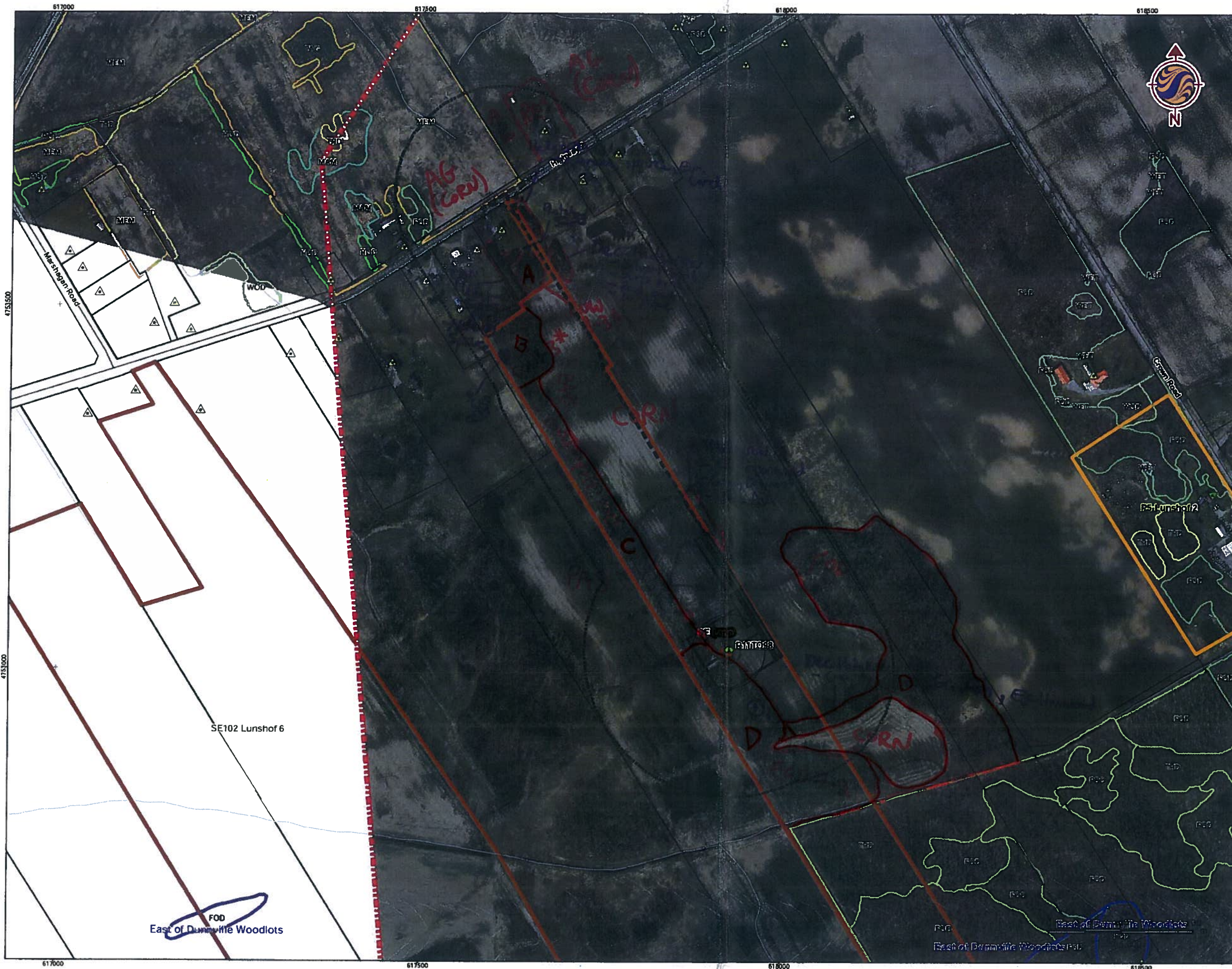
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>617965-4752969</u>	<u>①</u>		<u>N/A</u>	<u>29</u>	<u>No</u>	<u>Yes</u>

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

Low lying area appears to have been inundated before, appears to be a drain like feature (linear)

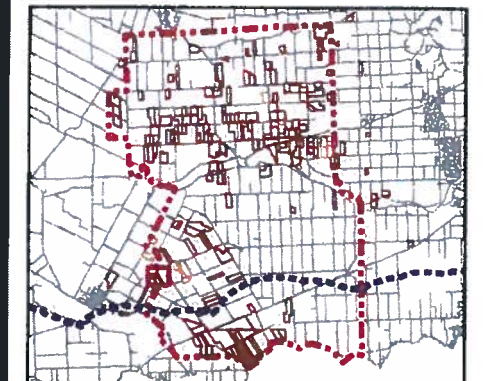
CA=carcass; DP=distinctive Paris; FB=feeding evidence; FY=eggs/nest; HU=house/deer; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

V:\1609\Active\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmap\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Released: 2012-05-23 By: bcooper



### Legend

- Turbines in Signed Lands**
- Standard Turbine (105 dBA)
- Potential Turbine Locations
- Turbines in Unsigned Lands**
- Standard Turbine (105 dBA)
- 51 m Turbine Setback
- Non-Participating Receptor
- Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



### 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**

May 2012  
160950269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 2

Title  
 Property with Turbine  
 SE [redacted] 116-2

SE119-2; Tile 1; Poly A

Fig 1 May 2012 R11T099 P L

<b>ELC</b> <b>COMMUNITY DESCRIPTION &amp; CLASSIFICATION</b>	SITE: NRWC	POLYGON: A	
	SURVEYOR(S): M. Ross	DATE: May 30/12	UTME:
	START:	END:	UTMZ:
			UTMN:

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

## 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 type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
	<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
SITE	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND	COVER	<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
	<input type="checkbox"/> OPEN WATER	<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
	<input type="checkbox"/> SHALLOW WATER	<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> SURFICIAL DEP.	<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> TALLS	<input type="checkbox"/> OPEN	<input type="checkbox"/> BARREN	<input type="checkbox"/> MEADOW
<input type="checkbox"/> BEDROCK	<input type="checkbox"/> ALVAR	<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB	<input type="checkbox"/> PRAIRIE	<input type="checkbox"/> THICKET
	<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED	<input type="checkbox"/> SAVANNAH	<input type="checkbox"/> WOODLAND
	<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> SAND DUNE		<input type="checkbox"/> FOREST	<input type="checkbox"/> FOREST
	<input type="checkbox"/> BLUFF	<input type="checkbox"/> BLUFF		<input type="checkbox"/> PLANTATION	<input type="checkbox"/> PLANTATION

## LAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	3	FRAPENN > SALIX NIGRA
SUB-CANOPY	3	3	FRAPENN > SALIX NIGRA > SA X SP
UNDERSTOREY	2-3	2	Salix Dogwood > SAM CANA
GRD. LAYER	5-7	4	PHA ARUN >> IMP CAPE > Violet sp > Fal

CODES: 1=25m 2=10-25m 3=2-10m 4=1-2m 5=0.5-1m 6=0.2-1.5m 7=1-0.2m  
R CODES: 0=NONE 1=0% CVR<10% 2=10% CVR<25% 3=25% CVR<50% 4=CVR<80%

LAND COMPOSITION:	NIA	BA: NIA			
SIZE CLASS ANALYSIS:	A <10	A 10-24	O 25-50	R >50	
STANDING SNAGS:	R <10	O 10-24	R 25-50	M >50	
AD FALL LOGS:	O <10	A 10-24	R 25-50	M >50	
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT				
MIN. AGE:	PIONEER	YOUNG	<input checked="" type="checkbox"/> MID-AGE	MATURE	OLD GROWTH

## MUL ANALYSIS:

TEXTURE: Clay loam	DEPTH TO MOTTLES/GLEY	= 105cm	Q= N/A
POSTURE: 13	DEPTH OF ORGANICS:	= 2	(cm)
MOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	> 120	(cm)

## COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
OSITE:	CODE:
VEGETATION TYPE:	CODE: SWTA-13*
INCLUSION:	CODE:
COMPLEX:	CODE:

## Evidence of Disturbance / Notes:

Photos 42, 43, 48, 49  
emergent + floating sp.  
0.020217

Polygon: Photo 45, 46  
No surface H<sub>2</sub>O

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	0-A				Carlex Mustard					0
Salix nigra	0	0			✓	PHA ARUN					D
						IMP CAPE					A
						Deadly Nightshade					0
						Poison Ivy					0
						Violet sp					0-A
						Gal Nettle					0
						AVENS SP					R
RUB IDAE			R	R-0							
Ribes sp											0
Comm. Buckhorn			R								0
Meadow Sweet											0
SAM CANA			R-0								0
Salix Dogwood			0								0
PAR VITA											0
VIT RIPA											0
Salix sp			0		✓						

Page 1 of 1

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

Project Name: NRWC

Date: May 30/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	21°C	3-4	15-50	None	None

ELC Polygon: # 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
619287-4749002	(1)	Salix sp	~35	44	5	~5	6-8m old wood pecker nest/feeding

**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?
619184-4748947	(a)	3x4m	N/A	47	No	Yes

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

WIFL GRCA VESP GBHE AM60  
 AMRO SOSP HOWR AMCR } IUVU  
 YWAR INBU MODO } (AMCR Mobbing/chasing  
 COYE NOCA CDGR RTHA } GHOW)  
 RWBL BCLH }  
 Smallmouth sp (Black, Canada)  
 Raccoon tracks  
 W. Tailed Deer Tracks  
 NLFR

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

SE119-2; Tile 1; Poly B

Fig 1 May 2012 R11T099 P\_L

**ELC** SITE: NRWC POLYGON: B  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): M. Ross DATE: May 30/12 UTME:  
 START: 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"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND	<input checked="" 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"/> SOG <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
WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <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			
AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK.				
<b>SITE</b>					
OPEN WATER	<input type="checkbox"/> CARB. BEDRK.		<b>COVER</b> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
SHALLOW WATER					
SURFICIAL DEP. BEDROCK					

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY			SA @ E 4y wood FRAP MN
SUB-CANOPY		1	AL N GEA Cottonwood FRAP MN
UNDERSTOREY			1y Deciduous
GRD. LAYER	6 + 4		4B LATI

\* 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<80%

**TAND COMPOSITION:** BA: NA

<b>SIZE CLASS ANALYSIS:</b>	<10	10-24	25-50	>50
<b>STANDING SNAGS:</b>	<10	10-24	25-50	>50
<b>AD FALL LOGS:</b>	<10	10-24	25-50	>50

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

**STEM AGE:** PIONEER  YOUNG  MID-AGE  MATURE  OLD GROWTH

**SOIL ANALYSIS:**

TEXTURE: <u>N/A</u>	DEPTH TO MOTTLES/GLEY: <u>N/A</u>	g= <u>N/A</u>	g= <u>N/A</u>
TEXTURE: <u>N/A</u>	DEPTH OF ORGANICS: <u>N/A</u>	<u>NA</u>	(cm)
MOGEOUS / VARIABLE	DEPTH TO BEDROCK: <u>N/A</u>	<u>N/A</u>	(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
OSITE:	CODE:
VEGETATION TYPE: <u>TM</u>	CODE: <u>M</u>
INCLUSION:	CODE:
COMPLEX:	CODE:

idence of Disturbance / Notes:

**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	
SA N	0	0				TYPLATI					A
Cottonwood	0	0									
FRAP MN	0	0									
51y Deciduous											A

Page 2 of 2  
 Signature: \_\_\_\_\_ (Field Personnel)  
 Signature: M (Project Manager)  
 Quality Control: This form is complete  & legible



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Tel: (519) 836-6050  
Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950764

Project Name: NRWC

Date: May 30/12

Field Personnel: M. Foss

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	21°C	3-4	15-75%	None	None

ELC Polygon: # 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  
SOSP  
COYE

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



Math

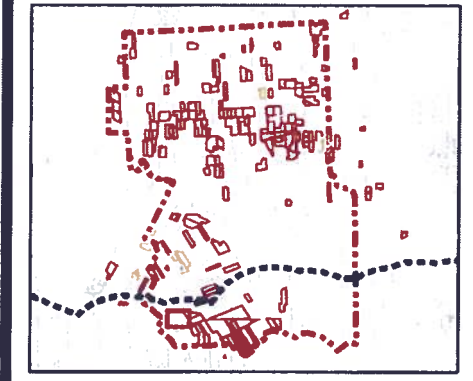
Photos 43, 43, 49, 49, 49 drains in Property/Emergency sp. Pondweed, duckweed, water lilies, Iris, Veronica

V:\1609\Drawings\16095269\Planning\dwg\mxd\16095269\_NE\_Fieldmap16095269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
Revised: 2012-05-23 By: bowper



### Legend

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
- 51 m Turbine Setback
- Non-Participating Receptor
- Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



### 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**

May 2012  
16095269

Client/Project  
**Niagara Region Wind Corporation  
Amphibian Field Maps**

Figure No.  
**1**

Title  
**Property with Turbine  
P- [redacted] -L**

**119-2**

SE13; Tile 16; Poly 1-1

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>NRWC - SE13(1BD)</u>	POLYGON: <u>1-1</u>	
	SURVEYOR(S): <u>NAL</u>	DATE: <u>JUNE 5, 2012</u>	UTME:
	START: <u>9:30</u> END: <u>10:30</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"/> 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 checked="" type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<b>SITE</b>		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> ROCKLAND	<input checked="" type="checkbox"/> SHRUB		<input checked="" type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<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	23	SUMAC > DOGWOOD > ELM > CHERRY
4 GRD. LAYER	5-7	4	GRASSES >> VIRG CREEPER = Goldenrods

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>	<input type="checkbox"/> 0	<input type="checkbox"/> <10	<input type="checkbox"/> N 10-24	<input type="checkbox"/> N 25-50	<input type="checkbox"/> N >50
<b>STANDING SNAGS:</b>	<input type="checkbox"/> N	<input type="checkbox"/> <10	<input type="checkbox"/> N 10-24	<input type="checkbox"/> N 25-50	<input type="checkbox"/> N >50
<b>DEADFALL/LOGS:</b>	<input type="checkbox"/> N	<input type="checkbox"/> <10	<input type="checkbox"/> N 10-24	<input type="checkbox"/> N 25-50	<input type="checkbox"/> N >50
<b>ABUNDANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT				
<b>COMM. AGE:</b>	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH

**SOIL ANALYSIS:**

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

NA

**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>
<u>Mineral Cultural Thicket</u>	<u>CUT 1</u>
<b>INCLUSION</b>	<b>CODE:</b>
<b>COMPLEX</b>	<b>CODE:</b>

**Evidence of Disturbance / Notes:**

This community acts as a divider between properties -> Predominantly grasses w patches of shrubs scattered throughout

<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	
<u>Sumac</u>			D			<u>horsetail</u>				O	
<u>DOGWOOD</u>			D			<u>dandelion</u>				R	
<u>ELM</u>	R		D			<u>red clover</u>				O	
<u>Chokecherry</u>			R			<u>orchard grass</u>				O-A	
						<u>reed canopy</u>				O-A	
						<u>goldenrods</u>				O	
						<u>oxeye daisy</u>				R	
						<u>rose sp.</u>				R	
						<u>garlic mustard</u>				R-O	
						<u>virg. Creeper</u>				R-O	
						<u>cleavers</u>				R	

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

Signature: Nataheara

(Field Personnel)

Quality Control: This form is complete  & legible

Signature: NAL

(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: June 5, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C): <u>20°</u>	WIND: <u>0-2</u>	CLOUD: <u>0-25%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	--------------------------	---------------------	------------------------	------------------	--------------------------------------

ELC Polygon: # 1-1 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?	

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

KILL - OB, VO

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

SE13; Tile 16; Poly 1-2

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SE13(8D)	POLYGON: 1-2		
	SURVEYOR(S): NAL	DATE: JUNE 5, 2012	UTME:	
	START: 9:30	END: 10:30	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 checked="" 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
<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 type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input 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 checked="" 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	3	4	OAKS > ELM > SALIX
2 SUB-CANOPY	/	/	
3 UNDERSTOREY	5	4	DOGWOOD
4 GRD. LAYER	6-7	3	VITRIPA = GRASSES

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
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<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
-----------------------	---	-----	---	-------	---	-------	---	-----

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

<b>COMM. AGE:</b>	PIIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b> Hedgerow	CODE: HR
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

**Evidence of Disturbance / Notes:**

BORDERING ROAD & AG FIELD, SMALL & DRY DRAINAGE FEATURES

<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	
Am Elm						VITRIPA					
G. dogwood						VIR Creeper					
W. Oak						Dark sp					
R. Oak						Horsetail					
Salix sp.						fescue					
Hickory						chickory					
Com. Apple						Black Mad.c.					
						Daisy					
						B-F Trefoil					
						Pink flower					
						Red clover					

Page \_\_\_ of \_\_\_  
 Signature: *Nadheera*  
 (Field Personnel)

Quality Control: This form is complete  & legible   
 Signature: *[Signature]*  
 (Project Manager)



**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

Project Name: NRWC

Date: JUNE 5, 2012

Field Personnel: N. Leawa

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20°</u>	<u>0-2</u>	<u>0-25%</u>	<u>Ø</u>	<u>rain</u>

ELC Polygon: # 12 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

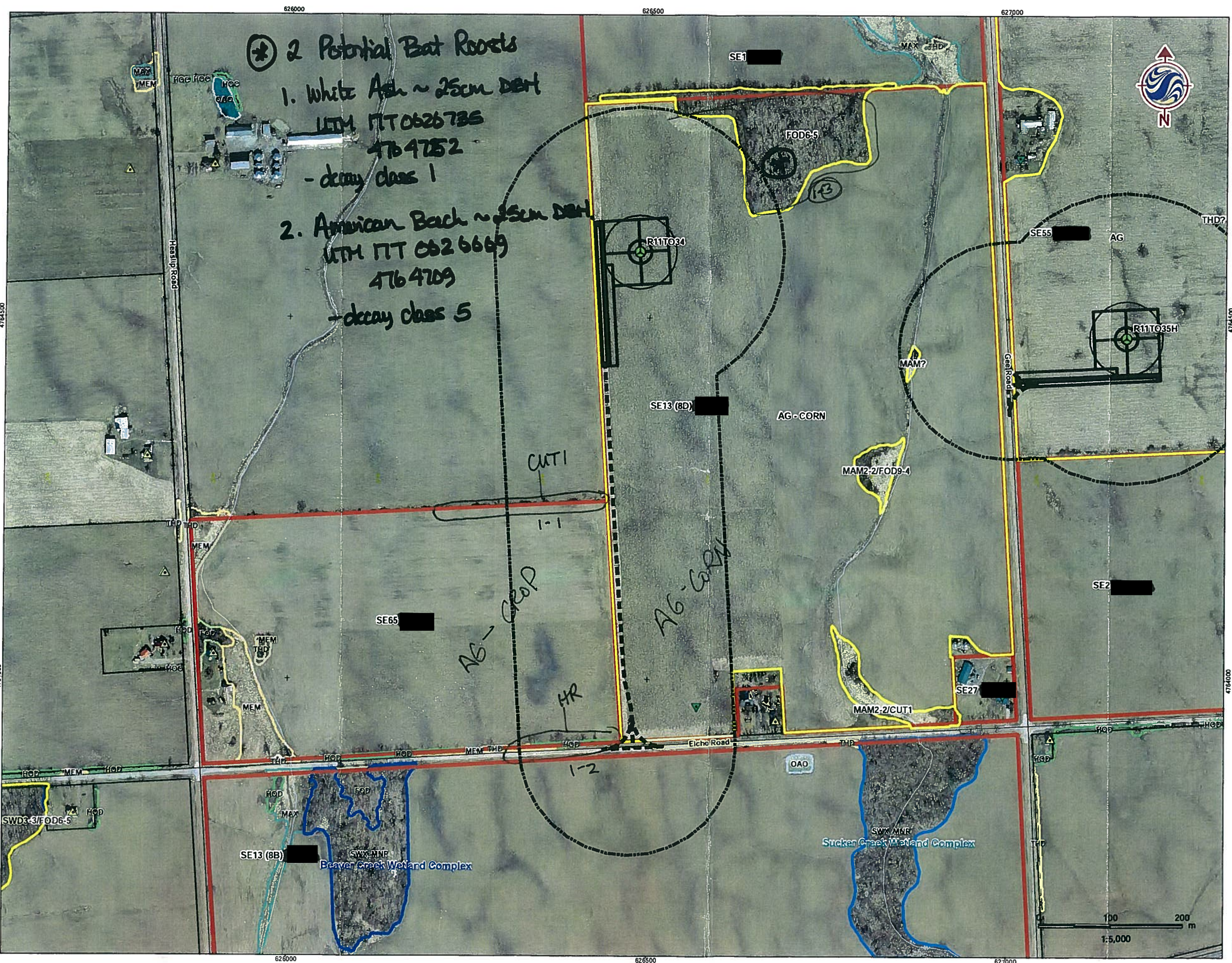
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

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=scat; SI=other sign; TK=track; VO=vocalization

V:\01608\Activity\160850269\planning\dwg\map\20120423\_NE\_Fieldmap\160850269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bcooper



### Legend

**Turbines in Signed Lands**

- Standard Turbine (105 dBA)
- Potential Turbine Locations

**Turbines in Unsigned Lands**

- Standard Turbine (105 dBA)
- 51 m Turbine Setback
- Non-Participating Receptor
- Participating Receptor

**Study Area and Property**

- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



- ### 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.

May 2012  
160850269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
16

Title  
Property with Turbine  
SE13 (8D)

SE13; Tile 16; Poly 1-1

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>NRWC - SE13(1BD)</u>	POLYGON: <u>1-1</u>	
	SURVEYOR(S): <u>NAL</u>	DATE: <u>JUNE 5, 2012</u>	UTME:
	START: <u>9:30</u> END: <u>10:30</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"/> 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 checked="" type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<b>SITE</b>		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> ROCKLAND	<input checked="" type="checkbox"/> SHRUB		<input checked="" type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<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	23	SUMAC > DOGWOOD > ELM > CHERRY
4 GRD. LAYER	5-7	4	GRASSES >> VIRG CREEPER = Goldenrods

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>	<input type="checkbox"/> 0	<input type="checkbox"/> <10	<input type="checkbox"/> N 10-24	<input type="checkbox"/> N 25-50	<input type="checkbox"/> N >50
<b>STANDING SNAGS:</b>	<input type="checkbox"/> N	<input type="checkbox"/> <10	<input type="checkbox"/> N 10-24	<input type="checkbox"/> N 25-50	<input type="checkbox"/> N >50
<b>DEADFALL/LOGS:</b>	<input type="checkbox"/> N	<input type="checkbox"/> <10	<input type="checkbox"/> N 10-24	<input type="checkbox"/> N 25-50	<input type="checkbox"/> N >50
<b>ABUNDANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT				
<b>COMM. AGE:</b>	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH

**SOIL ANALYSIS:**

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

NA

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b> <u>Mineral Cultural Thicket</u>	CODE: <u>CUT 1</u>
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

**Evidence of Disturbance / Notes:**

This community acts as a divider between properties → Predominantly grasses w patches of shrubs scattered throughout

<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	
<u>Sumac</u>			D			<u>horsetail</u>				O	
<u>DOGWOOD</u>			D			<u>dandelion</u>				R	
<u>ELM</u>	R		D			<u>red clover</u>				O	
<u>Chokecherry</u>			R			<u>orchard grass</u>				O-A	
						<u>reed canopy</u>				O-A	
						<u>goldenrods</u>				O	
						<u>oxeye daisy</u>				R	
						<u>rose sp.</u>				R	
						<u>garlic mustard</u>				R-O	
						<u>virg. Creeper</u>				R-O	
						<u>cleavers</u>				R	

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

Signature: Nataheara

(Field Personnel)

Quality Control: This form is complete  & legible

Signature: NAL

(Project Manager)



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 Canada N1G 4P5  
 Tel: (519) 836-6050  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 5, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C): <u>20°</u>	WIND: <u>0-2</u>	CLOUD: <u>0-25%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>rain</u>
---------------------	--------------------------	---------------------	------------------------	------------------	--------------------------------------

ELC Polygon: # 1-1 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?	

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

KILL - OB, VO

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



SE13; Tile 16; Poly 1-2

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SE13(8D)	POLYGON: 1-2		
	SURVEYOR(S): NAL	DATE: JUNE 5, 2012	UTME:	
	START: 9:30	END: 10:30	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 checked="" 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
<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 type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input 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 checked="" 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	3	4	OAKS > ELM > SALIX
2 SUB-CANOPY	/	/	
3 UNDERSTOREY	5	4	DOGWOOD
4 GRD. LAYER	6-7	3	VITRIPA = GRASSES

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
-----------------------	---	-----	---	-------	---	-------	---	-----

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

<b>COMM. AGE:</b>	PIIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
-------------------	----------	-------	---------	--------	------------

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b> Hedgerow	CODE: HR
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

**Evidence of Disturbance / Notes:**

BORDERING ROAD & AG FIELD, SMALL & DRY DRAINAGE FEATURES

<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	
Am Elm						VITRIPA					
G. dogwood						VIR Creeper					
W. Oak						Dark sp					
R. Oak						Horsetail					
Salix sp.						fescue					
Hickory						chickory					
Com. Apple						Black Mad.c.					
						Daisy					
						B-F Trefoil					
						Pink flower					
						Red clover					

Page \_\_\_ of \_\_\_  
 Signature: *Nadheera*  
 (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: JUNE 5, 2012

Field Personnel: N. Leawa

<b>Weather Conditions:</b>	TEMP (°C): <u>20°</u>	WIND: <u>0-2</u>	CLOUD: <u>0-25%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>rain</u>
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ELC Polygon: # 12 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	

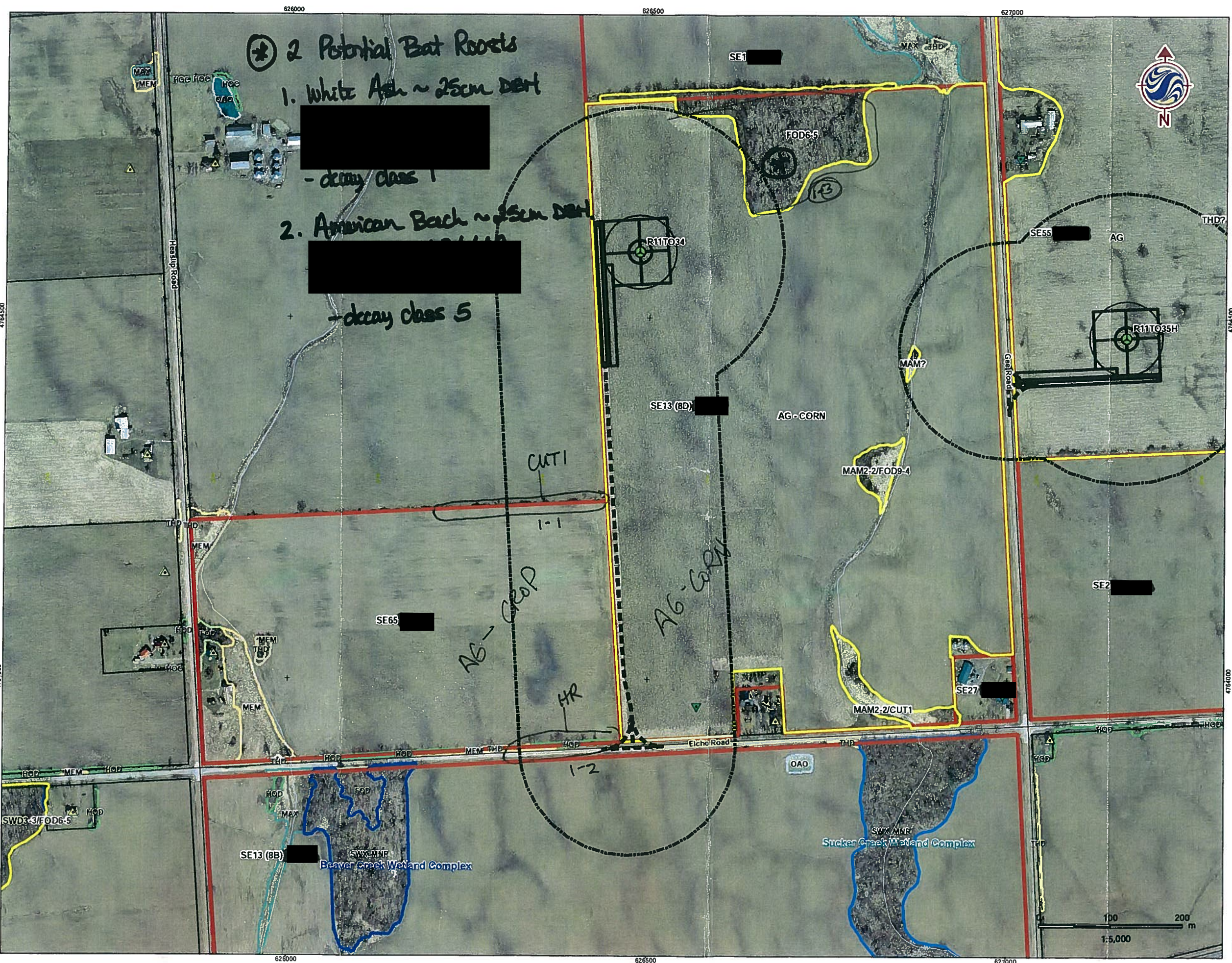
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

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)**

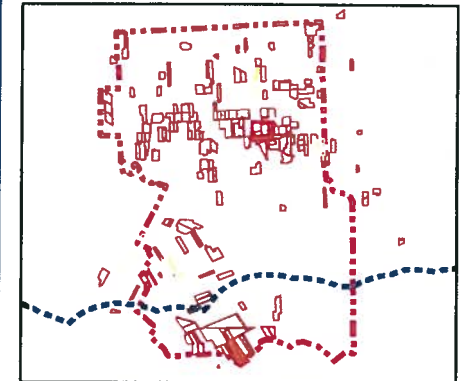
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

V:\01608\Activity\160850269\planning\dwg\mgma\20120423\_NE\_Fieldmap\160850269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bcooper



⊛ 2 Potential Bat Roosts  
 1. White Ash ~ 25cm DBH  
 - decay class 1  
 2. American Beech ~ 25cm DBH  
 - decay class 5

- ### Legend
- Turbines in Signed Lands
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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  
 Amphibian Field Maps

Figure No.  
 16

Title  
 Property with Turbine  
 SE13 (8D)



<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE 16 (SE)	POLYGON: 3	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
	START: 12:15	END: 12:30	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 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
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input checked="" type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<b>COVER</b>		<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND	<input checked="" 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 type="checkbox"/> TREED		<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	7	1	TAROFFI > grasses > sedges

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:	R	<10	N	10 - 24	N	25 - 50	N	>50
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STANDING SNAGS:	N	<10	N	10 - 24	N	25 - 50	N	>50
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DEADFALL/LOGS:	N	<10	N	10 - 24	N	25 - 50	N	>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: fine-grained mineral soil in isolated low-lying spot

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: FALLOW (NRC)
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE 16 (SE)	POLYGON: 3	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
			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.
	1	2	3	4	
TAROFFI	N	N	N	A	
ASCSYRI	N	N	N	R	
PLAMAJO	N	N	N	R	
TRIMARI	N	N	N	R	
Grass	N	N	N	O	
Sedge	N	N	N	R	

Signature: *A. Ducharme*  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: *Clayton*  
(Project Manager)



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 Guelph, ON  
 Canada N1G 4P5  
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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form



Project Number: 160950269

Project Name: NRWC - ELC

Date: 06 June 2012

Field Personnel: A. Ducharme

<b>Weather Conditions:</b>	TEMP (°C): <u>23</u>	WIND: <u>~15 km/h</u>	CLOUD: <u>part</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>~1mm</u>
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ELC Polygon: # 3      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=scat; SI=other sign; TK=track; VO=vocalization

SE16; T1E 20; Poly 4

SITE: NRC - SE 16 (SE)	POLYGON: 4	SURVEYOR(S): A. Ducharme	START: 12:30	END: 1:00
			DATE: 06 June 2012	UTM:
COMMUNITY DESCRIPTION & CLASSIFICATION		DATE: 06 June 2012	UTM:	UTM:

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LAQUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> VALLEY SLOPE	<input type="checkbox"/> STREAM	<input type="checkbox"/> RIVER	
<input type="checkbox"/> OPEN WATER	<input type="checkbox"/> ACIDIC BEDRK	<input type="checkbox"/> TERRACE	<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> POND	
<input type="checkbox"/> SHALLOW WATER	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> ROLL UPLAND	<input type="checkbox"/> OPEN	<input type="checkbox"/> LAKE	
<input type="checkbox"/> SURFICIAL DEP.	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> PLANTATION	
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF			

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)			
1 CANOPY	3	1	QUEBUE > UMWAE > CRASUC			
2 SUB-CANOPY	-	-				
3 UNDERSTOREY	4-5	3	CRASUC >> DIFULL > QUEBUE			
4 GRD. LAYER	6-7	4	PHARUN = ALPET > masses > sedges			

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

SOIL ANALYSIS: (not completed)	
DEPTH TO MOTTLES/GLEY	g=
DEPTH OF ORGANICS	g=
DEPTH TO BEDROCK	(cm)
HOMOGENEOUS / VARIABLE	
TEXTURE:	
MOISTURE:	
DEPTH TO MOTTLES/GLEY	
COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	
COMMUNITY SERIES:	
ECOSITE:	
VEGETATION TYPE:	
INCLUSION	
COMPLEX	
Evidence of Disturbance / Notes:	

This strip of vegetation (2-5 m wide) between farmers' fields.

SPECIES CODE	LAYER	COLL.
SYMERIC	1 2	2
TAROFFI	1 2	2
ASCYRI	1 2	2
ALPETI	1 2	2
DIFULL	1 2	2
TRIPRAT	1 2	2
LOTCORN	1 2	2
THLARVE	1 2	2
PETFRIG	1 2	2
LENUUG	1 2	2
PARQUIN	1 2	2
PHARUN	1 2	2
KUMCELS	1 2	2
VICCRAC	1 2	2
(Grosses letter)	1 2	2
sedges	1 2	2

SPECIES CODE	LAYER	COLL.
QUEBUE	1 2	2
ULMAMER	1 2	2
RUBIDAE	1 2	2
CRASUC	1 2	2

SITE: NRC - SE 16 (SE)	POLYGON: 4	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTM:
			COMMUNITY DESCRIPTION & CLASSIFICATION	UTM:

NO CODE READ -> HR (N. Durlan)



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 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC - ELC

Date: 06 June 2012

Field Personnel: A. Ducharme

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>~23</u>	<u>~15 km/h</u>	<u>part</u>	<u>none</u>	<u>~1 mm</u>

ELC Polygon: # 4 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)**

-red-winged blackbirds abundant

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

SE16; T1E 20; Poly 5

<b>ELC</b>	SITE: NRC-SE16 (SE)	POLYGON: 5
COMMUNITY DESCRIPTION & CLASSIFICATION	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012
START: 13:00	END: 13:30	UTM: [ ]
		UTM: [ ]

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"/> PLANCTON	
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> BOTTOMLAND	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> VALLEY SLOPE	<input type="checkbox"/> TERRACE	<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TABLELAND	<input type="checkbox"/> ROLL. UPLAND	<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> CLIFF	<input type="checkbox"/> TALUS	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
	<input type="checkbox"/> OPEN WATER	<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> ALVAR	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SHALLOW WATER	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> OPEN	<input type="checkbox"/> SHRUB	<input type="checkbox"/> PRAIRIE	<input type="checkbox"/> THICKET
<input type="checkbox"/> SURFICIAL DEP. WATER	<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED	<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> SAVANNAH	<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK	<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST	<input type="checkbox"/> PLANTATION

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)			
1	-	-				
2	-	-				
3	5-6	3	PHARRUN > SOLCANA			
4	7	2	ALSPLAN > SOLCANA = PHARRUN			

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

SOIL ANALYSIS: (not completed)	
TEXTURE:	DEPTH TO MOTTLES/GLEY
MOISTURE:	DEPTH OF ORGANICS
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:
COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
read canopy mixed meadow marsh	
MAW2-2	CODE:
INCLUSION	CODE:
COMPLEX	CODE:
Evidence of Disturbance / Notes:	

<b>ELC</b>	SITE: NRC-SE16 (SE)	POLYGON: 5
COMMUNITY DESCRIPTION & CLASSIFICATION	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012
		UTM: [ ]
		UTM: [ ]

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	
PHARRUN	-	-	D	A	
ALSPLAN	-	-	N	D	
VICGAC	-	-	N	O	
SOLCANA	-	-	A	#	





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC - ELC

Date: 06 June 2012

Field Personnel: A. Ducharme

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>~23</u>	<u>~15 km/h</u>	<u>part</u>	<u>none</u>	<u>~1mm</u>

ELC Polygon: # 5 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>entire feature</u>	<u>~1m</u>	<u>10-20 cm</u>		<u>Emergent</u>	<u>No.</u>

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

Small wetland feature between 2 fields (drainage ditch).

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

SE16; Tile 20; Poly 6A

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE 16 (SE)		POLYGON: GA	
	SURVEYOR(S): A. Ducharme		DATE: 06 June 2012	UTME:
	START: 13:30	END: 13:45	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"/> 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 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
<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 type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input checked="" type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ROCKLAND	<input checked="" type="checkbox"/> TREE		<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	3	2	SALNIGR
2 SUB-CANOPY	-	-	
3 UNDERSTOREY	4-5	3	PHAAARUN > SALNIGR
4 GRD. LAYER	6-7	2	PONCORD > PHAAARUN > grasses

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>	0	<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
-----------------------	---	-----	---	---------	---	---------	---	-----

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

<b>COMM. AGE:</b>	<input checked="" type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
-------------------	---	--------------------------------	----------------------------------	---------------------------------	-------------------------------------

**SOIL ANALYSIS: (not completed)**

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

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b> Swamp	<b>CODE:</b>
<b>COMMUNITY SERIES:</b>	<b>CODE:</b>
<b>ECOSITE:</b>	<b>CODE:</b>
<b>VEGETATION TYPE:</b> Willow Mineral Deciduous Swamp (N. Charlton)	<b>CODE:</b> SWD4-1 (N. Charlton)
<b>INCLUSION</b>	<b>CODE:</b>
<b>COMPLEX</b>	<b>CODE:</b>

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE 16 (SE)		POLYGON: GA	
	SURVEYOR(S): A. Ducharme		DATE: 06 June 2012	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				COLL.
	1	2	3	4			1	2	3	4	
SALNIGR	D	-	R	N							
PHAAARUN	N	-	D	A							
PONCORD	N	-	N	D							
grasses	N	-	N	O							

Page 1 of 2

Signature: *Ani*  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: *Chris*  
(Project Manager)

N. Charlton added codes on request

SE16, Tile 20, 10/4 613

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE16 (SE)	POLYGON: GB	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
	START: 13:45	END: 14:00	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 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 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 checked="" 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	3	1	QUEBICO = QUEMUEH
2 SUB-CANOPY	-	-	
3 UNDERSTOREY	5	4	TYPLATI > PHAARUN > DIPFULL
4 GRD. LAYER	6-7	2	PHAARUN > TYPLATI > DIPFULL

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:	R <10 N 10-24 N 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: (not completed)

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 white oak mineral deciduous swamp	CODE: SWDI-1 N. Charlton
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE16 (SE)
	POLYGON: GB
	DATE: 06 June 2012
	SURVEYOR(S): A. Ducharme

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	
TYPLATI	-	-	D	O							
DIPFULL	-	-	A	O							
PHAARUN	-	-	A	A							
QUEBICO	R	-	N	N							
QUEMUEH	R	-	N	N							
QUEMACR	R	-	R	R							

Page 2 of 2

Signature: A. Ducharme

(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: N. Charlton

(Project Manager)

N. Charlton added/chose codes on request



**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 - ELC

Date: 06 June 2012

Field Personnel: A. Ducharme

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>~ 23</u>	<u>~ 20 km/h</u>	<u>part</u>	<u>none</u>	<u>2 mm</u>

ELC Polygon: # 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>see figure.</u>		<u>~ 5m</u>	<u>~ 0.5m</u>		<u>Emergent</u>	<u>yes.</u>	

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

- Small swamp located in the middle of a farmer's field.  
 - Frogs present.

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

SE16; T16 20; Poly 7B

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE16 (SD)	POLYGON: 7B	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
	START: 15:00	END: 16:00	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 checked="" 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	<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"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<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
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.				
<input type="checkbox"/> OPEN WATER					
<input checked="" 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	3	3	>SALNIGR > QUEBICO > QUEMACR
2 SUB-CANOPY	-	-	
3 UNDERSTOREY	5	4	PHAARUN > TYPLATI > DIPFULL
4 GRD. LAYER	C-7	2	PHAARUN > TYPLATI > DIPFULL

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>				<b>BA:</b>
<b>SIZE CLASS ANALYSIS:</b>	0 <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>	R <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>	<input checked="" type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE
<b>OLD GROWTH</b>	<input type="checkbox"/>			

**SOIL ANALYSIS: (not completed)**

<b>TEXTURE:</b>	DEPTH TO MOTTLES/GLEY	g=	G=
<b>MOISTURE:</b>	DEPTH OF ORGANICS:		(cm)
<b>HOMOGENEOUS / VARIABLE</b>	DEPTH TO BEDROCK:		(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> willow mineral deciduous swamp	<b>CODE:</b> SWD4-1
<b>INCLUSION</b>	<b>CODE:</b>
<b>COMPLEX</b>	<b>CODE:</b>

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE16 (SD)	POLYGON: 7B	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
			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		
SALNIGR	A	-	R	N								
QUEBICO	O	-	R	N								
QUEMACR	O	-	O	R								
PHAARUN	N	-	D	A								
DIPFULL	N	-	O	R								
TYPLATI	N	-	A	O								
CUNMAJA	N	-	N	R								

Page 2 of 2

Signature: *A. Ducharme*  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: *Clayton H. Hord*  
(Project Manager)

Veg code added by N. Chariton on request



**Stantec Consulting Ltd.**  
 1 - 70 Southgate Drive  
 Guelph, ON  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC - ELC

Date: 06 June 2012

Field Personnel: A. Ducharme

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>~ 23</u>	<u>~ 20 km/h</u>	<u>part</u>	<u>none</u>	<u>~ 1 mm</u>

ELC Polygon: # 7 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>see figure</u>	<u>Vernal Pool / Swamp</u>	<u>~5m</u>	<u>20-50 cm</u>		<u>Emergent</u>	<u>Shrubs</u>	

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

- Swamp at 7A with standing water.  
- lots of debris (scrap metal, etc.)

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

SE16; Tite 20; Poly 7A

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC-SE16 (SD)	POLYGON: 7A	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
	START: 14:00	END: 15:00	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 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 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
<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 type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input 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 checked="" type="checkbox"/> FREED		<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 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	ACESACC > ACESASA > QUEALBA = QUERUBR
2 SUB-CANOPY	3	3	ACESACC = ACESASA > QUEALBA = QUERUBR
3 UNDERSTOREY	4-5	3	CRASUCC > QUEALBA = QUERUBR > ACER
4 GRD. LAYER	6-7	3	ALLPETI > IMPCAPE = PHAARUN

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	N	25-50	N	>50
----------------------	---	-----	---	-------	---	-------	---	-----

STANDING SNAGS:	R	<10	R	10-24	N	25-50	N	>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: (not completed)

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest / Swamp	CODE: FO / SW
COMMUNITY SERIES: Deciduous Forest / Swamp	CODE: FOD / SWX
ECOSITE:	CODE:
VEGETATION TYPE: Dry-Moist-wet	CODE: FOD6-5
INCLUSION	CODE: SWD3-2
COMPLEX	CODE:

Evidence of Disturbance / Notes: Mostly dry-moist FOD, only wet in centre.

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC-SE16 (SD)	POLYGON: 7A	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
			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		
ACESACC	D	A	O	R								
ACESASA	A	A	O	R								
QUEALBA	A	O	A	O								
QUERUBR	A	O	A	O								
CAROVAT	O	O	O	N								
ULMAMER	O	O	R	N								
CRASUCC	N	R	D	O								
RHUTIPH	N	O	O	R								
RUBIDAE	N	N	N	O								
IMPCAPE	N	N	N	A								
ALLPETI	N	N	N	D								
PODPELT	N	N	N	R								
PETFRIG	N	N	N	O								
RUMEX spp.	N	N	N	R								
PHAARUN	N	N	O	A								
PARQUIN	N	N	N	O								
LEUVULG	N	N	N	R								

Page 1 of 2  
Quality Control: This form is complete  legible   
Signature: *A. Ducharme* (Field Personnel)  
Signature: *N. Charlton* (Project Manager)

Veg codes chosen by N. Charlton on request



**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 - ELC

Date: 06 June 2012

Field Personnel: A. Ducharme

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>~ 23</u>	<u>~ 30km/h</u>	<u>cloudy</u>	<u>&lt; 1 mm</u>	<u>~ 1 mm</u>

ELC Polygon: # 8 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.	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 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.	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. Sp. Present?	Shrubs/ Logs at Edge Present?
<u>see map</u>	<u>Swamp</u>	<u>2-6m</u>	<u>20-40cm</u>		<u>Emergent</u>	<u>yes - shrubs</u>

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

- several low-lying swamp pools within forest.  
- frogs present

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





SE16; Tile 20; Poly 8B

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC-SE16 (SD)	POLYGON: 8B	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
	START: 17:00	END: 18:00	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 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 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	1-2	4	ACESASA = QUEALBA > FAGGRAN
2 SUB-CANOPY	3	3	CRASUCC >> ACESASA = QUEALBA
3 UNDERSTOREY	4-5	3	ACESASA > CRASUCC = QUEALBA = FAGGRAN
4 GRD. LAYER	6-7	3	ACESASA = RUBIDAE = TOXRADI

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 A 25-50 R >50
STANDING SNAGS:	O <10 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:	PIIONEER YOUNG <input checked="" type="checkbox"/> MID-AGE <input checked="" type="checkbox"/> MATURE OLD GROWTH

SOIL ANALYSIS: (not completed)

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

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: forest	CODE: FO
COMMUNITY SERIES: Deciduous forest	CODE: FOD
ECOSITE:	CODE:
VEGETATION TYPE: D-F Sugar Maple-oak-beech deciduous forest	CODE: FOD5-11*
INCLUSION	CODE:
COMPLEX	CODE:

**Evidence of Disturbance / Notes:**

Large sugar maple 750cm DBH UTM: 17T 0623760 4765674

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC-SE16 (SD)	POLYGON: 8B	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
			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	
QUEALBA	A	A	O	R							
ACESASA	A	A	A	O							
CAROVAT	R	O	R	O							
CRASUCC	N	D	D	ZZ							
FAGGRAN	N	O	O	ZZ							
PINSTRO	N	R	N	ZZ							
QUEMACR	K	R	N	Z							
GALTRIF	N	N	N	R							
RUBIDAE	N	N	N	O							
IMPCAPE	N	N	N	A							
TOXRADI	N	N	N	O							
POLPURE	N	N	N	O							
PETFRIG	N	N	N	R							
PODPELT	N	N	N	R							
VICCLAC	N	N	N	O							
Potentillae	N	N	N	R							

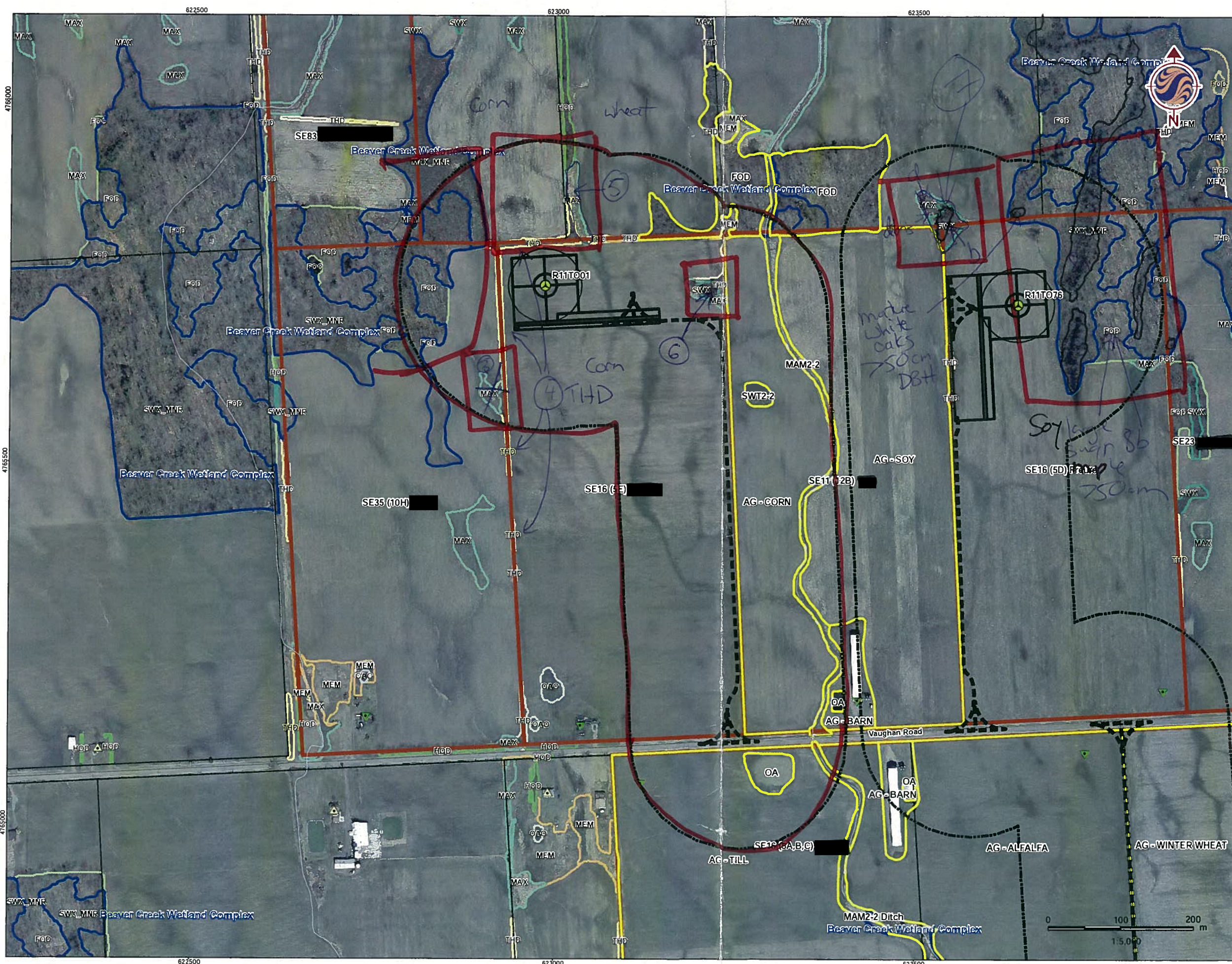
Page 2 of 2

Signature: A. Ducharme  
(Field Personnel)

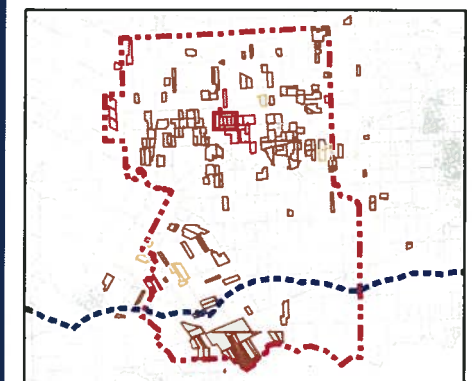
Quality Control: This form is complete  & legible .

Signature: [Signature]  
(Project Manager)

Veg code chosen by N. Charlton on request



- ### Legend
- Turbines in Signed Lands**
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands**
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
  - Receptors**
    - Non-Participating Receptor
    - Participating Receptor
  - Study Area and Property**
    - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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  
 Amphibian Field Maps

Figure No.  
 20

Title  
 Property with Turbine  
 SE16 (5E) [REDACTED]

V:\01609\Active\160950269\planning\drawing\mxd\0120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bcowper

SE 22; Tile 25; Poly 1

ELC SITE: Fig 25 SE 22 POLYGON: 1  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): P. Graham DATE: May 30, 2012 UTMZ: 622463  
 START: 2:00 END: 2:15 UTMN: 4763250

**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 type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS	<input checked="" 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"/> PHYOPHYTE <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 checked="" type="checkbox"/> MINERAL SOIL	<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 checked="" 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	15	70%	Shagbark hickory > Quercus > Bur oak
2 SUB-CANOPY	5	10%	Shagbark hickory
3 UNDERSTOREY	1-3	10%	Crataegus sp & Prunig
4 GRD. LAYER		100	Dacglom > Bromer > L. Stickwort > Galnoll

IT 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 O 25-50 N >50

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

DEADFALL/LOGS: O <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: FOD2

ECOSITE: CODE:

VEGETATION TYPE: Dry-Fresh Oak-Hickory Deciduous Forest CODE: FOD 2-2

INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

ELC SITE: Fig 25 SE 22 POLYGON: 1  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): P. Graham DATE: May 30, 2012 UTMZ: 622463  
 START: 2:00 END: 2:15 UTMN: 4763250

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	
Shagbark hickory D					
Quercus	O		O		
Fraxinea			O		
Bur oak K	R				
Crataegus sp			A		
Prunig			A		
Ras bitan				O	
Vibraf				R	
Rubidae				O	
Thicket Creeper				O	
Xanamer				O	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Lesser Stickwort				A	
Bromer				A	
Galnoll				O	
Japanese brack				A	
Dacglom				O	
Slender vetch				O	
Sp. Canna				O	
All off				R	
Geum sp				R	
Joe Pratt				O	
Common Fleabane				R	
Rumexis					
Daucaro					

Page 1 of 6  
 Signature: Don Graham (Field Personnel)

Quality Control: This form is complete  & legible .  
 Signature: K. Choate (Project Manager)



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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: May 30, 2012

Field Personnel: D. Graham

<b>Weather Conditions:</b>	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
----------------------------	------------	-------	--------	------	-----------------------

ELC Polygon: # 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?

**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

SE22; Tile 25; Poly 2

ELC SITE: P. 25 SE22 POLYGON: 2  
 SURVEYOR(S): D. Graham DATE: May 30 2012 UTM E: 622453  
 START: 25 END: 20 UTM Z: UTM N: 4763254

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 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 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 type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> OPEN	<input type="checkbox"/> COVER	<input type="checkbox"/> OPEN	
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> SHRUB	<input type="checkbox"/> SHRUB	<input type="checkbox"/> TREE	
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREE		
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> BLUFF			
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.				
<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			None
2 SUB-CANOPY			None
3 UNDERSTOREY	1-2	20%	Silky dogwood > Crataegus sp > Rub. dac = Privet
4 GRD. LAYER		100%	Brainer > Galium > Japanese brane > Slender vetch

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: Pasture.

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes:

ELC SITE: Fig 25 SE22 POLYGON: 2  
 SURVEYOR(S): D. Graham DATE: May 30 2012 UTM E: 622453  
 START: 25 END: 20 UTM Z: UTM N: 4763254

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					
P. privet															
						Japanese brane.									A
						Galium									A
						Slender vetch									O
						Lesser stickwort									O
						Brainer									A
						Common Cingulifol									O
						Flaxing Veroff?									O
						Astnove									R
						Solcang									O
						Wild geranium									O
						La pratensis									O
						Daucora									O
						C. water cross									O

Page 2 of 6  
 Signature: Don Graham (Field Personnel)  
 Signature: [Signature] (Project Manager)  
 Quality Control: This form is complete  & legible .



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWL

Date: May 30, 2012

Field Personnel: D.G

<b>Weather Conditions:</b>	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: # 2      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=scat; SI=other sign; TK=track; VO=vocalization

SE22; Tile 25; Poly 3

**ELC** SITE: Fig 25 SE22 POLYGON: 3  
 SURVEYOR(S): D. Graham DATE: May 30, 2012 UTM E: 622450  
 START: 230 END: 243 UTM Z: UTM N: 4763223

**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"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <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 checked="" type="checkbox"/> NATURAL <input 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 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 type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input checked="" type="checkbox"/> WETLAND	<input 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"/> 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"/> COVER	
<input type="checkbox"/> AQUATIC					
<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	1.15	100%	Phacelia > Solgram > Swamp milkweed > Poa pratensis

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=<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:				
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: Reed Canary Grass Graminoid  
Mineral Meadow Marsh CODE: MAM2-2

INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

**ELC** SITE: Fig 25 SE22 POLYGON: 3  
 SURVEYOR(S): D. Graham DATE: May 30, 2012 UTM E: 622450  
 START: 230 END: 243 UTM Z: UTM N: 4763223

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	
						Phacelia					D
						Poa pratensis					R
						Swamp milkweed					R
						Small water plantain					R
						Solgram					O
						Bidens					O

Page 3 of 6

Signature: *D. Graham*  
(Field Personnel)

Quality Control: This form is complete  & legible .  
 Signature: *W. Miller*  
(Project Manager)





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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

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

Project Name: NRWL

Date: May 30, 2012

Field Personnel: D.G.

<b>Weather Conditions:</b>	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: # 3      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=scat; SI=other sign; TK=track; VO=vocalization

SE22; Tile 25; Poly 4

ELC SITE: Fig 25 SE22 POLYGON: 4  
 SURVEYOR(S): D. Graham DATE: May 30, 2012  
 COMMUNITY DESCRIPTION & CLASSIFICATION START: 2:45 END: 3:00 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 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"/> 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.		<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	15	50%	Shagbark Hickory > bur oak > A. elm > red oak
2 SUB-CANOPY	5-8	10%	Ironwood > Shagbark
3 UNDERSTOREY	2-5	10%	Xanoxer >> h. hastata > Crataegus sp
4 GRD. LAYER			Dacoglon > Poa prat > Solcana > Cleaver

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.9<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:	R	<10	A	10 - 24	O	25 - 50	R	>50
STANDING SNAGS:		<10		10 - 24		25 - 50		>50
DEADFALL/LOGS:	A	<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: Cultural Woodland CW  
 INCLUSION CODE:  
 COMPLEX CODE:

Evidence of Disturbance / Notes:

ELC SITE: Fig 25 SE22 POLYGON: 4  
 SURVEYOR(S): D. Graham DATE: May 30, 2012  
 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	
Bur oak	O					Bur oak					
Fragaria	R					Fragaria					
Apple	R					All off					R
Ironwood						Poa prat					A
Quercus	O					Cleaver					O
White Oak	O					Imp cap					R
Lilium	O	O				Common Impatiens					O
Shagbark Hickory	O	O	O			Solcana					A
A. elm	O	O				Dacoglon					O
Serviceberry sp	R					Slender Vetch					O
						Xanoxer					A
						Crataegus sp					R
						Rubus					O
						Rubus					R
						h. hastata					O

Page 4 of 6

Signature:

Don Graham  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature:

Mike Dool  
(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: May 30, 2012

Field Personnel: D.G.

<b>Weather Conditions:</b>	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
----------------------------	------------	-------	--------	------	-----------------------

ELC Polygon: # 4      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=scar; SI=other sign; TK=track; VO=vocalization

West of SE 21; Tile 25; Poly 5

**ELC** SITE: Fig 25 POLYGON: 5  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): D. Graham DATE: May 30 2012 UTMZ: UTMN:  
 START: 300 END: 315

**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"/> HILL 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 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 checked="" 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"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE		
<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		<u>8-15 50%</u>	<u>Bur oak = Shagbark hickory = Ash sp</u>
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: R <10 A 10 - 24 O 25 - 50 N >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: Cultural Woodland CW  
 INCLUSION CODE:  
 COMPLEX CODE:

**Evidence of Disturbance / Notes:**

~~Evacat~~ Evaluated remotely  
 (~ 100 m from feature)

**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		
<u>Bur oak</u>												
<u>Shagbark hickory</u>												
<u>Ash sp</u>												

Page 5 of 6

Signature: Don Graham  
 (Field Personnel)

Quality Control: This form is complete  & legible .

Signature: Neil Priest  
 (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: May 30, 2012

Field Personnel: P.G

<b>Weather Conditions:</b>	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):

ELC Polygon: # 5      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=scat; SI=other sign; TK=track; VO=vocalization

SE21; Tile 25; Poly 6

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <b>Pa25 Seal</b>	POLYGON: <b>6</b>	
	SURVEYOR(S): <b>V. Graham</b>	DATE: <b>May 30 2012</b>	UTM: <b>621894</b>
	START: <b>315</b>	END: <b>325</b>	UTMZ:
			UTMN: <b>4763534</b>

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"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> PYROPHYTE	<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
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ALVAR	<b>COVER</b>		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREE		<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	6-8	30%	<i>V. marianus</i> = <i>Rhus</i> > <i>Fragaria</i> > <i>Croton</i>
2 SUB-CANOPY			
3 UNDERSTOREY	1-4	70%	<i>Carrage</i> > <i>Rubidoe</i> >> <i>Lantana</i> > <i>Prunig</i>
4 GRD. LAYER		90%	<i>Poa prat</i> > <i>Solcane</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:	<b>H</b> <10 <b>A</b> 10-24 <b>M</b> 25-50 <b>N</b> >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:	<input type="checkbox"/> PIONEER <input checked="" type="checkbox"/> YOUNG <input type="checkbox"/> MID-AGE <input type="checkbox"/> MATURE <input type="checkbox"/> 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: <b>Cultural Woodland</b>	CODE: <b>CVW</b>
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

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	
<i>Prunus</i>	A					<i>Pharva</i>					
<i>Ulmus</i>	A					<i>Vicifrag</i>					
<i>Fragaria</i>	A					<i>Poa prat.</i>				D	
<i>Ostrum</i>			O			<i>Dipsylu</i>					A
<i>Bur oak</i>	O					<i>Solcane</i>					
						<i>Allopi</i>					
						<i>Srldulc</i>					
						<i>Cigvulg</i>					
						<i>Astnove</i>					
						<i>Rumcris</i>					
						<i>Laurata</i>					
						<i>C. winter cress</i>					
						<i>Yellow gum</i>					
						<i>Rot rect</i>					

Page 6 of 6  
 Signature: Don Graham (Field Personnel)  
 Signature: [Signature] (Project Manager)  
 Quality Control: This form is complete  & legible .



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: May 30, 2012

Field Personnel: D.G.

<b>Weather Conditions:</b>	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: # 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

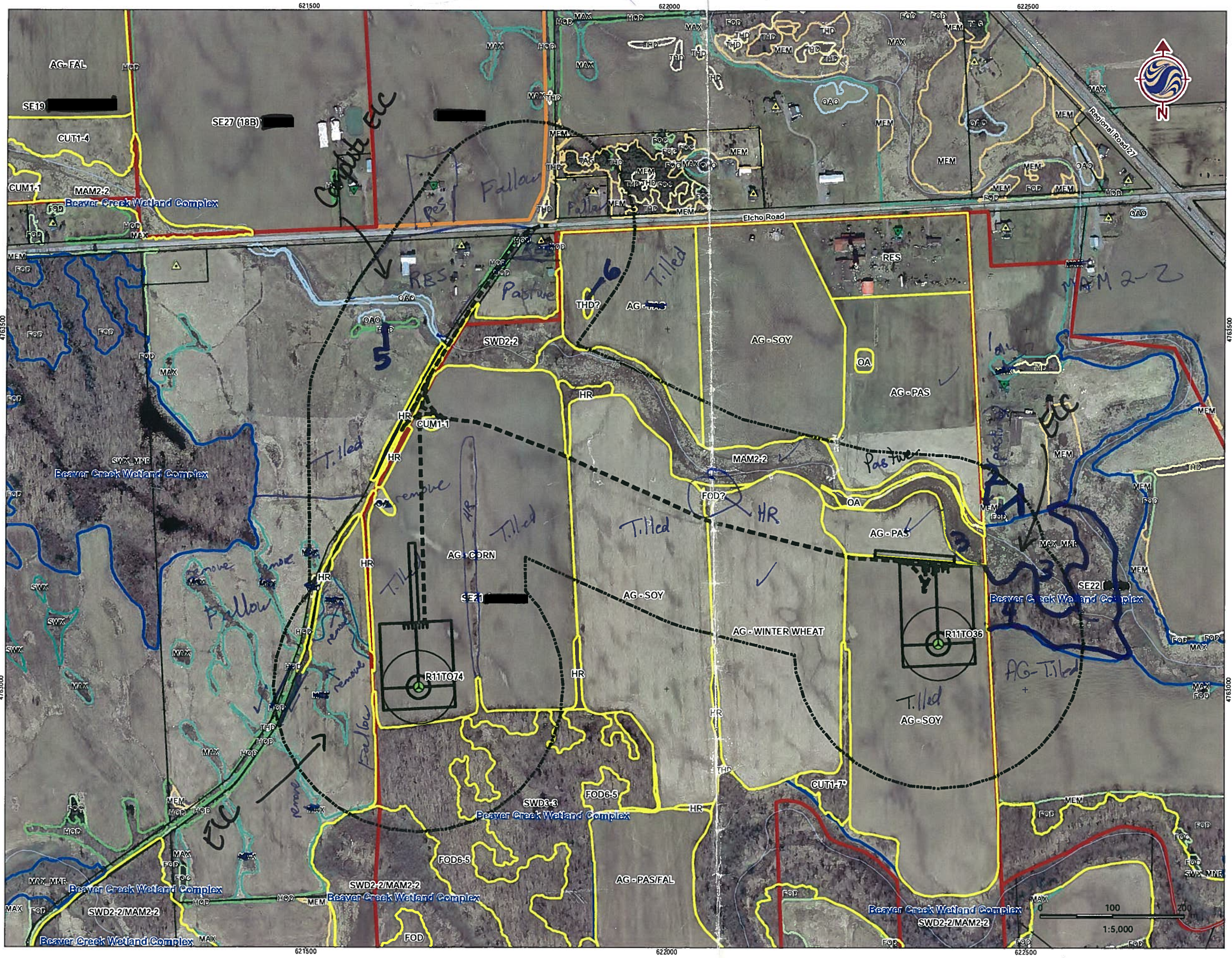
**Seeps/Springs/Vernal Pools:**      Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

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?

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

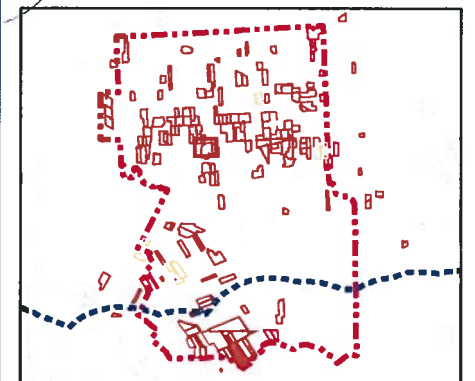
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

Don



### Legend

- Turbines in Signed Lands**
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands**
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Study Area and Property**
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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.

May 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
25

Title  
Property with Turbine  
SE21 [redacted]

V:\01009\Active\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bcomper



SE92; Tile 26; Poly A Fig 26 SE92



Stantec Consulting Ltd.  
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Canada N1G 4P5  
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Fax: (519) 836-2493

**Roadside ELC,  
Woodland & Wildlife Habitat  
Assessment Form**

**Stantec**

Project Number: 160950269 Project Name: NRWC  
 Date: June 8 2012 Field Personnel: C. Payette

Weather Conditions:

TEMP (°C): <u>29</u>	WIND: <u>2</u>	CLOUD: <u>40%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
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**POLYGON DESCRIPTION**

<b>ELC</b> <b>COMMUNITY DESCRIPTION &amp; CLASSIFICATION</b>	POLYGON: <u>A</u>	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input checked="" type="checkbox"/> BOTTOMLAND <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"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL
	START TIME: <u>12:30</u>			
	END TIME: <u>12:45</u>			

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	<u>2</u>	<u>2</u>	<u>green ash &gt; American elm &gt; crack willow</u>
2 SUB-CANOPY			
3 UNDERSTOREY	<u>3-4</u>	<u>2</u>	<u>gray dogwood &gt; Hawthorn &gt; riverbank grape</u>
4 GRD. LAYER	<u>5-7</u>	<u>4</u>	<u>Red canopy grass &gt; green sp &gt; common milkweed</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<50% 4=CVR>50% N/O=not observed

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

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT N/O=Not observed

STAND MATURITY:  PIONEER  YOUNG  MID-AGE  MATURE  OLD GROWTH

VEGETATION TYPE: Red canopy mixed woodland - Mixed CODE: MAM2-2  
 COMPLEX CODE:

Evidence of Disturbance / Notes:  
photos 9, 10, 11

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 N/O=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL.
	1	2	3	4	≤5 m	>5 m	
<b>TREES:</b>							
<u>green ash</u>	<u>A</u>						
<u>American elm</u>	<u>O</u>						
<u>crack willow</u>	<u>2.O</u>						
<b>SHRUBS:</b>							
<u>Apple sp</u>			<u>R</u>				
<u>gray dogwood</u>			<u>A</u>				
<u>Hawthorn</u>			<u>O</u>				
<u>riverbank grape</u>			<u>O</u>				
<b>GROUND:</b>							
<u>Red canopy grass</u>						<u>D</u>	
<u>Common milkweed</u>						<u>O</u>	
<u>grass sp</u>						<u>O</u>	

Signature: [Signature]  
(Field Personnel)

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

SE24, T:le 26, Poly B

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
1 TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
2 WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
3 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
4 OPEN WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
5 SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
6 SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
7 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			Shagbark hickory, Swamp maple, Red oak, Sugar maple
2 SUB-CANOPY			
3 UNDERSTOREY			Red raspberry, blue bear, Hawthorn
4 GRD. LAYER			strawberry, Peonies, honey apple

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.8<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:

1 INCLUSION	Red may Woodland	CODE: MAY 2
COMPLEX		CODE:

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NFAW		POLYGON: B SE24	
	DATE: June 8, 2012		SURVEYOR(S): C. Poynter	

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	
Birch	0					Red canopy					O
Bittersweet						May apple					O-A
Amorpha	0					Sedge sp					O
Red oak	0-A					woodhelle					O
Chokecherry						strawberry					A
Black eye	0					gingerfoil sp					A ✓
Shagbark hickory	A										
Sweetgum	0										
American elm	0										
American hickory	0										
Swamp maple	0-1										
Ironwood	R										
Red raspberry											A
running strawberry											O
Poisonivy											O-A
Blue bear											O
Meadowswart											O
Rose sp											R-O
Hawthorn sp											O
Apple sp											R-O
gray dogwood											R

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

SE24; Tile 26; Poly C

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
**COMMUNITY DESCRIPTION & CLASSIFICATION** SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_ UTMZ: \_\_\_\_\_ UTMN: \_\_\_\_\_  
START: \_\_\_\_\_ END: \_\_\_\_\_

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
WETLAND	<input 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"/> AGRIC. 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"/> BRYOPHYTES	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALLUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
OPEN WATER	<input type="checkbox"/> CARB. BEDRK.				<input type="checkbox"/> PRAIRIE
SHALLOW WATER					<input type="checkbox"/> THICKET
SURFICIAL DEP. BEDROCK					<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			g oak + trembly aspen
2 SUB-CANOPY			
3 UNDERSTOREY			meadows + white cedarberry
4 GRD. LAYER			blackberry + broad leaved sedge

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<80%

**STAND COMPOSITION:** NA:

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
STANDING SNAGS:	<10	10-24	25-50	>50
HEADFALL/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)
OMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
OSITE:	CODE:
VEGETATION TYPE:	CODE: SWD2-2
INCLUSION	Broad leaved sedge meadow CODE: MAM2-6
COMPLEX	CODE:

Evidence of Disturbance / Notes: photos, very thick HR in front of swamp, can see a lot of standing snags.

**ELC** SITE: NRWC POLYGON: CSE24  
**COMMUNITY DESCRIPTION & CLASSIFICATION** DATE: June 8, 2012 SURVEYOR(S): C. Payne

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	
green ash	0					Broad leaved sedge				A	✓
choke cherry	2					blackberry				A	
Bur oak	2					meadow sweet				O	
trembling aspen	0					gelm sp				O	
						sedge sp				R	
						gooseberry				R	
						gooseberry				R	

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



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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: June 8, 2012

Field Personnel: C. Payette

<b>Weather Conditions:</b>	TEMP (°C): <u>29</u>	WIND: <u>3-4</u>	CLOUD: <u>30%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
----------------------------	-------------------------	---------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: # 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?	

**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

V:\01609\A\del\16095026\planning\drwg\mxd\20120423\_NE\_Fieldmap\160950268\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bowper



- ### 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.



May, 2012  
160950268

Client/Project  
**Niagara Region Wind Corporation  
Amphibian Field Maps**

Figure No.  
**26**

Title  
**Property with Turbine  
SE24**







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 8, 2012

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>2</u>	<u>70</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)

**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=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: June 8

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>2</u>	<u>70%</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)

**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)

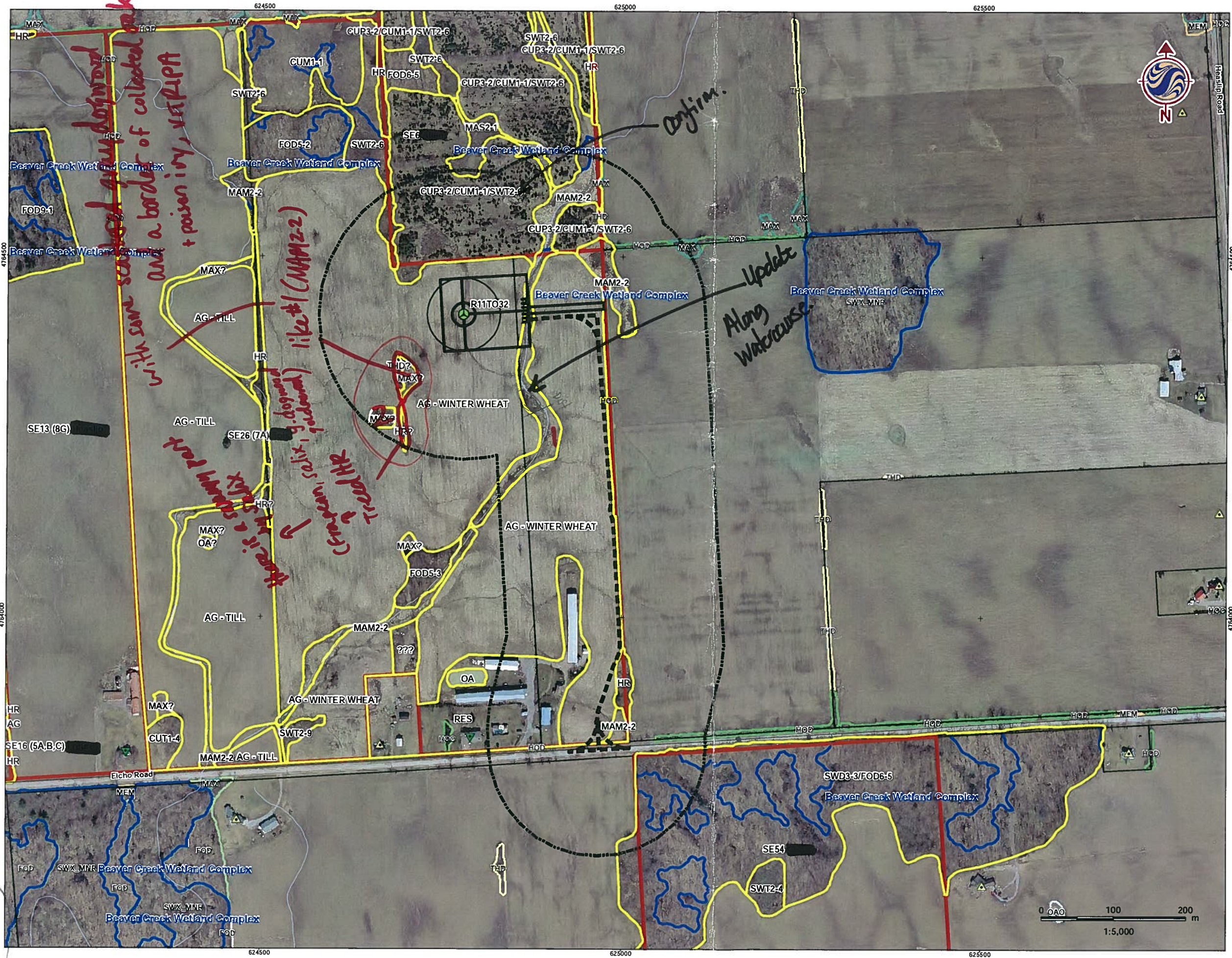
STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

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



Legend

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



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.



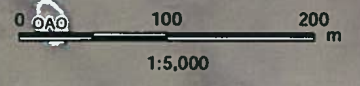
Stantec

May, 2012  
160950269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 27

Title  
 Property with Turbine  
 SE26 (7A)



V:\160950269\160950269\Planning\drawing\mxd\20120422\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 by: [unclear]





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: 08/06/2012

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>2</u>	<u>70</u>	<u>—</u>	<u>—</u>

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?
<u>entire</u>	<u>pool</u>	<u>10 x 30 m</u>	<u>20-40cm</u>		<u>yes (graminoid)</u>	<input checked="" type="checkbox"/>

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

*(This section is mostly blank with some faint vertical markings.)*

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

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE 26 (Niagara)	POLYGON: 28-3	
	SURVEYOR(S): NC	DATE: 08/06/2012	UTME:
	START: 4:15	END: 4:30	UTMZ:
			UTMN:

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"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
SITE	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input checked="" type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	COVER		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<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 type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

TAND DESCRIPTION:			
LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE
CANOPY	2	2	( $\gg$ ) MUCH GREATER THAN; ( $>$ ) GREATER THAN; (=) ABOUT EQUAL TO) QUERICO $\gg$ FRAPENN
SUB-CANOPY			
UNDERSTOREY	4	2	SPIALBA
GRD. LAYER	4-7		CYPERACE $>$ PHAARUN $>$ GLYCERIA

T CODES: 1=25m 2=10-HT25m 3=2-HT10m 4=1-HT2m 5=0.5-HT1m 6=0.2-HT0.5m 7=HT<0.2m  
VR CODES: 0=NONE 1=0%-CVR10% 2=10-CVR25% 3=25-CVR50% 4=CVR>50%

TAND COMPOSITION:					
ZE CLASS ANALYSIS:					BA:
	0	<10	10-24	25-50	>50
TANDING SNAGS:	R	<10	10-24	25-50	>50
ADFALL/LOGS:	0	<10	10-24	25-50	>50
DANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT					
MM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

CIL ANALYSIS:	
XTURE:	DEPTH TO MOTTLES/GLEY: G=
YSTURE:	DEPTH OF ORGANICS: (cm)
MOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)
MMUNITY CLASSIFICATION:	
MMUNITY CLASS:	CODE:
MMUNITY SERIES:	CODE:
OSITE:	CODE:
GETATION TYPE:	CODE:
red leaved sedge mineral shell MAS MAS	
INCLUSION	CODE:
COMPLEX	CODE:
edence of Disturbance / Notes:	

GRFR - heard  
open water 5x10m

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:
	POLYGON:
	DATE: SE 26; Tile 28; 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			
QUERICO	A												
WILMAMR	R	O											
FRAPENN	R												
CYPERACE													
PHAARUN													A
GLY													A-O
ALL PLANT													O
SPIALBA													

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

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

thin ring of SWD (1 tree / 2 trees)



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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: 08/26/2012

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>2</u>	<u>70</u>	<u>—</u>	<u>—</u>

ELC Polygon: #28-3 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>POB1</u>	<u>5x10 m</u>	<u>60 cm</u>		<u>at edges in shallow water</u>	<input checked="" type="checkbox"/>	

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

GRRR-VU

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

**ELC** SITE: SE 26 (Niagara) POLYGON: 28-4  
 SURVEYOR(S): WJC DATE: June 8, 2012  
 START: 4:00 END: 4:15  
 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 type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF	<input checked="" 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 checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<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 checked="" 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.				

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE ( >> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	3	QUERUBR >> TILAMER > ACESASA
SUB-CANOPY	3	2	ULMAMER > ACEFRE E
UNDERSTOREY	4	3	RUBUS SPP > CRATAEGUS > G. dogwood
GRD. LAYER	5-7	4	RUBIDAE > SOLIDAGO > POACOMP

T 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  
 VR CODES: 0=NONE 1=0%-CVR<10% 2=10<-CVR<25% 3=25<-CVR<50% 4=CVR>50%

**TAND COMPOSITION:**

BA:

ZE CLASS ANALYSIS:	A	<10	R	10-24	A	25-50	N	>50
STANDING SNAGS:	R	<10	R	10-24	N	25-50	N	>50
FALL LOGS:	0	<10	R	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: silty clay

TEXTURE: DEPTH TO MOTTLES/GLEY 1 SCOOP 1 SCOOP

MOISTURE: 6 DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

SOIL TYPE: CODE:

VEGETATION TYPE: Fr h s Red base CODE: \*

INCLUSION CODE:

COMPLEX CODE:

Prevalence of Disturbance / Notes: open canopy (<60)

**ELC** SITE: POLYGON: DATE: SE 26; Tile 28; Poly 4 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	R					LYSCILI							
TILAMER	0					GEUM							R
OCTVIBG	R					PHALARIS							A
CRATAEGUS		A				POACOMP							0
QUERUBR	A					SOLIDAGO CA							A
ULMAMER		0	0	0		LIMPARE							A
ACEFRE	0					POTRUCT							R
						GERROBE							0
						ARCMNH							R
RUBICANA			A	A									
G. dogwood													
RUBIDAE			A	A									
PRUVIVI													

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: 1609 50269

Project Name: NRWC

Date: June 8, 2012

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>2</u>	<u>70</u>	<u>—</u>	<u>—</u>

ELC Polygon: #28-4 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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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: 08/06/2012

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>25</u>	WIND: <u>2</u>	CLOUD: <u>70</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</u>
---------------------	-------------------------	-------------------	---------------------	------------------	-----------------------------------

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	

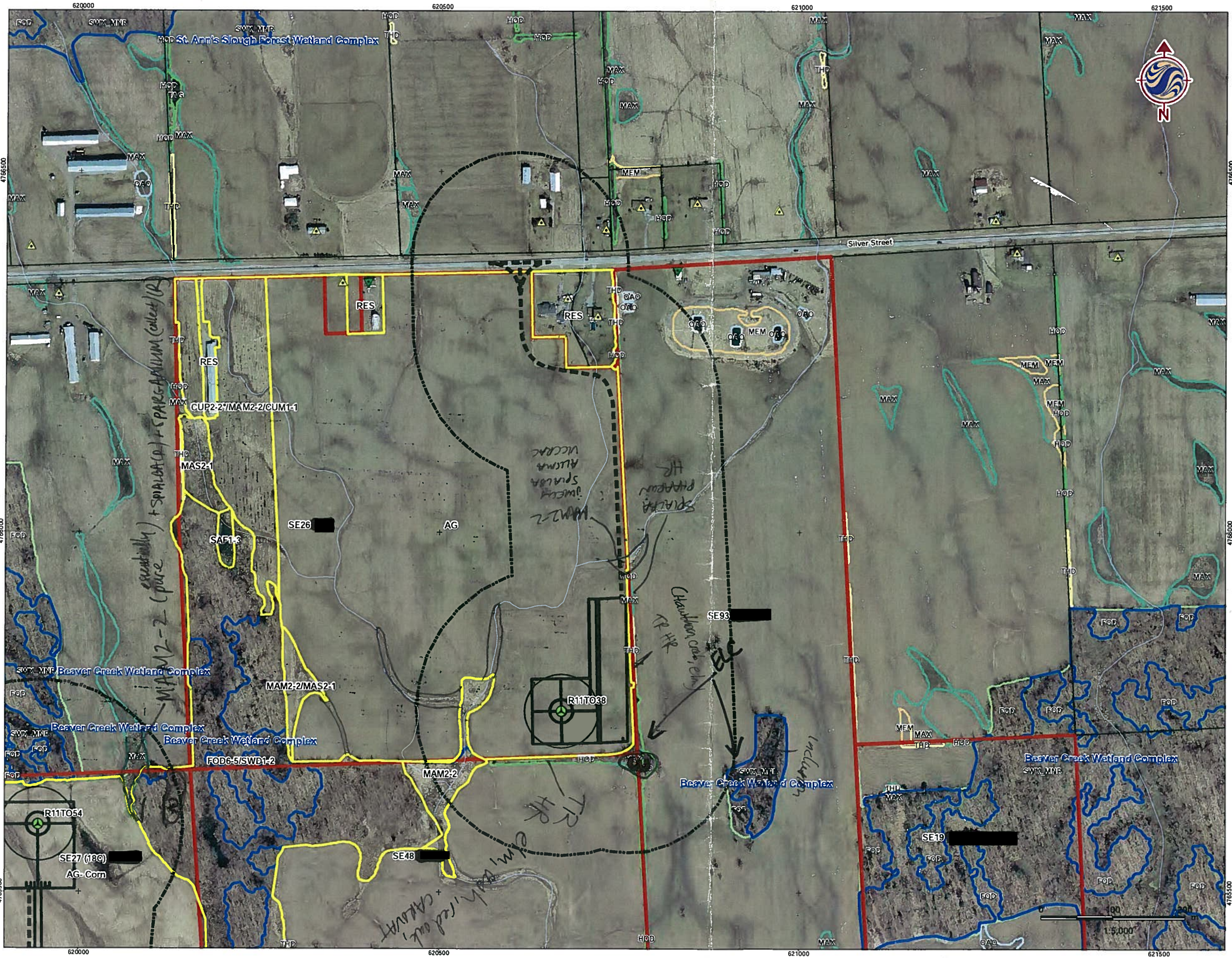
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

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?
<u>through hole/inclusion</u>	<u>POD/5</u>	<u>50x10m</u>	<u>&gt;60 deepest</u>		<u>few</u>	<input checked="" type="checkbox"/>

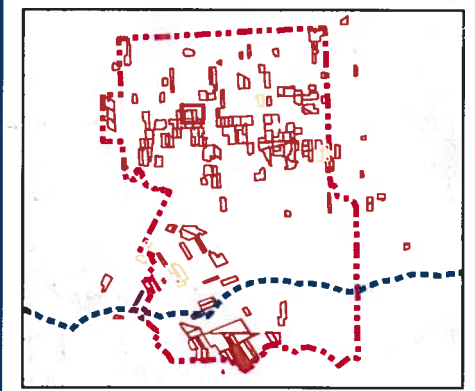
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

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

V:\016094\Act\160940269\planning\drawing\mxd\20120423\_NE\_Fieldmaps\160940269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: boomer



- ### Legend
- Turbines in Signed Lands
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
  - Receptors
    - Non-Participating Receptor
    - Participating Receptor
  - Study Area and Property
    - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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.



May, 2012  
 160940269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 28

Title  
 Property with Turbine  
 SE26

ELC  
 COMMUNITY DESCRIPTION & CLASSIFICATION  
 SITE: SE 27/18C  
 SURVEYOR(S): NC  
 DATE: 08/06/2012  
 POLYGON: 29-2  
 START: 3:30  
 END: 3:45  
 UTME: [ ]  
 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"/> FLANKTON	<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"/> BARRIEN
		<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

TAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE
CANOPY	2	3	QUERUBR ACEJASA > CARO AT
SUB-CANOPY	3	3	A CA VAT > FRAX P
UNDERSTOREY	4	3	RUBU P VIBLNT > ROSA P
GRD. LAYER	5-7	4	ALL > POA SP > P 4 PV P

HT CODES: 1=25m 2=10-41m 3=2-11m 4=1-41m 5=0.5-11m 6=0.2-11m 7=HT=0.2m  
 CVR CODES: 0=NONE 1=0%-CVR<10% 2=10%-CVR<25% 3=25%-CVR<50% 4=CVR<80%

TAND COMPOSITION:

CLASS ANALYSIS:	<10	10-24	25-50	>50
STANDING SNAGS:	A	A	R	N
FALL LOGS:	A	R	R	N
ABUNDANCE CODES:	N=NONE	R=RARE	O=OCCASIONAL	A=ABUNDANT
MIN. AGE:	PIONEER	YOUNG	MID-AGE	MATURE
XL ANALYSIS:				OLD GROWTH

XTURE: DEPTH TO MOTTLES/GLEY: [ ]  
 XSTURE: DEPTH OF ORGANICS: [ ]  
 HOMOGENEOUS / VARIABLE: DEPTH TO BEDROCK: [ ]

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: [ ]  
 COMMUNITY SERIES: [ ]  
 OSITE: [ ]  
 DETENTION TYPE: Fresh H<sub>2</sub>O + Sugar Maple  
 CODE: F0D9-1  
 INCLUSION: [ ]  
 COMPLEX: [ ]  
 dence of Disturbance / Notes: [ ]

Edge

ELC  
 COMMUNITY DESCRIPTION & CLASSIFICATION  
 SITE: [ ]  
 POLYGON: SE 27; T1E 29; Poly 2  
 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	
ULMAMER	D	O				SOLIDAGO C/A					A
CAROVAT	O	A				POA SP					O
QUERUBR	A					G-cum					R
PINSTEI	R					POISON Ivy					O
FRAX SP	D	O				SYMPHYO SP					O
ACEJASA	A	A				RANACOLI					
VIBLNT											
ROSA SP											
RUBUS SP											

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: 1160950269

Project Name: NRWC

Date: 08/06/2012

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	2	70	—	—

ELC Polygon: #29-2 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; FI=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=silver sign; TK=track; VO=vocalization





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Tel: (519) 836-6050  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: 08/06/2012

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>2</u>	<u>70</u>	<u>—</u>	<u>—</u>

ELC Polygon: #29-3 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	

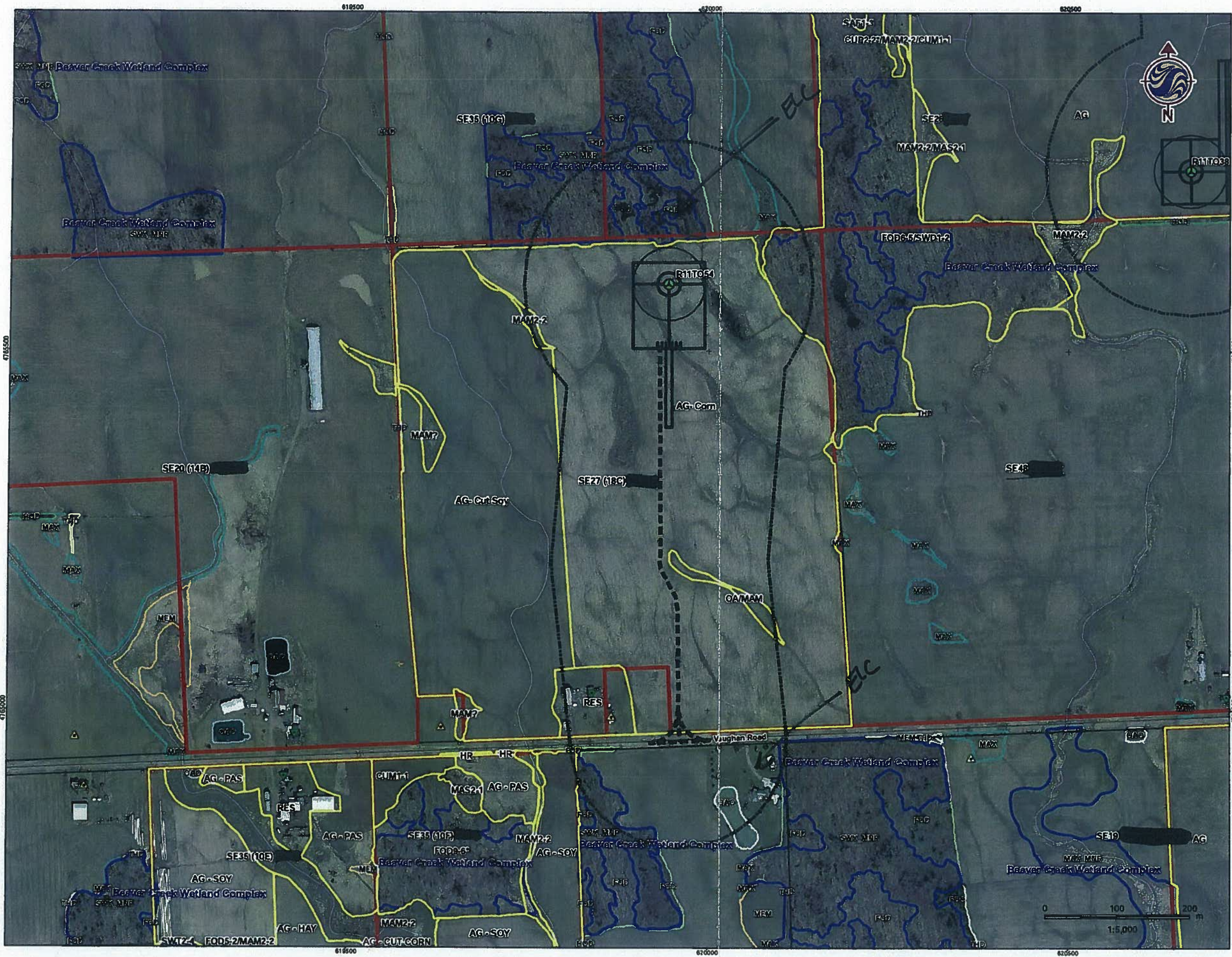
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

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>throughout</u>	<u>pools</u>	<u>min. 30 x 10 m</u>	<u>760 cm</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=scat; SI=other sign; TK=track; VO=vocalization

V:\1609\Acad\16095025\p\arriving\drawing\mud0120423\_NE\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: boowger



**Legend**

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer

\*ELC All SEAS Recce as well.



**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**

May 2012  
100560289

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 29

Title  
 Property with Turbine  
 SE27 (18C)



SE35 (10B); Tile 31; Poly 1

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE35 (10B)	POLYGON: 1	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
	START: 9:30	END: 11:00	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 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"/> 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
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.		<b>COVER</b>		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER			<input type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER			<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
<input checked="" type="checkbox"/> SURFICIAL DEP.			<input checked="" type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK					<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 > CAROVAT > QUERUBR > QUEALBA
2 SUB-CANOPY	3	3	ACESASA > CAROVAT > QUERUBR = ULMAMER = TILAMER
3 UNDERSTOREY	4-5	3	ACESASA > CAROVAT > ULMAMER = (Hawthorn?)
4 GRD. LAYER	6-7	4	ALLPETI > SOL CANA > GALTRIF

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	R 25-50	N >50
STANDING SNAGS:	R <10	R 10-24	N 25-50	N >50
DEADFALL/LOGS:	R <10	R 10-24	N 25-50	N >50

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: (not completed)**

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

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: Fresh - Moist Deciduous Forest	CODE: FOD6
VEGETATION TYPE: F-M Sugar Maple - hardwood deciduous forest	CODE: FOD6-5
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE35 (10B) - Krick Rd / Elcho Rd	POLYGON: 1	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
			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		
ACESASA	D	D	D	O								
CAROVAT	A	A	A	O								
QUERUBR	O	O	N	N								
QUEALBA	O	R	N	N								
ULMAMER	O	O	O	N								
TILAMER	O	O	R	N								
CRA SUCC	N	N	O	R								
FRAAMER	N	R	O	R								
PRUSERO	N	N	R	N								
ALLPETI	N	N	N	D								
RUBIDAE	N	N	R	R								
IMPCAPE	N	N	N	R								
GALTRIF	N	N	N	A								
LELVULG	N	N	N	O								
PETFRIG	N	N	N	R								
GERMACU	N	N	N	R								
GERROBE	N	N	N	R								
SOLCANA	N	N	N	A								
VIDRENI	N	N	N	R								
Potentilla sp.	N	N	N	R								
Sedges												
Mosses												

Page 1 of 1

Signature: *A. Ducharme*  
(Field Personnel)

Quality Control: This form is complete  & legible   
Signature: *N. Charlton*  
(Project Manager)

Veg code chosen by N. Charlton on request



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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 - ELC

Date: 06 June 2012

Field Personnel: A. Ducharme

Weather Conditions:	TEMP (°C): ~ 23	WIND: ~ 15 km/h	CLOUD: part	PPT: none	PPT (in last 24 hrs): ~ 1 mm
---------------------	--------------------	--------------------	----------------	--------------	---------------------------------

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?	

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

- large fungi present on tree base  
 - woodpecker evidence (holes in trees)  
 - Catbird (audible "waa, waa")

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 35(10B); Tie 31; Poly 2A

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE35 (10B)	POLYGON: 2A	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
	START: 11:00	END: 12:00	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 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 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 = QUEALBA > QUERUBR
2 SUB-CANOPY	3	2	ACESASA > QUERUBR = QUEALBA
3 UNDERSTOREY	4-5	4	CAASUCC > ACESASA = QUEALBA
4 GRD. LAYER	6-7	1	IMPCAPE > ACESASA > QUEALBA

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    N >50
STANDING SNAGS:	R <10    N 10-24    N 25-50    N >50
DEADFALL/LOGS:	0 <10    N 10-24    N 25-50    N >50
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
COMM. AGE:	PIONEER    YOUNG    <input checked="" type="checkbox"/> MID-AGE    MATURE    OLD GROWTH

**SOIL ANALYSIS: (not completed)**

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 Deciduous Forest	CODE: FOD6-5 (N. Charlton)
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC - SE35 (10B) - Krick Rd./Elcho Rd.
	POLYGON: 2A
	DATE: 06 June 2012
	SURVEYOR(S): A. Ducharme

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	
QUEALBA	A	O	R	R	
QUERUBR	O	O	R	R	
ACESASA	A	A	R	O	
CARONAT	O	O	R	N	
CRASUCC	N	N	A	N	
IMPCAPE	N	N	N	A	

Page 1 of 2

Signature: A. Ducharme  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: N. Charlton  
(Project Manager)

Veg code chosen by N. Charlton on request

SE35(10B); Tile 31; Poly 2B

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC-SE35 (10B)	POLYGON: 2B	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
	START: 11:00	END: 12:00	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 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 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 > CAROVAT > QUERUBR > QUEALBA
2 SUB-CANOPY	3	3	ACESASA > CAROVAT > QUERUBR = ULMAMER
3 UNDERSTOREY	4-5	3	ACESASA = CAROVAT = ULMAMER
4 GRD. LAYER	6-7	3	ACESASA > DIPFULL > LEUVULG

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 N >50
STANDING SNAGS:	O <10 R 10-24 N 25-50 N >50
DEADFALL/LOGS:	A <10 R 10-24 R 25-50 N >50
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
COMM. AGE:	PIONEER YOUNG <input checked="" type="checkbox"/> MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS: (not completed)

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: FOD6-5 (N. Charlton)
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC-SE35 (10B) - Krick Rd / Elcho Rd	POLYGON: 2B	
	SURVEYOR(S): A. Ducharme	DATE: 06 June 2012	UTME:
			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		
ACESASA	D	D	O	O								
CAROVAT	A	A	O	R								
QUERUBR	A	A	R	R								
QUEALBA	A	A	R	R								
ULMAMER	A	A	O	R								
QUEALU												
FAGGRAN												
SOLCANA	N	N	N	R								
other fern	N	N	N	R								
DIPFULL	N	N	N	O								
LEUVULG	N	N	N	O								
Sedges	N	N	N	O								
grasses	N	N	N	O								

Page 2 of 2

Signature: A. M.

(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: [Signature]

(Project Manager)

Veg code chosen by N. Charlton on request



**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-ELC

Date: 06 June 2012

Field Personnel: A. Ducharme

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>~23</u>	<u>~15 km/h</u>	<u>part</u>	<u>none</u>	<u>~1mm</u>

ELC Polygon: # 2A/B 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	

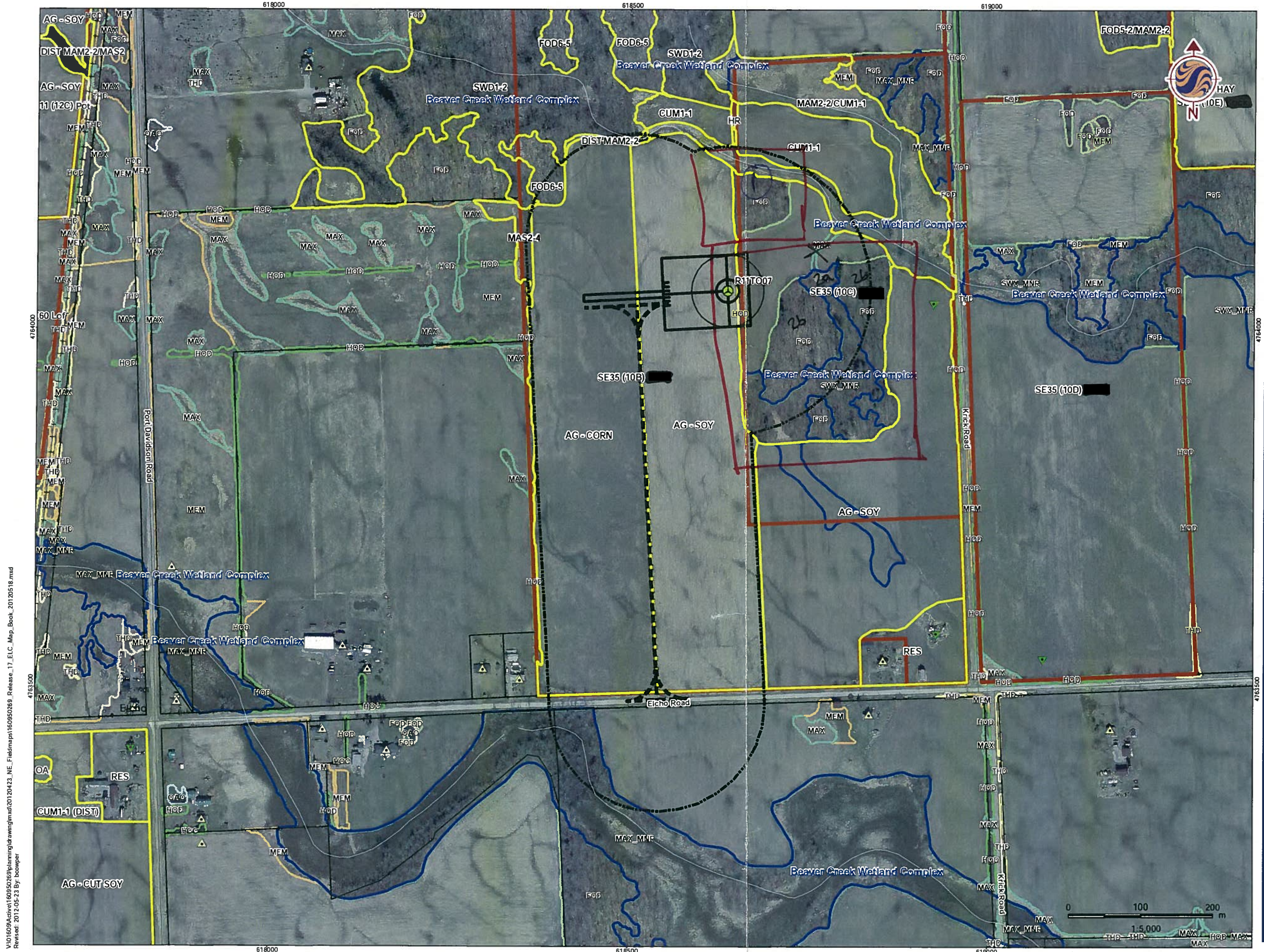
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

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>visible on aerial photo.</u>	<u>~3</u>	<u>2-8m</u>	<u>~0.2-0.5m</u>		<u>emergent</u>	<u>yes</u>

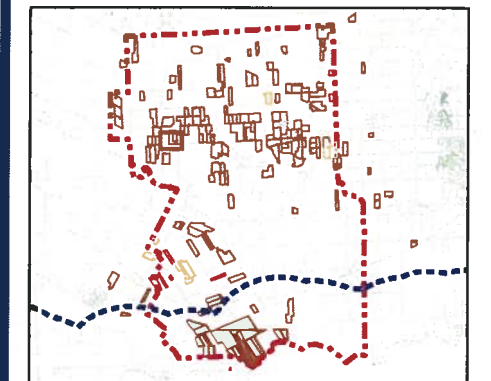
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

A few locations with pooled water present within wetland complex. (2A)  
~2-8 m diameter with sparse emergent vegetation -shrubs mainly.

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
- Turbines in Signed Lands**
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands**
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Study Area and Property**
    - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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.



Figure No.  
**31**

Title  
**Property with Turbine  
SE35 (10B) Krick**

V:\01609\Active\160950269\Planning\drawing\mxd\20120423\_NE\_Fieldmap\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bowper





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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 5, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20°</u>	<u>0-2</u>	<u>0%</u>	<u>Ø</u>	<u>rain</u>

ELC Polygon: # 1-1 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?

**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 30, 11E 01, July 1-2

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SE 35(10B)	POLYGON: 1-2		
	SURVEYOR(S): NAL	DATE: JUNE 5, 2012	UTME:	
	START: 11:00	END: 1:30	UTMZ:	
			UTMN:	

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <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"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input checked="" 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"/> NATURAL <input checked="" 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 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 type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

HEDGEROW

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	/	VARIABLE
2 SUB-CANOPY	4	/	
3 UNDERSTOREY	5	/	
4 GRD. LAYER	67	/	

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>	<b>BA:</b>
<b>SIZE CLASS ANALYSIS:</b>	
<b>STANDING SNAGS:</b>	
<b>DEADFALL/LOGS:</b>	
<b>ABUNDANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

<b>COMM. AGE:</b>	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
-------------------	----------------------------------	---	----------------------------------	---------------------------------	-------------------------------------

<b>SOIL ANALYSIS:</b>	
<b>TEXTURE:</b>	DEPTH TO MOTTLES/GLEY: g=
<b>MOISTURE:</b>	DEPTH OF ORGANICS: NA HEDGEROW (cm)
<b>HOMOGENEOUS / VARIABLE:</b>	DEPTH TO BEDROCK: NA HEDGEROW (cm)

<b>COMMUNITY CLASSIFICATION:</b>	
<b>COMMUNITY CLASS:</b>	CODE: HRI
<b>COMMUNITY SERIES:</b>	CODE: MAM
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b> Hedgerow	CODE:
<b>INCLUSION</b>	CODE: MAM
<b>COMPLEX</b>	CODE:

**Evidence of Disturbance / Notes:**

- Hedgerow runs along elco road & up along west side of property  
 - small MAM inclusion along elco road, along hedgerow 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	
FRA PENS						Swamp Milkweed					
Choke Cherry						Phil. Floe-bane					
AM ELM						Reed Canou					
W oak						SOLIDAGO SP.					
						DOCK SP.					
						BPO INTR					
						DAUCARD					
						DISY					
						WILLOWHERB					
						MINT SP.					
						BTREEFOIL					

ALT DOGWOOD  
Buckthorn

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

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



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: JUNE 5, 2012

Field Personnel: N. LERIA

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20°</u>	<u>0-2</u>	<u>0%</u>	<u>Ø</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?	

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

MDDO  
RWBL

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

R

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SE35(10B)		POLYGON: 1-3	
	SURVEYOR(S): NAL		DATE: JUNE 5, 2012	
	START: 11:00	END: 1:30	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"/> 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
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input checked="" type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> 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	2	4	ACESASA = FRAMER > ULMAMER > Hickory
2 SUB-CANOPY	3	3	ALBSASA = FRAMER > ULMAMER > Hickory
3 UNDERSTOREY	4	3	NAWTHORN >> rasp
4 GRD. LAYER	5-7	4	GRASSES

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	N >50
STANDING SNAGS:	N <10	0 10-24	R 25-50	N >50
DEADFALL/LOGS:	R <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: DRY-FRESH SUGAR MAPLE WHITEASH D. F. 2011 FOD 5-8

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes: assessed from property line; species composition may reflect edge effects

<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	
ULMAMER	0	0				Orchard grass				0	
Shag Hickory	0	0				rasp.			0		
NAWTHORN			R	A		rose sp			R		
FRAMER	O	A	O	A		Solid grass				0	
ACESASA	O	A	O	A							
R Oak		R	R								
BASSWOOD		R	R								
choke cherry			R								

Page 1 of 1  
 Signature: *Nataheea* (Field Personnel)  
 Signature: *Nataheea* (Project Manager)  
 Quality Control: This form is complete  & legible .



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

## Woodland & Wildlife Habitat Assessment Form



Project Number: 160950269

Project Name: NRWC

Date: June 5, 2012

Field Personnel: N. Leava

<b>Weather Conditions:</b>	TEMP (°C): <u>20</u>	WIND: <u>1</u>	CLOUD: <u>60%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>Rain.</u>
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ELC Polygon: # 3    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=scar; SI=other sign; TK=track; VO=vocalization

SE 35; T1E 31; Poly 1-4

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SE35(10B)	POLYGON: 1-4	
	SURVEYOR(S): NAL	DATE: June 5, 2012	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 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 checked="" type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<b>SITE</b>		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TALUS	<b>COVER</b>	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> ROCKLAND	<input checked="" type="checkbox"/> TREE		<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			VARIABLE
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: (NA) (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Hedgerow	CODE: HR2
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	
Hawthorn						Daisy					
Doxysorb						Solidago					
ERM						Rose sp					
Alder						cow vetch					

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



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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 5 2012

Field Personnel: N. Leach

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20</u>	<u>1</u>	<u>60%</u>	<u>Ø</u>	<u>rain</u>

ELC Polygon: # 4 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=scat; SI=other sign; TK=track; VO=vocalization

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SE35(108)		POLYGON: 1-5	
	SURVEYOR(S): NAL		DATE: June 5, 2012	UTME:
	START:	END:	UTMZ:	UTMN:

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <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"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <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"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL   <b>COVER</b> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE	<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"/> 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"/> 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

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ULMAMER = Hickory = oak = FRAPENS
2 SUB-CANOPY	3	1	ASSESSED FROM SIDE; could not assess % cover
3 UNDERSTOREY	4	1	
4 GRD. LAYER	5-7	1	

HT CODES: 1=>25m 2=10<HT<5m 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>	0 <10	A 10-24	A 25-50	N >50	
<b>STANDING SNAGS:</b>	N <10	N 10-24	N 25-50	N >50	
<b>DEADFALL/LOGS:</b>	R <10	R 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= (cm)

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: NA (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: F-M Hickory - ASH - OAK - ELM Dec. F. Type CODE: FOD 9-6\*

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes: Community assessed from border of Ag field - Edge species dominated cover & inside of community difficult to observe - No inside ground cover was observed

<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.
	1	2	3	4	
Shachawk h	O				
FRAPENS	O				
Bur oak	O				
Cherry		R	R		
A. ELM	O				
N. PINE	R				
Hawthorn			R		
Buckthorn			R		
Dogwood				O	

Page \_\_\_ of \_\_\_ Signature: Natasheeva (Field Personnel) Quality Control: This form is completed & legible. Signature: [Project Manager]



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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

Project Name: NEWC

Date: June 5, 2012

Field Personnel: N. Leana

<b>Weather Conditions:</b>	TEMP (°C): <u>20</u>	WIND: <u>1</u>	CLOUD: <u>60%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>rain</u>
----------------------------	-------------------------	-------------------	----------------------	------------------	--------------------------------------

ELC Polygon: # 5 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

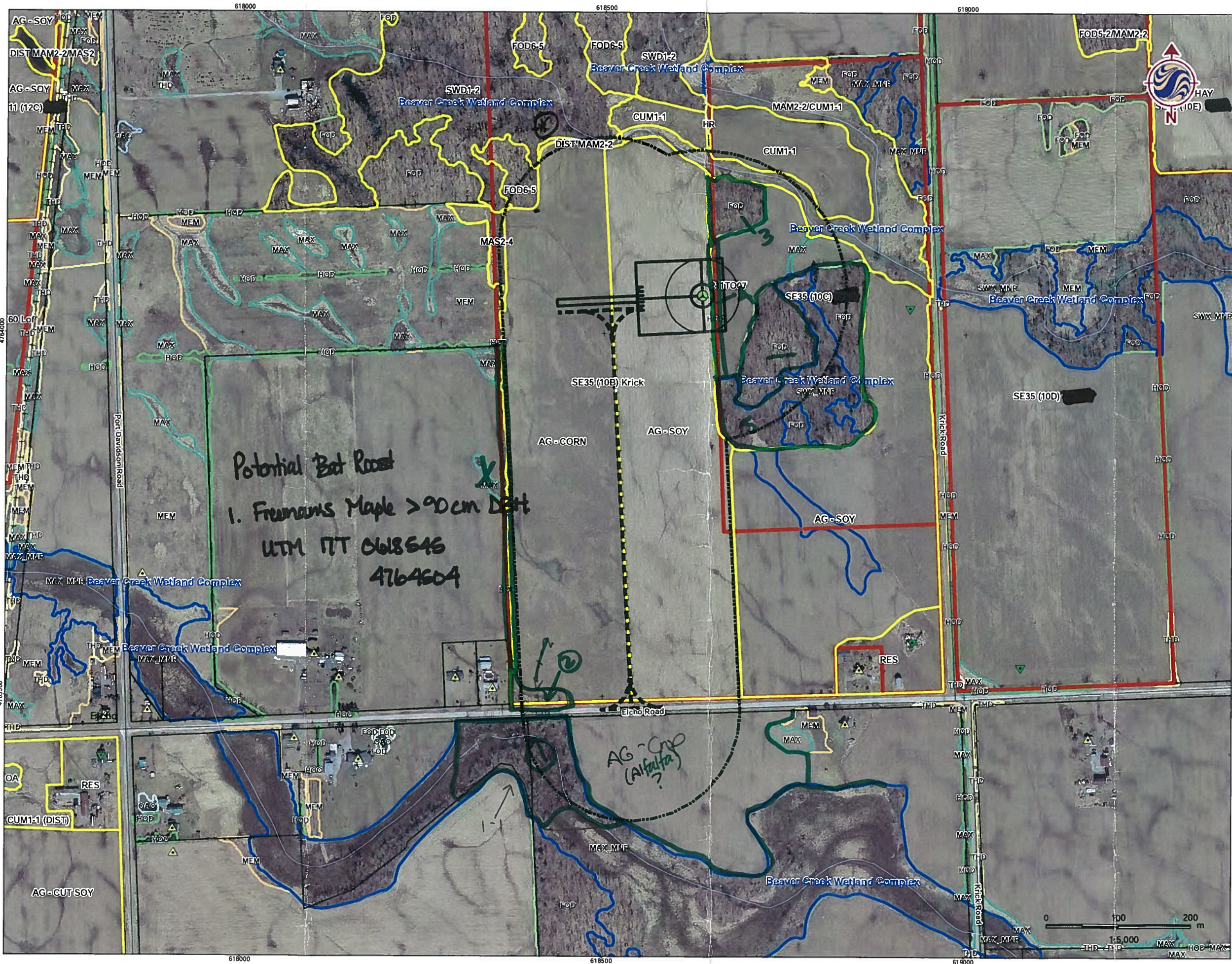
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

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)**

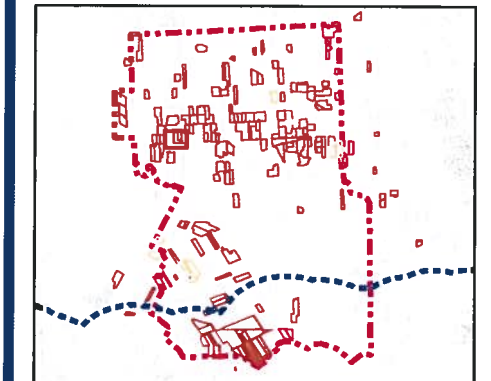
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization





V:\16094\active\160940269\planning\hwa\fig\mxd\20120423\_NE\_Fieldmap\160940269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Released: 2012-05-23 By: booper

- ### Legend
- Turbines in Signed Lands**
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands**
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Study Area and Property**
    - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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.

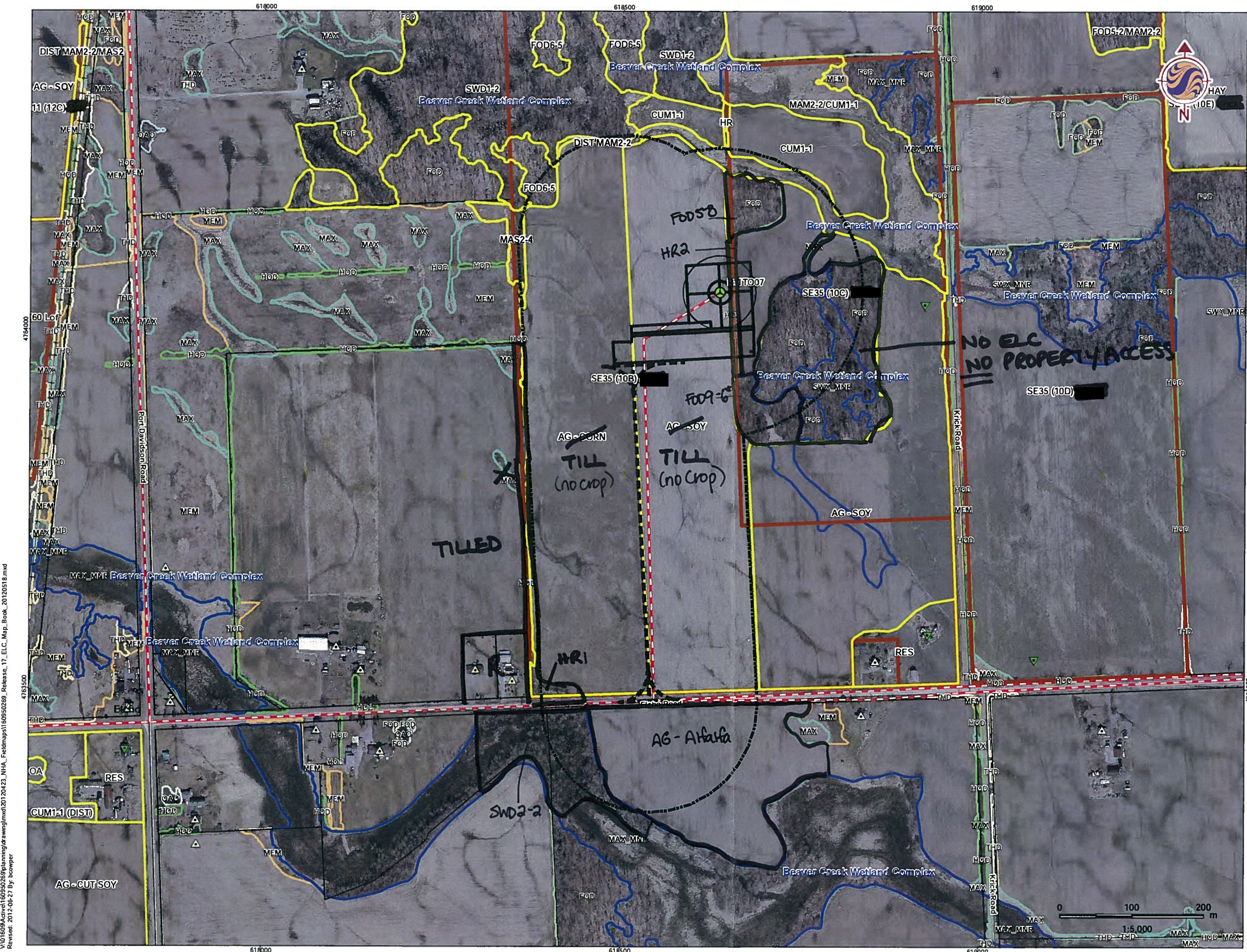


May 2012  
 160940269

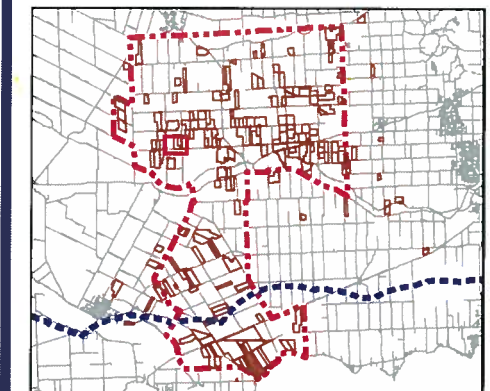
Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 31

Title  
 Property with Turbine  
 SE35 (10B)



- ### Legend
- Turbines in Signed Lands
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Proposed Collector Cable
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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.

June, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
32

Title  
Property with Turbine  
SE35 (10B)

V:\10160950269\planning\drawing\mxd\20120423\_NHA\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-06-27 By: bawpiper





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 5, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20°</u>	<u>0-2</u>	<u>0%</u>	<u>Ø</u>	<u>rain</u>

ELC Polygon: # 1-1 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?

**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: JUNE 5, 2012

Field Personnel: N. LERIA

<b>Weather Conditions:</b>	TEMP (°C): <u>20°</u>	WIND: <u>0-2</u>	CLOUD: <u>0%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <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?	

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

MDDO  
RWBL

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

R

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SE35(10B)		POLYGON: 1-3	
	SURVEYOR(S): NAL		DATE: JUNE 5, 2012	UTME:
	START: 11:00	END: 1:30	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 type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS	<input checked="" 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 checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" 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			
<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	4	ACESASA = FRAMER > ULMAMER > Hickory
2 SUB-CANOPY	3	3	ALBSASA = FRAMER > ULMAMER > Hickory
3 UNDERSTOREY	4	3	NAWTHORN >> RSP
4 GRD. LAYER	5-7	4	GRASSES

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>	0 <10	A 10-24	O 25-50	N >50
<b>STANDING SNAGS:</b>	N <10	O 10-24	R 25-50	N >50
<b>DEADFALL/LOGS:</b>	R <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: DLY-FRESH SUGAR MAPLE WHITEASH D. F. 2011	CODE: FOD 5-8
INCLUSION:	CODE:
COMPLEX:	CODE:

Evidence of Disturbance / Notes:

assessed from property line; species composition may reflect edge effects

<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	
ULMAMER	O	O				Orchard grass				O	
Shag Hickory	O	O				RSP				O	
NAWTHORN			R	A		RSP			R		
FRAMER	O	A	O	A		Solid grass				O	
ACESASA	O	A	O	A							
R Oak		R	R								
BASSWOOD		R	R								
Choke Cherry			R								

Page 1 of 1

Signature:

Nataheea  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature:

Nataheea  
(Project Manager)



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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: June 5, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20</u>	<u>1</u>	<u>60%</u>	<u>Ø</u>	<u>Rain.</u>

ELC Polygon: # 3 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=scar; SI=other sign; TK=track; VO=vocalization



SE 35; T1E 31; Poly 1-4

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC SE35(10B)	POLYGON: 1-4	
	SURVEYOR(S): NAL	DATE: June 5, 2012	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 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 checked="" type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
		<input checked="" type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input checked="" 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
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input checked="" type="checkbox"/> TREE		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> 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			
2 SUB-CANOPY			VARIABLE
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:

<b>SIZE CLASS ANALYSIS:</b>	<10	10 - 24	25 - 50	>50
<b>STANDING SNAGS:</b>	<10	10 - 24	25 - 50	>50
<b>DEADFALL/LOGS:</b>	<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:	(NA)	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Hedgerow	CODE: HR2
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	
Hawthorn						Daisy					
<del>Doxwood</del>						Solidago					
EM						Rose sp					
Alder						cow vetch					

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



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 5 2012

Field Personnel: N. Leach

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20</u>	<u>1</u>	<u>60%</u>	<u>Ø</u>	<u>rain</u>

ELC Polygon: # 4 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=scat; SI=other sign; TK=track; VO=vocalization

SE 35; Tile 81; Poly 1-5

ROADSIDE

<b>ELC</b>	SITE: NRWC SE35(108)		POLYGON: 1-5	
COMMUNITY DESCRIPTION & CLASSIFICATION	SURVEYOR(S): NAL		DATE: June 5, 2012	
	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 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"/> BOG	<input type="checkbox"/> BARREN
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> MEADOW
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>		
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input checked="" 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	WLMAMER = Hickory = oak = FRAPENS
2 SUB-CANOPY	3	1	
3 UNDERSTOREY	4	1	ASSESSED FROM SIDE; could not
4 GRD. LAYER	5-7	1	ASSCESS % COVER

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	N	>50
----------------------	---	-----	---	-------	---	-------	---	-----

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

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

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

COMM. AGE:	PIIONEER	YOUNG	X 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)	

NA

<b>COMMUNITY CLASSIFICATION:</b>	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
F-M HICKORY - ASH - OAK - ELM Dec. F. Type	FOD9-6*
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

Community assed from border of Ag field - Edge species dominated cover & inside of community difficult to observe - No inside ground cover was observed

<b>ELC</b>	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		
Shachawk h	O											
FRAPENS	O											
Bur oak	O											
C. cherry		R	R									
A. ELM	O											
W. PINE	R											
Hawthorn		R										
Buckthorn		R										
Dogwood			O									

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

Signature: Natasheara

(Field Personnel)

Quality Control: This form is completed & legible

Signature: [Handwritten Signature]

(Project Manager)



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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NEWC

Date: June 5, 2012

Field Personnel: N. Leana

<b>Weather Conditions:</b>	TEMP (°C): <u>20</u>	WIND: <u>1</u>	CLOUD: <u>60%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>rain</u>
----------------------------	-------------------------	-------------------	----------------------	------------------	--------------------------------------

ELC Polygon: # 5 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*)

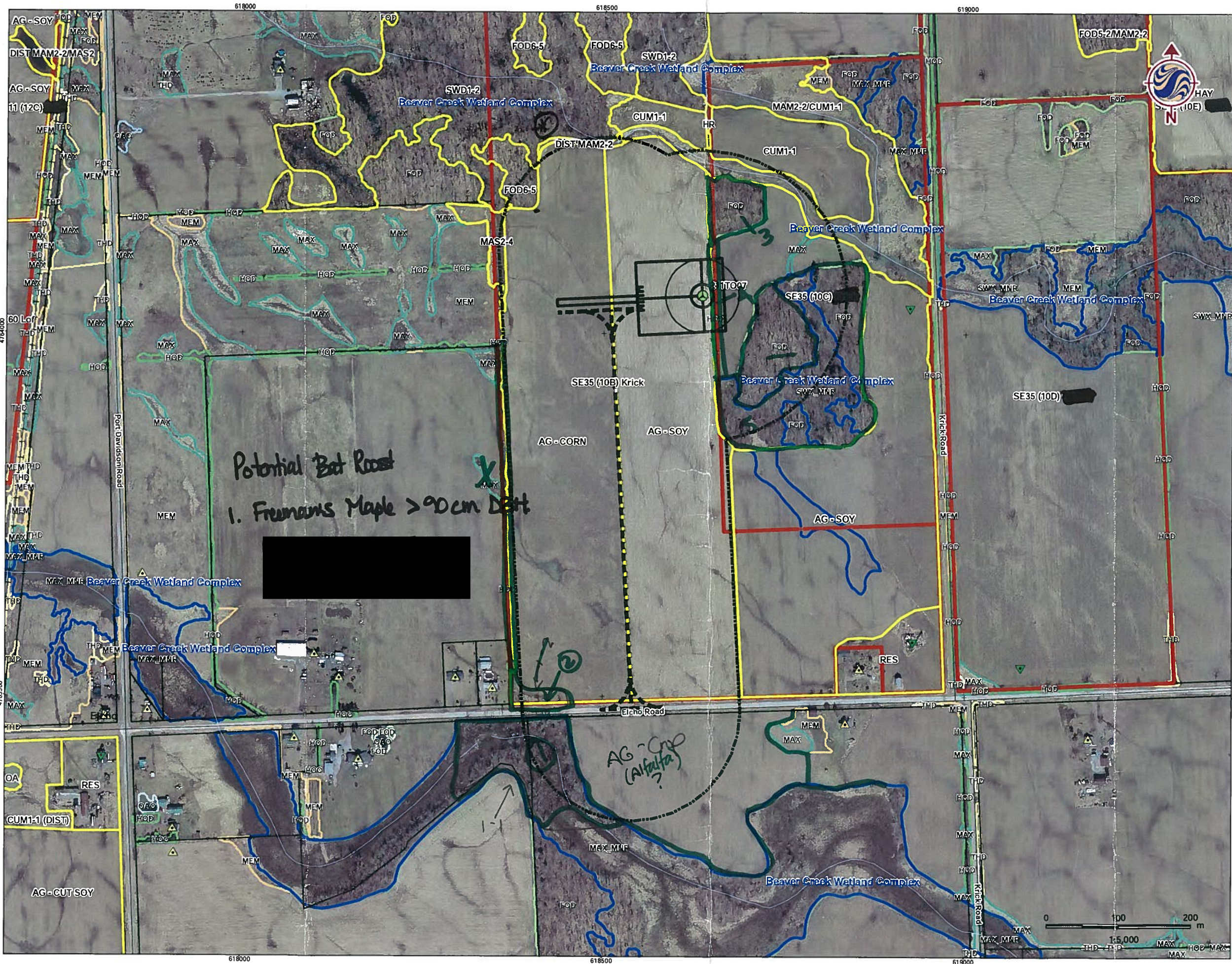
STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

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

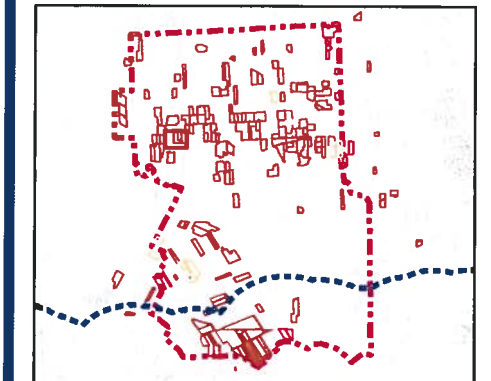
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

**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=scat; SI=other sign; TK=track; VO=vocalization



- ### Legend
- Turbines in Signed Lands**
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands**
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Property and Study Area**
    - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
  - Wetlands**
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
  - Other Features**
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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.

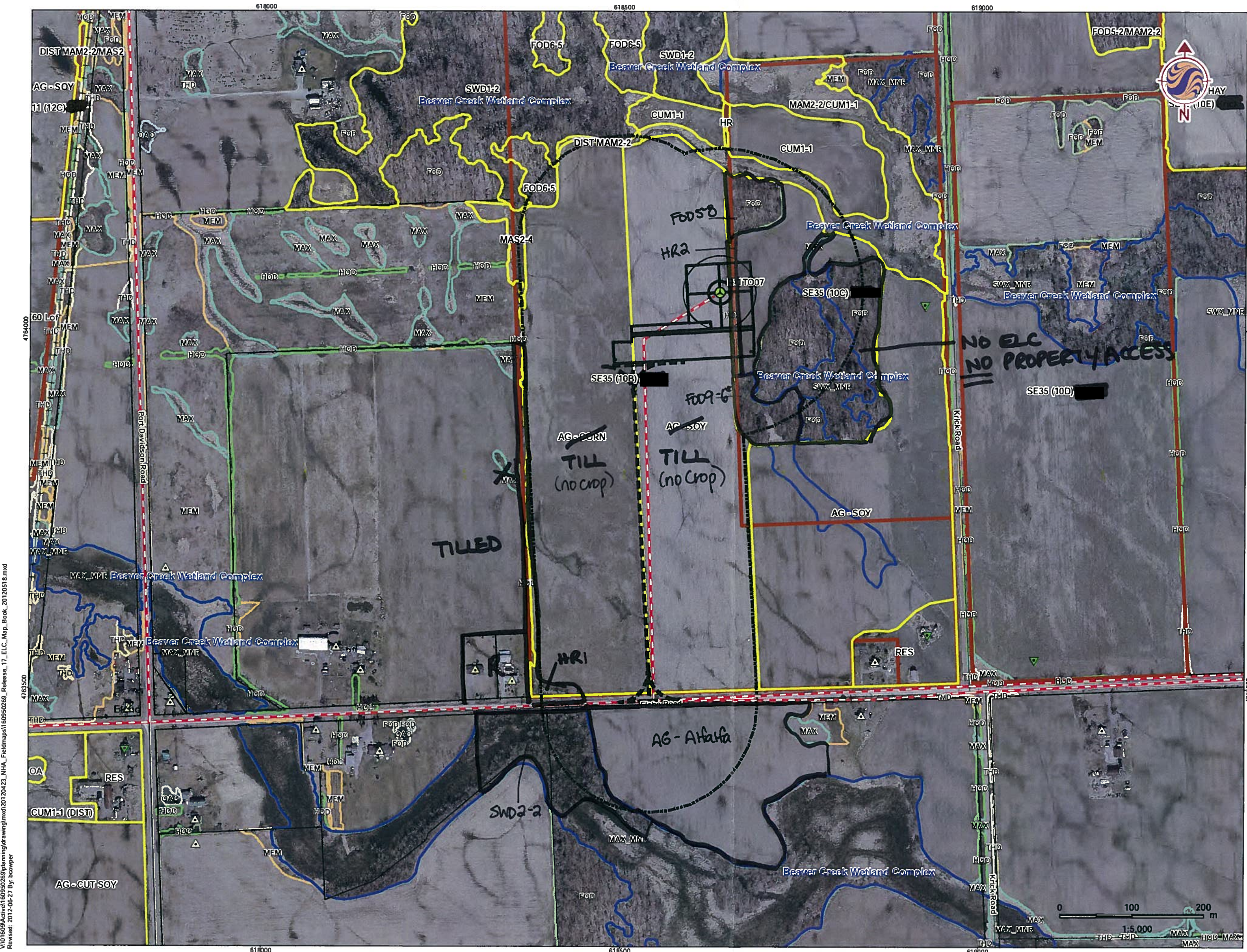
May 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

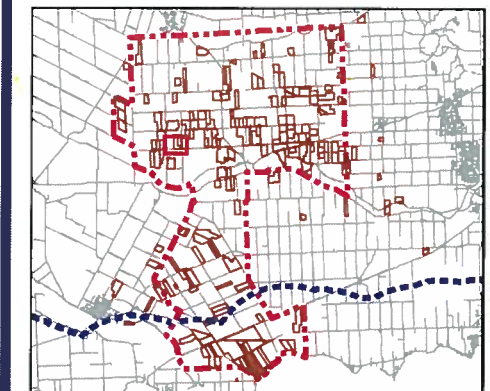
Figure No.  
31

Title  
Property with Turbine  
SE35 (10B) [REDACTED]

V:\16094\active\160950269\planning\hawking\mxd\20120423\_NE\_Fieldmap\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Released: 2012-05-23 By: booper



- ### Legend
- Turbines in Signed Lands
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Proposed Collector Cable
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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.

June, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
32

Title  
Property with Turbine  
SE35 (10B)

V:\10160950269\planning\drawing\m20120423\_NHA\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-06-27 By: bawpiper





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC SE35(10H)

Date: August 15, 2012

Field Personnel: C. Payne

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>26</u>	<u>2</u>	<u>20%</u>	<u>none</u>	<u>none</u>

ELC Polygon: # 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; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization



SE35(10H); Tile 20; Poly F

**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION: SITE: \_\_\_\_\_  
 SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_  
 START: \_\_\_\_\_ END: \_\_\_\_\_ UTMZ: \_\_\_\_\_ UTMN: \_\_\_\_\_  
 POLYGON: \_\_\_\_\_

**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 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 type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER			<input type="checkbox"/> OPEN		
<input type="checkbox"/> SHALLOW WATER			<input type="checkbox"/> SHRUB		
<input type="checkbox"/> SURFICIAL DEP.			<input type="checkbox"/> TREE		
<input type="checkbox"/> BEDROCK					

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE
CANOPY	2	3	American elm > h-wthorn > green oak
SUB-CANOPY			
UNDERSTOREY	1-4	2	greydog wood & raspberry
GRD. LAYER	5-7	3	garlic mustard > G. beaverroot > Strawberry

TCODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.6<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m  
 VR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

**TAND COMPOSITION:**

ZE CLASS ANALYSIS:	BA:
ANDING SNAGS:	
EADFALL LOGS:	
UNDANCE CODES:	
MM. AGE:	
IL ANALYSIS:	

**XTURE:**

DEPTH TO MOTTLES/GLEY	B=	G=
DEPTH OF ORGANICS:		(cm)
DEPTH TO BEDROCK:		(cm)

**MMUNITY CLASSIFICATION:**

MMUNITY CLASS:	CODE:
MMUNITY SERIES:	CODE:
OSITE:	CODE:
ETATION TYPE:	CODE:
<i>elm-hawthorn cultural woodland</i>	<i>CWU1-3*</i>
INCLUSION	CODE:
COMPLEX	CODE:
ence of Disturbance / Notes:	

highly Disturbed regen. field?

**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION: SITE: NKW  
 POLYGON: P  
 DATE: August 15  
 SURVEYOR(S): C. Payette

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	
Nonylon st	O				
American elm	A				
Hawthorn	A				
Sugar maple	O				
Fredman maple	R				
green oak	O				
golden oak					
Strawberry					
mos sp					
garlic mustard					
raspberry (dras)		R=O			
greydog wood		O			

Page 1 of 1

Signature: *[Signature]*  
 (Field Personnel)

Quality Control: This form is complete  & legible   
 Signature: *[Signature]*  
 (Project Manager)



Stantec Consulting Ltd.  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160960730

Project Name: NRWC SE 35(10H)

Date: August 15, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>26</u>	<u>2</u>	<u>20%</u>	<u>none</u>	<u>none</u>

ELC Polygon: # 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; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

# SE35 (10H); Tile 20; Feeder Canal



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**Roadside ELC,  
 Woodland & Wildlife Habitat  
 Assessment Form**

Project Number: 160950269 Project Name: NTWC  
 Date: August 15, 2012 Field Personnel: C. Payette

Weather Conditions:

TEMP (°C) <u>24</u>	WIND: <u>1</u>	CLOUD: <u>50%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
------------------------	-------------------	----------------------	---------------------	--------------------------------------

**POLYGON DESCRIPTION**

<b>ELC</b>  <b>COMMUNITY DESCRIPTION &amp; CLASSIFICATION</b>	POLYGON: <u>Feeder Canal</u>	<input type="checkbox"/> ACUSTRINE	<input type="checkbox"/> TALUS	<input checked="" type="checkbox"/> NATURAL
	START TIME:	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> CULTURAL
	END TIME:	<input type="checkbox"/> BOTTOMLAND	<input type="checkbox"/> ALVAR	
		<input type="checkbox"/> TERRACE	<input type="checkbox"/> ROCKLAND	
		<input type="checkbox"/> VALLEY SLOPE	<input type="checkbox"/> BEACH / BAR	
		<input type="checkbox"/> TABLELAND	<input type="checkbox"/> SAND DUNE	
		<input type="checkbox"/> ROLL UPLAND	<input type="checkbox"/> BLUFF	
		<input type="checkbox"/> CLIFF		

**LAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	<u>2</u>	<u>3</u>	<u>green ash &gt;&gt; eastern cottonwood</u>
SUB-CANOPY			
UNDERSTOREY	<u>3-4</u>	<u>3</u>	<u>riverbank grape &gt; common buckthorn &gt; red-osier dogwood</u>
GRD. LAYER	<u>5-7</u>	<u>4</u>	<u>white water lily = Duckweed &gt;&gt; submerged aquatic</u>

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% N/O=not observed

LANDING SNAGS: || R <10 || R 10-24 || N 25-50 || N >50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

LAND MATURITY: || PIONEER || YOUNG ||  MID-AGE || MATURE || OLD GROWTH

GETATION TYPE:  
water lily - Bullhead lily floating-leaved SA CODE: SAFI-1  
Duckweed floating-leaved sub-aquatic CODE: SAFI-3

**Incidence of Disturbance / Notes:**

green frogs everywhere.

Some areas dominated by duckweed  
fall Duckweed root curv

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 N/O=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL.
	1	2	3	4	≤5 m	>5 m	
TREES:							
<u>green ash</u>	<u>A</u>						
<u>eastern cottonwood</u>	<u>R-O</u>						
SHRUBS:							
<u>Common buckthorn</u>			<u>A</u>				
<u>red-osier dogwood</u>			<u>O</u>				
<u>riverbank grape</u>			<u>A</u>				
<u>gray dogwood</u>			<u>O</u>				
<u>Staghorn Sumac</u>			<u>O</u>				
<u>willow</u>			<u>R-O</u>				
GROUND:							
<u>white water lily</u>				<u>D</u>			
<u>purple loosestrife</u>				<u>O</u>			
<u>various submerged aquatic</u>				<u>A</u>			
<u>Cattail (Common)</u>				<u>O-A</u>			
<u>Arrowhead</u>				<u>O-A</u>			
<u>wooly Sedge</u>				<u>O</u>			
<u>Bur-reed</u>				<u>R-O</u>			
<u>Swamp milkweed</u>				<u>R-O</u>			
<u>Duckweed sp.</u>				<u>D</u>			
<u>Japanese birdweed</u>				<u>O</u>			
<u>Cattail (W.)</u>				<u>O-A</u>			

Signature: [Signature] (Field Personnel)  
 Signature: [Signature] (Project Manager)

ELC Polygon: # Feeder (cont) Assessment Type:  Visual; no access /  Walk through feature

SE 35(10H)

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)**

GOFF, EUST, RWBB  
 green frogs  
 evidence of muskrats (Bank dens)

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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**Roadside ELC,  
Woodland & Wildlife Habitat  
Assessment Form**

**Stantec**

Project Number: GCP050269 Project Name: NRWC  
 Date: August 8th Field Personnel: C. Poyette

Weather Conditions: TEMP (°C): 26 WIND: 2 CLOUD: 20% PPT: none PPT (in last 24 hrs): rain

**POLYGON DESCRIPTION**

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON: <u>C</u>	<b>TOPOGRAPHIC FEATURE</b>		<b>HISTORY</b>
	START TIME:	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> TALUS	<input type="checkbox"/> NATURAL
	END TIME:	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> CULTURAL
		<input type="checkbox"/> BOTTOMLAND	<input type="checkbox"/> ALVAR	
		<input type="checkbox"/> TERRACE	<input type="checkbox"/> ROCKLAND	
		<input type="checkbox"/> VALLEY SLOPE	<input type="checkbox"/> BEACH / BAR	
		<input type="checkbox"/> TABLELAND	<input type="checkbox"/> SAND DUNE	
		<input type="checkbox"/> ROLL. UPLAND	<input type="checkbox"/> BLUFF	
		<input type="checkbox"/> CLIFF		

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	3	gnonash
SUB-CANOPY			
UNDERSTOREY	3-4	3	gray dogwood
GRD. LAYER	n/o	n/o	

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% N/O=not observed

LANDING SNAGS: <10 10-24 25-50 >50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

LAND MATURITY: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

VEGETATION TYPE: Greenash Mineral deciduous Swamp CODE: SWD

Incidence of Disturbance / Notes: GRCA

Potential Bat roost tree

SE 35 (10H); Tile 20; Poly C

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 N/O=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL.
	1	2	3	4	≤5 m	>5 m	
TREES:							
gnonash	A						
white birch	O						
Froeman's maple	O						
Red oak	R						
Black cherry	R						
<del>Black cherry</del>							
SHRUBS:							
gray dogwood			A				

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

(Field Personnel)

Quality Control: This form is complete  & legible .

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

(Project Manager)

SE 35 (10H)

ELC Polygon: # 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
n/a	BAT04	Silvanopk	60cm	15	2	2	10-15m broken limbs

**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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## Roadside ELC, Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269 Project Name: NRWC  
Date: August 15, 2012 Field Personnel: C. Payette

Weather Conditions: TEMP (°C): 26 WIND: 2 CLOUD: 20% PPT: none PPT (in last 24 hrs): none

### POLYGON DESCRIPTION

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON: <u>B</u>	<b>TOROGRAPHIC FEATURE</b>		<b>HISTORY</b>
	START TIME:	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> TALUS	<input checked="" type="checkbox"/> NATURAL
	END TIME:	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> CULTURAL
		<input type="checkbox"/> BOTTOMLAND	<input type="checkbox"/> ALVAR	
		<input type="checkbox"/> TERRACE	<input type="checkbox"/> ROCKLAND	
		<input type="checkbox"/> VALLEY SLOPE	<input type="checkbox"/> BEACH / BAR	
		<input type="checkbox"/> TABLELAND	<input type="checkbox"/> SAND DUNE	
		<input type="checkbox"/> ROLL UPLAND	<input type="checkbox"/> BLUFF	
		<input type="checkbox"/> CLIFF		

### TAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	4	Sugar maple > white birch > Red maple = Freeman maple
SUB-CANOPY			
UNDERSTOREY	3-4	3	Spicebush > blueberry > white elderberry
GRD. LAYER	5-7	3	Sensitive 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% N/O=not observed

STANDING SNAGS:  N/O <10  N/O 10-24  N/O 25-50  N/O >50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT N/O=Not observed

AGE AND MATURITY:  PIONEER  YOUNG  MID-AGE  MATURE  OLD GROWTH

VEGETATION TYPE: F-M Sugar maple - hardwood Dec. forest CODE: FOD 5

COMPLEX CODE:

Incidence of Disturbance / Notes:

SE 35(10H); Tile 20; Poly B

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 N/O=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL.
	1	2	3	4	≤5 m	>5 m	
<b>TREES:</b>							
white birch	O						
Freeman maple	O						
Sugar maple	A						
Red maple	O						
green ash	R-O						
Red oak	R						
Black cherry	R-O						
American elm	R						
<b>SHRUBS:</b>							
Spicebush			A				
Blueberry			O				
white elderberry			O				
<b>GROUND:</b>							
Sensitive Fern			A				

Signature: [Signature]

(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: [Signature]

(Project Manager)

SE 35(10H)

ELC Polygon: # B 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=scat; SI=other sign; TK=track; VO=vocalization



SE 35 (10H); Tile 20; Poly E

SE 35 (10H)

**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION: \_\_\_\_\_  
 SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 START: \_\_\_\_\_ END: \_\_\_\_\_ UTMZ: \_\_\_\_\_ UTMN: \_\_\_\_\_

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input 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"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <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"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<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"/> 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

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	4	Red oak > Sugar maple > White oak > Red maple
SUB-CANOPY			
UNDERSTOREY	3-4	2	Hawthorne sp.
GRD. LAYER	5-7	2	goldenrod sp.

**TAND COMPOSITION:**

ZE CLASS ANALYSIS:	0	<10	A	10-24	2	25-50	M	>50
TANDING SNAGS:	0	<10	R	10-24	N	25-50	N	>50
ADFALL LOGS:	A	<10	0	10-24	R	25-50	N	>50

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

**IL ANALYSIS:**

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

XTURE: \_\_\_\_\_

DEPTH TO MOTTLES/GLEY: \_\_\_\_\_

DEPTH OF ORGANICS: \_\_\_\_\_

DEPTH TO BEDROCK: \_\_\_\_\_ (cm)

**MMUNITY CLASSIFICATION:**

MMUNITY CLASS: \_\_\_\_\_

MMUNITY SERIES: \_\_\_\_\_

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

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

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

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

CODE: FOD9-1

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

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

ence of Disturbance / Notes: Deer (Scat)

**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION: \_\_\_\_\_  
 SURVEYOR(S): C. Payne  
 DATE: August 16, 2012  
 POLYGON: E

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	
Sycamore	0				
Red oak	A				
Green oak	RO				
Blackwood	0-4				
White oak	0				
Red maple	0				
American hickory	2				
Pin oak	2				
Hawthorne					

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



Stantec Consulting Ltd.  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160960730

Project Name: NFWC SE35(10H)

Date: August 15, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>26</u>	<u>2</u>	<u>20%</u>	<u>none</u>	<u>none</u>

ELC Polygon: # E 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>n/a</u>	<u>RAT02</u>	<u>white oak</u>	<u>80cm</u>	<u>16</u>	<u>1</u>	<u>2-3</u>	<u>broken limbs, flakey bark</u> <u>15m</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

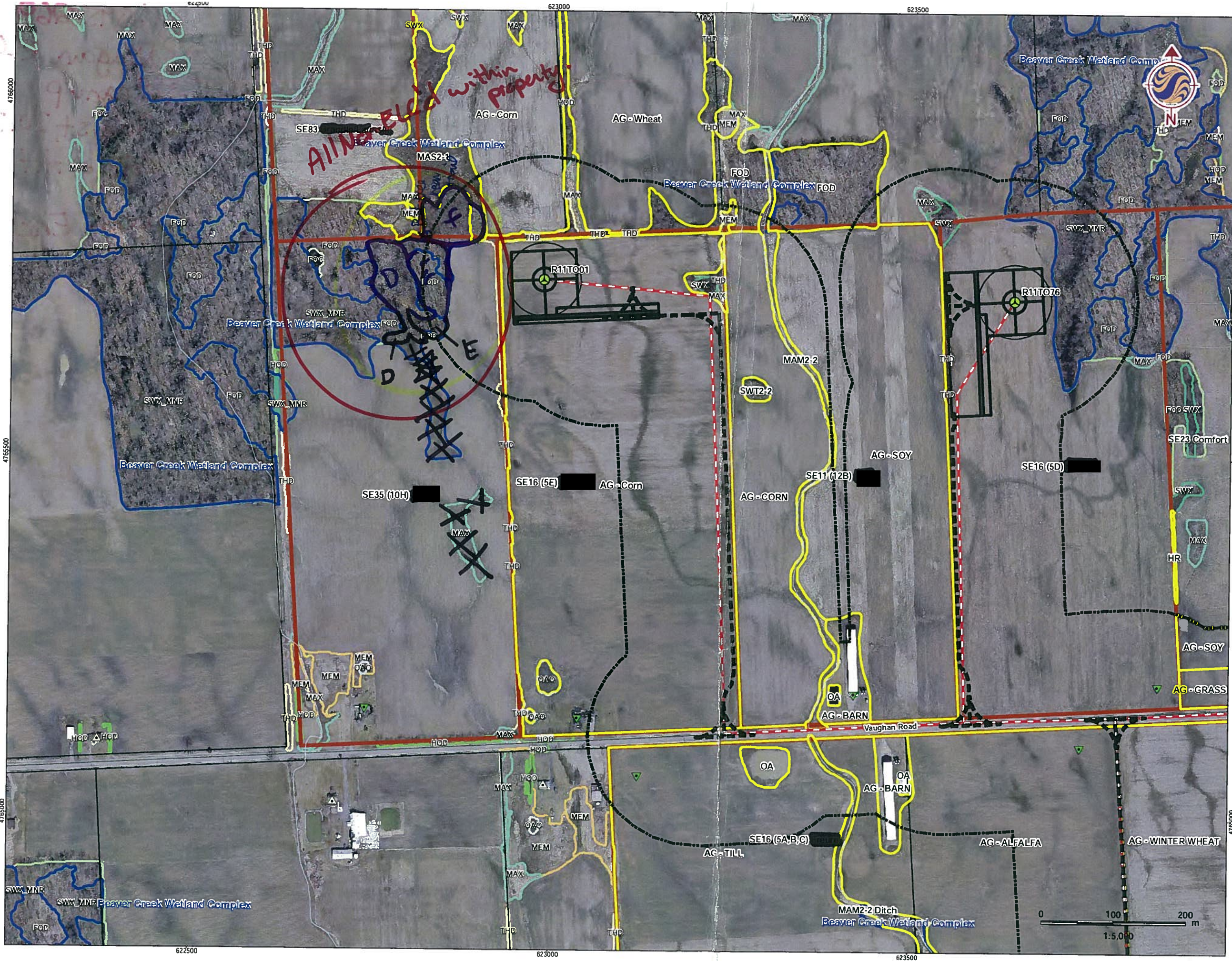
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

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

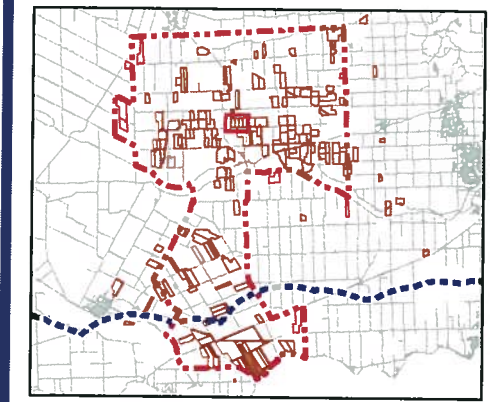
V:\01609\Active\160950269\Map\160950269\160950269\_18\_ELC\_Map\_Book\_20120716.mxd  
 Reviser: 2012-07-27 By: bcewper



All in ELC within property

Full woodlot ELC

- ### Legend
- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - △ Non-Participating Receptor
  - ▽ Participating Receptor
  - Proposed Collector Cable
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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.



July, 2012  
 160950269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 20

Title  
 Property with Turbine  
 SE16 (5E)







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC SE 37

Date: JUNE 5-12

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20	2	—	∅	∅

ELC Polygon: #33-1 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?

**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

SE 37; Tile 33; Poly 2

ELC SITE: NIAGARA POLYGON: 2 SURVEYOR(S): JT DATE: JUNE 5-12 UTME: START: 9:18 END: 9:31 AM UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM SUBSTRATE TOPOGRAPHIC FEATURE HISTORY PLANT FORM COMMUNITY. Includes checkboxes for Terrestrial, Wetland, Aquatic, and various site features like Organic, Mineral Soil, etc.

STAND DESCRIPTION:

Table with columns: LAYER, HT, CVR, SPECIES IN ORDER OF DECREASING DOMINANCE. Includes handwritten entries for layers 1-4 and species codes like OVERBLR, ACEFRS, etc.

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: STANDING SNAGS: DEADFALL/LOGS: ABUNDANCE CODES: COMM. AGE: Includes checkboxes for 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: D-F OAK - HARDWOOD DECIDUOUS FOREST FOD 9-2 HE INCLUSION: CODE: COMPLEX: CODE:

Evidence of Disturbance / Notes:

- NO ACCESS - COULD NOT SEE GROUND COVER FROM ROAD

ELC SITE: SE 37 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

Table with columns: SPECIES CODE, LAYER (1-4), COLL., SPECIES CODE, LAYER (1-4), COLL. Includes handwritten entries for species codes like OVERBLR, ACEFRS, QUENR, SHAGHICK, TILAMEL, KLAMEL and their abundances in different layers.

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



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 60950269

Project Name: NRWC SE 37

Date: JUNE 5-12

Field Personnel: STL

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20</u>	<u>2</u>	<u>  </u>	<u>  </u>	<u>  </u>

ELC Polygon: # 2 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=scat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 60950269

Project Name: NRWC SE37

Date: JUNE 5-12

Field Personnel: JTL

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20	2	/	8	x

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)**

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

**ELC** SITE: **NIAGARA** POLYGON: **4**

COMMUNITY SURVEYOR(S): **JTL** DATE: **JUNE 5-12** TIME:

DESCRIPTION & CLASSIFICATION START: **10:31** END: **10:47** 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 checked="" type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND
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
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"/> 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"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE	<input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>		
PEN WATER HALLOW WATER SURFICIAL DEP. EDROCK		<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 type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

**LAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	3	ACEFREL >> QVEBICO >> TILANOR
SUB-CANOPY	3	3	ACEFREL > QVEBICO
UNDERSTOREY	4	3	TILANOR = ACEFREL
GRD. LAYER	5-7	4	PHARUN = CARL = BIDESC

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%

**LAND COMPOSITION:**

<b>BASE ANALYSIS:</b>	0	<10	10-24	25-50	50
<b>STANDING SNAGS:</b>	0	<10	10-24	25-50	50
<b>AD FALL/LOGS:</b>	0	<10	10-24	25-50	50
<b>DOMINANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT				
<b>MM. AGE:</b>	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

**SOIL ANALYSIS:**

<b>TEXTURE:</b>	DEPTH TO MOTTLES/GLEY	g=	G=
<b>HISTURE:</b>	DEPTH OF ORGANICS:		(cm)
<b>HOMOGENEOUS / VARIABLE</b>	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>OSITE:</b>	CODE:
<b>VEGETATION TYPE:</b>	CODE: <b>SW93-3</b>
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

Evidence of Disturbance / Notes:

- CONTAINS A SMALL BURREED MAT -> PIC 1  
w/ H2O ~ 15cm

**ELC** SITE: **SE37**

COMMUNITY SURVEYOR(S):

DESCRIPTION & CLASSIFICATION POLYGON:  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	
ACEFREL	A	O	O			GLYGRAM					R
QVEBICO	O	R	/			PHARUN					O
TILANOR	R	R	O			BIDENS SP					O
CARLARO	/	R	/			ALI PL-AQU					R
						SIL SUAV					R
						SOL DILL					O
						BURREED					R
						CAREX SP					O
						RAJEFIEME					R
						INCRATIONS					R
						MALB. RUE					R
						SPALGA					R

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: 60950269

Project Name: NRWC SE 37

Date: JUNE 5-12

Field Personnel: JM

Weather Conditions:	TEMP (°C): <u>20</u>	WIND: <u>2</u>	CLOUD: <u>—</u>	PPT: <u>0</u>	PPT (in last 24 hrs): <u>0</u>
---------------------	-------------------------	-------------------	--------------------	------------------	-----------------------------------

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)**

CA = carcass; DP = distinctive parts; FE = feeding evidence; FY = egg/nest; HD = 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: 60950209

Project Name: NRWC SE 37

Date: JUNE 5-12

Field Personnel: JR

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20</u>	<u>2</u>	<u>—</u>	<u>☐</u>	<u>☐</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	

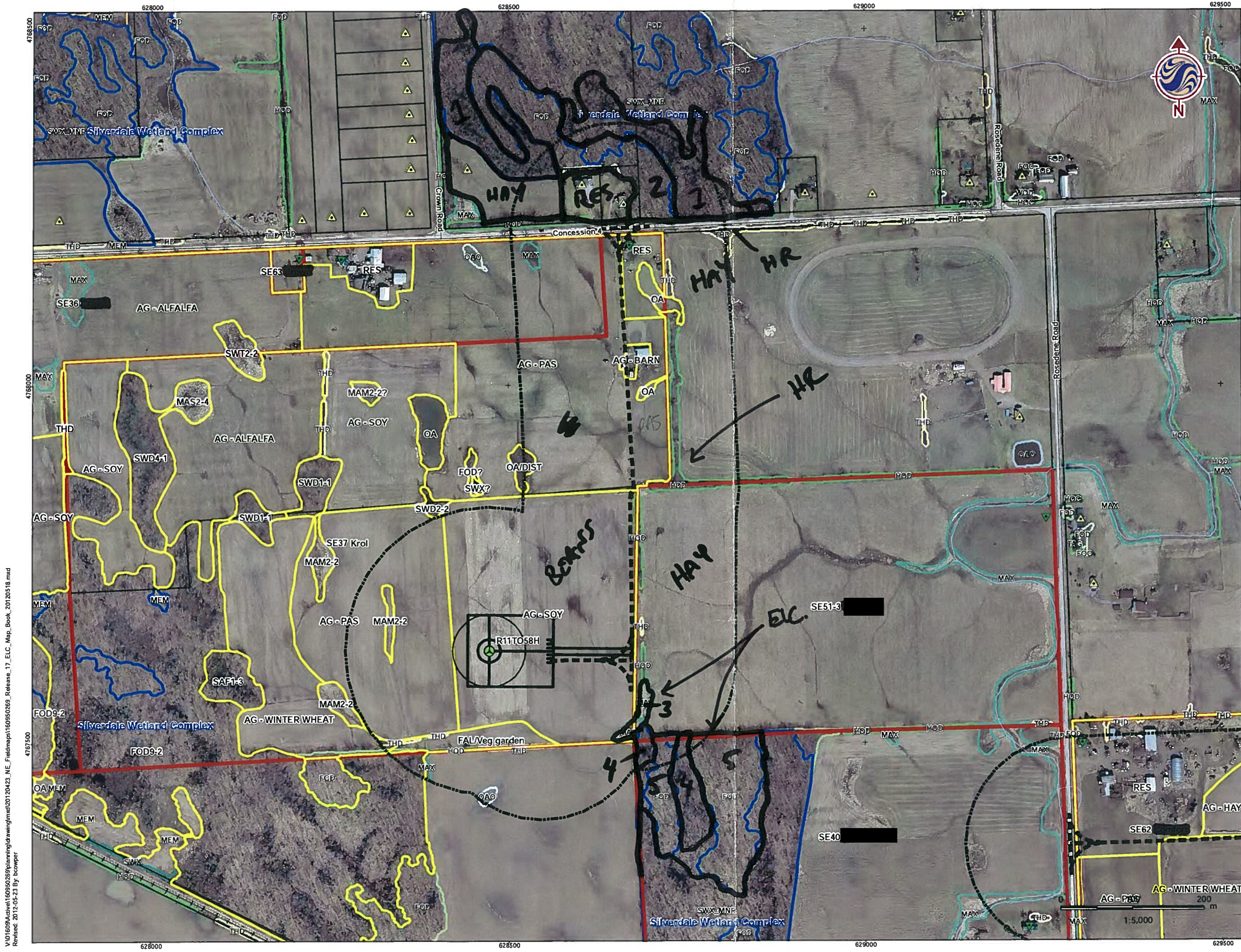
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
 Y\* /  N /  Unknown, no access (\*if yes, describe in table below)

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)**

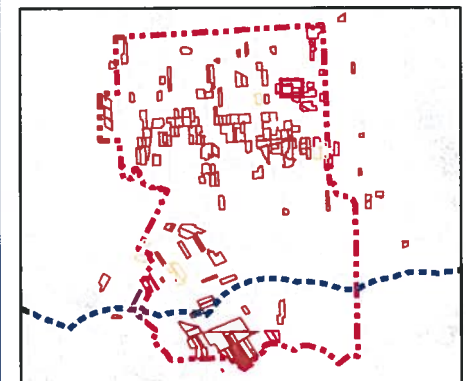
RTHA - OB

CA - camera; DP - distinctive parts; FE - fading evidence; FY - egg/nest; HD - house/den; OB - observed; SC - scent; SI - other sign; TK - track; VO - vocalization



**Legend**

- Turbines in Signed Lands**
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands**
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Study Area and Property**
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



**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**

May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
33

Title  
**Property with Turbine  
SE37**

V:\0160950269\planning\drw\img\mtd\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bcowper





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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 16015015a

Project Name: NRWC SE44

Date: Aug 27/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C): <u>25°</u>	WIND: <u>3-4</u>	CLOUD: <u>100</u>	PPT: <u>Rain</u>	PPT (in last 24 hrs): <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>062137-4756610</u>	<u>(A) Vernal Pool</u>	<u>15m</u>	<u>N/A</u>	<u>185</u>	<u>N/A</u>	<u>Yes</u>

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

AMTO  
NOCA

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



<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE 44		POLYGON: ①	
	SURVEYOR(S): M. Ross		DATE: Aug 27/12	UTME:
	START:	END:	UTMZ:	UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input 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"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <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"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL   <b>COVER</b> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED	<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"/> 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"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	<del>QURUB</del> > FRAPENN > FAGGRAN
2 SUB-CANOPY	3	4	OSTVIRG > ACERUBR = FAGGRAN = TILAMER
3 UNDERSTOREY	4	5	Blue Beech = OSTVIRG = FRAPENN = ACESASA
4 GRD. LAYER	6-7	2	Blue Cohosh = large leaved Aster > False Solomon Seal = Poison Ivy

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:		0 <10	0 10-24	R 25-50	N >50		
DEADFALL LOGS:		A <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:	CODE:
F-M Oak-Maple Dec. Forest	F009-2
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:  
Community Photo: 184

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	DATE: SE 44; Tile 45; 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	
QURUB	A					Blue Cohosh					A
Blue Beech				O		Poison Ivy					O
ACERUBR				O		large leaved Aster					A
OSTVIRG				A		Maple leaved Viburnum					R
FRAPENN	O	O	O			Christmas Fern					R
ACESASA				O		False Solomon Seal					O
TILAMER				O		DNOSEMS					R
RETPIAY		R				RUBALLE					R
POPTREM		R				Rose Twisted Stalk					O
FAGGRAN	O	O	O								

Page 1 of 3  
Signature: [Signature] (Field Personnel)  
Quality Control: This form is complete  legible   
Signature: [Signature] (Project Manager)

W:\resource\Internal Info and Terms\FIELD FORMS\Vegetation\ELC\etc-woodland-wildlife-habitat-form.docx / (DERIVED FROM LEE ET AL., 1998)



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 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950159

Project Name: NRWC SE 44

Date: Aug 27/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>3-4</u>	<u>100</u>	<u>Rain</u>	<u>None</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)

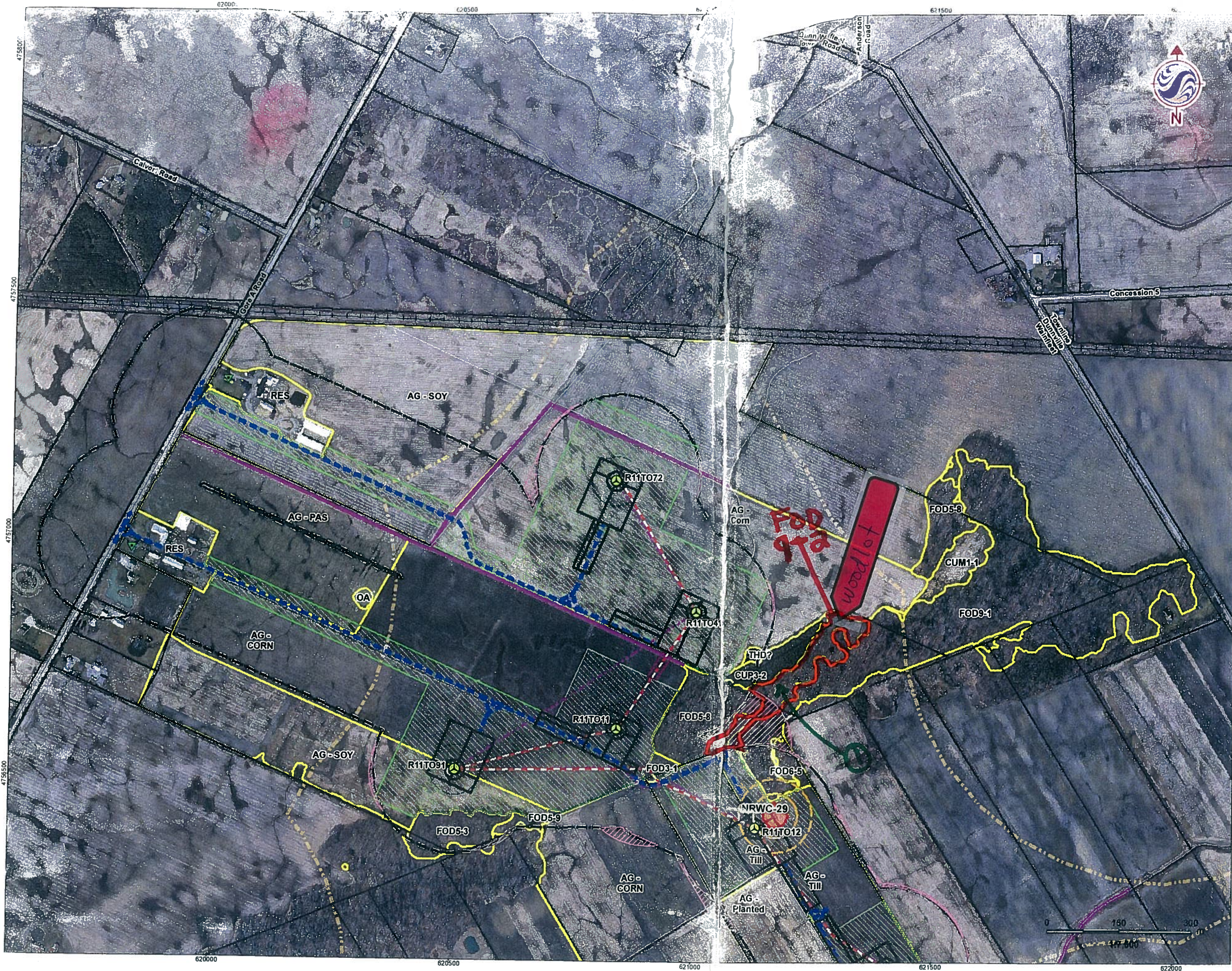
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

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

Monarch

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

V:\0\_609\active\1609-226\planning\drawing\120120809\_Archaeology\_Field\_Map\1609-5-Release\_20\_Waterbody\_and\_Arch\_Field\_Map\_Book\_20120817.rvt  
 Revised 2012-07-17 By: salin



- Turbines in Signed Lands**
- Standard Turbine (105 dBA)
  - 51m Turbine Setback
  - Proposed Collector Cable
  - Proposed Fibre Optic Cable
  - Zone of Influence (150m)
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - Zone of Investigation Comparison (Areas not previously included in terrestrial and waterbody site investigation)
  - ELC Boundary
  - Property Boundary
- Stage 2AA Archaeology**
- Archaeological**
- Completed
  - Incomplete
  - Ready
- Archaeology**
- Stage 3 AA Required
  - No Stage 3 AA Required
  - Waterbody
  - Possible Undertified Waterbody

*refine interior of woodlot*

**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.



*1 of 2*

August 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Waterbody Map

Figure No.  
45

Title  
Property with Turbine  
SE44





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 Canada N1G 4P5  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 11, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>28</u>	<u>2-3</u>	<u>100%</u>	<input checked="" type="checkbox"/>	<u>RAIN</u>

ELC Polygon: # 1-1 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

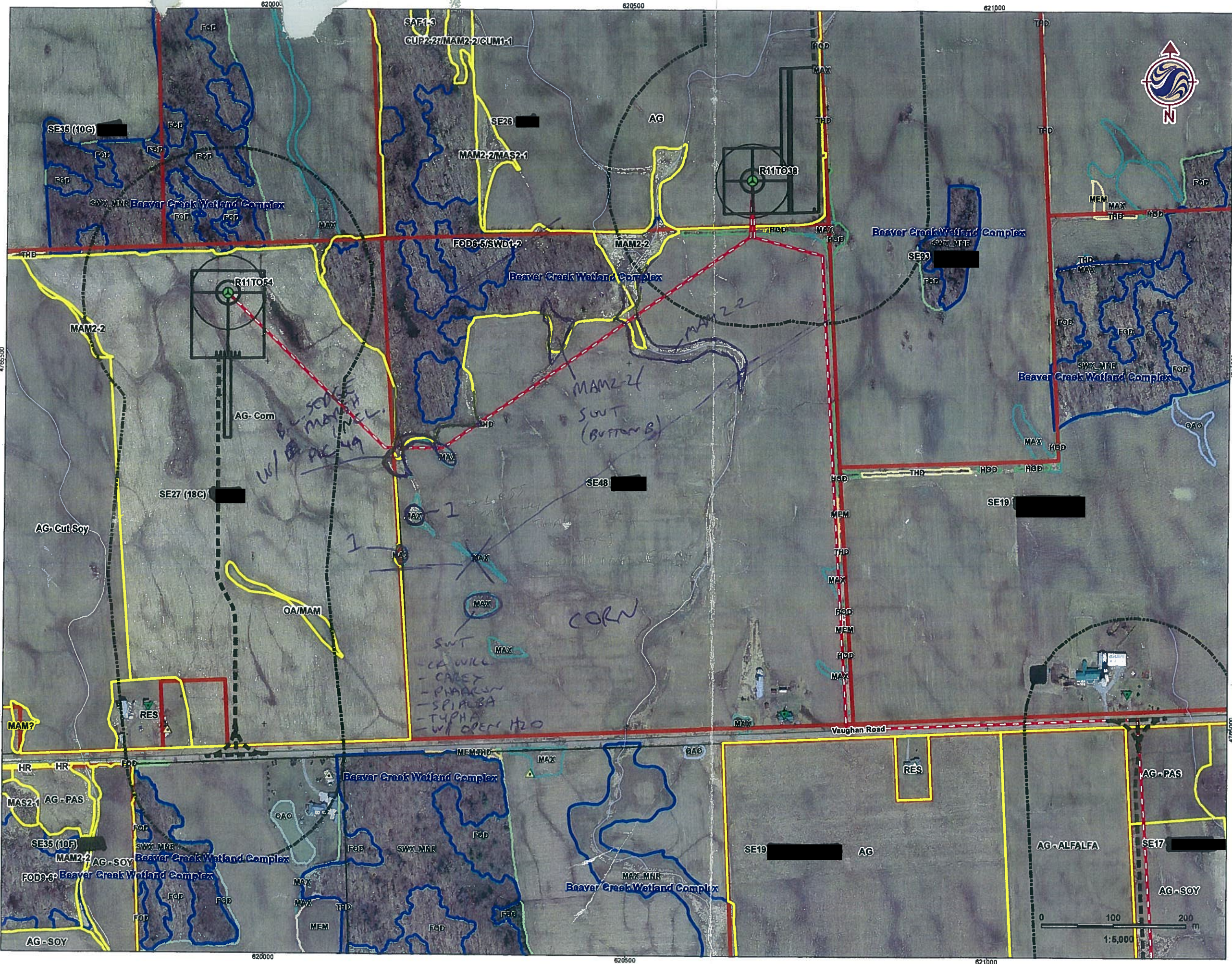
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

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?

**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

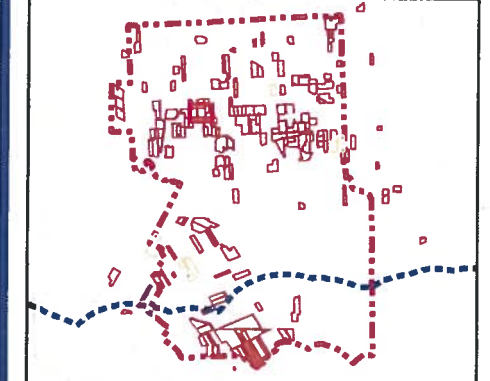
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 Revised: 2012-05-28 By: bowper



### Legend

- Potential Transformer Station
- Turbines in Signed Lands**
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands**
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Proposed Collector Cable
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer

*\* Please do 120m from collector line on Recce*



- ### Notes
1. Coordinate System: NAD 1983 UTM Zone (7N).
  2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

May, 2012  
160950269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 1

Title  
██████████ Property  
**SE 48**



SE 49 ; Tile 41 ; Poly 1

ELC SITE: 49-6 POLYGON: 1  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): DATE: May 21, 2012 UTME:  
 START: 5:15 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 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"/> TABLELAND		<input checked="" type="checkbox"/> SWMAP	<input type="checkbox"/> FEN
		<input type="checkbox"/> ROLL. UPLAND		<input checked="" type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> BOG
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> TALUS		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> CREVICE / CAVE			<input type="checkbox"/> PRAIRIE
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR			<input type="checkbox"/> THICKET
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> COVER		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> WOODLAND
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> SHRUB		<input type="checkbox"/> FOREST
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> TREE		<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 > ACERUBR
2 SUB-CANOPY	3	3	FRAPENN = ACERUBR
3 UNDERSTOREY	4	3	LINBENZ > VIBLNT > RUBIDAE
4 GRD. LAYER	5-7	4	PARINSE > SOLRUGO > GRASS

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
A	A	O	R	R
STANDING SNAGS:	O	O	R	N
DEADFALL/LOGS:	A	O	N	N

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: green ash mineral deadness swamp	CODE: SWD2-2
INCLUSION:	CODE:
COMPLEX:	CODE:

Evidence of Disturbance / Notes:

No property access - from edge

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		
FRAPENN	A					CAREX SPP	O					
ACERUBR	O					PARINSE	A					
BETPAPY	R					SOLIDAGO RUGO	A					
POP SP	R					SEN'S FERN	O					
						GRASS	A					
						SOL. SP	O					

Page \_\_\_ of \_\_\_ Quality Control: This form is complete  legible   
 Signature: [Signature] (Field Personnel) 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: 24/05/2012

Field Personnel: R. Walpole, N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	32	0-1	10	-	-

ELC Polygon: # 41-1 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	

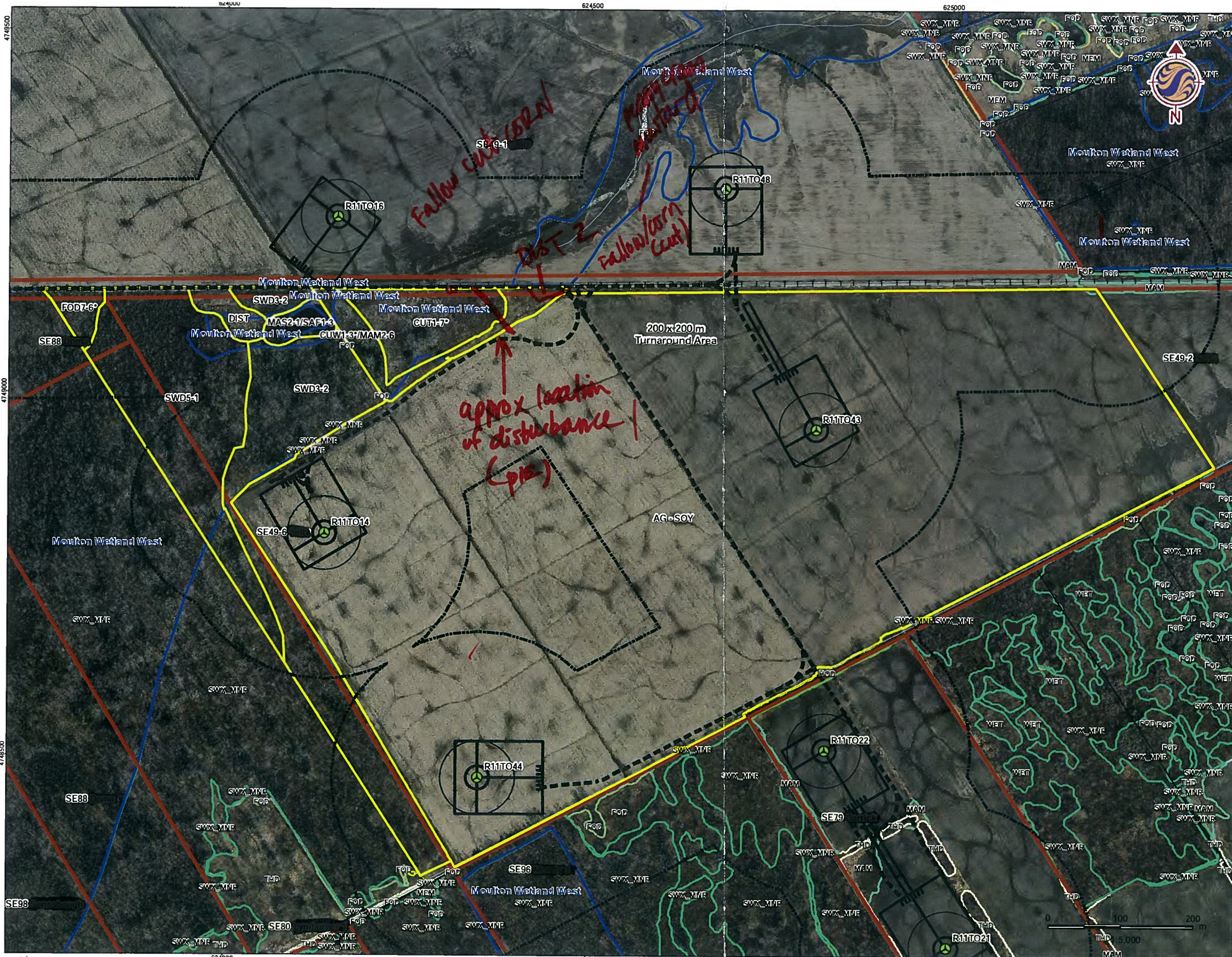
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

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



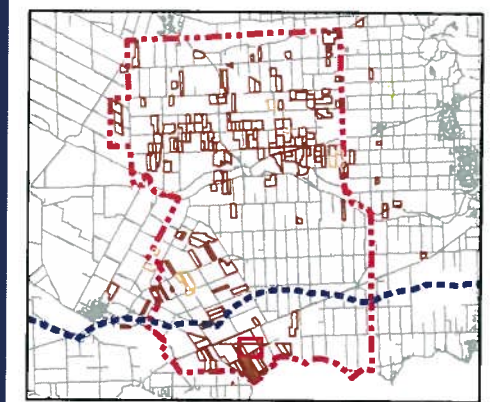


### Legend

511-574-4410  
RW

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
- 51 m Turbine Setback
- Non-Participating Receptor
- Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer

Math



- ### 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.

May 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
41

Title  
Property with Turbine  
SE49-6

V:\016094\Aciva\160950269\planning\drwg\mxd\20120423\_NE\_Fieldmap\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bcooper

DIST 2 : Grass (oats?), SOLIDAGO C/A, POA SP, FRAX ♡ CUW1-3 + CUT1-7\* + North side of road  
 IRIS, GEUM PHLEBO (R)





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

## Woodland & Wildlife Habitat Assessment Form

SE52

**Stantec**

Project Number: 160950269

Project Name: NIAGARA WIND

Date: JUNE 4-12

Field Personnel: JTL

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	18°	2	50%	Ø	RAIN

ELC Polygon: # 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?

**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

SES2

**Stantec**

Project Number: 160950269

Project Name: NIAGARA WTRD

Date: JUNE 4-12

Field Personnel: JR

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>18</u>	<u>2</u>	<u>50%</u>	<u>☒</u>	<u>RAIN</u>

ELC Polygon: # 2 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
<u>626212,</u> <u>4768575</u>	<u>WILLOW</u>	<u>WILLOW</u>	<u>70</u>	<u>92-94</u>	<u>MOST BRANCHES</u> <u>GONE</u>	<u>3</u>	<u>7-10M - NON FEEDING</u> <u>LARGEST ~ 12x22cm</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)**

→ DOES CONTAIN POOLS OF SURFACE H<sub>2</sub>O IN AREAS W/ DENSE BUTTOMBUSH - A COMMON FEATURE IN THESE WETLANDS.

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

REV: 2011-07-18

SE52; Tile 43; Poly 3

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>NIAARA</u>		POLYGON: <u>3</u>	
	SURVEYOR(S): <u>JT</u>		DATE: <u>JUNE 4-12</u>	
	START: <u>6:10</u>	END: <u>6:35</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"/> NATURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND
<input type="checkbox"/> WETLAND	<input checked="" 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
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND		<input type="checkbox"/> FORB <input type="checkbox"/> LICHEN	<input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF		<input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> FEN <input type="checkbox"/> BOG
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW
<b>SITE</b>			<b>COVER</b>		<input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET
<input type="checkbox"/> OPEN WATER	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input checked="" type="checkbox"/> WOODLAND
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input checked="" type="checkbox"/> TREED		<input type="checkbox"/> FOREST
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> PLANTATION
		<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	3	3	ACERACE > FRAXIN = POPULS
2 SUB-CANOPY			
3 UNDERSTOREY	4-5	4	CORRACE > ACERACE > SPIALBA
4 GRD. LAYER	6-7	4	POALRAT > PSILRANS = FRAXISC = SOLIDAG

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	R	25-50	N	>50

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

DEADFALL/LOGS:	N	<10	N	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: (JUN)

MINERAL WOODLAND

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes:

- AVG HEIGHT ~ 6-8m  
- CANOPY COVER ~ 35-45%

- APPEARS TO CONSIST OF REGENERATION.

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>SE52</u>		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		
FRAXIN	O		O			PHALARIS					R	O
POPULS	O		O			POTRIF					O	A
ACERACE	O		SA			HYPREP					R	
ULMAMEL	R	O	/			CAREX SP.					O	
						FRAXISC					O	A
						POALRAT					O	
						FIELD HORSEW.					O	
						DAUCALD					O	
						OX-EYE					R	
						VIC CILC					R	O
						SOL. SOL.					R	
						SOLIDAGO					O	
						YARROW					O	
						CAR VULP					R	
						CAR GRAC					O	
						BRING LOOSE					R	
						SALIX					R	
						SPIALBA					O	
						COROBLI					R	O
						CORRACE					A	

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

Signature: [Signature]  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: [Signature]  
(Project Manager)



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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: 165950269

Project Name: Niagara Wind SES2

Date: June 4-12

Field Personnel: JL

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>18</u>	<u>2</u>	<u>50%</u>	<u>Ø</u>	<u>RAIN</u>

ELC Polygon: # 3 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=scar; SI=other sign; TK=track; VO=vocalization

SE52 ; Tile 43 ; Poly 4

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NIAGARA	POLYGON: 4
	SURVEYOR(S): JN	DATE: JUNE 4-12
	START: 6:38	END: 6:46 PM
	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <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"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <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"/> 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 checked="" 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
<b>SITE</b> <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<b>COVER</b> <input checked="" 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	4-7	4	PHACELIA >> 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:	N <10	N 10 - 24	N 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:

REEP-CANADIAN GRASS - MINERAL MEADOWS MARSH MAM2.2

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes:  
EDGE ASSESSMENT

ELC	SITE: SE52
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	
PHACELIA						PHACELIA					D
SOLIDAGO						SOLIDAGO					R

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

Quality Control: This form is complete  & legible .

Signature: [Signature] (Field Personnel)

Signature: [Signature] (Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: NIAGARA WIND

Project Name: 160950269 SES2

Date: JUNE 04-12

Field Personnel: JR

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>18</u>	<u>2</u>	<u>50%</u>	<u>Ø</u>	<u>RAIN</u>

ELC Polygon: # 4 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)

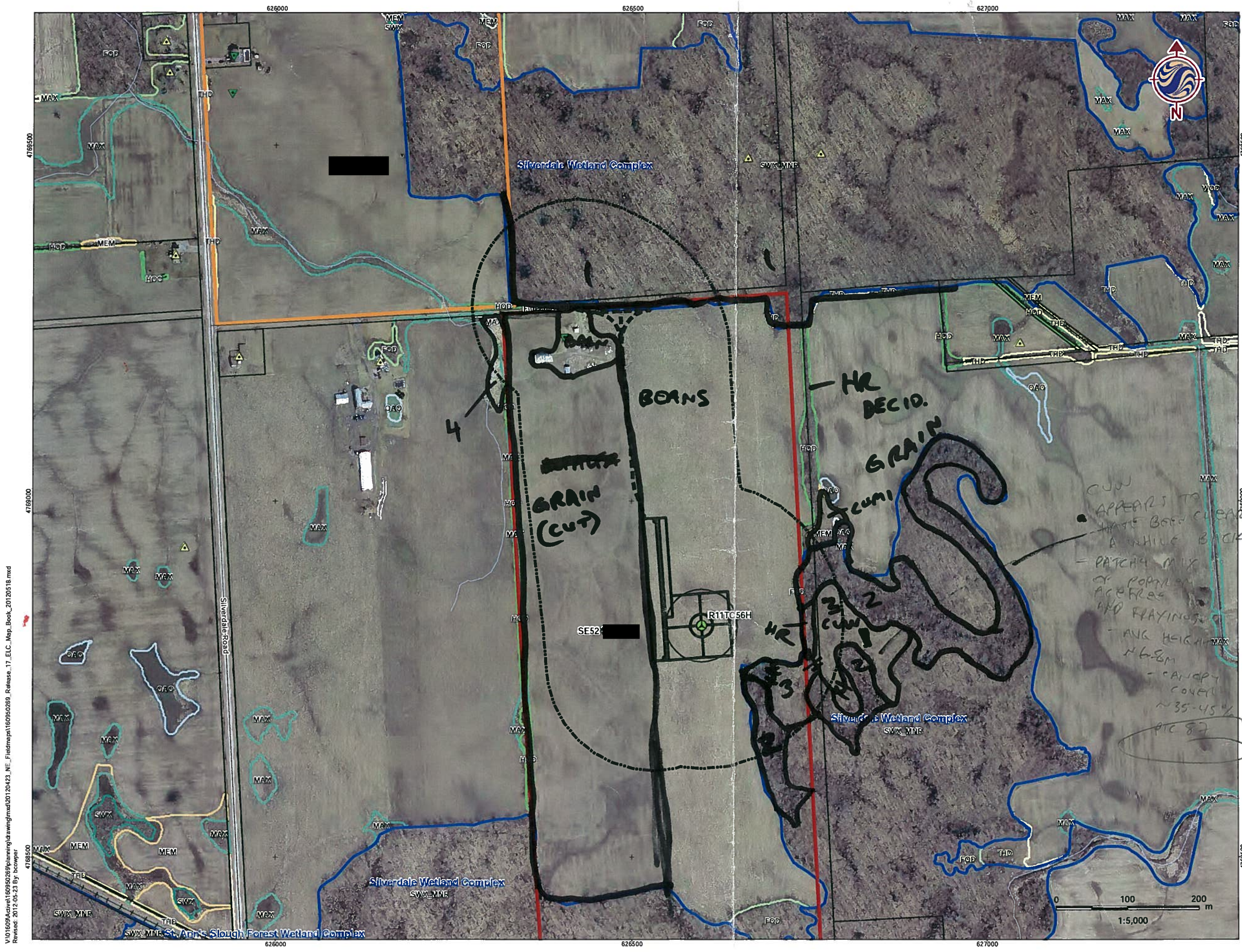
STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

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

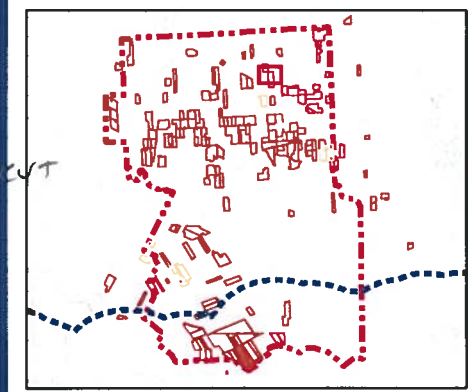
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

**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=scar; SI=other sign; TK=track; VO=vocalization



- ### Legend
- Turbines in Signed Lands**
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands**
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Study Area and Property**
    - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
  - Boundaries**
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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.

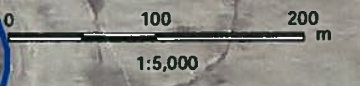


**Stantec** May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
43

Title  
Property with Turbine  
SE52



V:\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmap\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012.05.23 By: bcowper

SE57; Tile 46; Poly 3

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>NIAGARA</u>		POLYGON: <u>3</u>	
	SURVEYOR(S): <u>STB</u>		DATE: <u>JUNE 05-12</u>	
	START: <u>3:04</u>	END: <u>3:15</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 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 checked="" type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<b>COVER</b>		<input checked="" 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 checked="" type="checkbox"/> SURFICIAL DEP. BEDROCK		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREED		<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	PHALARIS >> TYRGLAU
4 GRD. LAYER	5-7	3	CARSTIP = JUNCOUS > CARVULP

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: Y d.c. y grass mineral meadow marsh CODE: MAN 2-2

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes: - SHALLOW POCKETS of H<sub>2</sub>O < 10cm DEEP

<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					D
						BIDENS SP.					O
						ALL PLA-ABJA					R
						CARSTIP					O
						CARVULP					O
						JUNCOUS SP.					O
						TYRGLAU					R
						CARSTIP HYSTERICIN.					R

Page \_\_\_ of \_\_\_  
 Signature: [Signature]  
 (Field Personnel)

Quality Control: This form is complete  & legible   
 Signature: [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

Project Name: NRWC

Date: June 5, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20</u>	<u>2</u>	<u>50%</u>	<u>Ø</u>	<u>Ø</u>

ELC Polygon: #46-3 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>pool</u>		<u>&lt;10 cm</u>		<input checked="" type="checkbox"/>	<u>no</u>	

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

BULLFROG HEARD CALLING IN 'OA' OUTSIDE IZO & GRFR

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: June 5, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>20</u>	<u>2</u>	<u>50%</u>	<u>0</u>	<u>0</u>

ELC Polygon: #46-2 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=scat; SI=other sign; TK=track; VO=vocalization

SEST, the 40, MAY 1

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>NIAGARA</u>	POLYGON: <u>1</u>	
	SURVEYOR(S): <u>JSR</u>	DATE: <u>JUNE 05-12</u>	UTME:
	START: <u>2:50</u>	END: <u>2:55</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"/> RIVERINE	<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"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID	<input type="checkbox"/> POND <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 checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS		<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"/> BOG <input type="checkbox"/> BARREN <input checked="" type="checkbox"/> MEADOW
<b>SITE</b>	<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<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 checked="" 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

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>4.3</u>	<u>4</u>	<u>PHALARIS</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:	<input checked="" type="checkbox"/> <10	<input checked="" type="checkbox"/> 10-24	<input checked="" type="checkbox"/> 25-50
STANDING SNAGS:	<input checked="" type="checkbox"/> <10	<input checked="" type="checkbox"/> 10-24	<input checked="" type="checkbox"/> 25-50
DEADFALL/LOGS:	<input checked="" type="checkbox"/> <10	<input checked="" type="checkbox"/> 10-24	<input checked="" type="checkbox"/> 25-50
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT		
COMM. AGE:	<input type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE
	<input type="checkbox"/> MATURE	<input type="checkbox"/> 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 ca m9 m</u>	CODE: <u>h MAM2-2</u>
INCLUSION:	CODE:
COMPLEX:	CODE:

Evidence of Disturbance / Notes:

- ROADSIDE ASSESSMENT  
- NO H<sub>2</sub>O OBS.

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>55</u>
	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	
<u>PHALARIS</u>					<u>D</u>

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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 5, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C): <u>20</u>	WIND: <u>2</u>	CLOUD: <u>50%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>Ø</u>
---------------------	-------------------------	-------------------	----------------------	------------------	-----------------------------------

ELC Polygon: #16-1 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?

**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



ELC SITE: POLYGON: SURVEYOR(S): DATE: UTME: START: END: UTMZ: UTMN:

POLYGON DESCRIPTION SYSTEM SUBSTRATE TOPOGRAPHIC FEATURE HISTORY PLANT FORM COMMUNITY

STAND DESCRIPTION: LAYER HT CVR SPECIES IN ORDER OF DECREASING DOMINANCE

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

SVR 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

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION: COMMUNITY CLASS: CODE:

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

ELC SITE: 5 7 POLYGON: DATE: SURVEYOR(S):

LAYERS: 1=CANOPY>10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

Table with columns: SPECIES CODE, LAYER (1-4), COLL. Includes handwritten entries like ULMAMEL, SPI ALBA, and COARACE.

Page \_\_\_ of \_\_\_ Signature: (Field Personnel) Signature: (Project Manager)

Quality Control: This form is complete & legible. Quality Control: This form is complete & legible.

Evidence of Disturbance / Notes: - RECEIVES AG DRAIN INPUT - SOIL MOIST IN SPOTS BUT NO ...



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: June 8, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C): <u>20</u>	WIND: <u>2</u>	CLOUD: <u>50%</u>	PPT: <u>0</u>	PPT (in last 24 hrs): <u>0</u>
---------------------	-------------------------	-------------------	----------------------	------------------	-----------------------------------

ELC Polygon: #46-5 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=scat; SI=other sign; TK=track; VO=vocalization

SE57, 11E 40, TO14 Y

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NIAGARA	POLYGON: 4	
	SURVEYOR(S): S2	DATE: JUNE 25-12	UTME:
	START: 3:30	END: 3:47	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"/> 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	2	4	QUERUBR > ACESASA
2 SUB-CANOPY	3	3	ACESASA >> FAGGRAN = FRAMESL = QUERUBR
3 UNDERSTOREY	4	4	ACESASA > RUBCAN = PRUVIRG > FAGGRAN
4 GRD. LAYER	5-7	4	ARITRTR > CARPENS > SOLIDAGO = SYM MACK

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	O	10-24	A	25-50	R	>50
STANDING SNAGS:	R	<10	R	10-24	R	25-50	N	>50
DEADFALL/LOGS:	O	<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:
Dry fresh sugar maple - oak deciduous forest	F05-3
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

ELC	SITE: SE57
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	
ACESASA	O	A	A			J. PULPIT					O
FAGGRAN	R	R	R	O		L. AITCH					O
FRAMESL	R	R	R			SOLIDAGO					O
QUERUBR	A	R	N			CARPENSYL					O
ACEHSE	R	R				CAL ALBU					R
						MAPLE					R
						OP HELL					R

RUBCAN  
PRUVIRG

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: 160950269

Project Name: NRWC

Date: June 5, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C): <u>20</u>	WIND: <u>2</u>	CLOUD: <u>50%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>Ø</u>
---------------------	-------------------------	-------------------	----------------------	------------------	-----------------------------------

ELC Polygon: #46-4 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)

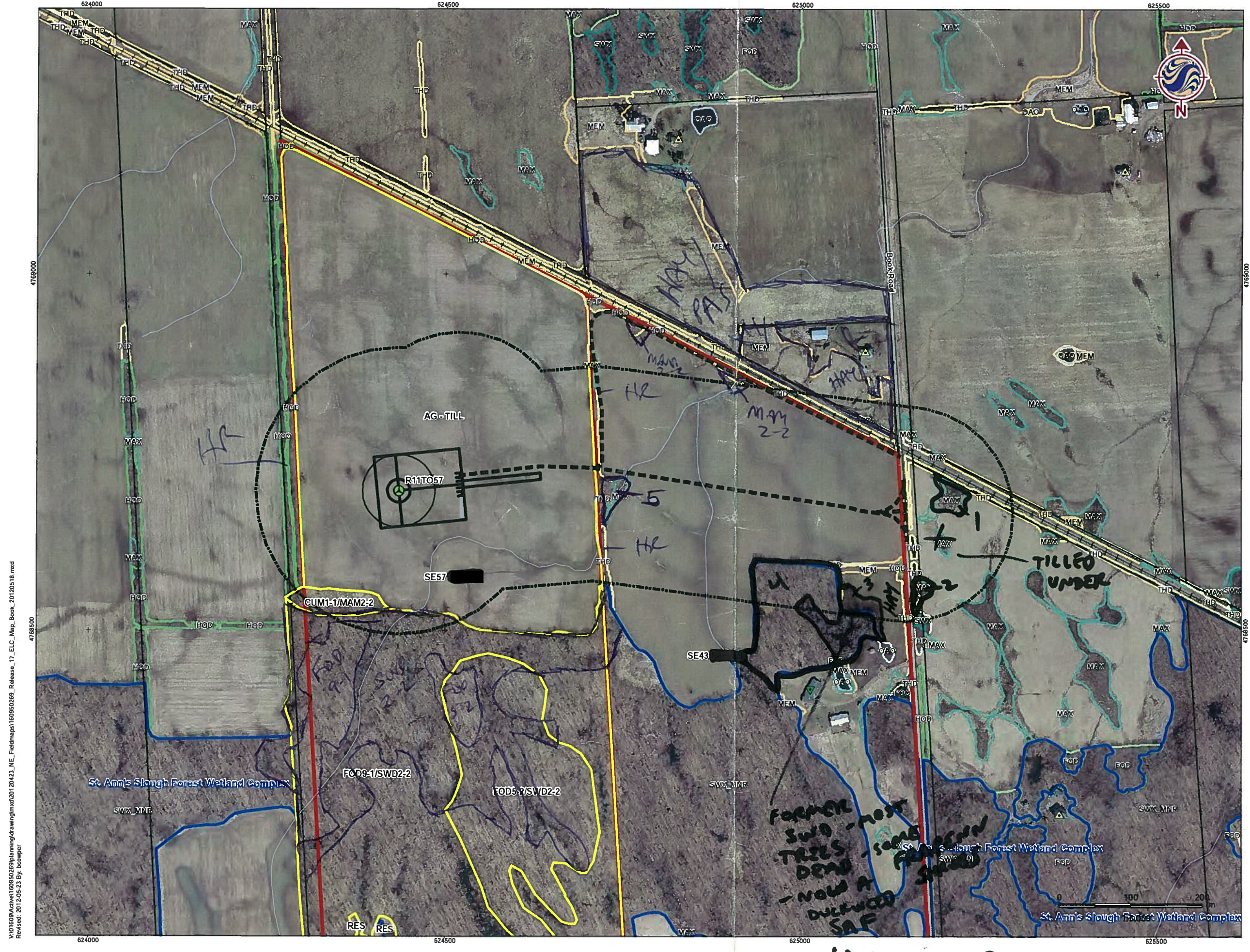
STICK NEST(S) IDENTIFIED						
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature	

**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?

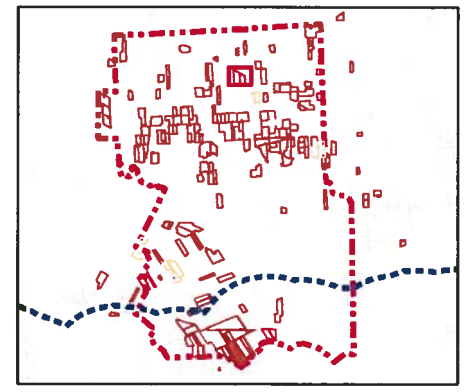
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

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



### Legend

- Turbines in Signed Lands**
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands**
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Study Area and Property**
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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.

May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
46

Title  
Property with Turbine  
SE57

V:\0160950269\amphibian\drawing\mxd\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Reviser: 20120523 By: bcompier

LI ACS 24-28





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 11, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>28°</u>	<u>2-3</u>	<u>100%</u>	<u>0</u>	<u>RAW</u>

ELC Polygon: # 47-1 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?

**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

SES9; Tile 47; Poly 2

**ELC** SITE: Niagara (SES9) POLYGON: \_\_\_\_\_  
 SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_ UTMZ: \_\_\_\_\_ UTMN: \_\_\_\_\_  
 COMMUNITY DESCRIPTION & CLASSIFICATION START: \_\_\_\_\_ END: 9

**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 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 checked="" 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
<b>SITE</b>		<input type="checkbox"/> ROLL, UPLAND	<b>COVER</b>	<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> CLIFF	<input type="checkbox"/> OPEN	<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> TALUS	<input type="checkbox"/> SHRUB	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> CREVICE / CAVE	<input checked="" type="checkbox"/> TREED	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> BEDROCK		<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	ACEFREE >> FRAPENN
2 SUB-CANOPY	3	4	ACEFREE > FRAPENN = CARCALD
3 UNDERSTOREY	4	4	CEPOCU
4 GRD. LAYER	5-7	4	ONOSENS = THEPALU > BOECYLI > GLYSTRI

**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<80% 4=CVR>80%

**STAND COMPOSITION:** BA: \_\_\_\_\_  
**SIZE CLASS ANALYSIS:**

SIZE CLASS	HT	CVR	Code
<10	<10	<10	A
10-24	10-24	10-24	A
25-50	25-50	25-50	R
>50	>50	>50	N

STANDING SNAGS:	HT	CVR	Code
<10	<10	<10	O
10-24	10-24	10-24	O
25-50	25-50	25-50	R
>50	>50	>50	N

**DEADFALL/LOGS:** <10 <10 <10 <10 >50

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

**COMM. AGE:** 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>		(cm)
<b>HOMOGENEOUS / VARIABLE</b>	<b>DEPTH TO BEDROCK:</b>		(cm)

**COMMUNITY CLASSIFICATION:**  
 COMMUNITY CLASS: \_\_\_\_\_ CODE: \_\_\_\_\_  
 COMMUNITY SERIES: \_\_\_\_\_ CODE: \_\_\_\_\_  
 ECOSITE: \_\_\_\_\_ CODE: \_\_\_\_\_  
 VEGETATION TYPE: Swamp maple mineral deciduous swamp CODE: SWD3-3  
 INCLUSION: \_\_\_\_\_ CODE: \_\_\_\_\_  
 COMPLEX: \_\_\_\_\_ CODE: \_\_\_\_\_

Evidence of Disturbance / Notes: - FREQUENTLY CONTAINS POCKETS OF SAF & SWT COMMUNITIES -

**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	LAYER				COLL.
	1	2	3	4			2	3	4		
ACEFREE	A	A				BIDNS SR					
CARCALD		O									
FRAPENN	R	O									
						FALSE R					
						MAX H 65K					
						R FOREM					R
						Y STRI					
						ALY					
						R S /					
						S					

Page \_\_\_ of \_\_\_  
 Signature: [Signature] (Field Personnel)  
 Signature: [Signature] (Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 11, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>28</u>	<u>2-3</u>	<u>100%</u>	<u>0</u>	<u>RAIN</u>

ELC Polygon: #47-2 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>pools</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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

Wb FL - OB  
- GRFL - VO

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: 1609 50269

Project Name: NRWC

Date: June 11, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C): <u>28</u>	WIND: <u>2-3</u>	CLOUD: <u>100%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>RAIN</u>
---------------------	-------------------------	---------------------	-----------------------	------------------	--------------------------------------

ELC Polygon: #47-3 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>in centre of poly</u>	<u>pool</u>		<u>shallow</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=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: June 11, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>28</u>	<u>2-3</u>	<u>100%</u>	<u>Ø</u>	<u>RAIN</u>

ELC Polygon: #47-4 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

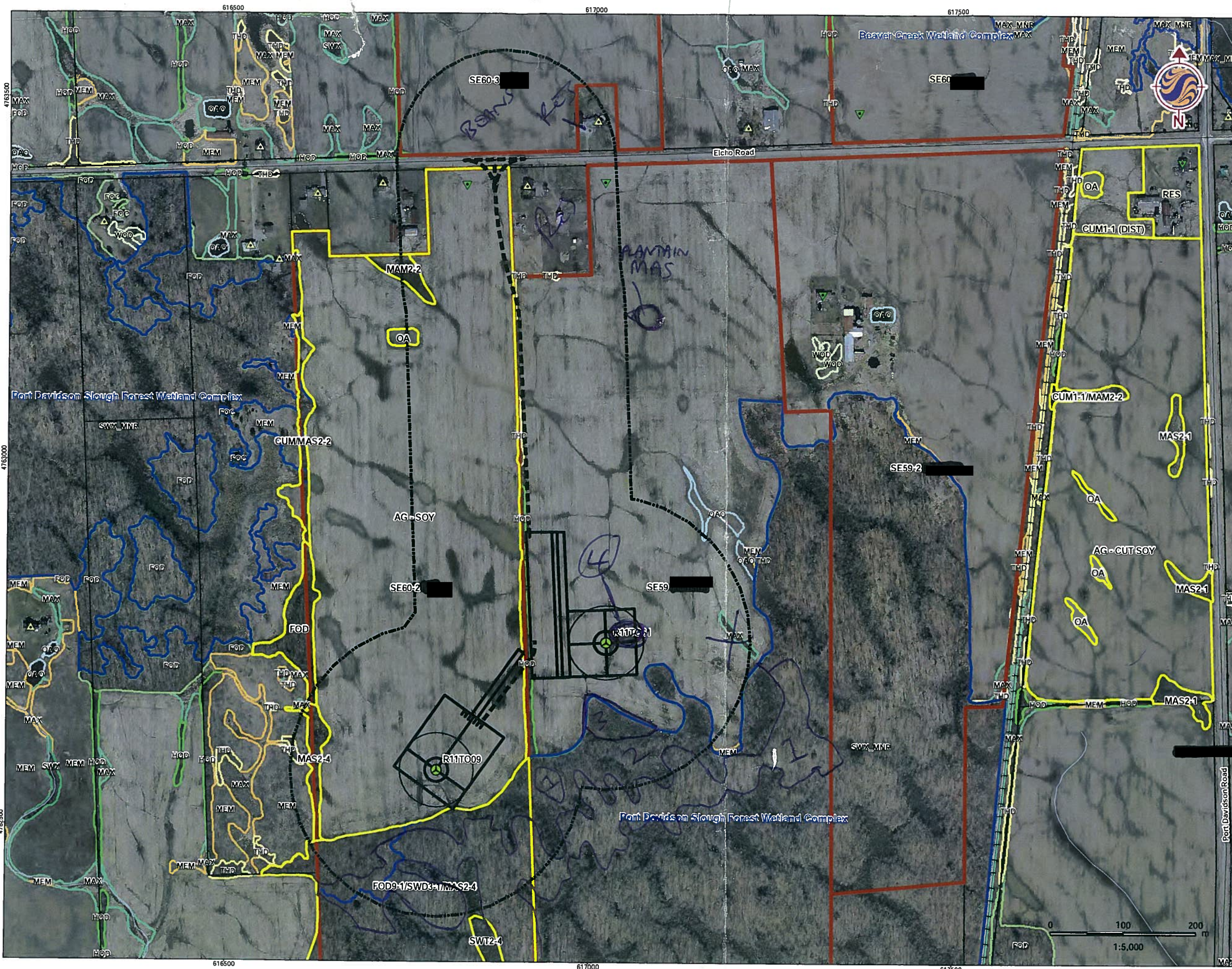
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

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>entire</u>	<u>pool</u>		<u>12cm</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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

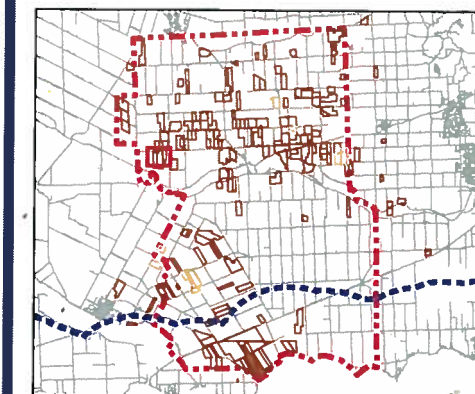
NOLF -ob

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



**Legend**

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
- 51 m Turbine Setback
- Non-Participating Receptor
- Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



**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**

May 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
47

Title  
**Property with Turbine  
SE59 [REDACTED]**

V:\0160950269\planning\drawing\mud\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bcowper

# SE62; Tile 49; Poly A

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_ UTME: \_\_\_\_\_  
 START: \_\_\_\_\_ END: \_\_\_\_\_ UTMZ: \_\_\_\_\_ UTMN: \_\_\_\_\_

## POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <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"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input checked="" type="checkbox"/> BOTTOMLAND <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"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL  <b>COVER</b> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input checked="" 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 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

## STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	crackwillow > trembling asp > oak
2 SUB-CANOPY			
3 UNDERSTOREY	3-4	3	graydogwood > meadowsweet > red-chokerberry
4 GRD. LAYER	5-7	4	Broad-leaved sedge > narrow-leaved sedge

**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: \_\_\_\_\_

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

<b>TEXTURE:</b> SCL/SCL	<b>DEPTH TO MOTTLES/GLEY:</b> g= 20cm G= 20cm
<b>MOISTURE:</b> 6	<b>DEPTH OF ORGANICS:</b> 5 (cm)
<b>HOMOGENEOUS / VARIABLE:</b> VARIABLE	<b>DEPTH TO BEDROCK:</b> 7120 (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> Broad-leaved Sedge Min. Meadow	<b>CODE:</b> MAM2-6
<b>INCLUSION:</b> willowland	<b>CODE:</b>
<b>COMPLEX:</b>	<b>CODE:</b>

**Evidence of Disturbance / Notes:** lots of dry water pooling areas  
photos 1-7

**ELC** SITE: NRWC POLYGON: A tile SE62  
 COMMUNITY DESCRIPTION & CLASSIFICATION DATE: June 8, 2012 SURVEYOR(S): C. Poyette

**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	
trembling asp	0					Sedge sp (narrow)				0-A	✓
willow (crack)	0					Sedge sp broad				A-D	✓
white elm	R					Aspen Sp.				0	
white oak	R					Cattail				R	
						Swamp milkweed				R-O	
						purple mustard				0	
						Bitter nightshade				0	
						Common milkweed				R-O	

red-chokerberry A  
 riverbank grass O  
 meadowsweet A  
 gray dogwood A

Page \_\_\_ of \_\_\_  
 Signature: [Signature]  
 (Field Personnel)

Quality Control: This form is complete  & legible .

Signature: [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

Project Name: NRWC SE62

Date: June 8, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	29	3-4	30%	none	none

ELC Polygon: # 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?

**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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 Tel: (519) 836-6050  
 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC SE62

Date: June 8, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C): <u>29</u>	WIND: <u>3-4</u>	CLOUD: <u>30%</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
---------------------	-------------------------	---------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: # B 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	

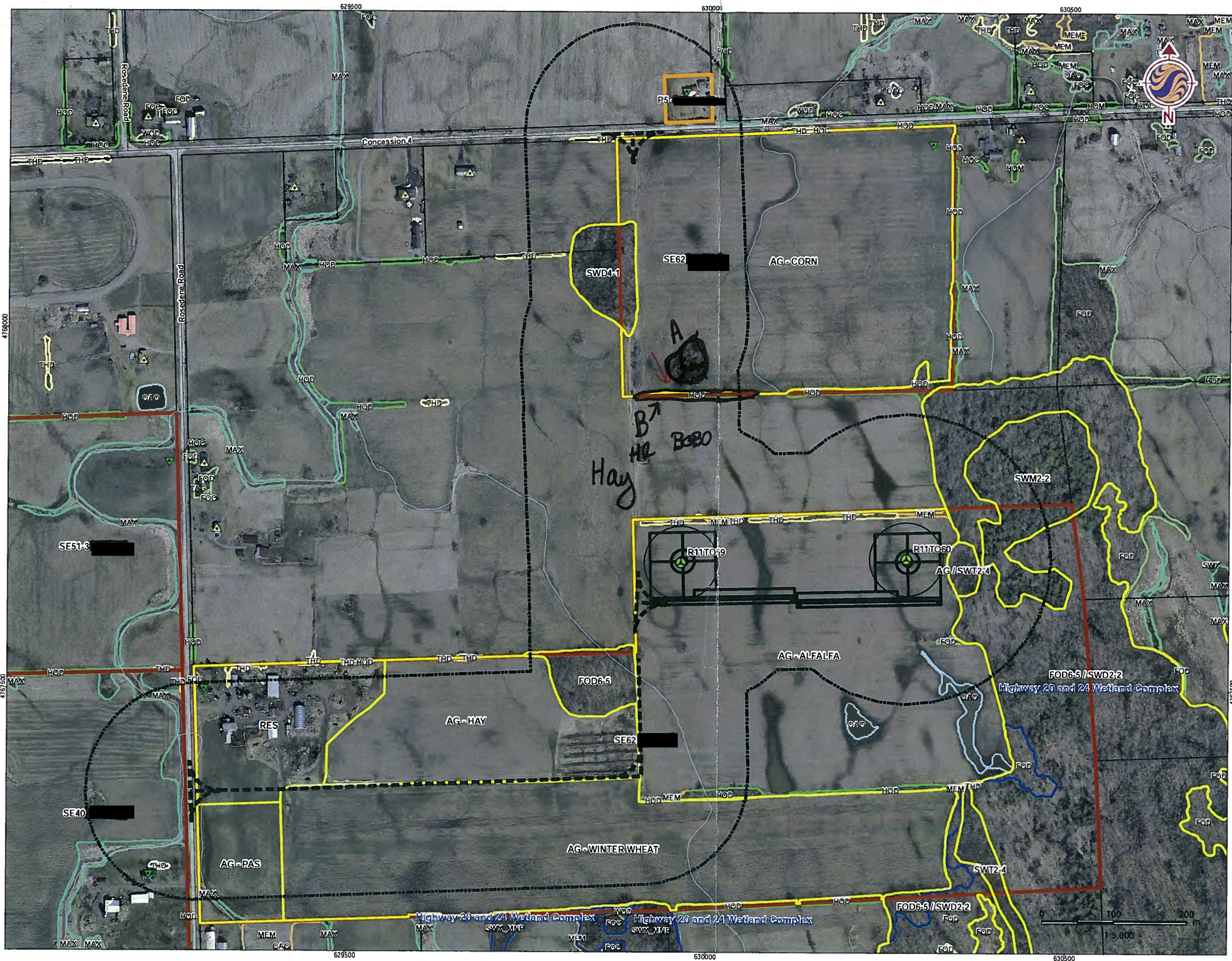
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

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?

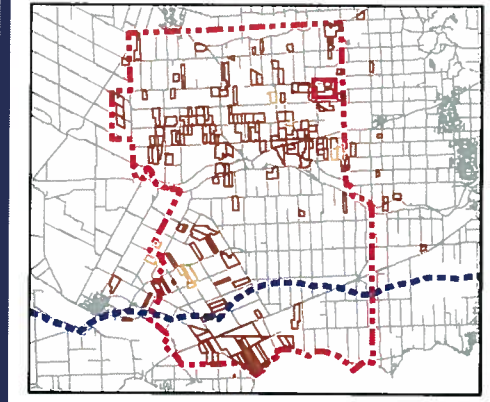
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

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

V:\1609\Act\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bcooper



- ### Legend
- Turbines in Signed Lands
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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**

May 2012  
160950269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

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Figure No.  
 49

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Title  
 Property with Turbine  
 SE62





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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: 1609 50269

Project Name: NRWC SE70

Date: May 31/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C): <u>16°C</u>	WIND: <u>3</u>	CLOUD: <u>80%</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
---------------------	---------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: # 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
619301-4754394	(2)	Unknown	40	60	4	1	6-8m, E, T

**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 Canada swallowtail  
 CHSP  
 SOSE  
 CEDW  
 EVST  
 MODO

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

SE70; Tile 50; Poly C

**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION  
 SITE: NRWC SE70  
 SURVEYOR(S): M. Ross  
 DATE: May 31/12  
 POLYGON: C  
 UTME:  
 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 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	4	Am Beech > ACE SAsA >> Black Chery = Yellow Birch
2 SUB-CANOPY	3	4	ACE SAsA > Am. beech >> Hop hornbeam
3 UNDERSTOREY	5-7	3	ACE SAsA > Am. beech = Hop hornbeam > B. Cherry
4 GRD. LAYER	6-7	2	Jack. Hc pulpit = PARVITA > Can. Mayflower > Trillium

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	O >50
STANDING SNAGS:	R <10	O 10-24	O 25-50	R >50
DEADFALL LOGS:	A <10	A 10-24	O 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: Sand DEPTH TO MOTTLES/GLEY: g= G=g=

MOISTURE: DEPTH OF ORGANICS: ~8cm (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: >170 (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: D-F Sugar Maple-Beech Dec forest CODE: FODS-2

INCLUSION: CODE:

COMPLEX: Swamp Maple Mineral Dec CODE: SWD3-2

Evidence of Disturbance / Notes: ATV Tracks Photos photo 64: sandy NW edge of woodlot

**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	
ACESASA	0	A	A			Jack. Hc pulpit				O=A	
Am. Beech	A	0	0			Trillium Sp.				0	
Hop hornbeam			R0	O		Banberry Sp.				R0	
Black Chery	R0			R0		False Solomon Seal				R0	
Yellow Birch	R0					IMP/CAPE				R0	
ACE SAsA						Can. Mayflower				0	
PARVITA						Mayapple					
RUB ALLE				0							
PARVITA				O/A							

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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: MRWC SE70

Date: May 31/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	19°C	3	80%	None	None

ELC Polygon: # 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
619999-4753467	(3)	ACER	~50	65	5	~2	6-10m, Rot/Woodpecker
619991-4753447	(4)	Am. Beech	45-50	66	5	3+	4-10m Rot/Woodpecker

**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?	
620070-4753485	(5)	10x15m	50cm	67	No	Yes	

SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)			
RTHA	AMRE	HAWD	Many moist, low lying areas. Tadpoles present Additional Bat Roosts: 620035-4753432, (6) Am Beech, 50+, 68, 52 Rot+ (flaking bark as well)
BLJA	EAWP	Raccoon scat	
AMCR	AMRO	Deer Tracks	
CHSP	REVI	Eastern Chipmunk	
TAVN	BAOR	AMTO	
RBGR	WAVI	Common Gartersnake	
	SOSP		

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: 162950269

Project Name: NPawc SE70

Date: May 31/12

Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>19</u>	<u>3</u>	<u>80</u>	<u>None</u>	<u>None</u>

ELC Polygon: # 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)**

Complex w FOD -  
Same species / Habitat obs

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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Fax: (519) 836-2493

## Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC  
Date: May 31/12 Field Personnel: M. Ross

Weather Conditions: TEMP (°C): 16 WIND: 3 CLOUD: 80% PPT: None PPT (in last 24 hrs): None

### POLYGON DESCRIPTION

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON: <u>A</u>	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> TALUS	<input type="checkbox"/> NATURAL
	START TIME:	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CREVICE / CAVE	<input checked="" type="checkbox"/> CULTURAL
	END TIME:	<input type="checkbox"/> BOTTOMLAND	<input type="checkbox"/> ALVAR	
		<input type="checkbox"/> TERRACE	<input type="checkbox"/> ROCKLAND	
		<input type="checkbox"/> VALLEY SLOPE	<input type="checkbox"/> BEACH / BAR	
		<input type="checkbox"/> TABLELAND	<input type="checkbox"/> SAND DUNE	
		<input type="checkbox"/> ROLL UPLAND	<input type="checkbox"/> BLUFF	
		<input type="checkbox"/> CLIFF		

### STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	<u>2</u>	<u>3</u>	<u>ACERUB &gt; Blackwalnut &gt; FRAPENN</u>
2 SUB-CANOPY	<u>3</u>	<u>2</u>	<u>ACERUB = ULMAMER = Blackwalnut</u>
3 UNDERSTOREY	<u>4</u>	<u>1</u>	<u>Blackwalnut</u>
4 GRD. LAYER	<u>6-7</u>	<u>4</u>	<u>Grass Sp.</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% N/O=not observed

STANDING SNAGS: M <10 0 10-24 A 25-50 R >50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

VEGETATION TYPE: Maple-Walnut Cultural Woodland CODE: CUW 1-4\*

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

### Evidence of Disturbance / Notes:

Evidence of Past logging, Old pasture Poly: Photo 57

SE 70 (across Rd)

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 N/O=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL.
	1	2	3	4	≤5 m	>5 m	
<b>TREES:</b>							
Black Walnut	<u>OA</u>	<u>0</u>	<u>0</u>		<u>✓</u>	<u>✓</u>	
ULM AMER		<u>0</u>				<u>✓</u>	
ACE RUBR	<u>A</u>	<u>0</u>				<u>✓</u>	
FRAPENN	<u>0</u>					<u>✓</u>	
E. Cottonwood		<u>R</u>			<u>✓</u>		
Malus sp.		<u>R</u>				<u>✓</u>	
<b>SHRUBS:</b>							
<b>GROUND:</b>							
Grass Sp				<u>D</u>		<u>✓</u>	

Quality Control: This form is complete  & legible .

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

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

ELC Polygon: # 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
N/A	Old Silo (concrete)	S8	None

**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
N/A	①	Unknown	40	S9	5	~2	~8-10m, Rot

**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)**

WAVI  
 BAOR  
 CHSP  
 EUST  
 AMRO  
 COGR

Gray Squirrel

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

V:\016090\active\16090269\planning\drawing\mxd\20120423\_NE\_Fieldmaps\16090269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bowper



- ### Legend
- Turbines in Signed Lands
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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**  
 May 2012  
 160950269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 50

Title  
 Property with Turbine  
 SE70







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160450269  
 Date: \_\_\_\_\_

Project Name: NRWC  
 Field Personnel: N. Charlton

<b>Weather Conditions:</b>	TEMP (°C): <u>30</u>	WIND: <u>1-2</u>	CLOUD: <u>50%</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</u>
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ELC Polygon: # 51-1 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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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: 25/05/13

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>30</u>	WIND: <u>1-2</u>	CLOUD: <u>50</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>✓</u>
---------------------	-------------------------	---------------------	---------------------	------------------	-----------------------------------

ELC Polygon: #51-2 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=scat; SI=other sign; TK=track; VO=vocalization







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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

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

Project Name: NRWC

Date: 25/05/2012

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>30</u>	WIND: <u>1-2</u>	CLOUD: <u>50%</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</u>
---------------------	-------------------------	---------------------	----------------------	------------------	-----------------------------------

ELC Polygon: #51-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; FI=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

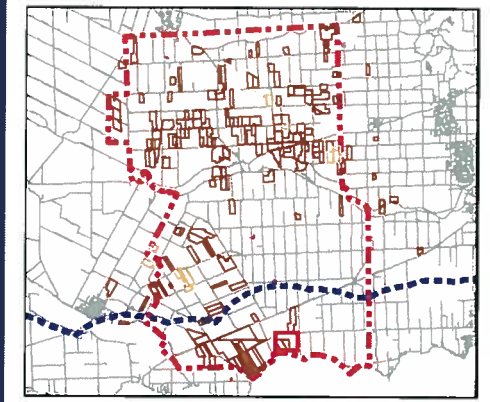
reverse

V:\1609\Act\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
Revised: 2012-05-23 By: tucwppr



### Legend

- Turbines in Signed Lands**
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands**
  - Standard Turbine (105 dBA)
- 51 m Turbine Setback
- Non-Participating Receptor
- Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



- ### 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.

May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

---

Figure No.  
51

---

Title  
Property with Turbine  
SE77



"FOP" pockets

↳ red panned dogwood

cultural thickets or SWF

W sol ruge

CAREX spp

Fra Penn (young)

Vib lent + Raf,

UMRUBR

SPIALBA

Grass

Cingulifol

blue eyed grass

parise

but dry

SE77 ; Tile S2 ; Poly 2

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara SE77</u>	POLYGON: <u>52-2</u>	
	SURVEYOR(S): <u>NC</u>	DATE: <u>25/05/2012</u>	UTME:
	START: <u>12:45</u> END: <u>1:00</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 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"/> SWAMP
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<b>SITE</b>		<input type="checkbox"/> CLIFF	<b>COVER</b>	<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> TALUS	<input checked="" type="checkbox"/> OPEN	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input checked="" type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> SHRUB	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	<input type="checkbox"/> TREE		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<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	4	PHRAUST

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>	<b>BA:</b>
---------------------------	------------

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

<b>COMM. AGE:</b>	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>European reed shallow marsh</u>	CODE: <u>MAS 2-10*</u>
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	
						PHRAUST					D
						SOLDULC					R
SP1ALBA											R

Page \_\_\_ of \_\_\_  
Signature: Nam Cheed  
(Field Personnel)

Quality Control: This form is complete  & legible .  
Signature: Chyfa Hiron  
(Project Manager)



Stantec Consulting Ltd.  
 1 – 70 Southgate Drive  
 Guelph, ON  
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 Tel: (519) 836-6050  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: 25/05/2012

Field Personnel: N. Charlton

<b>Weather Conditions:</b>	TEMP (°C): <u>25</u>	WIND: <u>4</u>	CLOUD: <u>60-40</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</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.	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 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.	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. Sp. Present?	Shrubs/ Logs at Edge Present?	
<u>[Handwritten scribble]</u>	<u>[Handwritten scribble]</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

**Stanter**

Project Number: 160950269

Project Name: NRWC

Date: 25/05/2012

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): <u>25</u>	WIND: <u>4</u>	CLOUD: <u>60-40%</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</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*)

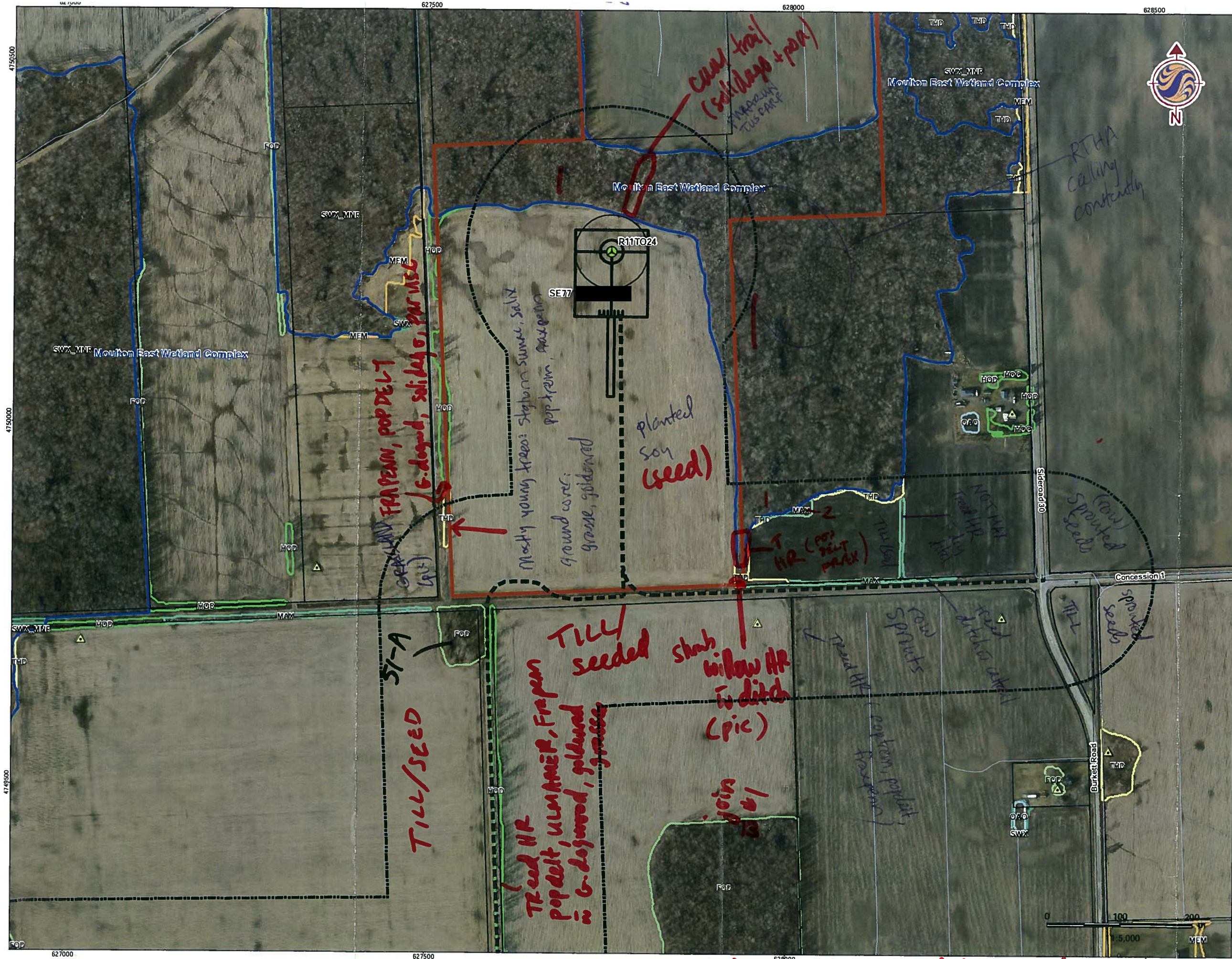
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED						
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?
<u>throughout</u>	<u>pools</u>		<u>dry</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

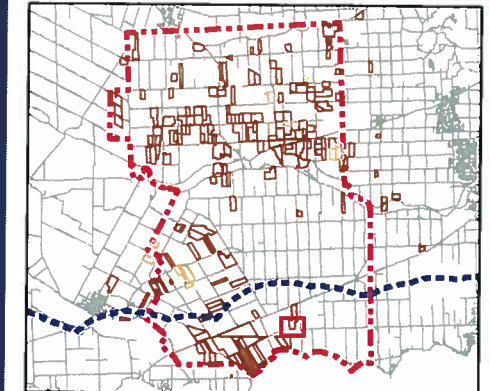


V:\01609\Active\160950269\planning\dwg\mxd\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bcooper



### Legend

- Turbines in Signed Lands
- Standard Turbine (105 dBA)
- Potential Turbine Locations
- Turbines in Unsigned Lands
- Standard Turbine (105 dBA)
- 51 m Turbine Setback
- △ Non-Participating Receptor
- ▽ Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



- ### 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.



May, 2012  
 160950269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 52

Title  
 Property with Turbine  
 SE77

2 - pure PHRAUST shallow marsh in soldale, spialba R

SE79, Tie 54, Poly 1

<b>ELC</b>	<b>SITE:</b> SE79	<b>POLYGON:</b> 54-1
<b>COMMUNITY DESCRIPTION &amp; CLASSIFICATION</b>	<b>SURVEYOR(S):</b> NC, KW	<b>DATE:</b> May 24, 2012
	<b>START:</b> 10:30	<b>END:</b> 10:45
	<b>UTMZ:</b>	<b>UTMN:</b>

**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 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
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<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 type="checkbox"/> MEADOW
<input 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"/> TREE		<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	3	3	SPIALBA = GRAY DOGWOOD
4 GRD. LAYER	4-7	4	GRASSES > SOLIDAGO CANA or ALTI > 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<50% 4=CVR>50%

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

<b>SOIL ANALYSIS:</b>			
TEXTURE: clay	DEPTH TO MOTTLES/GLEY: 35 cm	1.75 scoop	1.75 scoops
MOISTURE: 5	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b>	CODE: CUM1-1
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

Evidence of Disturbance / Notes:

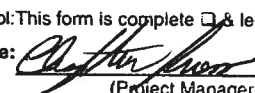
Typha ditch runs through

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

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		
						SCHAR					A-0	
						Carex sp					0	
						LOT RN					0	
						JUN P					0	
						PAC GLOM					0	
						SOL RUGO						
						TRIPRAT					A	
						CARVILLP					0	
						lected sedge					R	
						P ARIUN					A	
						CERFOAI					0	
						SYMNOVA					0	
						SOLIDAGO SP.					A-0	
						CIRARVE					R-0	
						RUMCRISP					R	
						PAPINSE					R	
						YARROW					R-0	
						ASSCYRI					R-0	
						collected sedge					R	
						yellow bristleweed					R-0	
						BROINER					0	
						PLARUGE					0	
						VITRIPA					0	0
						GRAY DOGWOOD					A	
						VIBRAFI					0	
						SPIALBA					A	

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

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



Stantec Consulting Ltd.  
 1 - 70 Southgate Drive  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: 24/05/2012

Field Personnel: N. Charlton, R. Walpole

Weather Conditions:	TEMP (°C): <u>32</u>	WIND: <u>0-1</u>	CLOUD: <u>10</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</u>
---------------------	-------------------------	---------------------	---------------------	------------------	-----------------------------------

ELC Polygon: #54-1 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 79; Tlk 54; Poly 8

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE 79	POLYGON: 54-8	
	SURVEYOR(S): NC, KW	DATE: 24/05/2012	UTME:
	START: 3:00	END: 3:30	UTMZ:
			UTMN:

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 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"/> 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
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input checked="" type="checkbox"/> MEADOW
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ALVAR	<input checked="" type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREE		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> 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						
2 SUB-CANOPY						
3 UNDERSTOREY						
4 GRD. LAYER		4	B	A	AR	f DA

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: NCUM1-1
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:  
ALONG ATV TRAIL

<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	
						DACGLUM					A=O	
						ARTTRIF					O	
						POAPRAT					A	
						HESMAT					R-O	
						ARCMINU					O	
						SCHARUN					O	✓
						SOLIDAGO					O	
						DAUCAEU					O	
						PLARUGE					O	

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



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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: 24/05/2012

Field Personnel: K. Walpole, N. Charlton

Weather Conditions:	TEMP (°C): <u>32</u>	WIND: <u>0-1</u>	CLOUD: <u>10</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</u>
---------------------	-------------------------	---------------------	---------------------	------------------	-----------------------------------

ELC Polygon: #54-8 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 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)**

GRFR  
BULL FROG ) in ditch adjacent

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=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: NRWL

Date: 24/05/2012

Field Personnel: K. Walpole, N. Charlton

Weather Conditions:	TEMP (°C): <u>32</u>	WIND: <u>0-1</u>	CLOUD: <u>10</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</u>
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ELC Polygon: # 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

SE79; Tile 54; Poly 2

**ELC** SITE: 5 Niagara POLYGON: 54-2  
 SURVEYOR(S): NC, KW DATE: 24/05/2012 UTME:  
 START: 11:00 END: 11:30 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 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"/> TABLELAND		<input type="checkbox"/> LICHEN	<input checked="" 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
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input checked="" type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> 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	2	3 ACERUBR >> ULMAMER
2	SUB-CANOPY	3	4 ACERUBR > VIBRAFI
3	UNDERSTOREY	4	2 VIBRAFI > VIBLNT
4	GRD. LAYER	5-7	4 SOLRUGO > collected sedge > sedges > PHAARUN

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:

0	<10	A	10-24	0	25-50	N	>50
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SIZE CLASS ANALYSIS:

0	<10	A	10-24	0	25-50	N	>50
---	-----	---	-------	---	-------	---	-----

STANDING SNAGS:

0	<10	R	10-24	R	25-50	N	>50
---	-----	---	-------	---	-------	---	-----

DEADFALL LOGS:

A	<10	R	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: Clay dominated DEPTH TO MOTTLES/GLEY: 1 scoop G=20cm 1 scoop G=20cm

MOISTURE: 6 DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Red maple mineral deciduous CODE: SWD3-1

INCLUSION gray dog wood mineral thicket swamp CODE: SWT2-9

COMPLEX CODE:

Evidence of Disturbance / Notes: >inclusion of SWT almost equal proportions? (GRAY DOG WOOD, GRAY DOG WOOD, SPINOSA)

**ELC** SITE: SE79  
 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	A				✓	CAREX form #1					A	(P)
ULMAMER	R					SOLRUGO					A	
						PHAARUN					A	
						RHEGLAB					O	
						PARINSE					R	
						CAREX SP					R	
						SOLDULC					R	
						CARGRACIL					O	
						BIDENS CF					R	
						JUNCUS					R	
						narrow lwd chick					R	✓
						GLYCERIA					R	✓
						LJICIL					R	

Page \_\_\_\_ of \_\_\_\_ Signature: *Neil Christ* (Field Personnel)

Quality Control: This form is complete & legible .  
 Signature: *Chapman* (Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: 24/05/2012

Field Personnel: NC, K.V

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>32</u>	<u>0-1</u>	<u>10</u>	<u>—</u>	<u>—</u>

ELC Polygon: #54-2 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=scar; SI=other sign; TK=track; VO=vocalization

SE 74, T1k 54, R1k 5

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE 74	POLYGON: 54-5
	SURVEYOR(S): NC, KW	DATE: 24/05/2012
	START: 12:30	END: 1:30
	UTM: _____	UTM: _____

**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 checked="" 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 checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN
<b>SITE</b>		<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	<b>COVER</b>		<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"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> CARB. BEDRK.		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" 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	4	FRAPENN >> ACERUBR >> QUERUBR
2 SUB-CANOPY	3	3	FRAPENN > ACERUBR > ULMAMER
3 UNDERSTOREY	4	3	GRAY DOGWOOD > LINBENZ
4 GRD. LAYER	5-7	4	IMP SP > SOLRUGO > CAREX SPP > GRASSES

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%

<b>STAND COMPOSITION:</b>				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: Greenash mineral deciduous swamp	CODE: SWD 2-2(a)
INCLUSION	CODE:
COMPLEX	CODE:

**Evidence of Disturbance / Notes:**

- shallow pools throughout - w frogs + tadpoles  
- this card describes on ground this as well

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

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						SOLDULC					
QUEMACE?					✓	Burreed					
ACERUBR						LYTSALI					
ULMAMER						BIG GRASS					✓
AIESASA						JUNCUS					
QUERUBR						IMP SP					A
FRANIGR						SYMUN/					
						ARITRTR					
						GALAPAR					
						ALI PETI					
						VITRIPA					
						PARINSE					
						CEUM SP					
						Sedge from #1					
						PODPELT					
						CARGRAC					
						CAREX (droopy)					P
						SOLRUGO					A
						CAR c.f. bland					R ✓
						THLASPI/EZIA					A ✓
						RHUS VINE					
						ATH FEFE					
						Grass poa-like					✓
						SEN FERN					
						GLYCERIA					
						hairless chickweed					
						unknown (bitter-sweet)					✓
						LONTART					
						LINBENZ					
						GRM DOGWOOD					
						RUBIDAE					
						SPIALBA					

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



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: 24/05/2012

Field Personnel: N. Charlton, K. Walpole

Weather Conditions:	TEMP (°C): <u>32</u>	WIND: <u>0-1</u>	CLOUD: <u>10</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</u>
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ELC Polygon: #54-5 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>Throughout</u>	<u>pools</u>		<u>60 cm</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=scar; SI=other sign; TK=track; VO=vocalization





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWL

Date: 24/05/2012

Field Personnel: K. Walpole, N. Chariton

Weather Conditions:	TEMP (°C): <u>32</u>	WIND: <u>0-1</u>	CLOUD: <u>10</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</u>
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ELC Polygon: #54-6 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?

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

CA=carcass; DP=distinctive parts; FE=feeding evidence; BY=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: 24/05/2012

Field Personnel: R. Walpole, N. Charlton

Weather Conditions:	TEMP (°C): <u>32</u>	WIND: <u>0-1</u>	CLOUD: <u>10</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</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=scar; SI=other sign; TK=track; VO=vocalization

SE 79; Tlk 54; Poly 4

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE79	POLYGON: 54-2	
	SURVEYOR(S): NC, KW	DATE: 24/05/2012	UTME:
	START: 12:00	END: 12:30	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 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"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWMAP
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ROLL. UPLAND	<b>COVER</b>	<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> CLIFF	<input type="checkbox"/> OPEN	<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> TALUS	<input type="checkbox"/> SHRUB	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> TREE	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input checked="" 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	3	4	G. DOGWOOD > SPIALBA
2 SUB-CANOPY	4	4	SPIALBA > G. DOGWOOD
3 UNDERSTOREY			
4 GRD. LAYER	5-7	3	CAREX SP > GEUM SP > SOLRUGO

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<80% 4=CVR>80%

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 R 10-24 N 25-50 N >50
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
COMM. AGE:	<input checked="" type="checkbox"/> PIONEER <input checked="" type="checkbox"/> 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: SWT 2-9
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		
						CAR CF BEEB					A	✓
						GEUM SP					A	
						CHEGLAB					O	
						POA SP.					O	
						PERSICARIA SP					O	
						DACGLON					R	
						ASC SUR					R	
						ARCINNU					R	
						SOLRUGO					O	

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

Ribes - gland both sides, no prickles





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: 24/05/2012

Field Personnel: K. Walpole, N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	32	0-1	10	—	—

ELC Polygon: #54-4 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





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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: 24/05/2012

Field Personnel: N.C., K.W.

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>32</u>	<u>0-1</u>	<u>10</u>	<u>—</u>	<u>—</u>

ELC Polygon: #54-3 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 pairs; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

SE 71, T1E 24, R104 A

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Niagara-SE79</u>	POLYGON: <u>54-A</u>	
	SURVEYOR(S): <u>NC</u>	DATE: <u>May 24, 2012</u>	UTME:
	START:	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"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input checked="" 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 type="checkbox"/> VALLEY SLOPE		<input checked="" 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
<b>SITE</b>		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
OPEN WATER	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR	<input checked="" type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
WATER SURFICIAL DEP. BEDROCK		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<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

**POND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY			
SUB-CANOPY			
UNDERSTOREY			
GRD. LAYER	<u>6-7</u>	<u>3</u>	<u>TAROFF1 &gt; SOLIDAGO SP &gt; TRIREPE</u>

**R 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%

**POND COMPOSITION:** BA:

SIZE CLASS ANALYSIS:	<10	10 - 24	25 - 50	>50
FANDING SNAGS:	<10	10 - 24	25 - 50	>50
EADFALL/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

**OIL 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:
POSITE:	CODE:
VEGETATION TYPE:	CODE:

INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

Fallow field - old corn stalks visible + lots of bare soil

<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		
						TAROFF1					A	
						SOLIDAGO SP					A	
						TRIREPE					A	
						DAUCARD					A	
						Melilotus sp					O	
						Alfalfa					O	
						HYPERF					R-O	
						CINQUEFOIL SP					R-O	

Page \_\_\_ of \_\_\_  
 Signature: Karl Craft (Field Personnel)  
 Quality Control: This form is complete  & legible .  
 Signature: [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

Project Name: NRWC

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

Field Personnel: N. Charlton, K. Walpole

<b>Weather Conditions:</b>	TEMP (°C): <u>32</u>	WIND: <u>0-1</u>	CLOUD: <u>10</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</u>
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ELC Polygon: #54A 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=scat; SI=other sign; TK=track; VO=vocalization

SE79; Tile 54; 1014 B

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Niagara - SE79</i>	POLYGON: <i>54-B</i>	
	SURVEYOR(S): <i>NC, KW</i>	DATE: <i>24/05/2012</i>	UTME:
	START: <i>4:30</i>	END: <i>5:00</i>	UTMZ:
			UTMN:

**OLYGON 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 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"/> 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
<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		
OPEN WATER SHALLOW WATER SURFICIAL DEP. BEDROCK					

**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	<i>6-7</i>	<i>4</i>	<i>Dead grass &gt;&gt; TAROFF1 &gt; TRIPEPE</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%

TAND COMPOSITION: BA:

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

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

**OIL 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:

COSITE: CODE:

VEGETATION TYPE: CODE:

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes:

*Fallow field - lots of bare ground - was recently cultivated*

<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>Dead grass</i>					<i>A</i>
						<i>TRIPEPE</i>					<i>O</i>
						<i>TAROFF1</i>					<i>O</i>

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

Signature: *[Handwritten Signature]*  
(Field Personnel)

Quality Control: This form is complete  & legible   
Signature: *[Handwritten Signature]*  
(Project Manager)



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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: 24/05/2012

Project Name: 160950269  
 Field Personnel: N. Charlton, K. Walpole

Weather Conditions:	TEMP (°C): <u>32</u>	WIND: <u>0-1</u>	CLOUD: <u>10</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>—</u>
---------------------	-------------------------	---------------------	---------------------	------------------	-----------------------------------

ELC Polygon: #54-B 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	

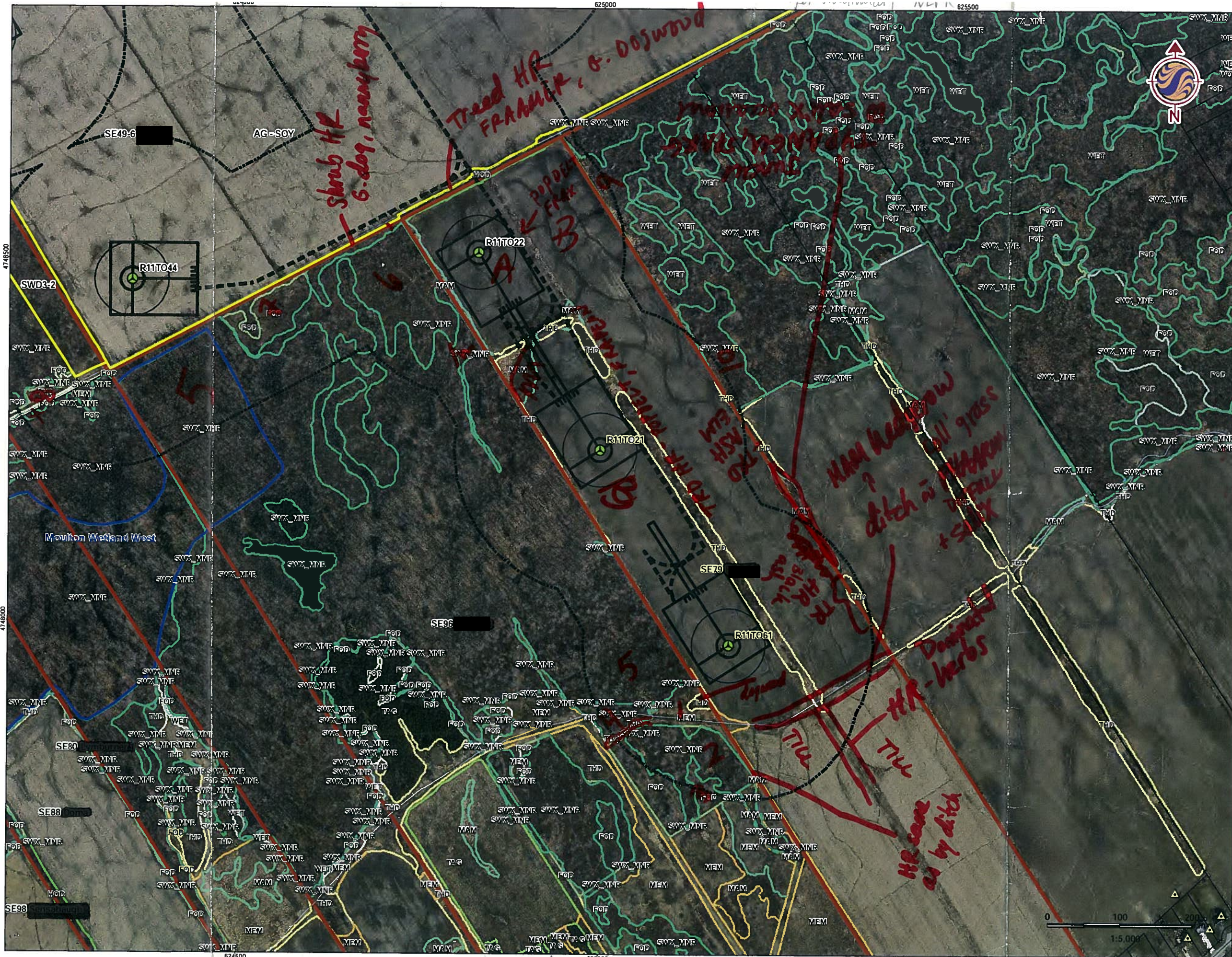
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

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?

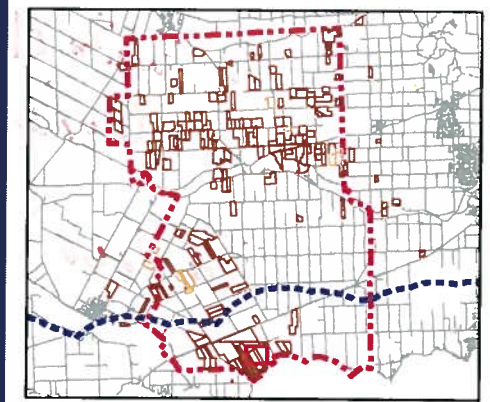
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

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

V:\0160950269\0160950269\planning\drawing\mxd\20120423\_NE\_Fieldmap\160950269\_Release\_17\_ELC\_Map\_Book\_20120516.mxd  
 Reviset: 2012.05.23 By: bcooper



- ### Legend
- Turbines in Signed Lands**
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands**
    - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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.



Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 54

Title  
 Property with Turbine  
 SE79

(disturbed - car track) HR - P. pratense, trifolium rep + prat., Daucus  
 Prunella



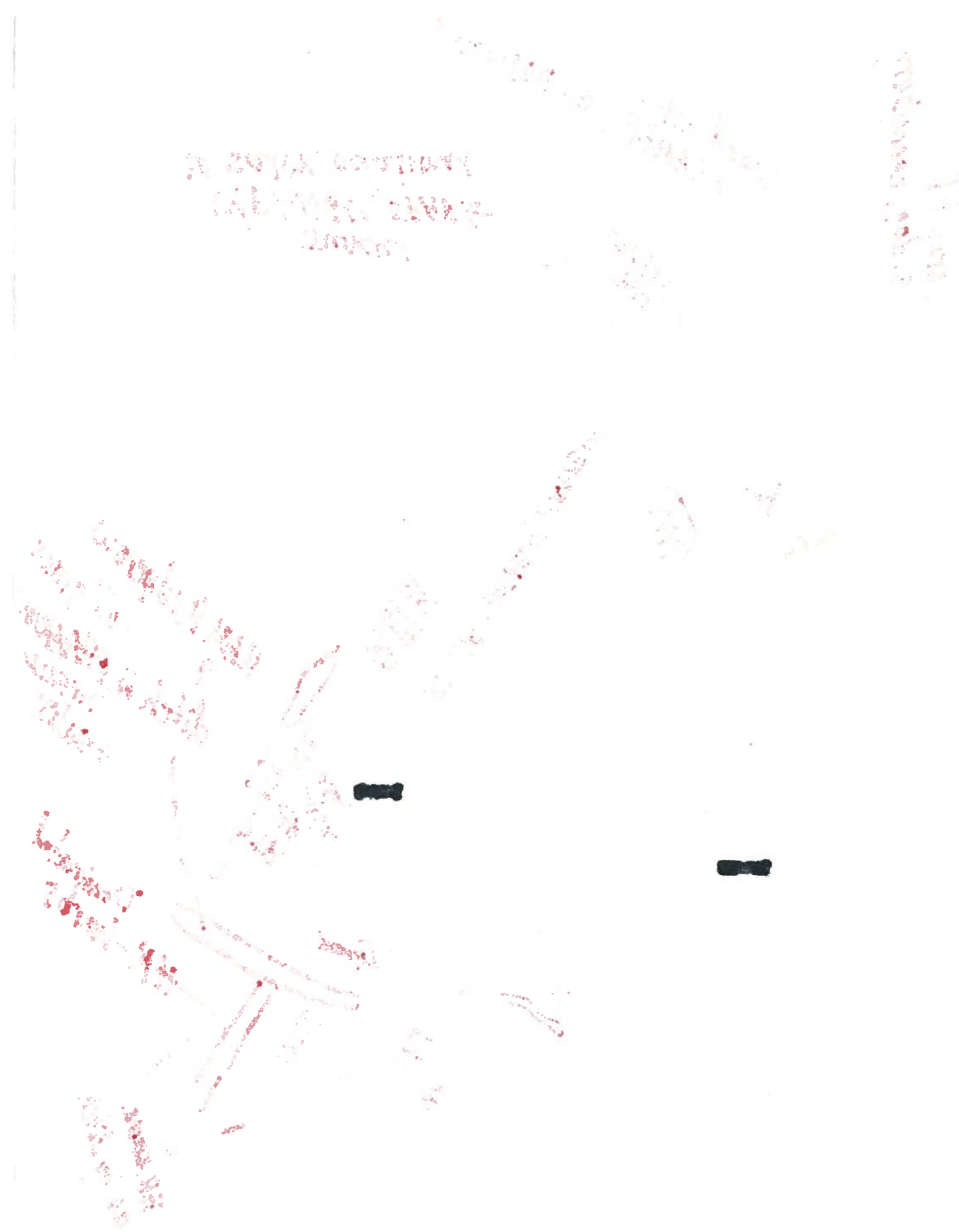


A: TAROFFI — A  
SOLIDAGO — A  
TRIREPE — A  
DAUCARD — A  
Melilotus sp.  
Alfalfa  
HYP PERP  
CINQUEFOIL

left fallow from corn

B - dead Poa-like grass  
w white clover  
dandelion  
(Fallow)

#10 - just like #5



SE82; Tile 55; Poly 5

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE82	POLYGON: 5
	SURVEYOR(S): L. Robson	DATE: May 25 2012
	START:	UTMZ:
	END:	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 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 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"/> SWAMP
<b>SITE</b>		<input type="checkbox"/> ROLL UPLAND	<b>COVER</b>	<input checked="" type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> CLIFF	<input type="checkbox"/> OPEN	<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> TALUS	<input type="checkbox"/> SHRUB	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> CREVICE / CAVE	<input checked="" type="checkbox"/> TREE	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> BEDROCK		<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	2	Manitoba maple = American Elm > white ash
2 SUB-CANOPY	2	2	Manitoba maple > American Elm > green ash
3 UNDERSTOREY	3-4	4	grey dogwood >> green ash > Steinhorn sumac > glossy bu
4 GRD. LAYER	-7	4	golden rod sp > riverbank grape >> garlic mustard

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

TEXTURE:	DEPTH TO MOTTLES/GLEY	g= 42	G= 78
MOISTURE:	DEPTH OF ORGANICS:	<1	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	> 82	(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE: Grey dogwood thicket w/in	CODE: cut 1-2
VEGETATION TYPE: Manitoba maple & Elm h. hedgerow	CODE:
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	
J						car					
glossy			O			bo					
Am Elm		A				m					
gre			O A			s					
honaysu						po					
grey dog			A			st					

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

Signature: Laura Robson  
(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 - SE82 Zicari

Project Name: NRWC

Date: May 25, 2012

Field Personnel: L Robson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>5</u>	<u>70%</u>	<u>None</u>	<u>None</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?

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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269 - SC82 Zicori

Project Name: NRWC

Date: May 25, 2012

Field Personnel: L Robson

<b>Weather Conditions:</b>	TEMP (°C): <u>25</u>	WIND: <u>5</u>	CLOUD: <u>60%</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
----------------------------	-------------------------	-------------------	----------------------	---------------------	--------------------------------------

ELC Polygon: # 4      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=scat; SI=other sign; TK=track; VO=vocalization

SE82; Tile 55; Poly 4

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE82	POLYGON: 4	
	SURVEYOR(S): L Robson	DATE: May 25, 2012	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"/> 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 checked="" 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
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE <input checked="" 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 checked="" 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"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<b>SITE</b>	<input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<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	<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"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE		

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	3	cottonwood
2 SUB-CANOPY	2	2	cottonwood >>> manitoba maple
3 UNDERSTOREY	3	1	manitoba maples Silver maple
4 GRD. LAYER	4-7	4	grass sp > goldenrod sp >> dandelion

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

<b>TEXTURE:</b>	<b>DEPTH TO MOTTLES/GLEY</b>	g=	G=
<b>MOISTURE:</b>	<b>DEPTH OF ORGANICS:</b>		(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> plante mod helgerous	<b>CODE:</b>
<b>VEGETATION TYPE:</b>	<b>CODE:</b>
<b>INCLUSION</b>	<b>CODE:</b>
<b>COMPLEX</b>	<b>CODE:</b>

Evidence of Disturbance / Notes: photo 24

<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	
cotton						g sp					A
manitoba maple						goldenrod					A
ash						dandelion					D
grass						common milkweed					R-O
											R

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

Signature: Laura Robson  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: Chris Robson  
(Project Manager)



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950 269 - SE82 Zicori

Project Name: NRWC

Date: May 25, 2012

Field Personnel: L Robson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>5</u>	<u>40</u>	<u>none</u>	<u>none</u>

ELC Polygon: # 3 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=scat; SI=other sign; TK=track; VO=vocalization

SE82; Tile SS; Poly 3

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE82	POLYGON: 3	
	SURVEYOR(S): L Robson	DATE: May 25, 2012	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"/> 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 checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> FLOATING-LVD. <input checked="" 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"/> 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
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<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 checked="" 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

**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	1	willow sp
4 GRD. LAYER	5-7	4	Grass sp = golden rod sp > horsetail

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>	
<b>STANDING SNAGS:</b>	
<b>DEADFALL/LOGS:</b>	
<b>ABUNDANCE CODES:</b>	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
<b>COMM. AGE:</b>	<input checked="" type="checkbox"/> PIONEER <input type="checkbox"/> YOUNG <input type="checkbox"/> MID-AGE <input type="checkbox"/> MATURE <input type="checkbox"/> OLD GROWTH

**SOIL ANALYSIS:**

<b>TEXTURE:</b>	<b>DEPTH TO MOTTLES/GLEY</b>	g=	G=
<b>MOISTURE:</b>	<b>DEPTH OF ORGANICS:</b>		(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> old field meadow	<b>CODE:</b> CUM 1-1
<b>VEGETATION TYPE:</b>	<b>CODE:</b>
<b>INCLUSION</b>	<b>CODE:</b>
<b>COMPLEX</b>	<b>CODE:</b>

**Evidence of Disturbance / Notes:**

photo 23 - can't see if there is a pond behind meadow

<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 maple				R		horsetail					A-D
willow sp					O	golden rod sp					A
						Banquet					R-O
						clouet					R-O
						grass - collected					A-D

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

Signature: Laura Robson  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature: [Signature]  
(Project Manager)



**Stantec Consulting Ltd.**  
 1 – 70 Southgate Drive  
 Guelph, ON  
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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269 - SE82 Zicari

Project Name: WRWC

Date: May 25, 2012

Field Personnel: L Robson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25</u>	<u>5</u>	<u>20%</u>	<u>none</u>	<u>none</u>

ELC Polygon: # 2 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>17T 0620239</u> <u>4755595</u>	<u>Pond in Centre of feature</u>	<u>20 m</u>	<u>2-40 cm</u>	<u>22</u>	<u>yes</u>	<u>yes</u>

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

Green frog observed in pond

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 - 5582 Zicari

Project Name: WR - NRW

Date: May 25, 2012

Field Personnel: L. Robson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	4	20%	None	None

ELC Polygon: # 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?

**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

SE82; T1E 00, Poly 1

**ELC** SITE: SE82 POLYGON: 1  
 COMMUNITY SURVEYOR(S): L Robson DATE: May 25, 2012  
 DESCRIPTION & CLASSIFICATION 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"/> 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		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREE		<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	3	American Elm >>> White Ash >>> white oak
2 SUB-CANOPY	2	3	American Elm > white Ash > Manitoba maple
3 UNDERSTOREY	3	3	Grey Dogwood = White Ash > American Elm
GRD. LAYER	4-9	4	Goldenrod spp = Red Corny grass > other grass 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:	<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 type="checkbox"/> 10-24	<input type="checkbox"/> 25-50	<input checked="" type="checkbox"/> >50	
DEADFALL/LOGS:	<input checked="" type="checkbox"/> <10	<input type="checkbox"/> 10-24	<input checked="" 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 type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> 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: <u>American Elm - white Ash deciduous</u>	CODE:
VEGETATION TYPE: <u>Hedge row</u>	CODE:
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

**Evidence of Disturbance / Notes:**

- some gaps in canopy exist (photo. 2)

**ELC** SITE: \_\_\_\_\_  
 COMMUNITY POLYGON: \_\_\_\_\_  
 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

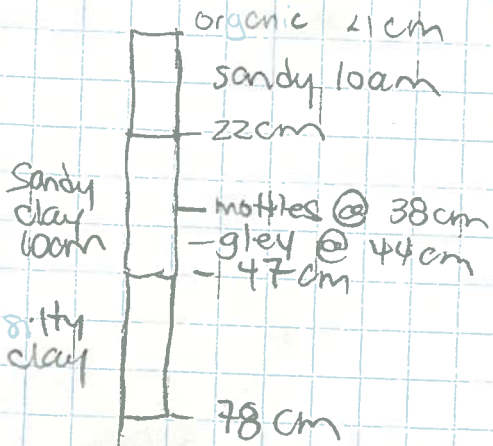
SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
American Elm	A	O	O			Goldenrod spp					A
Grey Dogwood			O			photo bank					R-O
White Ash	A	O	O			red oak					D
Manitoba maple		R-O									D
Willow sp			R								R-O
Common Bittersweet			R								R-O
White Oak	R										A
											R

Page \_\_\_ of \_\_\_  
 Signature: Karina Robson  
 (Field Personnel)

Quality Control: This form is complete  & legible .  
 Signature: [Handwritten Signature]  
 (Project Manager)

SE 82 [redacted]

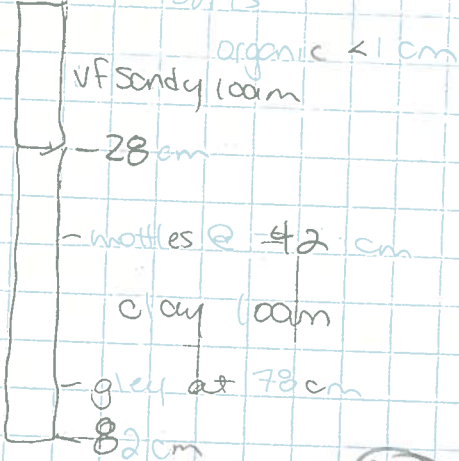
Polygon 2  
Soils



moist (5)

SE 82 [redacted]

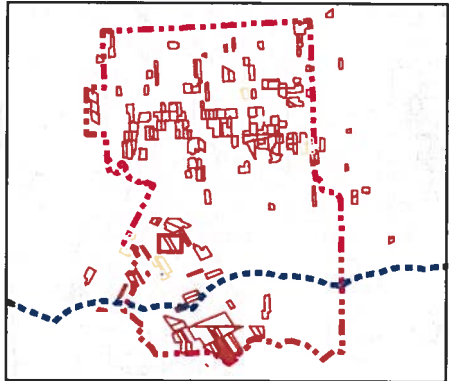
Polygon 4  
Soils



moist (5)



- ### Legend
- Turbines in Signed Lands
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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**

May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

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Figure No.  
55

---

Title  
Property with Turbine  
SE82 [REDACTED]

V:\01009\A\active\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmap\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-18 By: bcomper





Stantec Consulting Ltd.  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950159

Project Name: NRWC SEB2

Date: Aug 27/12

Field Personnel: M. ROSS

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25°</u>	<u>3-4</u>	<u>100</u>	<u>Rain</u>	<u>None</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)

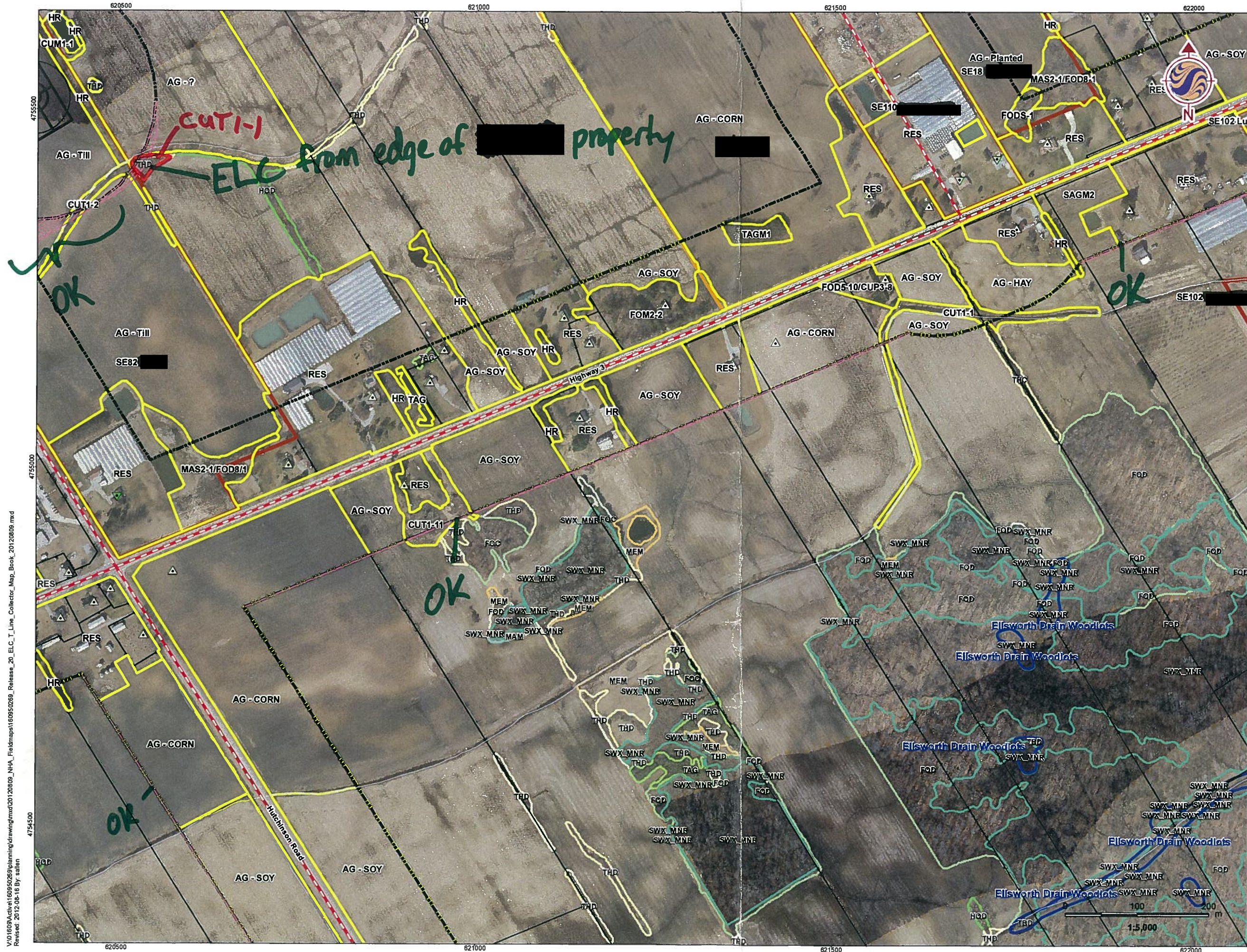
**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

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)**

NOCA  
HOLA

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
- Turbines in Signed Lands
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Proposed Collector Cable
  - Preliminary Study Area
  - Signed Property
  - Potential Signed Property
  - Zone of Investigation Comparison (Areas not previously included in terrestrial and waterbody site investigation)
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
  - Non-Participating Receptors 550m Setback
  - Turbine and Access Road 150m buffer

One spot to ELC is noted



- ### 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**

August, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
ELC Delineation

Figure No.  
69

Title  
**Transmission and Collector Line  
Map: 69**

Associated w SEB2

V:\160950269\planning\drawing\mxd\20120809\_NHA\_Fieldmaps\160950269\_Release\_20\_ELC\_T\_Line\_Collector\_Map\_Book\_20120809.mxd  
 Revised: 2012-08-16 By: salien



SE87; Tile 56; No poly#

<b>ELC</b>	SITE: NIA GARA	POLYGON: 1
COMMUNITY DESCRIPTION & CLASSIFICATION	SURVEYOR(S): JTL	DATE: JUNE 8 12
	START: 6:15	END: 7:00 PM
UTMZ:		UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <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"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <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"/> NATURAL <input checked="" type="checkbox"/> CULTURAL  <b>COVER</b> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED	<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 checked="" 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 checked="" 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	4	PINUS SYLV >> PICGLAU > BETPAPY
2 SUB-CANOPY			
3 UNDERSTOREY	4	3	CORRACE = RHACATH > RUBIOAE
4 GRD. LAYER	5-7	4	FORB = GRAMINOID

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:**

SIZE CLASS	Count
<10	0
10-24	A
25-50	R
>50	R

**STANDING SNAGS:** <10: N, 10-24: R, 25-50: N, >50: N  
**DEADFALL/LOGS:** <10: /, 10-24: /, 25-50: /, >50: /

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

**COMM. AGE:** PIONEER: /, YOUNG: /, MID-AGE: X, 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: Scotch pine coniferous plantation CODE: CJP 3-3

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

COMPLEX: \_\_\_\_\_ CODE: CM1-1

Evidence of Disturbance / Notes: - COMPLEX WITH PATHS OF CUM,  
 - EDGE ASSESSMENT  
 - FOC SEPARATED FROM AG FIELD BY SHRUB

<b>ELC</b>	SITE: SE87
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	
PINUS SYLV	A					TAR OFFI					O
PRUSERO	R					POAPRAT					O-A
POTTRFM	R					ERL PHIL					O
BETPAPY	R-O					PEPPRGRASS					O
W. MULBERRY	R					INS. W. CROSP					O
POP DELT	R-O					DAC GLOM					O-A
PICGLAU	R-O					DAU CARO					O
ACENEQU	R					SOLIDAGU					O-A
						POT CINA					O
						YARROW					R-O
						M. EAR. CHICKEN					R
						OX-EYE					O
						KA VIRK					O-A
						ERL. STRIKOSUS					R
						BLUE EYE GRASS					R
						POT SIMP.					R
						RUM. ACETOSELLA					R
						LAMB QUART.					R
						MED LUPU					O
						ASC SYRI					R
						VIC CRAC					R-O
						TRONSEL					O
						PHARALIN					R
						ROUGH AVENS					R
						RUM CRISP					R
SAN CANA											R
SALIX SP.											R
LAN TANA											O
PRU VIRG											R R
RHACATH	R										O
TOX RADI											R LOW
RUBIOAE											O
S. ARROWWOOD											R-O
COR RACE											O
RHUTUPH											R-O

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

Signature: *[Signature]* (Field Personnel)

Signature: *[Signature]* (Project Manager)

PIC 19 21

MAIN ROAD - N. ARROWWOOD IN H.A.



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 8, 2012

Field Personnel: J Leslie

<b>Weather Conditions:</b>	TEMP (°C): <u>25</u>	WIND: <u>3</u>	CLOUD: <u>40%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>NONE</u>
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ELC Polygon: #56-1 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?

**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: June 8, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C): <u>25</u>	WIND: <u>3</u>	CLOUD: <u>40%</u>	PPT: <u>0</u>	PPT (in last 24 hrs): <u>0</u>
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ELC Polygon: #56-2 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=scar; SI=other sign; TK=track; VO=vocalization

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NIAGARA	POLYGON: 3
	SURVEYOR(S): JAL	DATE: JUNE 8-12
	START: 6:37	END: 6:50 PM
	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 checked="" 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
<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 checked="" 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	4-7	4	SALIX > VIB LENT

HT CODES: 1=>25m 2=10<HT<25m 3=<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 checked="" type="checkbox"/> <10	<input checked="" type="checkbox"/> 10-24	<input checked="" type="checkbox"/> 25-50	<input checked="" type="checkbox"/> >50
STANDING SNAGS:	<input checked="" type="checkbox"/> <10	<input checked="" type="checkbox"/> 10-24	<input checked="" type="checkbox"/> 25-50	<input checked="" type="checkbox"/> >50
DEADFALL LOGS:	<input checked="" type="checkbox"/> <10	<input checked="" type="checkbox"/> 10-24	<input checked="" type="checkbox"/> 25-50	<input checked="" type="checkbox"/> >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: SALIX swamp thicket CODE: SWTZ-2  
INCLUSION CODE:  
COMPLEX CODE:

Evidence of Disturbance / Notes:

- NO H2O ; APPEARS DRY  
- HERBS ID, NOT OBVIOUS FROM EDGE  
- POSSIBLE ABUNDANCE OF P. LONGESTRIE

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: SE871
	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	
SOLIDAGO										0	
P. LONGESTRIE										0	TS 2004 FCRA
POACEAE SPP.										0	
SPI ALBA										R0	
VIB LENT										O	
SALIX										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: 160950269

Project Name: NRVIC

Date: JUNE 8-12

Field Personnel: J. LESLIE

<b>Weather Conditions:</b>	TEMP (°C): <u>25</u>	WIND: <u>3</u>	CLOUD: <u>40%</u>	PPT: <u>✓</u>	PPT (in last 24 hrs): <u>✓</u>
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ELC Polygon: # 3      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=scar; SI=other sign; TK=track; VO=vocalization

<b>ELC</b> <b>COMMUNITY DESCRIPTION &amp; CLASSIFICATION</b>	<b>SITE:</b> NIAGARA	<b>POLYGON:</b> 4	
	<b>SURVEYOR(S):</b> JDL	<b>DATE:</b> JUNE 8-12	<b>UTME:</b>
	<b>START:</b> 7:00 <b>END:</b> 7:09	<b>PM</b>	<b>UTMZ:</b> <b>UTMN:</b>

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> CLIFF <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <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 checked="" 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

**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	4	PHRAGMIST

**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:**

<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

**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:** Phragmites mineral meadow marsh **CODE:** N2M2-11\*

**INCLUSION:** **CODE:**

**COMPLEX:** **CODE:**

Evidence of Disturbance / Notes: -EDGE ASSESSMENT - UNKNOWN IF H2O PRESENT.

<b>ELC</b> <b>COMMUNITY DESCRIPTION &amp; CLASSIFICATION</b>	<b>SITE:</b> SE87
	<b>POLYGON:</b>
	<b>DATE:</b>

**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	
PHRAGMIST					D

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

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

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



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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 8, 2012

Field Personnel: J. Leslie

<b>Weather Conditions:</b>	TEMP (°C): <u>25</u>	WIND: <u>3</u>	CLOUD: <u>40%</u>	PPT: <u>0</u>	PPT (in last 24 hrs): <u>0</u>
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ELC Polygon: #56-4 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=scar; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWL

Date: June 8, 2012

Field Personnel: J. Leslie

Weather Conditions:	TEMP (°C): <u>25</u>	WIND: <u>3</u>	CLOUD: <u>40%</u>	PPT: <u>0</u>	PPT (in last 24 hrs): <u>0</u>
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ELC Polygon: #66-5 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=scat; SI=other sign; TK=track; VO=vocalization

SE87; Tile 56; Poly 6

**ELC** SITE: NACALA POLYGON: 6  
**COMMUNITY DESCRIPTION & CLASSIFICATION** SURVEYOR(S): JTR DATE: JUNE 11-12 UTME:  
 START: 11:07 END: 1:16 AM 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 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 checked="" type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
		<input 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 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 checked="" type="checkbox"/> MEADOW
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<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 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	1	FRAPEN > POPDET
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	4-7	4	PHARUS >> CORSTOL

**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:**

R	<10	R	10-24	R	25-50	N	>50
---	-----	---	-------	---	-------	---	-----

**STANDING SNAGS:**

N	<10	N	10-24	N	25-50	N	>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: keel canary grass in neutral mead MAM22  
 INCLUSION CODE:  
 COMPLEX CODE:

**Evidence of Disturbance / Notes:** - EDGE ASSESSMENT  
 - SOIL APPEARS SATURATED BUT W/ A  
 SURFACE ACCUMULATION.

**ELC** SITE: SE 7 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	
POPDET	R					PHARUS					D
CK. WILLOW	R					IMPATIENS					R
FRAPEN	R					URT DIOE					R
SALIX											R
CORSTOL											R

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

Project Name: NRWC

Date: JUNE 11-12

Field Personnel: J. Leslie

<b>Weather Conditions:</b>	TEMP (°C): <u>28</u>	WIND: <u>2-3</u>	CLOUD: <u>100%</u>	PPT: <u>☒</u>	PPT (in last 24 hrs): <u>RAV</u>
----------------------------	-------------------------	---------------------	-----------------------	------------------	-------------------------------------

ELC Polygon: #56-6 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)

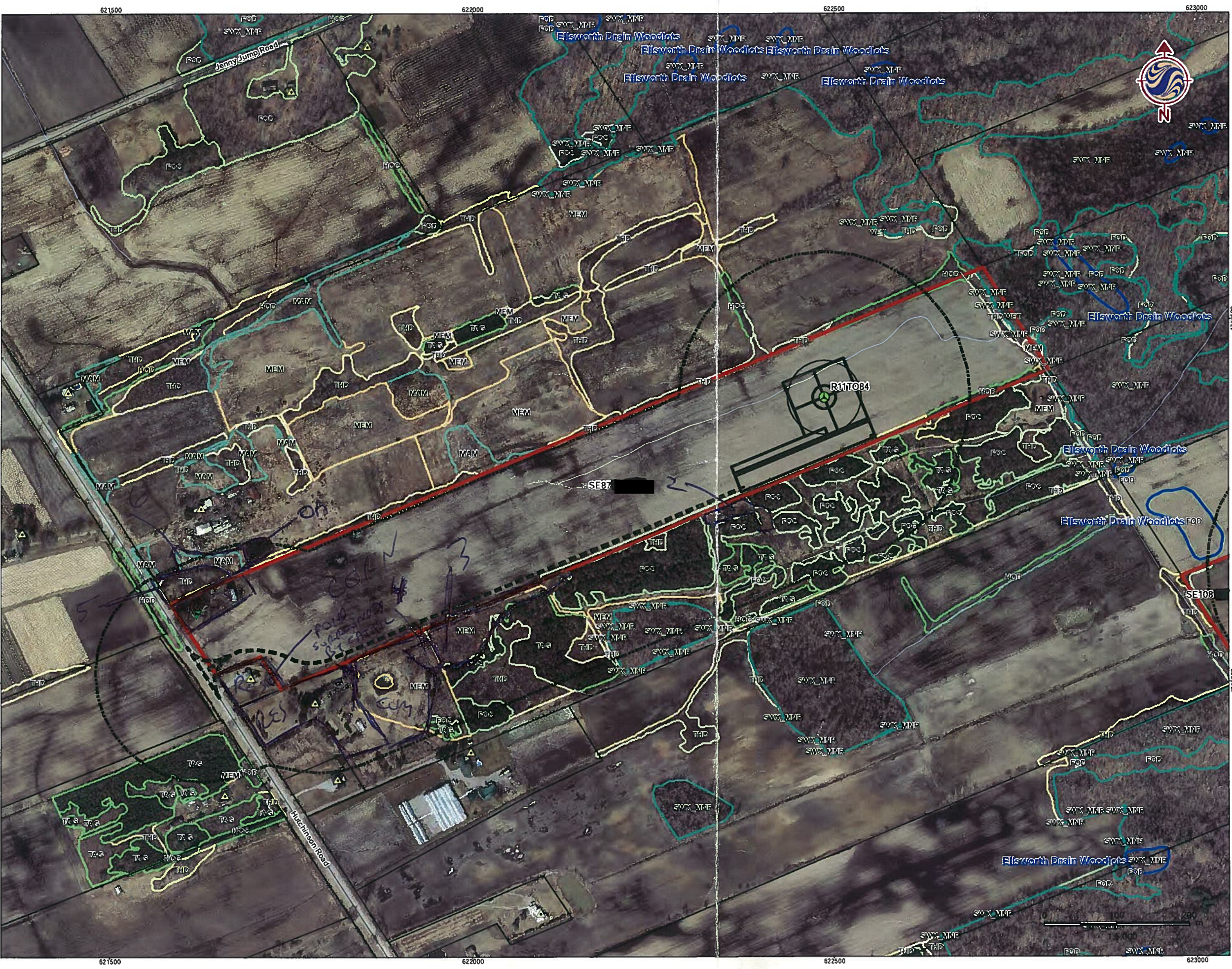
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED							
UTM	Feature No. & Type	Feature Size (Diameter)	Water Depth	Photo No.	Sub/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?	

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

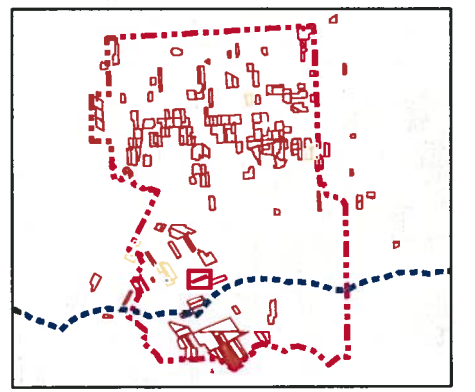
(1) Bullfrogs - VO, LIKELY FROM ADJACENT POND.

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

V:\01609\Active\160950269\Planning\drawing\mxd\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
Revised: 2012-05-23 By: bccwyler



- ### Legend
- Turbines in Signed Lands**
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands**
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
  - Receptors**
    - Non-Participating Receptor
    - Participating Receptor
  - Study Area**
    - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
  - Boundaries**
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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**

May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
56

Title  
Property with Turbine  
SE87 [REDACTED]

)

SE88; Tite 40, 104y 1

<b>ELC</b> <b>COMMUNITY DESCRIPTION &amp; CLASSIFICATION</b>	<b>SITE:</b> SE88	<b>POLYGON:</b> 40-1
	<b>SURVEYOR(S):</b> NC	<b>DATE:</b> 24/05/2012
	<b>START:</b> 5:30 <b>END:</b> 6:00	<b>UTME:</b>
	<b>UTMZ:</b>	<b>UTMN:</b>

**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 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"/> 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"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND		<input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN	<input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF		<input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE
<b>SITE</b>	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND	<b>COVER</b>		<input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB		<input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> TREE		
<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	4	FRAPENN >> ACERUBR > ULMAMER
2 SUB-CANOPY	3	3	FRAPENN > ULMAMER > LINBENZ
3 UNDERSTOREY	4	3	LINBENZ
4 GRD. LAYER	5-7	4	Sedges > Senstern > IMPCAPE

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%

<b>STAND COMPOSITION:</b>		<b>BA:</b>	
<b>SIZE CLASS ANALYSIS:</b>	A <10	A 10-24	R >50
<b>STANDING SNAGS:</b>	0 <10	0 10-24	N >50
<b>DEADFALL LOGS:</b>	A <10	0 10-24	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  
*Greenish mineral deciduous swamp*

INCLUSION: CODE:

COMPLEX: CODE:

Evidence of Disturbance / Notes: *shallow pools throughout w tadpoles*

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

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	
ULMAMER					
FRAPENN	A				
BETPAPY	R				
ACERUBR					
CAR from 1				O	✓
CAR of rosea				O A	✓
Glyceria				O	
PALARISE				A	
PRISON Ivy				O	
CHEGLAB				O	
collected tree-like				R-O	
CARGRAC				O	
RUB PUBE				O	
SENS FERN				A	
LYSTHYR				O	
BOECYL				R	
ATH FERE				O	
SOLONOM'S seed				R	P
ARITRTR				O	
ENCNIGTSHADE				A	
EUO OBOW				O	
SOLRUGO				O	
LYCAMER				R	
SOLDULC				O	
CAR C.F STIP				O	✓
SMITHSP				R	
Celastrus cf.				R	✓
ALANUS INCANAH		R	R		
LINBENZ		O A			

Page \_\_\_ of \_\_\_  
Signature: *Nishi Charles*  
(Field Personnel)

Quality Control: This form is complete  & legible   
Signature: *Nataheara*  
(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: \_\_\_\_\_

Field Personnel: N. Charbon, R. Walpole

Weather Conditions:	TEMP (°C): <u>32</u>	WIND: <u>0-1</u>	CLOUD: <u>10</u>	PPT: <u>—</u>	PPT (in last 24 hrs): <u>✓</u>
---------------------	-------------------------	---------------------	---------------------	------------------	-----------------------------------

ELC Polygon: #40-1 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 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

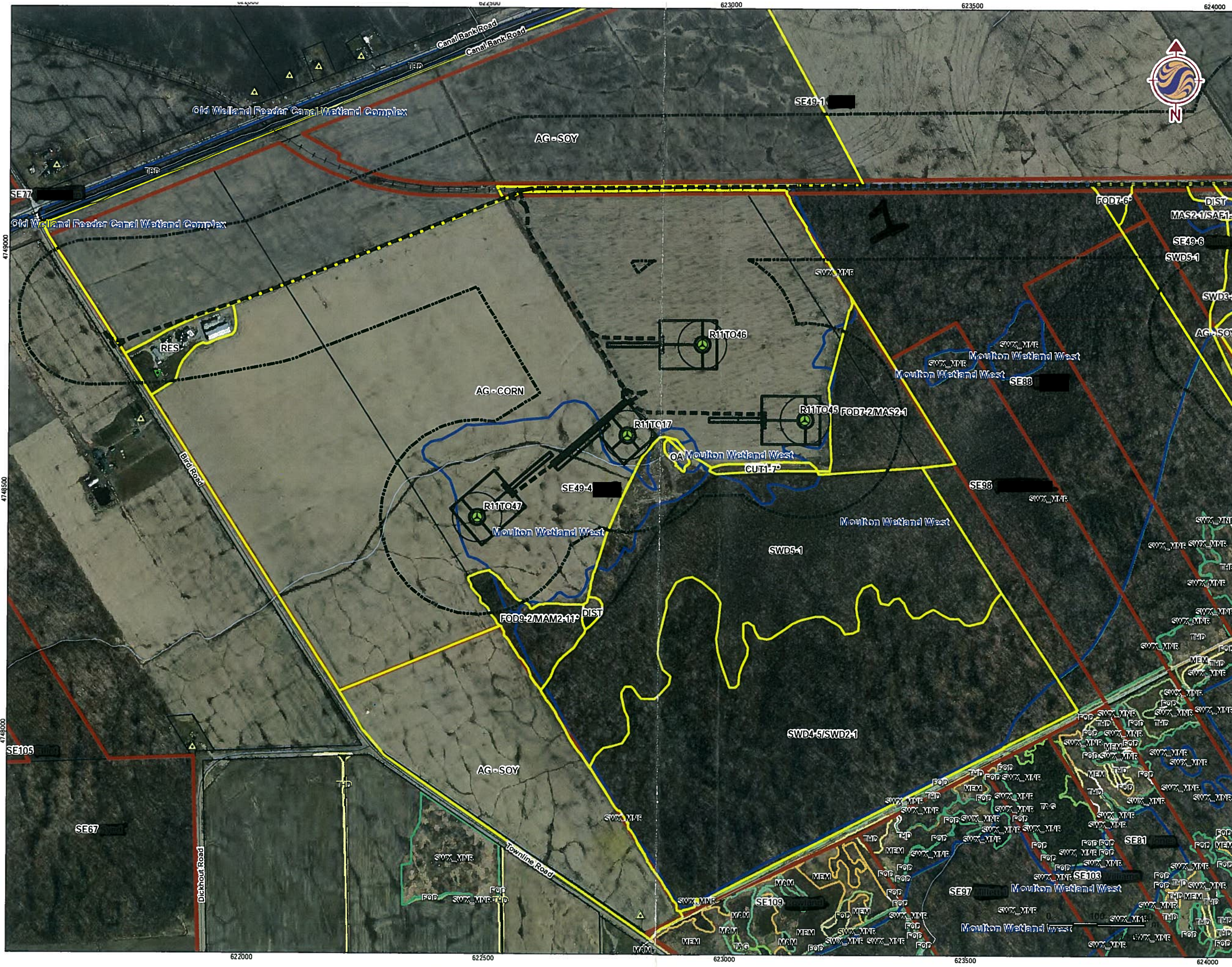
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

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>throughout</u>	<u>pool 5</u>		<u>600 cm</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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

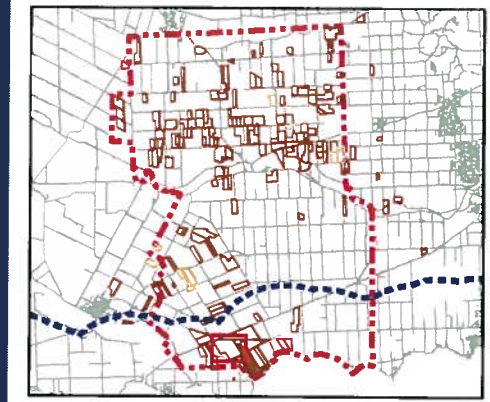
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

V:\016098\GIS\160980269\planning\drawing\mxd\20120423\_NE\_Fieldmaps\160980269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Released: 2012-05-23 By: bcooper



### Legend

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - ▲ Potential Turbine Locations
- ▲ Turbines in Unsigned Lands
  - ▲ Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - ▲ Non-Participating Receptor
  - ▲ Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



- ### 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.



May, 2012  
 160980269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

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Figure No.  
 40

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Title  
 Property with Turbine  
 SE49-4







**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



Project Number: 160950269

Project Name: NRWC

Date: May 24, 2012

Field Personnel: C. Payette, L. Robson

<b>Weather Conditions:</b>	TEMP (°C): <u>26</u>	WIND: <u>2-3</u>	CLOUD: <u>0</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
----------------------------	-------------------------	---------------------	--------------------	---------------------	--------------------------------------

ELC Polygon: # 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?

**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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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: May 24, 2012

Field Personnel: C. Payne He, L. Robson

Weather Conditions:	TEMP (°C): <u>28</u>	WIND: <u>2</u>	CLOUD: <u>0</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
---------------------	-------------------------	-------------------	--------------------	---------------------	--------------------------------------

ELC Polygon: # 2 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=scar; SI=other sign; TK=track; VO=vocalization

SE89, 11E ST, 1015 S

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	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 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 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 type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
	<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
<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 type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> TREE		<input type="checkbox"/> THICKET
<input type="checkbox"/> BEDROCK		<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	2	3	Manitoba maple > Ash (w/nt) > Scots pine > white elm
2 SUB-CANOPY			
3 UNDERSTOREY			Staghorn Sumac > Black raspberry > Virginia creeper
4 GRD. LAYER			Jewelweed > poison ivy > wood nettle > garlic mustard

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 | | R | 25-50 | | N | >50

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

**DEADFALL/LOGS:** | 0 | <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: CW Manitoba Maple cultural woodland	CODE: CW1-3
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes: photo #24

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	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				COLL.
	1	2	3	4			1	2	3	4	
Ash sp	O					Jewelweed					A
Manitoba maple	A					head canopy grass					O
Scots pine	O					garlic mustard					O
trembling aspen	h					wood nettle					O
Northwest Spice	R					bitternightshade					R-O
white elm	O					ostich fern					O
Swamp maple			R			Creeping Charlie					O
maple-leaf viburnum			R								
Black raspberry			O								
Staghorn Sumac			O-A								
Virginia creeper			O								
raspberry			O								

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

Signature:

*[Signature]*  
(Field Personnel)

Quality Control: This form is complete  & legible .

Signature:

*[Signature]*  
(Project Manager)



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 Canada N1G 4P5  
 Tel: (519) 836-6050  
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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: May 24, 2012

Field Personnel: C. Paylte, L. Rolosch

<b>Weather Conditions:</b>	TEMP (°C): <u>28</u>	WIND: <u>2</u>	CLOUD: <u>0</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
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ELC Polygon: # 3      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=scat; SI=other sign; TK=track; VO=vocalization

SE89, THE OT, 10147

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	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"/> 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
<b>SITE</b>		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> OPEN WATER	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREE		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> 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			red maple
2 SUB-CANOPY			
3 UNDERSTOREY			white elm, green ash
4 GRD. LAYER			Red canopy grass, Sensitive Fern, Standwood, Horsetail 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: CODE: *Red Canopy Meadow marsh MAM2-2*

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes: *AUTO Photo 27*

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>NRWC</i>		POLYGON: <i>SE89</i>	
	SURVEYOR(S): <i>C. Payette, L. Robson</i>		DATE: <i>May 24, 2022</i>	<i>4</i>

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>red maple</i>	<i>R</i>					<i>Red canopy grass</i>					<i>O</i>
<i>white elm</i>			<i>R</i>			<i>Sensitive Fern</i>					<i>A</i>
<i>green ash</i>			<i>R</i>			<i>Standwood</i>					<i>A</i>
						<i>goldenrod sp</i>					<i>O</i>
						<i>horsetail</i>					<i>O</i>
						<i>bitter nightshade</i>					<i>R-O</i>
						<i>Sedge sp</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: May 24, 2012

Field Personnel: C. Payne, L. Robson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>28</u>	<u>2</u>	<u>0</u>	<u>None</u>	<u>None</u>

ELC Polygon: # 4 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=scat; SI=other sign; TK=track; VO=vocalization



SE 87, T1E 5T, R14S

<b>ELC</b> <b>COMMUNITY DESCRIPTION &amp; CLASSIFICATION</b>	SITE:	POLYGON:			
	SURVEYOR(S):	DATE:	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 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 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
<b>SITE</b>		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREE		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> 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	2	4 Sugar maple > white oak > Scots pine
2	SUB-CANOPY		
3	UNDERSTOREY		Poisonivy > raspberry > Virginia creeper > Rubus sp.
4	GRD. LAYER		garlic mustard > wood huckle > jewelweed.

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 checked="" type="checkbox"/> <10	<input type="checkbox"/> 10-24	<input type="checkbox"/> 25-50	<input type="checkbox"/> >50
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STANDING SNAGS:

<input type="checkbox"/> <10	<input checked="" type="checkbox"/> 10-24	<input type="checkbox"/> 25-50	<input 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 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: V. Fine Sand DEPTH TO MOTTLES/GLEY g=27-71cm G=

MOISTURE: DEPTH OF ORGANICS: 2cm (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: >120cm (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: F-M Sugar maple-lardland oak Dec.	CODE: FODG-1
INCLUSION:	CODE:
COMPLEX:	CODE:

Evidence of Disturbance / Notes: ph. 25-26 appears to be in rows. large piles of rusty old metal / fencing etc near barn.

<b>ELC</b> <b>COMMUNITY DESCRIPTION &amp; CLASSIFICATION</b>	SITE:	POLYGON: SE89 #5			
	SURVEYOR(S):	DATE:	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				COLL.
	1	2	3	4			1	2	3	4	
Sugar maple	D					wood huckle				A	
white oak	O					garlic mustard				D	
Blackcherry	R					Jewelweed				A	
Scots pine	R-O					Pelandine				R	
Red maple	R					Tack in the plant				R	
						red hawberry				R-O	
Common buckthorn											
Virginia creeper											
Rubus sp.											
Raspberry sp.											
Poisonivy											

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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: May 24, 2012

Field Personnel: C. Payette, L. Robson

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>28</u>	<u>2</u>	<u>0</u>	<u>None</u>	<u>None</u>

ELC Polygon: # 5 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>17+0618547 4754100</u>	<u>1-vernal pool</u>	<u>3m x 8m</u>	<u>5-30cm</u>	<u>28</u>	<u>no</u>	<u>yes - logs, twigs, stumps</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 89, 7.1E ST; Poly 6 Hedgerow w Phragmites incl si

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	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 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 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
<b>SITE</b>		<input type="checkbox"/> CLIFF		<input checked="" type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> TALUS	<b>COVER</b>	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> ALVAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> ROCKLAND	<input checked="" type="checkbox"/> TREED		<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	3	silver maple > manitoba maple > whitegreen ash > white elm
2 SUB-CANOPY	3	1	staghorn sumac
3 UNDERSTOREY	4	2	raspberry > poison ivy > virginia creeper
4 GRD. LAYER	5-7	4	goldenrod > garlic mustard > creeping charlie

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: HR CODE:

INCLUSION Phrag. MAM CODE: MAM-5\*

COMPLEX CODE:

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>NRWC</u>		POLYGON: <u>SE891</u>		#6
	DATE: <u>May 24, 2012</u>		SURVEYOR(S): <u>C. Payne, H. L. Fabron</u>		

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>white elm</u>	<u>0</u>					<u>Phragmites</u>				<u>D</u>	
<u>Silver maple</u>	<u>A</u>					<u>goldenrod</u>				<u>A</u>	
<u>Manitoba maple</u>	<u>A</u>					<u>Dandelion</u>				<u>0</u>	
<u>whitegreen ash</u>	<u>G-A</u>					<u>queenanne's leaf</u>				<u>0</u>	
<u>Black cherry</u>	<u>R-O</u>					<u>garlic mustard</u>				<u>0</u>	
<u>Apple</u>	<u>R</u>					<u>creeping charlie</u>				<u>0</u>	
<u>Crack willow</u>	<u>R-O</u>					<u>thistle sp</u>				<u>R-O</u>	
<u>Staghorn Sumac</u>		<u>A</u>				<u>Red clover grass</u>				<u>R-O</u>	
						<u>unknown collected</u>				<u>0</u>	
						<u>w/ty of the valley</u>				<u>0</u>	
						<u>periwinkle</u>				<u>0</u>	
						<u>manitoba</u>				<u>0</u>	
						<u>bloodroot</u>				<u>R-O</u>	
<u>riverbank grape</u>			<u>R-O</u>								
<u>Poison ivy</u>			<u>A-A</u>								
<u>Ribes</u>			<u>0</u>								
<u>Raspbery</u>			<u>A</u>								
<u>virginia creeper</u>			<u>A-A</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: May 24, 2012

Field Personnel: C. Payette, L. Robson

<b>Weather Conditions:</b>	TEMP (°C): <u>28</u>	WIND: <u>2</u>	CLOUD: <u>0</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
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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?

**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

SE89; RTile 57; Poly 7

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	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"/> RIVERINE <input checked="" type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE	<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"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF			
<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"/> 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"/> 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	1-2	1	manitoba maple > willow sp
2 SUB-CANOPY			
3 UNDERSTOREY	4	2	Grey dogwood > manitoba maple > trembling aspen
4 GRD. LAYER	5-6	4	reed canary grass >> garlic mustard > grass sp > riverbank grape

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: Cultural meadow old field CODE: CUM1-1(b)

INCLUSION: Reed Canary meadow CODE: MAM2-2

COMPLEX: meadow CODE:

Evidence of Disturbance / Notes:

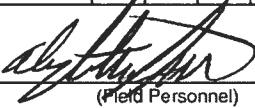
ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NRWC		POLYGON: SE89 7	
	DATE: May 24, 2012		SURVEYOR(S): C. Payne, L. Robson	

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

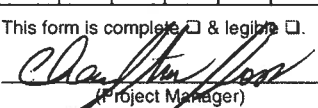
SPECIES CODE	LAYER				COLL.
	1	2	3	4	
trembling aspen			R		
manitoba maple	0		R		
Grey dogwood			0		
Willow sp	R				
riverbank grape					0
Virginia creeper					0

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
reed canary grass				A-D	
garlic mustard				A	
grass sp				A	
mullein				0	
goldenrod				0	
Thrift-headed				0	
common milkweed				0	
Thistle				R	
dandelion				0	
bird's nest				0	

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

Signature:  (Field Personnel)

Quality Control: This form is complete  & legible .

Signature:  (Project Manager)



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 1 – 70 Southgate Drive  
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**Stantec**

## Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: WRWC

Date: May 24, 2012

Field Personnel: C Payette, C Robson

<b>Weather Conditions:</b>	TEMP (°C): <u>28</u>	WIND: <u>2</u>	CLOUD: <u>0</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
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ELC Polygon: # 7 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=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: May 24, 2012

Field Personnel: E Payette, L Robson

<b>Weather Conditions:</b>	TEMP (°C): <u>28</u>	WIND: <u>2</u>	CLOUD: <u>0</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: # 9 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=scar; SI=other sign; TK=track; VO=vocalization







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 Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form



Project Number: 160950269

Project Name: NRWC

Date: May 24, 2012

Field Personnel: C Payette, L Robson

<b>Weather Conditions:</b>	TEMP (°C): <u>28</u>	WIND: <u>2</u>	CLOUD: <u>0</u>	PPT: <u>none</u>	PPT (in last 24 hrs): <u>none</u>
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ELC Polygon: # 9    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=scar; SI=other sign; TK=track; VO=vocalization

SE 84, 11R 2T, T814 10

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>SE 84</u>	POLYGON: <u>10</u>	
	SURVEYOR(S): <u>L. Robson, C. Payne</u>	DATE: <u>May 24, 2012</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 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	2	green ash & trembling aspen
2 SUB-CANOPY	3	1	manitoba maple
3 UNDERSTOREY	4	2	trembling aspen & Steyerhain Spruce
4 GRD. LAYER	5-7	4	reed canopy grass, cattails, sedge sp. - 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<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 

A	<10	O	10-24	N	25-50	N	>50
---	-----	---	-------	---	-------	---	-----

STANDING SNAGS: 

N	<10	N	10-24	N	25-50	N	>50
---	-----	---	-------	---	-------	---	-----

DEADFALL/LOGS: 

O	<10	R	10-24	A	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: reed canopy weedy marsh MAM2-2

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes: photost: 31

<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	
trembling aspen	R	O	O	O		cattails					O-A
green ash	A					reed canopy grass					D
manitoba maple		O		O		goldenrod					A
Steyerhain Spruce			R			Sedge sp					A
Riverbank Grape				O							

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



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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: May 24, 2012

Field Personnel: C. Payette, L. Robson

Weather Conditions:	TEMP (°C): <u>28</u>	WIND: <u>2</u>	CLOUD: <u>0</u>	PPT: <u>None</u>	PPT (in last 24 hrs): <u>None</u>
---------------------	-------------------------	-------------------	--------------------	---------------------	--------------------------------------

ELC Polygon: # 10 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

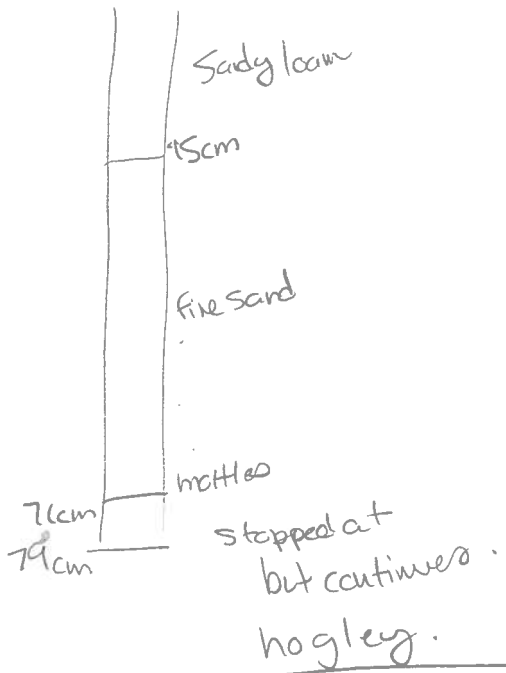
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

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?

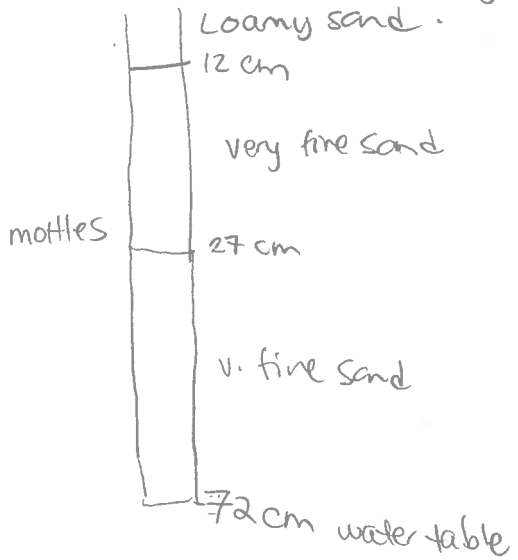
**SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)**

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

Soils Station 5-1 SE89



Soil Station 5-2 SE89

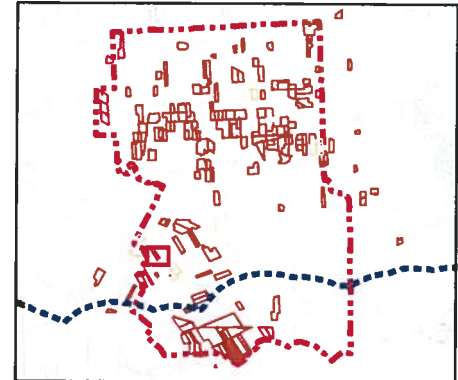


V:\01609\Active\16095026\planning\drawing\mxd\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-18 By: bcawpr



### Legend

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
- 51 m Turbine Setback
- ▲ Non-Participating Receptor
- ▼ Participating Receptor
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



- ### 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.



May 2012  
 160950269

Client/Project  
 Niagara Region Wind Corporation  
 Amphibian Field Maps

Figure No.  
 57

Title  
 Property with Turbine  
 SE89 [redacted]







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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: Aug 28, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>22</u>	<u>3</u>	<u>100%</u>	<u>heavy rain</u>	<u>rain</u>

ELC Polygon: # 70-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; HQ=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization



SE90, Tile 70, Poly B

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	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"/> 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"/> 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	3-4	4	Butterbush >> NL meadow sweet
4 GRD. LAYER	5-7	4	label bank sedge > Smartweed > (lg weed)

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:

<b>SIZE CLASS ANALYSIS:</b>	A <10	R 10-24	M 25-50	M >50
<b>STANDING SNAGS:</b>	14 <10	R 10-24	N 25-50	M >50
<b>DEADFALL LOGS:</b>	14 <10	R 10-24	N 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:**  
TEXTURE: DEPTH TO MOTTLES/GLEY g= G=  
MOISTURE: DEPTH OF ORGANICS: (cm)  
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)


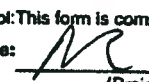
**COMMUNITY CLASSIFICATION:**  
COMMUNITY CLASS: CODE:  
COMMUNITY SERIES: CODE:  
ECOSITE: CODE:  
VEGETATION TYPE: CODE: **SWT-2-4**  
Butterbush Mineral Thicket Swamp  
INCLUSION CODE:  
COMPLEX CODE:

Evidence of Disturbance / Notes:

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: MRINC		POLYGON: B(70)	
	DATE: August 28, 2012		SURVEYOR(S): C. Payne	

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		
						label bank sedge					A	
						Butterbush					O	
						wooly sedge					O	
						Pr. meadow sweet					R	
						Smartweed sp					O	✓

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

Project Name: NRWC

Date: August 28, 2012

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>22</u>	<u>3</u>	<u>100%</u>	<u>heavy rain</u>	<u>rain</u>

ELC Polygon: #70-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; FH=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

SE90; Tile 70; Poly C

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <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"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <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"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL  <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<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 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 checked="" 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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	Bur oak > Red oak
2 SUB-CANOPY	4	4	
3 UNDERSTOREY	4	4	NL meadow Sweet? gray dogwood Hackberry
4 GRD. LAYER	3-4	4	Red canopy above

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:	<table border="1"><tr><td>A</td><td>&lt;10</td><td>L</td><td>10-24</td><td>M</td><td>25-50</td><td>M</td><td>&gt;50</td></tr></table>	A	<10	L	10-24	M	25-50	M	>50
A	<10	L	10-24	M	25-50	M	>50		
STANDING SNAGS:	<table border="1"><tr><td>A</td><td>&lt;10</td><td>L</td><td>10-24</td><td>M</td><td>25-50</td><td>M</td><td>&gt;50</td></tr></table>	A	<10	L	10-24	M	25-50	M	>50
A	<10	L	10-24	M	25-50	M	>50		
DEADFALL/LOGS:	<table border="1"><tr><td>0</td><td>&lt;10</td><td>0</td><td>10-24</td><td>N</td><td>25-50</td><td>M</td><td>&gt;50</td></tr></table>	0	<10	0	10-24	N	25-50	M	>50
0	<10	0	10-24	N	25-50	M	>50		
ABUNDANCE CODES:	N=NONE R=RARE O=OCCASIONAL A=ABUNDANT								
COMM. AGE:	PIONEER YOUNG <input checked="" type="checkbox"/> 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:
meadow sweet minimal thicket swamp.	SWT 2-6
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NKWC		POLYGON: C	
	DATE: Aug 28, 2012		SURVEYOR(S): C. Payne	

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 oak		R				Red canopy					A
Bur oak		R-O									

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) 838-6050  
Fax: (519) 838-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950209

Project Name: NRWC

Date: Aug 28, 2017

Field Personnel: C. Payne/H

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>22</u>	<u>3</u>	<u>100%</u>	<u>heavy rain</u>	<u>rain</u>

ELC Polygon: # 70C 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	

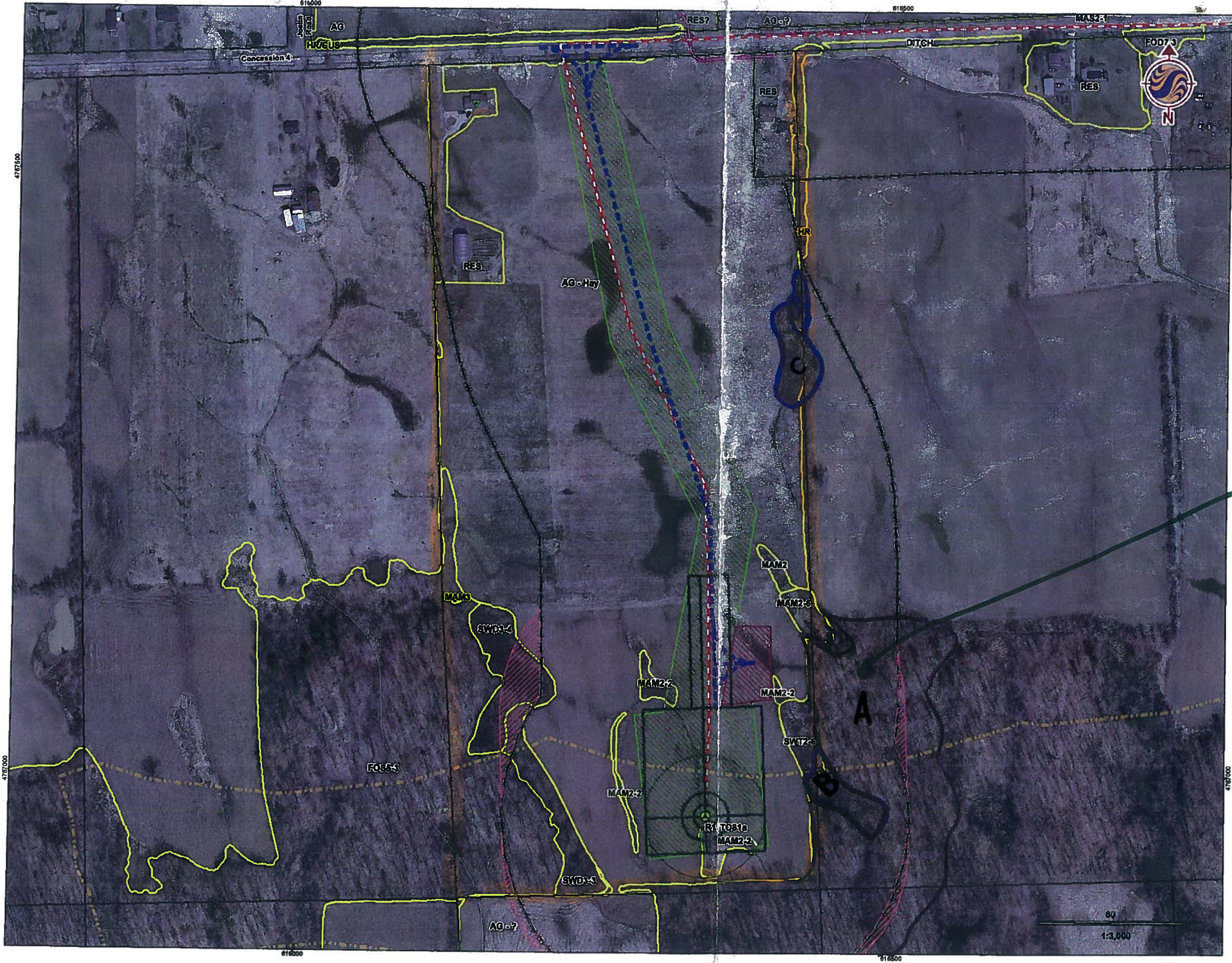
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (\*if yes, describe in table below)

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

V:\0100\Active\06050209\planning\drawing\mxd\0120000\_Archaeology\_Field\_Map\p16050209\_Release\_20\_Waterbody\_and\_Arch\_Field\_Map\_Book\_20120817.mxd  
 Revised: 2012-08-17 By: saillen



- ### Legend
- Turbines in Signed Lands**
    - Standard Turbine (105 dBA)
    - 51m Turbine Setback
    - Proposed Collector Cable
    - Proposed Fibre Optic Cable
    - Zone of Influence (150m)
    - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
    - Zone of Investigation Comparison (Areas not previously included in terrestrial and waterbody site investigation)
    - ELC Boundary
    - Property Boundary
  - Stage 2AA Archaeology**
    - Completed
    - Incomplete
    - Ready
  - Archaeology**
    - Stage 3 AA Required
    - No Stage 3 AA Required
    - Waterbody
    - Possible Undertified Waterbody

*ELC woodland from edge*

*property access boundary*

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



**Stantec** August, 2012  
16050209

Client/Project  
Niagara Region Wind Corporation  
Waterbody Map

Figure No.  
70

Title  
**Property with Turbine SE90**

SE91; Tile 59; Poly 11

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>NIAGARA</u>	POLYGON: <u>11</u>	
	SURVEYOR(S): <u>SN</u>	DATE: <u>JUNE 4-11</u>	UTME:
	START: <u>4:07</u>	END: <u>4:16</u>	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"/> BOTTOMLAND <input type="checkbox"/> TERRACE	<input checked="" type="checkbox"/> NATURAL <input 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 checked="" 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
WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input checked="" 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			
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	<b>COVER</b> <input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE		
<b>SITE</b>					
OPEN WATER SHALLOW WATER SURFICIAL DEP. BEDROCK					

**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	<u>4-7</u>	<u>4</u>	<u>PLANKTON &gt;&gt; TENSEL &gt; VERVAIR</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%

**TAND COMPOSITION:**

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

**OIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>POSITE:</b>	CODE:
<b>VEGETATION TYPE:</b> <u>REED CANALY CROSS MINERAL MEADOW</u>	CODE: <u>MAM2-2</u>
<b>INCLUSION:</b> <u>MARSH</u>	CODE:
<b>COMPLEX:</b>	CODE:

**Evidence of Disturbance / Notes:**

- A VERY NARROW COMMUNITY / DRAIN  
 - PIC 78-79 - SURFACE H2O ONLY

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>SEAL</u>	POLYGON:	
		DATE:	UTME:
		UTMZ:	UTMN:
		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>PHALARIS</u>					<u>D</u>
						<u>VERVAIR</u>					<u>R</u>
						<u>TENSEL</u>					<u>R</u>
						<u>SWAMP MILKWEED</u>					<u>R</u>

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

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

*[Signature]*

(Field Personnel)

Quality Control: This form is complete  & legible .

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

*[Signature]*

(Project Manager)

- NO ACCESS



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Fax: (519) 836-2493

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 60950269

Project Name: NIAGARA SE91

Date: JUNE 4-12

Field Personnel: JL

Weather Conditions:	TEMP (°C): <u>SEE POLY #7</u>	WIND: <u>#7</u>	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: # 11 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)**

NO ACCESS

SE91; Tile 59; Polygon 1

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: NIAGARA		POLYGON: 59-1		
	SURVEYOR(S): <u>SM</u>	DATE: <u>JUNE 04-12</u>	UTME:		
	START: <u>10:55</u>	END: <u>11:04</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	<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 type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<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	1-2	4	QUE RUBR > ACESASA > JUGNICK
2 SUB-CANOPY	/	/	
3 UNDERSTOREY	/	/	N/A
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:	<u>0</u> <10	<u>A</u> 10-24	<u>0</u> 25-50	<u>K</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>	<u>YOUNG</u>	<u>MID-AGE</u>	<input checked="" type="checkbox"/> MATURE	<u>OLD GROWTH</u>
------------	----------------	--------------	----------------	--	-------------------

**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-F SUGAL MAPLE - OAK DECID.</u>	CODE: <u>FODS-3</u>
INCLUSION <u>FOREST</u>	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

- ROADSIDE ASSESSMENT
- TOPOGRAPHY LIMITS VIEW
- COULD NOT SEE ANY SNAGS FROM ROADSIDE

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>SE-91</u>	
	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>PI STYD</u>	<u>R</u>					<u>N/A</u>					
<u>QUE RUBR</u>	<u>O-A</u>										
<u>ACESASA</u>	<u>O</u>										
<u>PRUSEP</u>	<u>R</u>										
<u>TIL AMOR</u>	<u>R-O</u>										
<u>JUGNICK</u>	<u>R-O</u>										

Page    of     
 Signature: [Signature] (Field Personnel)  
 Signature: [Signature] (Project Manager)

Quality Control: This form is complete  & legible .





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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 60950269

Project Name: NINGARA SE91

Date: June 04-12

Field Personnel: ST

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>16°C</u>	<u>2</u>	<u>100%</u>	<u>Ø</u>	<u>RAIN</u>

ELC Polygon: # 591 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

SE91; Tile 59; Polygon 2

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>NIAGARA</u>	POLYGON: <u>2</u>	
	SURVEYOR(S): <u>SR</u>	DATE: <u>JUNE 04-12</u>	UTME:
	START: <u>11:08</u> END: <u>11:24</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 checked="" type="checkbox"/> MARSH
		<input checked="" 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
<b>SITE</b>		<input type="checkbox"/> CREVICE / CAVE	<b>COVER</b>	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
<input type="checkbox"/> OPEN WATER	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> ALVAR	<input checked="" type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input checked="" type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> 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			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	<u>4-2</u>	<u>4</u>	<u>PHRAUS 77 PHAARUN 74 PHA SPP.</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:	<input checked="" type="checkbox"/> <10	<input checked="" type="checkbox"/> 10-24	<input checked="" type="checkbox"/> 25-50	<input checked="" type="checkbox"/> >50
STANDING SNAGS:	<input checked="" type="checkbox"/> <10	<input checked="" type="checkbox"/> 10-24	<input checked="" type="checkbox"/> 25-50	<input checked="" type="checkbox"/> >50
DEADFALL/LOGS:	<input checked="" type="checkbox"/> <10	<input checked="" type="checkbox"/> 10-24	<input checked="" 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 type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE
	<input type="checkbox"/> 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>COMMON REED MINERAL MEADOW</u>	<u>MAM2-11*</u>
INCLUSION	<u>MARSH</u> CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:

pic #3 - SURFACE H<sub>2</sub>O PRESENT  
 ALTHOUGH LIMITED TO PERIMETER; DEPTH < 15cm

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>SE91-</u>	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>PHRAUS</u>					<u>D</u>
						<u>TYP ANGU</u>					<u>R</u>
						<u>URT DIOC</u>					<u>R - EUR</u>
						<u>PHAARUN</u>					<u>O</u>
						<u>TYPGLAU</u>					<u>R</u>
						<u>BIDENS SP.</u>					<u>R</u>

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: 60950269

Project Name: NIAGARA SE91

Date: JUNE 4-12

Field Personnel: JR

<b>Weather Conditions:</b>	TEMP (°C): <u>SEA POLYMER 2</u>	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: # 2 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)**

RWB - VO/OB

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: 60950269

Project Name: NIAGARA SE91

Date: JUNE 4-12

Field Personnel: JM

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>FEEL POLYMER 2</u>				

ELC Polygon: # 3 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=scat; SI=other sign; TK=track; VO=vocalization





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 62950269

Project Name: Niagara SE91

Date: JUNE 4-12

Field Personnel: JL

<b>Weather Conditions:</b>	TEMP (°C): <u>SEE POLYGON 2</u>	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: # 4 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=scat; SI=other sign; TK=track; VO=vocalization







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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 60950269

Project Name: NIAGARA SE91

Date: JUNE 04-12

Field Personnel: JTL

<b>Weather Conditions:</b>	TEMP (°C): <u>5.5</u>	WIND: <u>POULY 2</u>	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: # 5 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=scat; SI=other sign; TK=track; VO=vocalization





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## Woodland & Wildlife Habitat Assessment Form



Project Number: 60950269

Project Name: NIAGARA SE91

Date: JUNE 4-12

Field Personnel: JD

<b>Weather Conditions:</b>	TEMP (°C): <u>SES 20.4</u>	WIND: <u>1</u>	CLOUD:	PPT:	PPT (in last 24 hrs):
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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?	

**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: 60650269

Project Name: NIAGARA SE91

Date: JUNE 4-12

Field Personnel: JTL

Weather Conditions:	TEMP (°C): <u>25</u>	WIND: <u>POVY 2</u>	CLOUD:	PPT:	PPT (in last 24 hrs):
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ELC Polygon: # 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?

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

RTHA - OB

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: 60950269

Project Name: NIAGARA SE91

Date: JUNE 24-12

Field Personnel: JTL

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>18°</u>	<u>2</u>	<u>80%</u>	<u>Ø</u>	<u>RAIN</u>

ELC Polygon: # 7 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)**

NO SIG. FEATURES/ OBS WITHIN 150M. AREA OF INVESTIGATION

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: NIARARA SE91

Date: JUNE 4-02

Field Personnel: JTL

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>SEE POLY. 7</u>				

ELC Polygon: # 8 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>630068, 4371715</u>	<u>V. pool</u>	<u>10x6m</u>	<u>35cm</u>	<u> </u>	<u>YES</u>	<u>YES</u>	
<u>630149, 4371717</u>	<u>V. pool</u>	<u>15x12m</u>	<u>30cm</u>	<u>25</u>	<u>YES</u>	<u>YES</u>	

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

- PART OF PSW BUT APPEARS TO BE MORE OF A FOD W/ POCKETS OF VERNAL POOL HABITAT (BUTTBUSH SWT)

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

## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 60950269

Project Name: NIAGARA SE91

Date: JUNE 4-12

Field Personnel: JTL

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>5 SE</u>	<u>W 7</u>			

ELC Polygon: # 9 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>630361, 4771910</u>	<u>V. pool</u>	<u>5x12</u>	<u>20cm</u>	<u>72</u>	<u>NO</u>	<u>LOGS</u>

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

ASIDE FROM VERNAL POOL, NO SIG. FEATURES OBS. IN 150M ARSA.

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: 60950269

Project Name: NIAGARA SE91

Date: JUNE 4-12

Field Personnel: JTL

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>5.0</u>	<u>SEV. 7</u>			

ELC Polygon: # 10 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

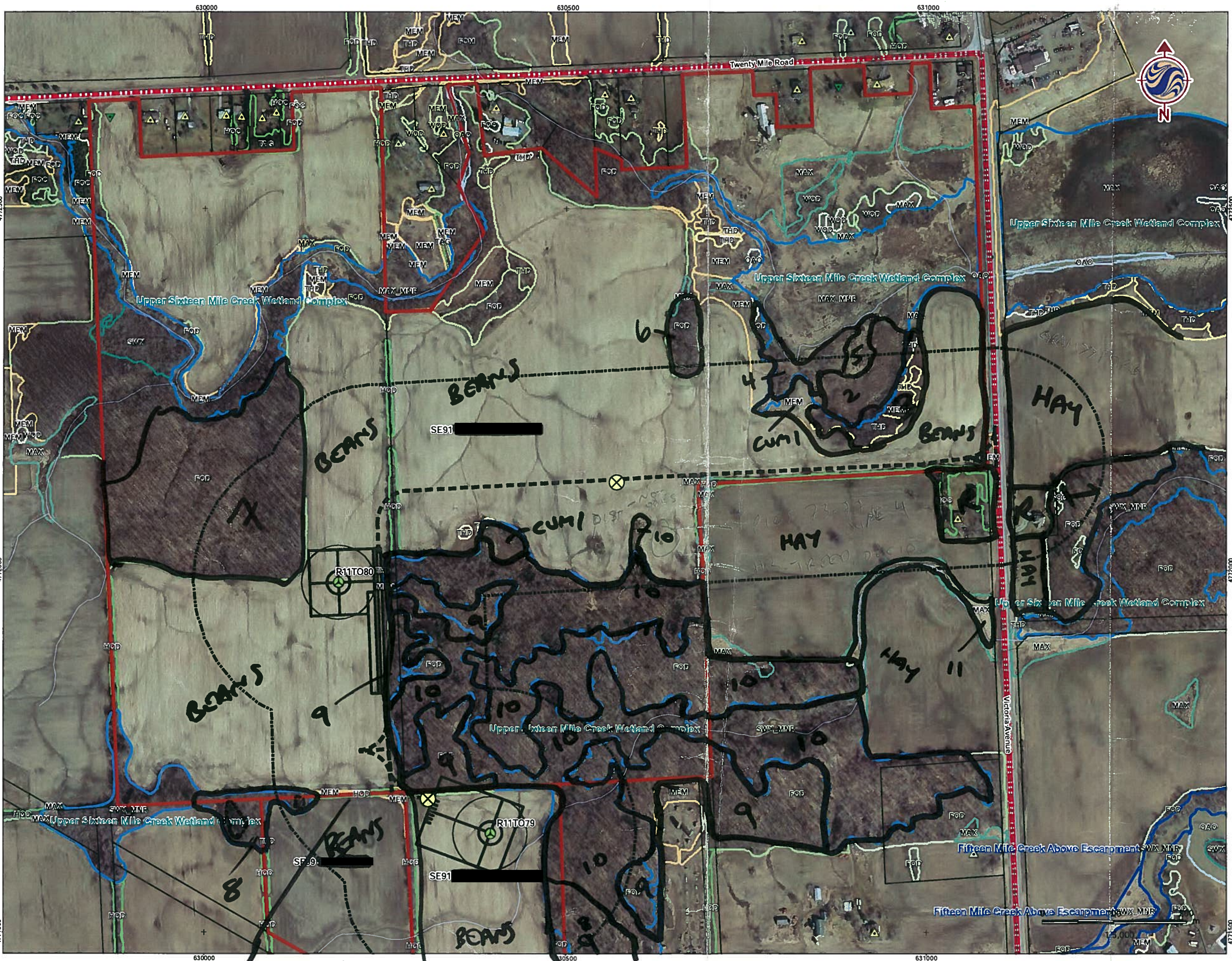
**Seeps/Springs/Vernal Pools:** Contains seeps/springs/vernal pools?  
-Y\* / -N / -Unknown, no access (*\*if yes, describe in table below*)

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)**

- NO SIG. FEATURES OBS. IN 150M. AREA.

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
- Turbines in Signed Lands
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands
    - Standard Turbine (105 dBA)
    - 51 m Turbine Setback
    - Non-Participating Receptor
    - Participating Receptor
  - Study Area
    - Preliminary Study Area
    - Signed Property
    - Signed Property - Outside Study Area
    - Potential Signed Property
    - Potential Signed Property - Outside Study Area
  - Boundaries
    - ELC Boundary
    - Provincially Significant Wetland
    - Other/Locally Significant Wetland
    - Property Boundary
    - Turbine and Access Road 150m buffer



- ### 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.



May 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

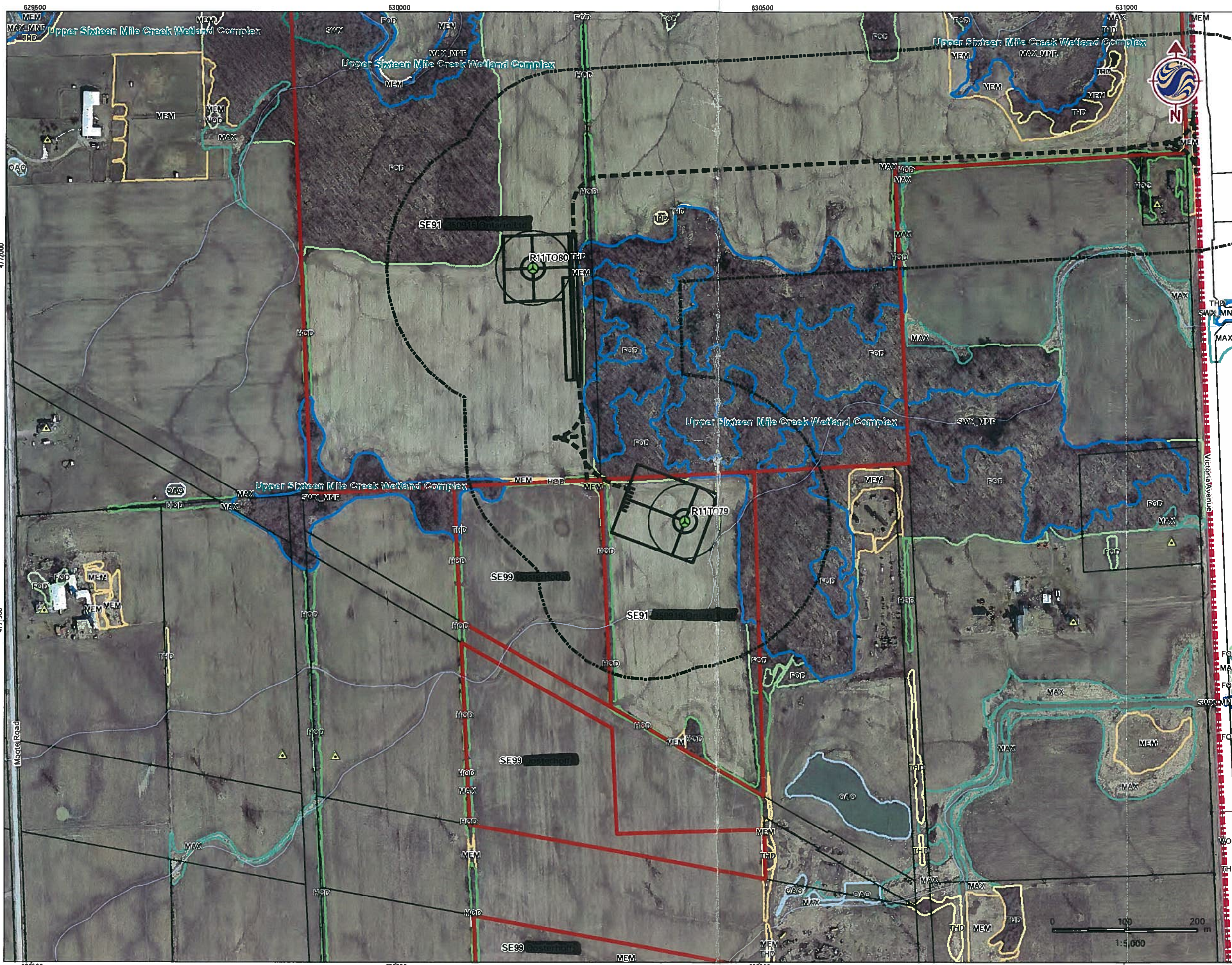
Figure No.  
59

Title  
Property with Turbine  
SE91 [REDACTED]

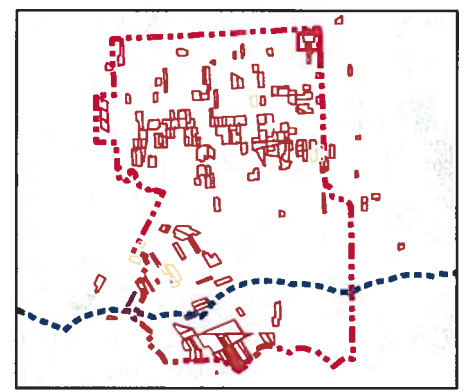
V:\01609\Active\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmaps\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: bcowper  
 4771500

HR - ARESASA  
 - QUEMACK  
 - HAG HICK  
 BREME IN HR ~ 7M WIDE  
 - SEE PIC

V:\01009\Active\160950269\planning\drawing\mxd\20120423\_NE\_Fieldmap\160950269\_Release\_17\_ELC\_Map\_Book\_20120518.mxd  
 Revised: 2012-05-23 By: dcompar



- ### Legend
- Turbines in Signed Lands**
    - Standard Turbine (105 dBA)
    - Potential Turbine Locations
  - Turbines in Unsigned Lands**
    - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



- ### 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**  
 May, 2012  
 160950269

Client/Project  
**Niagara Region Wind Corporation  
 Amphibian Field Maps**

Figure No.  
**60**

Title  
**Property with Turbine  
 SE91**

**ELC**  
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 SURVEYOR(S): N DATE: \_\_\_\_\_ 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"/> 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"/> TALLUS <input type="checkbox"/> CREVICE / CAVE	<b>COVER</b> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<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
<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			
<input type="checkbox"/> OPEN WATER					
<input type="checkbox"/> SHALLOW WATER					
<input type="checkbox"/> SURFICIAL DEP.					
<input type="checkbox"/> BEDROCK					

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	/	/	
SUB-CANOPY	/	/	
UNDERSTOREY	4	4	reed canopy >> meadow sweet
GRD. LAYER	57	2	reed canopy >> milkweed > dromos

T 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  
 VR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**TAND COMPOSITION:**

BA: NA

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
TANDING SNAGS:	<10	10-24	25-50	>50
EADFALL/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

**OIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: \_\_\_\_\_ CODE: \_\_\_\_\_  
 COMMUNITY SERIES: \_\_\_\_\_ CODE: \_\_\_\_\_  
 POSITE: \_\_\_\_\_ CODE: \_\_\_\_\_  
 VEGETATION TYPE: reed Canopy Grass Min. M. Marsh CODE: MAM2-2

INCLUSION 0 CODE: \_\_\_\_\_  
 COMPLEX CODE: \_\_\_\_\_

Evidence of Disturbance / Notes: \_\_\_\_\_

**ELC**  
**COMMUNITY DESCRIPTION & CLASSIFICATION**

SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 DATE: SE 94, Tile 60, Poly 1-1  
 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		
Reed Canopy			D	D								
Dromo mcdell				R								
m reed				O								
meadow sweet			R									

Page \_\_\_ of \_\_\_  
 Signature: Nataheena  
 (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: June 8, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25°	0-2	50%	Ø	T. Storm

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; FB=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

**ELC** SITE: SE94 POLYGON: 1-2  
 SURVEYOR(S): NAL DATE: June 8 UTMZ: UTMN:  
 COMMUNITY DESCRIPTION & CLASSIFICATION START: END:

**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"/> 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

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	4	
2 SUB-CANOPY	1	1	
3 UNDERSTOREY	5	3	<i>See table on right</i>
4 GRD. LAYER	6-7	3	

T 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  
 VR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**TAND COMPOSITION:**

SIZE CLASS ANALYSIS:	BA:
<input type="checkbox"/> <10 <input type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input type="checkbox"/> >50	
<b>TANDING SNAGS:</b> <input type="checkbox"/> <10 <input type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input type="checkbox"/> >50	
<b>FADFALL/LOGS:</b> <input type="checkbox"/> <10 <input type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input type="checkbox"/> >50	
<b>UNDANCE CODES:</b> N=NONE R=RARE O=OCCASIONAL A=ABUNDANT	
<b>COMM. AGE:</b> <input type="checkbox"/> PIONEER <input checked="" type="checkbox"/> YOUNG <input type="checkbox"/> MID-AGE <input type="checkbox"/> MATURE <input type="checkbox"/> OLD GROWTH	

**OIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>POSITE:</b>	CODE:
<b>EGETATION TYPE:</b> <u>Hedge row</u>	CODE: <u>HR1</u>
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

vidence of Disturbance / Notes:

**ELC** SITE: POLYGON:  
 COMMUNITY DESCRIPTION & CLASSIFICATION DATE: SE94, Tile 60+61, Poly 1-2 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	
W oak	0					Aster sp				0	
W LAMER	0					Calico aster					
Hammock sp			0			Oxyda sp				1	
G Dogwood			R			Poa sp				0	
Hickory	0					Solidago sp				0	
FRAAMES	R					wood Sorel					
BASSWOOD	R										

Page \_\_\_ of \_\_\_  
 Signature: Natahoo  
 (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: June 8 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25°</u>	<u>0-2</u>	<u>50%</u>	<u>Ø</u>	<u>T. Storm</u>

ELC Polygon: # 1-2 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

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-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: June 8, 2012

Field Personnel: N Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25°</u>	<u>0-2</u>	<u>50%</u>	<u>Ø</u>	<u>T. Storms</u>

ELC Polygon: # 1-3 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=scar; SI=other sign; TK=track; VO=vocalization

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_  
 START: \_\_\_\_\_ END: \_\_\_\_\_ UTMZ: 112 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 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"/> OPEN WATER		<input type="checkbox"/> ALVAR	<input checked="" type="checkbox"/> COVER		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> OPEN		<input type="checkbox"/> THICKET
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREED		<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE
CANOPY	2	1	>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO
SUB-CANOPY			white oak = ACFFREE > ALFSASA = ULMAMEL
UNDERSTOREY			
GRD. LAYER	5-7	3	an lll.

T 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  
 VR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**TAND COMPOSITION:**

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

**OIL 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: SAM1-2  
 INCLUSION: \_\_\_\_\_ CODE: \_\_\_\_\_  
 COMPLEX: \_\_\_\_\_ CODE: \_\_\_\_\_

Evidence of Disturbance / Notes:  
 Low areas w pooling deeper than 1m -> covered by vegetation ~80%  
 \* "Canopy cover" is surrounding shallow aquatic system"

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): \_\_\_\_\_ DATE: SEQ4, Tile 60; Poly 1-4

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	
ALFSASA	R					Iris (Bluff)					O
ULMAMEL	R					Sedge spp					D
ACFFREE	O					Sedge fern					O
W OAK	D					Grasses					D
						Marsh fern					R
						Duckweed					O

Page \_\_\_ of \_\_\_  
 Signature: [Signature] (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: 160980269

Project Name: NRWC

Date: June 8, 2012

Field Personnel: N Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25°</u>	<u>0-2</u>	<u>50%</u>	<u>Ø</u>	<u>T. Storms</u>

ELC Polygon: # 1-4 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? *— could not walk entire perimeter of site*  
-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)**

GRTR } AUD/VO.  
GRFR }  
WOFR }

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

ELC SITE: POLYGON:  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): DATE: 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"/> RIVERINE <input type="checkbox"/> BOTTOMLAND	<input checked="" 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 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"/> OPEN <input type="checkbox"/> SHRUB <input checked="" 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	1	4	AFSA	RA	A	R
2 SUB-CANOPY	2	4	A TSA	A FRA	m	A ER RR
3 UNDERSTOREY	3-4		A	FRA		
4 GRD. LAYER	5		Variable			

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	O	25-50	R	>50
TANDING SNAGS:	R	<10	O	10-24	O	25-50	N	>50
HEADFALL/LOGS:	O	<10	A	10-24	O	25-50	N	>50

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

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

OIL ANALYSIS:

TEXTURE: Sandy clay DEPTH TO MOTTLES/GLEY G= >40 G= 40cm  
 MOISTURE: 30 DEPTH OF ORGANICS: 0 (cm)  
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: >120 (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:  
 COMMUNITY SERIES: CODE:  
 COSITE: CODE:  
 VEGETATION TYPE: CODE:  
 D-F Sugar Maple Deciduous forest FODS-1

INCLUSION CODE:  
 COMPLEX CODE:

Evidence of Disturbance / Notes:

Complex community of various areas of pooling / vernal pools / OA throughout this community is dry, with portions upland  
 difficulty taking soil cores (stiff soils)  
 - wet ves boarderine this community - predominant. Sugar Maple

ELC SITE: POLYGON:  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): DATE: SF 94; Tile 60; Poly 1-5

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	
FRAPENS	O	O	O	O		CORONA				O	
PETALL	R					WOODSON				O	
AVESAS	A	A	A	A		6 M. stand				O	
ALERUR	R	R	R	R		cleavers				O	
AM. DM	R	R	R			Soil days sp				O	
BL. MAPLE		R				Blue cohosh				O	
Bl. Cherry	R	O				f. Solo seal				R	
W. PINE	O	R									
Hickory (Bitter)	R	R	R								
Wak		R	R	O							
raspbm			O								

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

Signature:

*D. Hatcher*  
 (Field Personnel)

Quality Control: This form is complete  & legible .

Signature:

*M. Chisholm*  
 (Project Manager)





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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 8, 2012

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	<u>25°</u>	<u>0-2</u>	<u>50%</u>	<u>Ø</u>	<u>T. Storms</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>17T 061923B</u>	<u>1</u>	<u>ALCASA</u>	<u>80</u>	<u>71-72</u>	<u>1</u>	<u>&gt;3</u>	<u>5-20m</u>
<u>476782</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?	
<u>0619190, 476781</u>	<u>1 &gt; Vernal Pool</u>	<u>40m x 20m</u>	<u>21m</u>	<u>73</u>	<u>YES</u>	<u>YES</u>	
<u>0619215, 47679, 2</u>	<u>2 &gt; POND</u>	<u>100m x 15m</u>	<u>&gt; 1m</u>	<u>74</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; EY=eggs/nest; HO=house/den; OB=observed; SC=scar; SI=other sign; TK=track; VO=vocalization

**ELC** SITE: 94 POLYGON:

COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): DATE: TIME:

START: NA END: UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" 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 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 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	4	FRAPENS > ACEFREE > R oak >> ACESASA
2 SUB-CANOPY	2	4	FRAPENS > ACEFREE > R oak >> ACESASA
3 UNDERSTOREY	3-4	3	FRAPENS > ACEFREE > R oak >> ACESASA
4 GRD. LAYER	5-7	3	Variable

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	O	25-50	R	>50
STANDING SNAGS:	R	<10	O	10-24	R	25-50	N	>50
HEADFALL/LOGS:	O	<10	O	10-24	O	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: clay-loam DEPTH TO MOTTLES/GLEY: G= NA G= 20

MOISTURE: 6 DEPTH OF ORGANICS: 0 (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: >120 (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

COSITE: CODE:

VEGETATION TYPE: Green Ash Min. Dec Swamp CODE: SWD2-2a

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes: Community surrounds MAS community - various pockets of saturated soil; surrounded by upland communities on east side.

**ELC** SITE: POLYGON:

COMMUNITY DESCRIPTION & CLASSIFICATION DATE: SE 94; Tile 60; Poly 1-6 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		
R oak	O	A	O	O		Can Mayapple						
FRAPENS	O	O	O	O		F Solom Seal						
ACESASA	R	O	O	O		Sedge Sp					R	
ACEFREE	O	A	O	O		Jimp.					RC	
ULNANER		R	R			Blue cohosh					RC	

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



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## Woodland & Wildlife Habitat Assessment Form

**Stantec**

Project Number: 160950269

Project Name: NRWC

Date: June 8

Field Personnel: N. Leawa

<b>Weather Conditions:</b>	TEMP (°C): <u>25°</u>	WIND: <u>0-2</u>	CLOUD: <u>50%</u>	PPT: <u>Ø</u>	PPT (in last 24 hrs): <u>T Storm</u>
----------------------------	--------------------------	---------------------	----------------------	------------------	---

ELC Polygon: # 1-6 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? - full walk through difficult due to SAM community  
-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)**

GRFR-VO

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

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): \_\_\_\_\_ DATE: \_\_\_\_\_ 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"/> 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"/> 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.				

**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	3	Variable (roadside)

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:	N	N	N	N	
HEADFALL/LOGS:	N	N	N	N	
ABUNDANCE CODES:	N=NONE	R=RARE	O=OCCASIONAL	A=ABUNDANT	
COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

**OIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES/GLEY	G <sub>1</sub> =	G <sub>2</sub> =
MOISTURE:	DEPTH OF ORGANICS:	NA	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

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

MRS J-9(a)

**Evidence of Disturbance / Notes:**  
 - due to large areas of pooling water, species (veg) list taken from edge of SWDD-2  
 - Could not get soil core due to large areas of deep water ~1-2m.

**ELC** SITE: \_\_\_\_\_ POLYGON: \_\_\_\_\_  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): \_\_\_\_\_ DATE: SE 94; Tile 60 & 61; Poly 1-7

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	
Sedge sp				0							
Blue Ins				0							
Grasses				0							
Sens. fern				0							

Page \_\_\_ of \_\_\_  
 Signature: *Nataheara* (Field Personnel)  
 Signature: *Nataheara* (Project Manager)

Quality Control: This form is complete & legible .  
 Signature: *Nataheara* (Project Manager)



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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: June 8

Field Personnel: N. Leava

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	0-2	50%	Ø	T. Storm

ELC Polygon: # 1-7 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.	Suh/Emergent Veg. Spp. Present?	Shrubs/ Logs at Edge Present?

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

GRFR } VO  
 GRTR } VO

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

**ELC** SITE: SE94 POLYGON:  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NR DATE: JUNE UTME:  
 START: NA 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 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	<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 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 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

**TAND 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	4-5	4	Meadow Sweet >> Dogwoods = reed canopy
4 GRD. LAYER	6-7	3	reed canopy

T 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  
 VR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**TAND COMPOSITION:** BA:

SIZE CLASS ANALYSIS:	<10	10-24	25-50	>50
D	N	N	N	N
TANDING SNAGS:	N	N	N	N
FADFALL LOGS:	N	N	N	N

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

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

**OIL 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:

POSITE: CODE:

VEGETATION TYPE: meadow sweet mineral thick / Swamp Turf CODE: SWT2-6

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes:

**ELC** SITE: SURVEYOR(S):  
 COMMUNITY DESCRIPTION & CLASSIFICATION DATE: SE94, Tile 61, Poly 2-1

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		
Meadow Sweet			D									
Dogwoods			O									
RPTREM			R									
Reed Canopy			O	D								

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

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



**ELC** SITE: SE94 POLYGON: 2-3  
 SURVEYOR(S): NAL DATE: JUNE 8/12 UTME:  
 START: 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"/> BOTTOMLAND <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"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<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
WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL				
AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.				

**TAND DESCRIPTION:**

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

T 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%

**TAND COMPOSITION:**

SIZE CLASS ANALYSIS:	A	<10	A	10-24	O	25-50	R	>50
TANDING SNAGS:	N	<10	N	10-24	N	25-50	N	>50
FAWFALL/LOGS:	A	<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:

POSITE: CODE:

VEGETATION TYPE: CODE: FOD1

INCLUSION CODE:

COMPLEX CODE:

Evidence of Disturbance / Notes:  
 FRAGMENTED due to edged along 2 ag fields - canopy cover ~70%, species mixture variable - transitioning between FOD 3-1 & FOD 1-1

**ELC** SITE: POLYGON:  
 COMMUNITY DESCRIPTION & CLASSIFICATION: DATE: SE94; Tile 61; Poly 2-3 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	
BURRAC	O					Solidag. sp					O
BITTERHICKORY	R					GEOMINER					O
ULMAMER	O					VIRG CREEPER					R
BPTREM.	O-A					Tall purple flower					R
ACEFREE	O					Tall wood vine					R
ACESASA	O										
R.OAK	O										
W.OAK	O										
PINSTRD	R										

Page \_\_\_ of \_\_\_ Signature: Nataheara (Field Personnel) Signature: [Signature] (Project Manager)

Quality Control: This form is complete  & legible .







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

## 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):
----------------------------	------------	-------	--------	------	-----------------------

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?
17T 069 208 4767938	Vernal	40 x 40m	Ø	81	NONE	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

**ELC** SITE: SE94 POLYGON: 2-5  
 SURVEYOR(S): NAL DATE: JUNE 8 UTME:  
 START: END: 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 checked="" type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
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 type="checkbox"/> CARB. BEDRK.	<input 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 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"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<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

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	4	ACEFREEE > FRAXINUS SP > Salix SP
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:**

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

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=
DISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:  
 COMMUNITY SERIES: CODE:  
 POSITE: CODE:  
 VEGETATION TYPE: CODE: SWD 3-3  
 INCLUSION CODE:  
 COMPLEX CODE:

Incidence of Disturbance / Notes:  
 Community Assessed from Ag field due to deep water, restricting access into community - Dogwoods & Salix  
 Shrub along edge of corn.

ROADSIDE GRTR  
**ELC** SITE: POLYGON:  
 COMMUNITY DESCRIPTION & CLASSIFICATION: DATE: SE94; Tile 61; Poly 2-5 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		
W PINE												
Salix sp	O											
FRAXINUS SP	O-A											
ACEFREEE	A											
BL Walnut	O											
Salix sp												

Page \_\_\_ of \_\_\_  
 Signature: Natasha (Field Personnel)  
 Signature: Mike Clark (Project Manager)  
 Quality Control: This form is complete  & legible

**ELC** SITE: SE94 POLYGON: 2-6  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NAL DATE: JUNE 8/12 UTM E:   
 START:  END:  UTM Z:  UTM N:

**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"/> 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
WETLAND	<input checked="" type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> BOTTOMLAND <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"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF			
AQUATIC	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.				
<b>SITE</b>					
OPEN WATER			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
SHALLOW WATER					
SURFICIAL DEP.					
BEDROCK					

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	/	/	
SUB-CANOPY	/	/	
UNDERSTOREY	4-5	4	Timothy
GRD. LAYER	6-7	2	Variable

T 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  
 VR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

**TAND COMPOSITION:**

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

**OIL 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:
POSITE:	CODE:
VEGETATION TYPE:	CODE:
<u>Dry-Moist old field Meadow Type</u>	<u>CUM-1</u>
INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes:  
 -small MAMJ-2 packets throughout community

**ELC** SITE: SE94 POLYGON: 2-6  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NAL DATE: JUNE 8/12 UTM E:   
 START:  END:  UTM Z:  UTM N:

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		
Timothy			D	D								
Orchardgrass				O								
reed canopy				O								
Clovers				O								
15-FT Tet.				O								
Oxeye Daisy				O								

Page \_\_\_ of \_\_\_ Signature: Nataheas (Field Personnel)  
 Quality Control: This form is complete  & legible  Signature: W. H. Daulton (Project Manager)



**ELC** SITE: SE94 POLYGON: 2-8  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NAL DATE: JUN 2002 UTMZ: UTMN:  
 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 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 type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
	<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"/> OPEN WATER		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> SHALLOW WATER			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> SURFICIAL DEP.			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEDROCK			<input type="checkbox"/> SAVANNAH
					<input type="checkbox"/> WOODLAND
					<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

**TAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENS > ULMAMFR > OAK
2 SUB-CANOPY	1	1	
3 UNDERSTOREY	4.5	3	reed canopy
4 GRD. LAYER	1	1	

T 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  
 VR CODES: 0=NONE 1=0%<CVR<10% 2=10%<CVR<25% 3=25%<CVR<60% 4=CVR>60%

**TAND COMPOSITION:**

SIZE CLASS ANALYSIS:	BA:
<input type="checkbox"/> 0 <10 <input type="checkbox"/> A 10-24 <input type="checkbox"/> R 25-50 <input type="checkbox"/> N >50	
<input type="checkbox"/> R <10 <input type="checkbox"/> K 10-24 <input type="checkbox"/> N 25-50 <input type="checkbox"/> N >50	
<input type="checkbox"/> R <10 <input type="checkbox"/> R 10-24 <input type="checkbox"/> N 25-50 <input type="checkbox"/> N >50	

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT  
 COMM. AGE:  PIONEER  YOUNG  MID-AGE  MATURE  OLD GROWTH

**OIL 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:  
 COSITE: CODE:  
 VEGETATION TYPE: Green Ash Mineral D SWAMP CODE: SWD2ab.

INCLUSION	CODE:
COMPLEX	CODE:

Evidence of Disturbance / Notes: Small swamp pocket adj. to road, along HR

**ELC** SITE: SE94; Tile 61; Poly 2-8  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): NAL DATE: JUN 2002 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	
FRP	A					Reed Canopy			O		
UL	R										
SW OAK	R										
DOGWOOD SP											

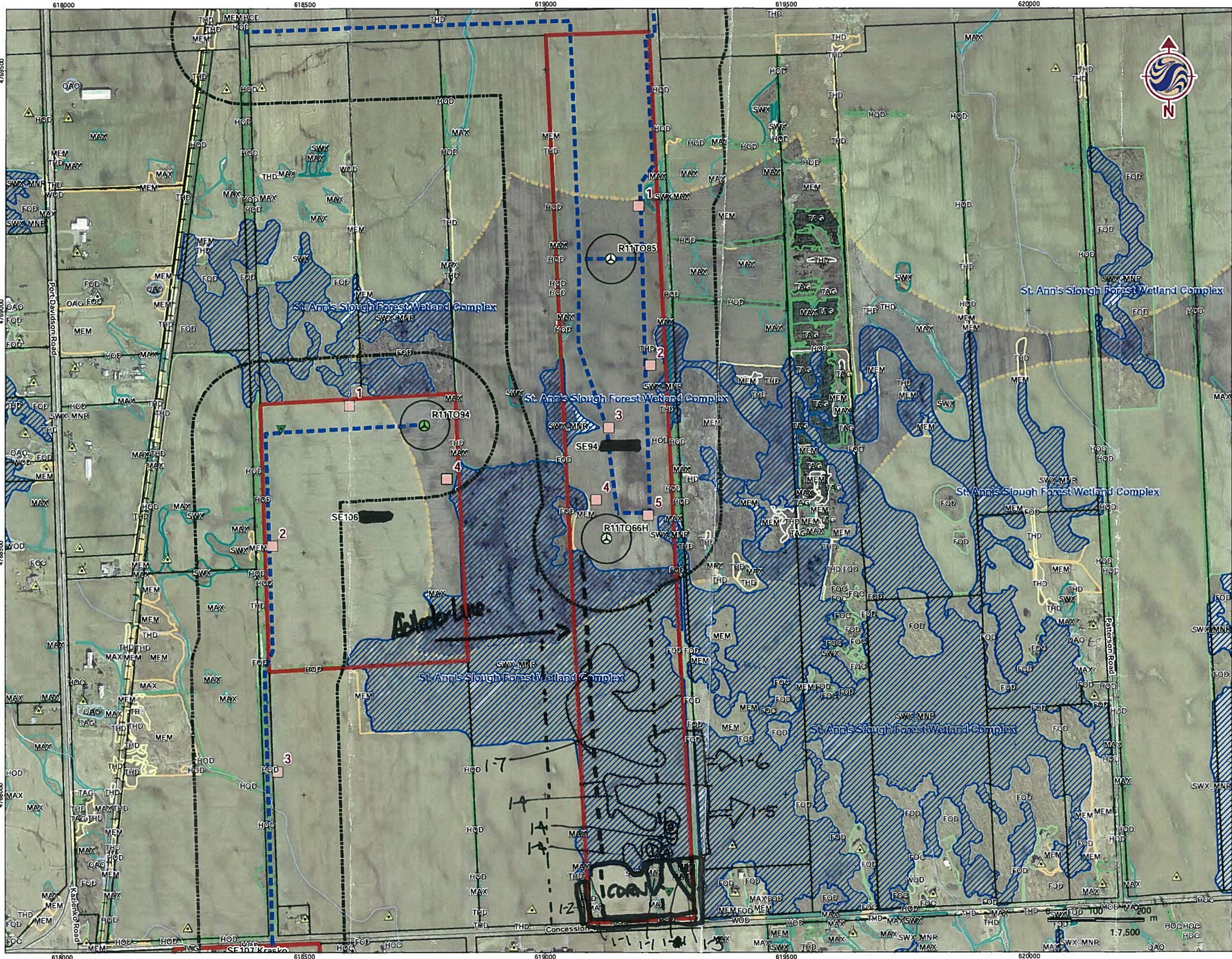
Page 1 of 1  
 Signature: Natalia (Field Personnel)  
 Signature: Michael (Project Manager)  
 Quality Control: This form is complete  & legible .







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 Revised: 2012-05-03 By: dcooper



**Legend**

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Proposed Collector Cable
- Potential Access Road
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Sound Level Contours (40 dBA)
- Non-Participating Receptors 550m Setback
- Amphibian Breeding Stations
- Turbine and Access Road 150m buffer



**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**

May 2012  
160950269

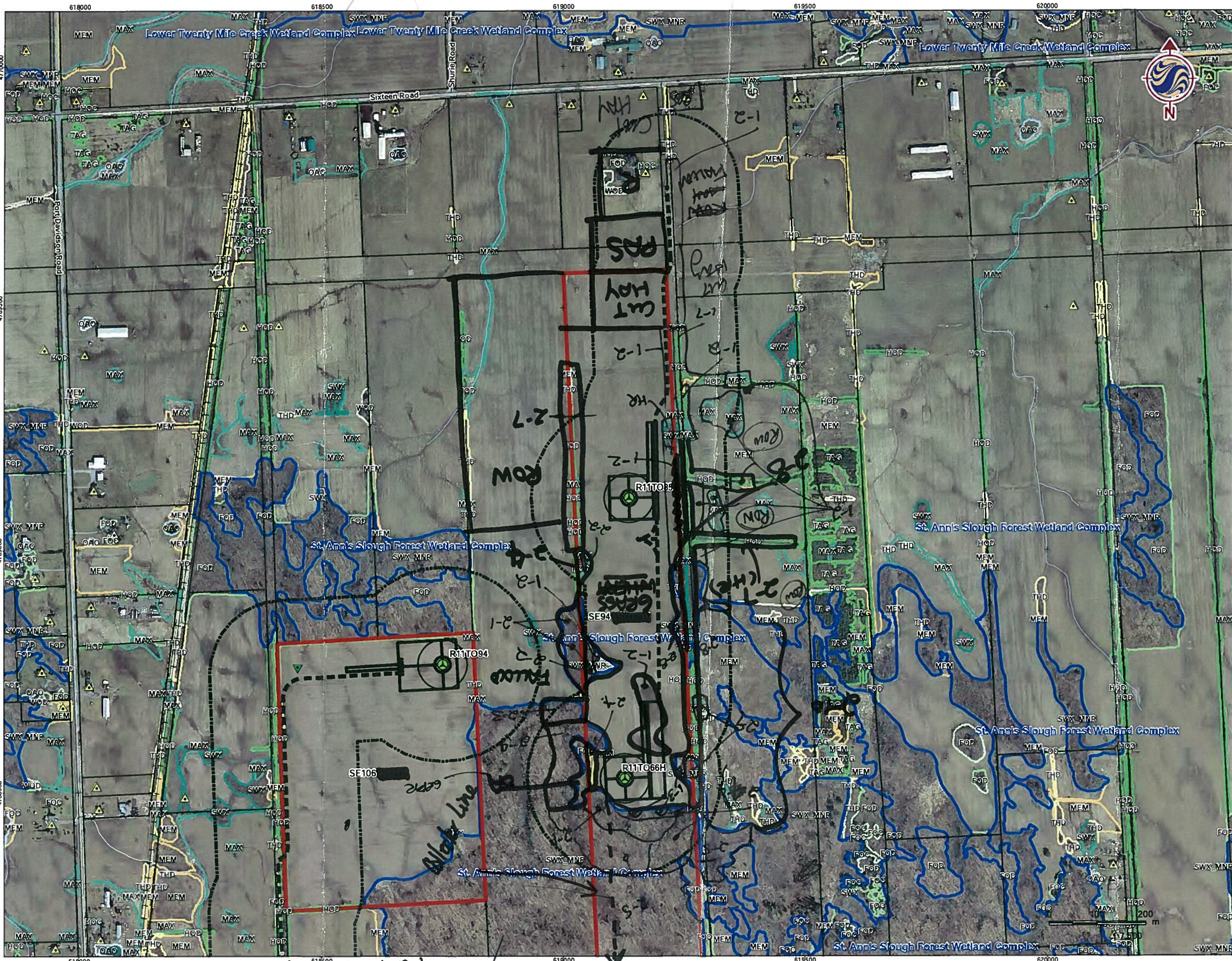
Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
60

Title  
Property with Turbine  
SE94

1 of 2

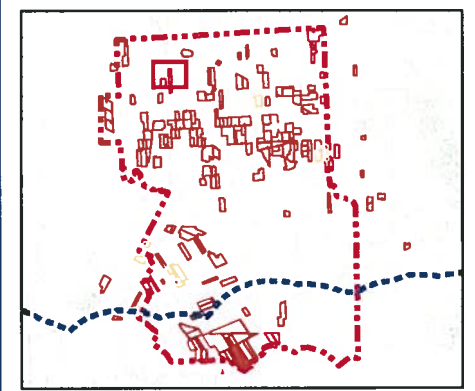
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 Revised: 2012-05-23 By: bcowper



For this map 1-1 is actually 1-1 (MAN-2-2)

**Legend**

- Turbines in Signed Lands
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands
  - Standard Turbine (105 dBA)
  - 51 m Turbine Setback
  - Non-Participating Receptor
  - Participating Receptor
- Study Area
  - Preliminary Study Area
  - Signed Property
  - Signed Property - Outside Study Area
  - Potential Signed Property
  - Potential Signed Property - Outside Study Area
- Boundaries
  - ELC Boundary
  - Provincially Significant Wetland
  - Other/Locally Significant Wetland
  - Property Boundary
  - Turbine and Access Road 150m buffer



**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**

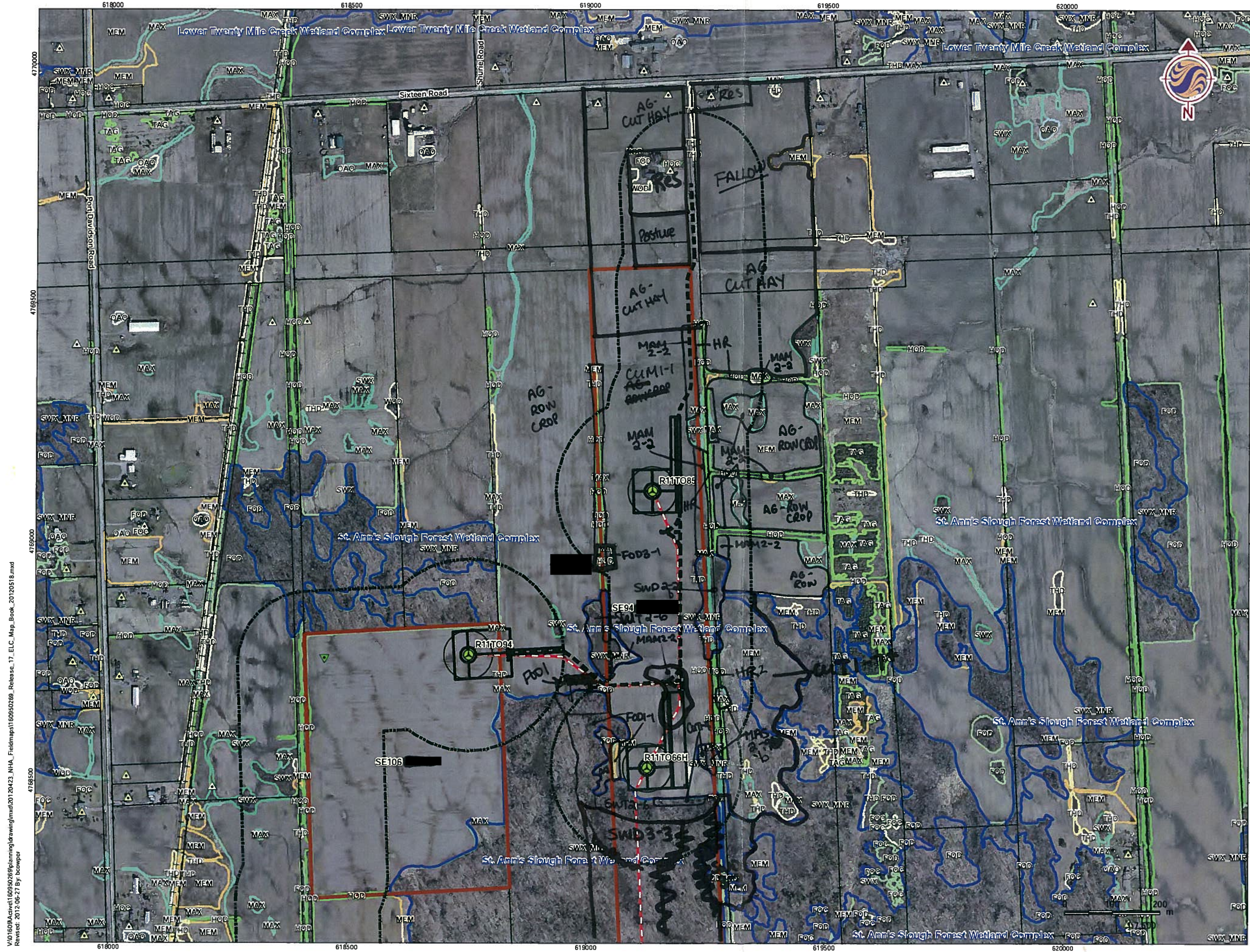
May, 2012  
160950269

Client/Project  
Niagara Region Wind Corporation  
Amphibian Field Maps

Figure No.  
61

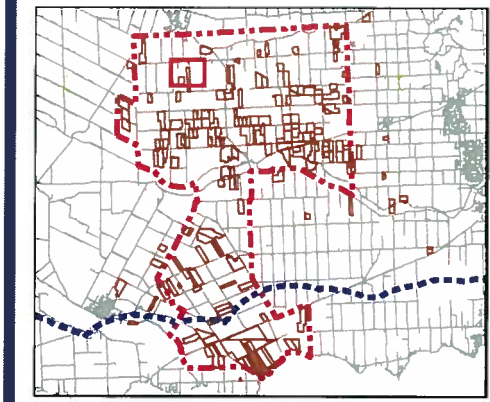
Title  
Property with Turbine  
SE94

2 of 2



**Legend**

- Turbines in Signed Lands**
  - Standard Turbine (105 dBA)
  - Potential Turbine Locations
- Turbines in Unsigned Lands**
  - Standard Turbine (105 dBA)
- 51 m Turbine Setback
- Non-Participating Receptor
- Participating Receptor
- Proposed Collector Cable
- Preliminary Study Area
- Signed Property
- Signed Property - Outside Study Area
- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Turbine and Access Road 150m buffer



**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  
 Amphibian Field Maps

Figure No.  
 62

Title  
 Property with Turbine  
 SE94

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 Revised: 2012-06-27 By: bcwppp