

ELC Polygon: #65-2 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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)

(Left side of observation area)	(Right side of observation area)
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CA=carcass; DP=distinctive parts; FF=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization



d. Coll. Tile 65, Roadside ELC,
Poly 4 Woodland & Wildlife Habitat
Assessment Form

Project Name: NHHC

Field Personnel: C. P. W. H.

Weather Conditions:	TEMP (°C): 33	WIND: 3	CLOUD: 100%	PPT: none	PPT (in last 24 hrs): none
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ELC

POLYGON:	65-4
START TIME:	
END TIME:	

TOPOGRAPHIC FEATURE		HISTORY
☐ LACUSTRINE	☐ TALUS	☒ NATURAL
☐ RIVERINE	☐ CREVICE / CAVE	
☒ BOTTOMLAND	☐ ALVAR	☐ CULTURAL
☐ TERRACE	☐ ROCKLAND	
☐ VALLEY SLOPE	☐ BEACH / BAR	
☐ TABLELAND	☐ SAND DUNE	
☐ ROLL. UPLAND	☐ BLUFF	
☐ CLIFF		

CANOPY

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SPECIES IN ORDER OF DECREASING DOMINANCE

(>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)

1	CANOPY			
2	SUB-CANOPY			
3	UNDERSTOREY	4	4	Butterbush > Riverbank grape > Virginia creeper
4	GRD. LAYER	5-7	2	Peppercorn & grass > Dandelion

HT CODES: 1= $\geq 25m$ 2= $10 < HT \leq 25m$ 3= $2 < HT \leq 10m$ 4= $1 < HT \leq 2m$ 5= $0.5 < HT \leq 1m$ 6= $0.2 < HT \leq 0.5m$ 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:	0	<10	N	10 - 24	N	25 - 50	N	>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	YOUNG	✓ MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE: Shrubland CODE: S. 1

	COMPLEX		CODE:
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Evidence of Disturbance / Notes:

Large OA incenter Full of Duckweed
green heron
Common moorhen?
Huge thicket of Button bush
Surrounding + in OA

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

[illegible]

Signature:

(Field Personnel)

Quality Control: This form is complete ☒ & legible ☒.

Signature:

(Project Manager)

ELC Polygon: # 654 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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)

Content for Species & Habitat Observations
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CA=carcass; DI=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

ELC Polygon: # 65-5 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)

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

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

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

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

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

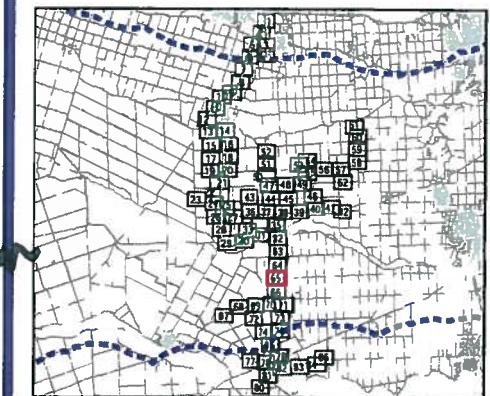
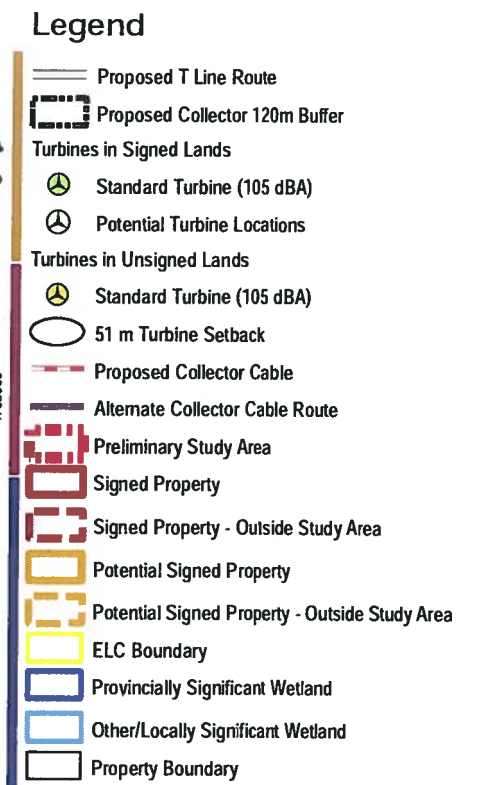
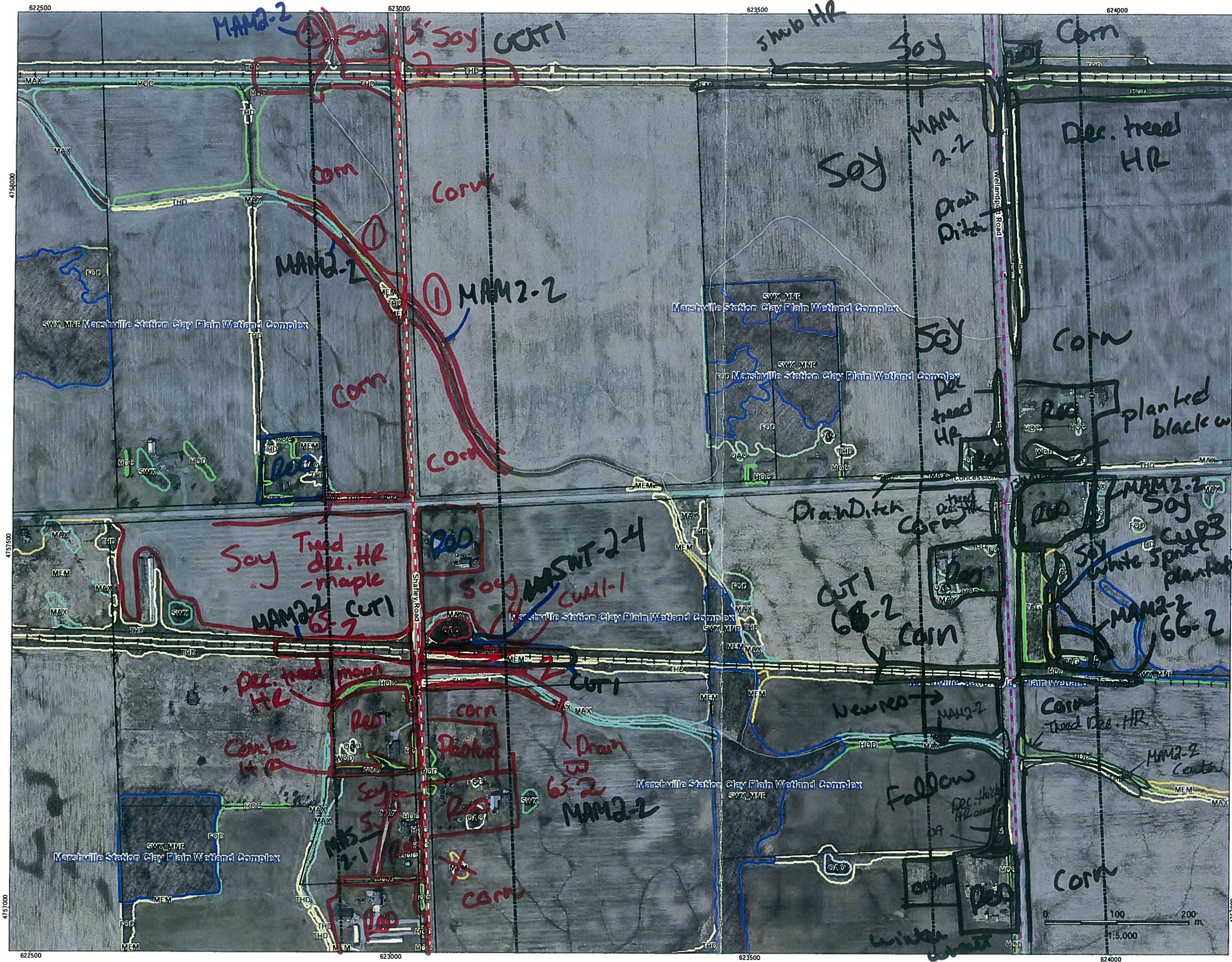
STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

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

SEEP / SPRING / VERNAL POOL 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



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.



Stantec

June, 2012
160950269

Client/Project

Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
65

Title

Proposed Collector Route
Map 65



Coll. Tile 66;
Poly 6 Wood

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160953769

Project Name: NRWC

Date: July 12, 2017

Field Personnel: C. Paxton

Weather Conditions:	TEMP (°C): 33	WIND: 3	CLOUD: 100%	PPT: none	PPT (in last 24 hrs): none
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:	TOPOGRAPHIC FEATURE		HISTORY
	START TIME:	☐ LACUSTRINE ☐ RIVERINE ☐ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☐ ROLL. UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	☐ NATURAL ☐ CULTURAL

STAND DESCRIPTION:

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	2	white elm
2	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	5-7	4	phlox amites >> poplar & syc

HT CODES: 1= $\geq 25m$ 2= $10 < HT \leq 25m$ 3= $2 < HT \leq 10m$ 4= $1 < HT \leq 2m$ 5= $0.5 < HT \leq 1m$ 6= $0.2 < HT \leq 0.5m$ 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:	N	<10	N	10-24	N	25-50	N	>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE:		CODE:
phragmites / marsh		MAS1-10
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 N/O=Not observed

[illegible]

Signature:

Signature: 
(Field Personnel)

Quality Control: This form is complete ☒ & legible ☒.

Signature:

(Project Manager)

ELC Polygon: #66-6 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

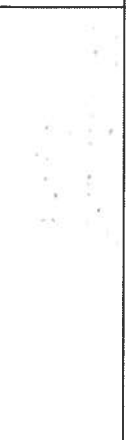
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

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)


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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



Coll. Title 66; Roadside ELC,
Poly 6 Woodland & Wildlife Habitat
Assessment Form

Field Personnel: C. Payette

Weather Conditions:	TEMP (°C): 33	WIND: 3	CLOUD: 10%	PPT: none	PPT (in last 24 hrs): none
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ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

66-7

START TIME:**END TIME:**

TOPOGRAPHIC FEATURE		HISTORY
☐ LACUSTRINE	☐ TALUS	☒ NATURAL
☐ RIVERINE	☐ CREVICE / CAVE	☐ CULTURAL
☐ BOTTOMLAND	☐ ALVAR	
☐ TERRACE	☐ ROCKLAND	
☐ VALLEY SLOPE	☐ BEACH / BAR	
☐ TABLELAND	☐ SAND DUNE	
☐ ROLL. UPLAND	☐ BLUFF	
☐ CLIFF		

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	1	Poplar Sp.
2	SUB-CANOPY			
3	UNDERSTOREY	4	3	Sumac > Ribwort's grape > willow > Shrub sp.
4	GRD. LAYER	5-7	4	acid tolerant sp > leafy cranberry > small shrub

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:		<10		10 - 24		25 - 50		>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	YOUNG	☒ MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE: Grass CODE: 01

COMPLEX	Mexican - masas	CODE: YAM 2-2
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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 N/O=Not observed

[illegible]

Signature:

Signature: 
(Field Personnel)

Quality Control: This form is complete ☒ & legible ☒.

Signature:

Signature: _____

(Project Manager)

ELC Polygon: # 66-7 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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



Coll. Title 66; Roadside ELC,
Poly 8 Woodland & Wildlife Habitat
Assessment Form

Project Name: NRWC

Field Personnel: C. Payne H

Weather Conditions:	TEMP (°C): 33	WIND: 3	CLOUD: 10%	PPT: none	PPT (in last 24 hrs): none
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TOPOGRAPHIC FEATURE	HISTORY
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ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

START TIME:

END TIME:

- | | | |
|---------------------------------------|---|--|
| ☐ LACUSTRINE | ☐ TALUS | ☐ NATURAL |
| ☐ RIVERINE | ☐ CREVICE / CAVE | ☒ CULTURAL |
| ☐ BOTTOMLAND | ☐ ALVAR | |
| ☐ TERRACE | ☐ ROCKLAND | |
| ☐ VALLEY SLOPE | ☐ BEACH / BAR | |
| ☐ TABLELAND | ☐ SAND DUNE | |
| ☐ ROLL. UPLAND | ☐ BLUFF | |
| ☐ CLIFF | | |

STAND DESCRIPTION:

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY			green ash = white ash > white elm > cottonwood
2	SUB-CANOPY			
3	UNDERSTOREY			riverbank grape > virginia creeper
4	GRD. LAYER			arden oak sp > green sward > large > chickweed

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:	2	<10	2	10 - 24	N	25 - 50	N	>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	YOUNG	☒ MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE: Ash cultural woodland		CODE: CUW1-4
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 N/O=Not observed

[illegible]

Signature:

Signature: [Signature]
(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Project Manager)

ELC Polygon: # 66-8 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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)

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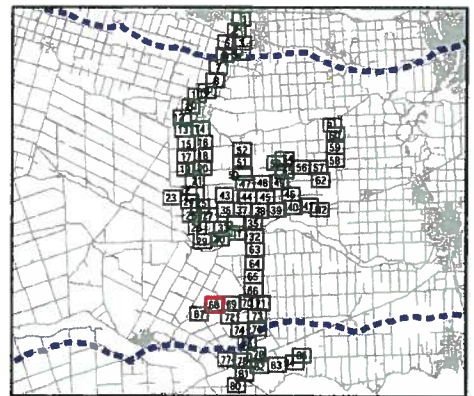
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

V:\01609\Acad\160950269\Planning\drawing\mxd\20120422_NHA_Fieldmaps\160950269_Release_17_ELC_Collector_Map_Book_20120613.mxd
Revised: 2012-06-14 By: doowper



Legend

- Proposed T Line Route
- Proposed Collector 120m Buffer
- Turbines in Signed Lands
 - Standard Turbine (105 dBA)
 - Potential Turbine Locations
- Turbines in Unsigned Lands
 - Standard Turbine (105 dBA)
 - 51 m Turbine Setback
- Proposed Collector Cable
- Alternate Collector Cable Route
- 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



Notes

- Coordinate System: NAD 1983 UTM Zone 17N.
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Niagara Region Wind Corporation
Amphibian Field Maps

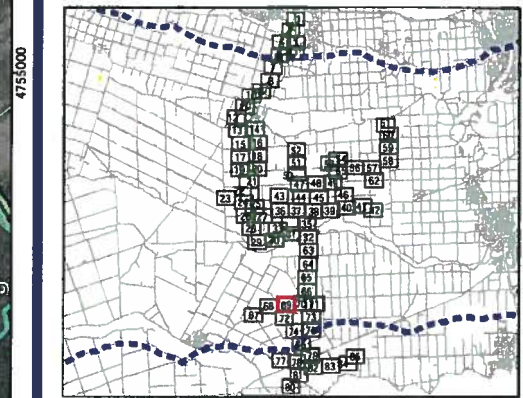
Figure No.

68

Title

Proposed Collector Route
Map 68

V:\01609\Active\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_17_ELC_Collector_Map_Book_20120613.mxd
Revised: 2012-06-14 By: bowper



Notes

- 

June, 2012
0950269

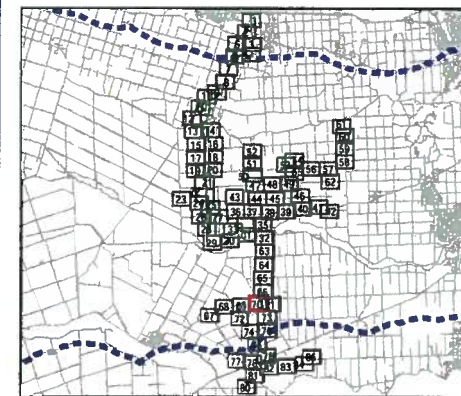
Figure No. 69

Title
**Proposed Collector Route
Map 69**



Legend

- Proposed T Line Route
- Proposed Collector 120m Buffer
- Turbines in Signed Lands
 - Standard Turbine (105 dBA)
 - Potential Turbine Locations
- Turbines in Unsigned Lands
 - Standard Turbine (105 dBA)
 - 51 m Turbine Setback
- Proposed Collector Cable
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- 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



Notes

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Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
70

Title

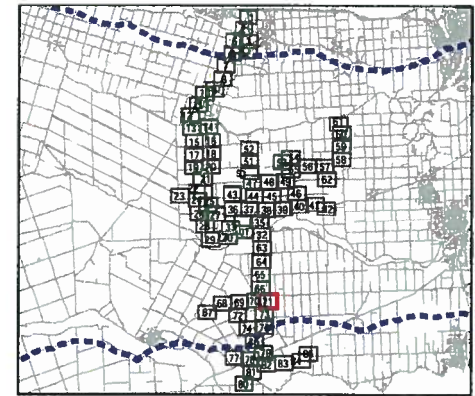
Proposed Collector Route
Map 70

V:\01609\Active\160950269\planning\drawing\mxd\20120423_NHA_Fields\160950269_Release_17_ELC_Collector_Map_Book_20120613.mxd
Revised: 2012-06-14 by: Docwper



Legend

- Proposed T Line Route
- Proposed Collector 120m Buffer
- Turbines in Signed Lands
 - Standard Turbine (105 dBA)
 - Potential Turbine Locations
- Turbines in Unsigned Lands
 - Standard Turbine (105 dBA)
 - 51 m Turbine Setback
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- ELC Boundary
- Provincially Significant Wetland
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- Property Boundary



Notes

- Coordinate System: NAD 1983 UTM Zone 17N.
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Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
71

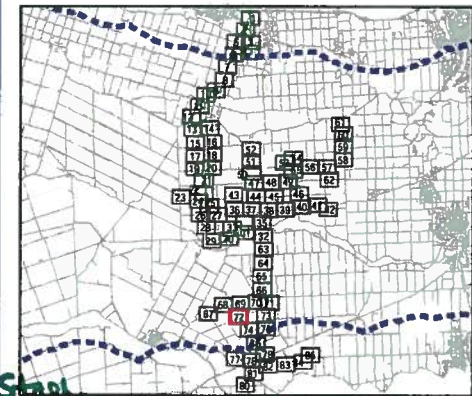
Title
Proposed Collector Route
Map 71

V:\01609\Activat\160950269\planning\drawing\map\20120422_NHA_Fieldmap\sl\160950269_Release_17_ELC_Collector_Map_Book_20120613.mxd
Revised: 2012-06-14 by: bcomper



Legend

- Proposed T Line Route
- Proposed Collector 120m Buffer
- Turbines in Signed Lands
 - Standard Turbine (105 dBA)
 - Potential Turbine Locations
- Turbines in Unsigned Lands
 - Standard Turbine (105 dBA)
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- Potential Signed Property
- Potential Signed Property - Outside Study Area
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary



Notes

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4 = CUR-4
rural
property

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
72

Title
Proposed Collector Route
Map 72

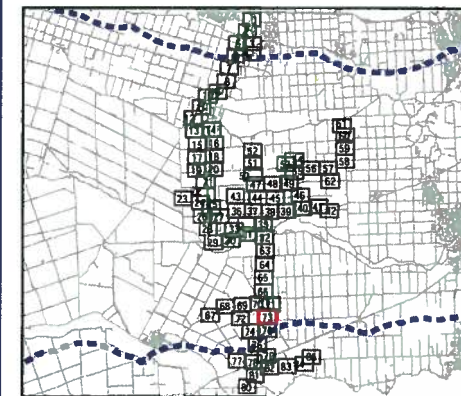
HOD: treed: sugar maple, black hick, ash

V:\1609\active\160950269\planning\drawing\mxd\20120223_NHA_Fieldmap\160950269_Release_17_ELC_Collector_Map_Book_20120613.mxd
Revised: 2012-06-14 By: bcolpner



Legend

- Proposed T Line Route
- Proposed Collector 120m Buffer
- Turbines in Signed Lands
 - Standard Turbine (105 dBA)
 - Potential Turbine Locations
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Notes

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160950269

Client/Project

Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.

73

Title

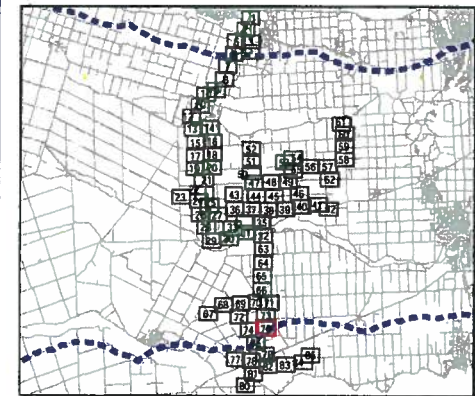
Proposed Collector Route
Map 73

V:\0160950269\active\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_17_ELC_Collector_Map_Book_20120613.mxd
Revised: 2012-06-14 By: bower



Legend

- Proposed T Line Route
- Proposed Collector 120m Buffer
- Turbines in Signed Lands
 - Standard Turbine (105 dBA)
 - Potential Turbine Locations
- Turbines in Unsigned Lands
 - Standard Turbine (105 dBA)
 - 51 m Turbine Setback
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- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary



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.



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160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
75

Title
Proposed Collector Route
Map 75



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

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: Niagara Region Wind Farm

Date: July 4, 2012

Field Personnel: Katherine St James

Weather Conditions:	TEMP (°C): 25	WIND: 3	CLOUD: 100	PPT: None	PPT (in last 24 hrs): heavy rain
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:	TOPOGRAPHIC FEATURE		HISTORY	
	67-1	☐ LACUSTRINE	☐ TALUS	☐ NATURAL	
	START TIME:	☐ RIVERINE	☐ CREVICE / CAVE	☒ CULTURAL	
		10:00	☐ BOTTOMLAND		
	END TIME:	☐ TERRACE	☐ ROCKLAND		
		10:17	☐ VALLEY SLOPE		☐ BEACH / BAR
		☐ TABLELAND	☐ SAND DUNE		
		☒ ROLL. UPLAND	☐ BLUFF		
☐ CLIFF					

TAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	3	E. Cottonwood > Tremb. Aspen > White elm
SUB-CANOPY	3	3	Staph. Sumac > Riverbank grape
UNDERSTOREY	6		
GRD. LAYER	6	4	No identified so > Burdock

[CODES: 1= $\geq 25\text{m}$ 2= $10 < \text{HT} \leq 25\text{m}$ 3= $2 < \text{HT} \leq 10\text{m}$ 4= $1 < \text{HT} \leq 2\text{m}$ 5= $0.5 < \text{HT} \leq 1\text{m}$ 6= $0.2 < \text{HT} \leq 0.5\text{m}$ 7= $\text{HT} < 0.2\text{m}$

✓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:	R	<10	N	10-24	N	25-50	N	>50
-----------------	---	-----	---	-------	---	-------	---	-----

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

TAND MATURITY:	PIONEER	☒ YOUNG	☐ MID-AGE	☐ MATURE	☐ OLD GROWTH
-----------------------	---------	---	----------------------------------	---------------------------------	-------------------------------------

VEGETATION TYPE: Fresh-moist Cottonwood Deciduous Forest

COMPLEX	CODE:
---------	-------

evidence of Disturbance / Notes:

- can see almost entire polygon canopy from road, potentially $< 0.5\text{ha}$, but close

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

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

ELC Polygon: # 67-1 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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)

Warbling Vireo (S)
 Red-winged Blackbird (H)



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

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 11,095,026.9

Project Name: Niagara Region WF

Date: July 4 2012

Field Personnel: Katherine St. James

Weather Conditions:	TEMP (°C): 27	WIND: 3	CLOUD: 100	PPT: none	PPT (in last 24 hrs): heavy rain
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION		TOPOGRAPHIC FEATURE		HISTORY		
		POLYGON:	67-2	☐ LACUSTRINE	☐ TALUS	☒ NATURAL
		START TIME:	10:32	☐ RIVERINE	☐ CREVICE / CAVE	☒ CULTURAL
		END TIME:	10:49	☒ BOTTOMLAND	☐ ALVAR	
				☐ TERRACE	☐ ROCKLAND	
		☐ VALLEY SLOPE	☐ BEACH / BAR			
		☐ TABLELAND	☐ SAND DUNE			
		☒ ROLL. UPLAND	☐ BLUFF			
		☐ CLIFF				

TAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	4	White elm > Trem Aspen > Green ash
SUB-CANOPY	3	3	White elm > Green ash
UNDERSTOREY	4	1	Riverbank grape > White elder
GRD. LAYER	5	1	Goldenrod solo

CODES: 1= $\geq 25\text{m}$ 2= $10 < \text{HT} \leq 25\text{m}$ 3= $2 < \text{HT} \leq 10\text{m}$ 4= $1 < \text{HT} \leq 2\text{m}$ 5= $0.5 < \text{HT} \leq 1\text{m}$ 6= $0.2 < \text{HT} \leq 0.5\text{m}$ 7= $\text{HT} < 0.2\text{m}$

/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:	0	<10	R	10-24	N	25-50	N	>50
-----------------	---	-----	---	-------	---	-------	---	-----

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

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

VEGETATION TYPE: Fresh-moist white elm lowland
Deciduous forest CODE: FQ07-1

COMPLEX	CODE:
---------	-------

evidence of Disturbance / Notes:

Old hedgerow that has expanded/naturalized around drain at edges of field

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

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

ELC Polygon: # 67-2 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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)

Mourning dove (s)
 Chipping sparrow (s)



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

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 16095026A Project Name: Niagara Region WF
Date: July 4, 2012 Field Personnel: Katherine St James

Weather Conditions: TEMP (°C): 33 WIND: 3 CLOUD: 90 PPT: none PPT (in last 24 hrs): heavy rain

POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON: <u>68-1</u>	TOPOGRAPHIC FEATURE		HISTORY
		START TIME: <u>11:07</u>	☐ LACUSTRINE ☐ RIVERINE ☐ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☒ ROLL UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF
END TIME: <u>11:18</u>				

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	Black walnut > White ash = Sugar maple
2 SUB-CANOPY			none
3 UNDERSTOREY			none
4 GRD. LAYER	6	4	grass spp > Galia aster

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m

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

STANDING SNAGS: ☐ 0 <10 ☐ 10-24 ☐ 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: Black walnut deciduous plantation CODE: CWP1-3
COMPLEX CODE:

Evidence of Disturbance / Notes:

Old site in middle, very open understorey, cultural woodland

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:							
White elm	O					✓	
Staghorn sumac		O				✓	
White ash	O					✓	
Black walnut	O					✓	
E. Cottonwood	O					✓	
SHRUBS:							
Riverbank grape			A			✓	
GROUND:							
Common milkweed				R			
Galina aster				O			
Grasses				D			

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____

(Field Personnel)

Signature: _____

(Project Manager)

ELC Polygon: # 68-1 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)

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

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

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

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

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

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

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

SEEP / SPRING / VERNAL POOL 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; HIO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization



Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Weather Conditions:	TEMP (°C): 35	WIND: 3	CLOUD: 80	PPT: none	PPT (in last 24 hrs): heavy rain
---------------------	------------------	------------	--------------	--------------	-------------------------------------

TOPOGRAPHIC FEATURE		HISTORY
☐ LACUSTRINE	☐ TALUS	☒ NATURAL
☐ RIVERINE	☐ CREVICE / CAVE	
☒ BOTTOMLAND	☐ ALVAR	☐ CULTURAL
☐ TERRACE	☐ ROCKLAND	
☐ VALLEY SLOPE	☐ BEACH / BAR	
☐ TABLELAND	☐ SAND DUNE	
☐ ROLL. UPLAND	☐ BLUFF	
☐ CLIFF		

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	3	1	Noway spruce
2	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	5	4	reed canopy grass > narrow-leaved cattail

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:	2	<10	2	10 - 24	2	25 - 50	2	>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: Reed Canary grass Mineral Meadow marsh		CODE: MAM2-2
COMPLEX		CODE:

Evidence of Disturbance / Notes:

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

ELC Polygon: # 68-2 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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 blackbird (S)
 chipping sparrow (S)
 house sparrow (S)
 barn swallow (P) - foraging
 Savannah sparrow (S)



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

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: Niagara Region WF

Date: July 4, 2013

Field Personnel: Katherine St James

Weather Conditions:	TEMP (°C): 33	WIND: 3	CLOUD: 75	PPT: none	PPT (in last 24 hrs): heavy rain
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:	TOPOGRAPHIC FEATURE		HISTORY
	68-3	☐ LACUSTRINE	☐ TALUS	☒ NATURAL
	START TIME:	☐ RIVERINE	☐ CREVICE / CAVE	☒ CULTURAL
		11:49	☒ BOTTOMLAND	
	END TIME:	☐ TERRACE	☐ ROCKLAND	
		11:58	☐ VALLEY SLOPE	☐ BEACH / BAR
			☐ TABLELAND	☐ SAND DUNE
			☐ ROLL. UPLAND	☐ BLUFF
	☐ CLIFF			

STAND DESCRIPTION:

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	1	T. Aspen
2	SUB-CANOPY	3	1	T. Aspen
3	UNDERSTOREY	4	3	T. Aspen > Willow sp.
4	GRD. LAYER	6	3	Goldenrood sp. > Phacmites

IT CODES: 1= $\geq 25\text{m}$ 2= $10 < \text{HT} \leq 25\text{m}$ 3= $2 < \text{HT} \leq 10\text{m}$ 4= $1 < \text{HT} \leq 2\text{m}$ 5= $0.5 < \text{HT} \leq 1\text{m}$ 6= $0.2 < \text{HT} \leq 0.5\text{m}$ 7= $\text{HT} < 0.2\text{m}$

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

STANDING SNAGS:	2	<10	2	10 - 24	2	25 - 50	2	>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	☒ PIONEER	☐ YOUNG	☐ MID-AGE	☐ MATURE	☐ OLD GROWTH
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VEGETATION TYPE: Dry-fresh Poplar Deciduous Forest CODE: F003-1

Inclusion	COMPLEX	Common reed Graminoid Mineral	CODE: MAM2-11,*
		Meadow marsh	

Evidence of Disturbance / Notes:

trails (ATV) throughout

See green
on map
for
inclusions

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

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

ELC Polygon: # 68-3 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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)

Song sparrow (S)
 red-winged black bird (S)
 Barn swallow (H) - foraging
 Black-capped chickadee (H)
 Chipping sparrow (S)
 C. Grackle (H)



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Fax: (519) 836-2493

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: Niagara Region WF

Date: July 4, 2012

Field Personnel: Katherine St James

Weather Conditions:	TEMP (°C): 33	WIND: 3	CLOUD: 60	PPT: None	PPT (in last 24 hrs) heavy rain
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:	TOPOGRAPHIC FEATURE		HISTORY
	69-1 START TIME: 12:15 END TIME: 12:30	☐ LACUSTRINE ☐ RIVERINE ☒ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☐ ROLL. UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	☐ NATURAL ☒ CULTURAL

STAND DESCRIPTION:

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	3	1	Trembling aspen
2	SUB-CANOPY	3	1	T. Aspen > Freeman's maple > white elm
3	UNDERSTOREY	4	1	Willow sp > riverbank grape
4	GRD. LAYER	5	4	Cattail > Red maple, a moss > Goldenrod, so

IT CODES: 1= $\geq 25\text{m}$ 2= $10 < \text{HT} \leq 25\text{m}$ 3= $2 < \text{HT} \leq 10\text{m}$ 4= $1 < \text{HT} \leq 2\text{m}$ 5= $0.5 < \text{HT} \leq 1\text{m}$ 6= $0.2 < \text{HT} \leq 0.5\text{m}$ 7= $\text{HT} < 0.2\text{m}$

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

STANDING SNAGS:	2	<10	N	10 - 24	N	25 - 50	N	>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	☒ YOUNG	MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE: Cattail Mineral Shallow Marsh CODE: MAS2-1

COMPLEX	Fresh-Moist Poplar Redundant Forest	CODE: FOD8-1
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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 N/O=Not observed

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

ELC Polygon: # 67-1 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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 blackbird (S)
 Mourning Dove (S)

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

Project Number: 160950369

Project Name: Niagara Region WF

Date: July 4 2012

Field Personnel: Katherine St James

Weather Conditions:	TEMP (°C): 33	WIND: 3	CLOUD: 40	PPT: none	PPT (in last 24 hrs): heavy rain
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:	TOPOGRAPHIC FEATURE		HISTORY
	START TIME:	☐ LACUSTRINE ☐ RIVERINE ☐ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☒ ROLL UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	☒ NATURAL ☐ CULTURAL

STAND DESCRIPTION:

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	1	N. Spn ce > Weeping willow > White ash
2	SUB-CANOPY	3	2	Staghorn sumac > Weeping willow
3	UNDERSTOREY	4	3	Staghorn sumac > riverbank grape
4	GRD. LAYER			

HT CODES: 1= $\geq 25\text{m}$ 2= $10 < \text{HT} \leq 25\text{m}$ 3= $2 < \text{HT} \leq 10\text{m}$ 4= $1 < \text{HT} \leq 2\text{m}$ 5= $0.5 < \text{HT} \leq 1\text{m}$ 6= $0.2 < \text{HT} \leq 0.5\text{m}$ 7= $\text{HT} < 0.2\text{m}$

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:	N	<10	N	10 - 24	N	25 - 50	N	>50
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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: Sumac Cultural Thicket CODE: Cuth-11

	COMPLEX	CODE:
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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 N/O=Not observed

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

ELC Polygon: # 69-2 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?

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

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

Contains potential bat hibernacula features?

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

[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

Contains potential bat roosting features?

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

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

Contains large stick nests?

☐-Y* / ☒-N / ☐-Unknown, no access (*if yes, describe in table below)**STICK NEST(S) IDENTIFIED**

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**SEEP / SPRING / VERNAL POOL 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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Stantec

Project Number: 160950269 Project Name: Niagara Region WF
Date: July 4, 2012 Field Personnel: Katherine St. Jones

Weather Conditions: TEMP (°C): 33 WIND: 3 CLOUD: 40 PPT: none PPT (in last 24 hrs): heavy rain

POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON: <u>69-3</u>	☐ LACUSTRINE	☐ TALUS	HISTORY ☒ NATURAL ☒ CULTURAL
	START TIME: <u>13:26</u>	☐ RIVERINE	☐ CREVICE / CAVE	
	END TIME: <u>13:38</u>	☐ BOTTOMLAND	☐ ALVAR	
		☐ TERRACE	☐ ROCKLAND	
		☐ VALLEY SLOPE	☐ BEACH / BAR	
		☐ TABLELAND	☐ SAND DUNE	
		☒ ROLL. UPLAND	☐ BLUFF	
		☐ CLIFF		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	Freeman's maple > E. Cottonwood > Sugar maple > White pine
2 SUB-CANOPY	3	3	Trembling aspen > Norway spruce > Staghorn sumac
3 UNDERSTOREY	4	2	White spruce > Staghorn sumac
4 GRD. LAYER	5	3	Goldenrod > 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≤50% 4=CVR>60% N/O=not observed

STANDING SNAGS: ☒ N/A <10 ☐ 0 10-24 ☒ N/A 25-50 ☒ N/A >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: Dry-fresh White Pine - Sugar maple CODE: FOM2-2
Mixed forest

COMPLEX: Norman's spruce CODE: CUP3-9
Inclusion Coniferous Plantation

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 N/O=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL
	1	2	3	4	≤5 m	>5 m	
TREES:							
Trembling aspen	O						
Black walnut	R						
Freeman's maple	D						
E. Cottonwood	O						
White spruce (roadside)	R						
Sugar maple	A						
White pine	O						
Norway spruce	O						
SHRUBS:							
Riverbank grape			A				
Staghorn sumac		A					
GROUND:							
Goldenrod Sp.				A			

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____

(Field Personnel)

Signature: _____

(Project Manager)

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

Contains potential reptile hibernacula features?

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

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

[i.e. karst topography, abandoned mines or caves]

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Contains potential bat roosting features?

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

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

Contains large stick nests?

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

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

Contains seeps/springs/vernal pools?

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

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

[Faint handwritten notes, possibly "The end of the world"]

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 Polygon: # 69-4 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=seat; SI=other sign; TK=track; VO=vocalization



Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Weather Conditions:	TEMP (°C): 33	WIND: 3	CLOUD: 30	PPT: None	PPT (in last 24 hrs): heavy rain
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TOPOGRAPHIC FEATURE

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:	69-5	☐ LACUSTRINE ☐ RIVERINE ☒ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☐ ROLL. UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	☒ NATURAL ☐ CULTURAL
	START TIME:	13:49			
	END TIME:	14:00			

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY			Sugar pine > Sugar maple > white elm
2	SUB-CANOPY	3	2	
3	UNDERSTOREY	4	2	white elm > stephens sunar > riverbank grape
4	GRD. LAYER	5	3	reed canary grass > goldenrod > calluna aster

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:	R	<10	N	10 - 24	N	25 - 50	N	>50
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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: Sumac Cultural Thicket

COMPLEX	CODE:
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Evidence of Disturbance / Notes:

Thicket along drain

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

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

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

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

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

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

DATE	DESCRIPTION	AMOUNT	BALANCE
1900	Jan 1		
	Feb 1		
	Mar 1		
	Apr 1		
	May 1		
	Jun 1		
	Jul 1		
	Aug 1		
	Sep 1		
	Oct 1		
	Nov 1		
	Dec 1		
1901	Jan 1		
	Feb 1		
	Mar 1		
	Apr 1		
	May 1		
	Jun 1		
	Jul 1		
	Aug 1		
	Sep 1		
	Oct 1		
	Nov 1		
	Dec 1		
1902	Jan 1		
	Feb 1		
	Mar 1		
	Apr 1		
	May 1		
	Jun 1		
	Jul 1		
	Aug 1		
	Sep 1		
	Oct 1		
	Nov 1		
	Dec 1		



Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Weather Conditions:	TEMP (°C): 33	WIND: 3	CLOUD: 30	PPT: None	PPT (in last 24 hrs): heavy rain
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TOPOGRAPHIC FEATURE		HISTORY
☐ LACUSTRINE	☐ TALUS	☐ NATURAL
☐ RIVERINE	☐ CREVICE / CAVE	
☐ BOTTOMLAND	☐ ALVAR	☐ CULTURAL
☐ TERRACE	☐ ROCKLAND	
☐ VALLEY SLOPE	☐ BEACH / BAR	
☐ TABLELAND	☐ SAND DUNE	
☐ ROLL. UPLAND	☐ BLUFF	
☐ CLIFF		

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	1	Trembling aspen > Scots pine
2	SUB-CANOPY	3	3	White spruce > trembling aspen > Scots pine
3	UNDERSTOREY	4	2	Staghorn Sumac > riverbank grape
4	GRD. LAYER			

STANDING SNAGS:	N/A	<10	N/A	10-24	N/A	25-50	N/A	>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	☒ YOUNG	MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE: Fresh-moist Poplar Mixed Forest CODE: FOM8-12

COMPLEX	CODE:
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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

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____
(Project Manager)

ELC Polygon: # 70-1 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?

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

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

Contains potential bat hibernacula features?

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

[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

Contains potential bat roosting features?

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

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

Contains large stick nests?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**STICK NEST(S) IDENTIFIED**

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**SEEP / SPRING / VERNAL POOL 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)

Rock pigeon (4)
Am. crow (4)



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

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: Niagara Region WF
Date: July 4, 2012 Field Personnel: Katherine St James

Weather Conditions:	TEMP (°C): 33	WIND: 3	CLOUD: 30	PPT: none	PPT (in last 24 hrs): heavy rain
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:	TOPOGRAPHIC FEATURE		HISTORY
	70-2	☐ LACUSTRINE ☐ RIVERINE ☒ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☐ ROLL. UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	☒ NATURAL ☐ CULTURAL
	START TIME:	14:21		
	END TIME:	14:36		

STAND DESCRIPTION:

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	1	Trem. aspen > white elm > green ash
2	SUB-CANOPY	3	2	Trem. aspen > white elm > Scots pine
3	UNDERSTOREY	4	2	C. buckthorn
4	GRD. LAYER	5	2	Phragmites

IT CODES: 1= $\geq 25m$ 2= $10 < HT \leq 25m$ 3= $2 < HT \leq 10m$ 4= $1 < HT \leq 2m$ 5= $0.5 < HT \leq 1m$ 6= $0.2 < HT \leq 0.5m$ 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

STANDING SNAGS:	A	<10	O	10 - 24	R	25 - 50	N	>50
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BUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	YOUNG	X MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE: White, birch - poplar Deciduous Swamp		CODE: SWD4-35
COMPLEX		CODE:

Evidence of Disturbance / Notes:

Difficult to see into this polygon due to roadside veg

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

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

ELC Polygon: # 70-2 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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)

Song sparrow (S)
 Red-eyed Vireo (S)
 Gray catbird (S)
 Am goldfinch (S)
 N. Cardinal (S)
 Warbling Vireo (S)



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Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: Niagara Region WF
Date: July 4, 2012 Field Personnel: Katherine S. Jones

Weather Conditions:	TEMP (°C): 33	WIND: 3	CLOUD: 30	PPT: none	PPT (in last 24 hrs): heavy rain
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:		TOPOGRAPHIC FEATURE		HISTORY
		70-3	☐ LACUSTRINE	☐ TALUS	☒ NATURAL
	START TIME:	14:42	☐ RIVERINE	☐ CREVICE / CAVE	☐ CULTURAL
	END TIME:	14:49	☐ BOTTOMLAND	☐ ALVAR	
		☐ TERRACE	☐ ROCKLAND		
		☐ VALLEY SLOPE	☐ BEACH / BAR		
		☐ TABLELAND	☐ SAND DUNE		
		☒ ROLL. UPLAND	☐ BLUFF		
		☐ CLIFF			

STAND DESCRIPTION:

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	3	Trem aspen > white elm > Freeman's maple
2	SUB-CANOPY	3	3	Trem aspen > staghorn sumac
3	UNDERSTOREY	4	3	Trem aspen > riverbank junc
4	GRD. LAYER			

IT CODES: 1= $\geq 25\text{m}$ 2= $10 < \text{HT} \leq 25\text{m}$ 3= $2 < \text{HT} \leq 10\text{m}$ 4= $1 < \text{HT} \leq 2\text{m}$ 5= $0.5 < \text{HT} \leq 1\text{m}$ 6= $0.2 < \text{HT} \leq 0.5\text{m}$ 7= $\text{HT} < 0.2\text{m}$

VR 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/A	<10	N/A	10 - 24	N/A	25 - 50	N/A	>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	☒ YOUNG	MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE: Fresh-moist Poplar Deciduous Forest CODE: FPD 8-1

COMPLEX	CODE:
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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 N/O=Not observed

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

ELC Polygon: # 70-3 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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



Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Weather Conditions:	TEMP. (°C) 27	WIND: 1	CLOUD: 10	PPT: none	PPT (in last 24 hrs): none
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TOPOGRAPHIC FEATURE		HISTORY
☐ LACUSTRINE	☐ TALUS	☐ NATURAL
☐ RIVERINE	☐ CREVICE / CAVE	☒ CULTURAL
☐ BOTTOMLAND	☐ ALVAR	
☐ TERRACE	☐ ROCKLAND	
☐ VALLEY SLOPE	☐ BEACH / BAR	
☐ TABLELAND	☐ SAND DUNE	
☒ ROLL. UPLAND	☐ BLUFF	
☐ CLIFF		

ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

STAND DESCRIPTION:

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	3	4	Scots pine >> White pine = real oak
2	SUB-CANOPY	4	2	Staghorn sumac > horn. aspen
3	UNDERSTOREY	3.4	1	Staghorn sumac > riverbank grape
4	GRD. LAYER	3.5	2	Goldenrod so > white aspen

HT CODES: 1= $\geq 25m$ 2= $10 < HT \leq 25m$ 3= $2 < HT \leq 10m$ 4= $1 < HT \leq 2m$ 5= $0.5 < HT \leq 1m$ 6= $0.2 < HT \leq 0.5m$ 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:	N	<10	N	10 - 24	N	25 - 50	N	>50
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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: Scotch Pine Cultural plantation CODE: CUP3-3

COMPLEX	CODE:
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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 N/O=Not observed

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

ELC Polygon: # 70-4 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?

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

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

Contains potential bat hibernacula features?

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

[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

Contains potential bat roosting features?

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

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

Contains large stick nests?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**STICK NEST(S) IDENTIFIED**

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**SEEP / SPRING / VERNAL POOL 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)

Song Sparrow (S)
 Cedar Waxwing (H)
 Mourning Dove (S)
 Chipping Sparrow (S)
 Yellow-rumped Warbler (S)
 Red-eyed Vireo (S)
 P. Flicker (H)
 White-tailed deer + fawn (DO)

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



Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Name: Niagara Region w/
Field Personnel: Katherine St James

Weather Conditions:	TEMP (°C): 32	WIND: 1	CLOUD: 15	PPT: none	PPT (in last 24 hrs): none
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TOPOGRAPHIC FEATURE		HISTORY
☐ LACUSTRINE	☐ TALUS	☒ NATURAL
☐ RIVERINE	☐ CREVICE / CAVE	
☐ BOTTOMLAND	☐ ALVAR	☐ CULTURAL
☐ TERRACE	☐ ROCKLAND	
☐ VALLEY SLOPE	☐ BEACH / BAR	
☐ TABLELAND	☐ SAND DUNE	
☐ ROLL. UPLAND	☐ BLUFF	
☐ CLIFF		

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	Trem. aspen >> ash sp.
2	SUB-CANOPY	3	2	Ash sp.
3	UNDERSTOREY	4	1	Riverbank grape
4	GRD. LAYER	5	1	Goldenrod sp.

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:	N/O <10	N/O 10-24	N/O 25-50	N/O >50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	☒ YOUNG	MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE: Fresh-Moist Poplar Deciduous Forest		CODE: FOD 8-1
COMPLEX		CODE:

Evidence of Disturbance / Notes:

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

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

[i.e. karst topography, abandoned mines or caves]

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

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

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

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

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

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

1. The first part of the paper is devoted to the study of the asymptotic behavior of the solutions of the system (1) as $t \rightarrow \infty$. It is shown that the solutions of the system (1) are bounded and tend to zero as $t \rightarrow \infty$ if the matrix A is stable. The second part of the paper is devoted to the study of the asymptotic behavior of the solutions of the system (1) as $t \rightarrow \infty$ if the matrix A is not stable. It is shown that the solutions of the system (1) are unbounded and tend to infinity as $t \rightarrow \infty$ if the matrix A is not stable.

REV: 2012-01-03



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Canada N1G 4P5
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Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160 950 269

Project Name: Niagara Region WC

Date: July 4, 2012

Field Personnel: Katherine St. James

Weather Conditions:	TEMP (°C): 33	WIND: 1	CLOUD: 80	PPT: none	PPT (in last 24 hrs): none
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:		TOPOGRAPHIC FEATURE		HISTORY
	START TIME:	END TIME:	☐ LACUSTRINE ☐ RIVERINE ☐ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☒ ROLL. UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	☐ NATURAL ☒ CULTURAL

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	60	4	Goldenrod sp > Firebane > reed canary grass

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

VR 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	<10	N	10 - 24	N	25 - 50	N	>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	☒ YOUNG	MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE: Dry-Moist old Field Meadow CODE: CUM.1-1

COMPLEX	Cattail Mineral	CODE: MAS2-1
Inclusion	Shallow marsh	

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 N/O=Not observed

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

ELC Polygon: # 72-1 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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)

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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

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: Niagara Region WE
Date: July 4, 2012 Field Personnel: Katherine St. James

Weather Conditions:	TEMP (°C): 33	WIND: 1	CLOUD: 100	PPT: none	PPT (in last 24 hrs): none
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION		TOPOGRAPHIC/FEATURE		HISTORY
		POLYGON: 72-2	☐ LACUSTRINE ☐ TALUS	☒ NATURAL
START TIME: 15:29	☐ RIVERINE ☐ CREVICE / CAVE	☐ CULTURAL		
END TIME: 15:44	☐ BOTTOMLAND ☐ ALVAR			
	☐ TERRACE ☐ ROCKLAND			
	☐ VALLEY SLOPE ☐ BEACH / BAR			
	☐ TABLELAND ☐ SAND DUNE			
	☒ HILL / UPLAND ☐ BLUFF			
	☐ CLIFF			

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	white ash > red oak > white oak = trem. aspen
2	SUB-CANOPY	3	3	white ash > red oak > trem. aspen
3	UNDERSTOREY	4	1	riverbank grape
4	GRD. LAYER	5		

HT CODES: 1= $\geq 25\text{m}$ 2= $10 < \text{HT} \leq 25\text{m}$ 3= $2 < \text{HT} \leq 10\text{m}$ 4= $1 < \text{HT} \leq 2\text{m}$ 5= $0.5 < \text{HT} \leq 1\text{m}$ 6= $0.2 < \text{HT} \leq 0.5\text{m}$ 7= $\text{HT} < 0.2\text{m}$

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:	0	<10	N/O	10 - 24	N/O	25 - 50	N/O	>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	YOUNG	☒ MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE:	Dry-Fresh White Ash Deciduous forest Type	CODE:	FoD 4-2
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 N/O=Not observed

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____
(Field Personnel)

Signature: _____
(Project Manager)

ELC Polygon: #72-2 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

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

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

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

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

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

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

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

SEEP / SPRING / VERNAL POOL 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

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269

Project Name: Niagara Region WC

Date: July 4, 2012

Field Personnel: Katherine St James

Weather Conditions:

TEMP (°C): 33

WIND: 1

CLOUD: 20

PPT: none

PPT (in last 24 hrs): none

POLYGON DESCRIPTION

ELC

COMMUNITY
DESCRIPTION &
CLASSIFICATION

POLYGON: 73-1

START TIME: 10:49

END TIME: 10:53

TOPOGRAPHIC FEATURE

- ☐ LACUSTRINE ☐ TALUS
☐ RIVERINE ☐ CREVICE / CAVE
☐ BOTTOMLAND ☐ ALVAR ☒ CULTURAL
☐ TERRACE ☐ ROCKLAND
☐ VALLEY SLOPE ☐ BEACH / BAR
☒ TABLELAND ☐ SAND DUNE
☐ ROLL UPLAND ☐ BLUFF
☐ CLIFF

HISTORY

- ☐ NATURAL
☒ CULTURAL

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	4	Scots pine >> trem. aspen > red oak
2 SUB-CANOPY	3	2	white spruce > white ash
3 UNDERSTOREY	4	1	Riverbank grape
4 GRD. LAYER	5	1	Goldenrod sp > C. milkweed

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: ☒ A <10 ☐ N 10-24 ☐ N 25-50 ☐ N >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: Scotch Pine coniferous plantation CODE: CUP3-3

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 N/O=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL.
	1	2	3	4	≤5 m	>5 m	
TREES:							
Scot's pine	D						
Red oak	O						
White spruce		O					
Balsam poplar	R						
Trembling aspen	O		R				
White ash	O	O					
White pine		R					
Red cedar		R					
Freeman's maple		R					
SHRUBS:							
Riverbank grape			A				
						</	

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____

(Field Personnel)

Signature: _____

(Project Manager)

ELC Polygon: # 73-1 Assessment Type ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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



Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Weather Conditions:	TEMP (°C): 33	WIND: 1	CLOUD: 15	PPT: none	PPT (in last 24 hrs): none
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TOPOGRAPHIC FEATURE		HISTORY
☐ LACUSTRINE	☐ TALUS	☐ NATURAL
☐ RIVERINE	☐ CREVICE / CAVE	☒ CULTURAL
☐ BOTTOMLAND	☐ ALVAR	
☐ TERRACE	☐ ROCKLAND	
☐ VALLEY SLOPE	☐ BEACH / BAR	
☐ TABLELAND	☐ SAND DUNE	
☒ ROLL. UPLAND	☐ BLUFF	
☐ CLIFF		

STAND DESCRIPTION:

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY			
2	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	6	4	Grasses >> ceiling notes = wch eat

IT CODES: 1= $\geq 25\text{m}$ 2= $10 < \text{HT} \leq 25\text{m}$ 3= $2 < \text{HT} \leq 10\text{m}$ 4= $1 < \text{HT} \leq 2\text{m}$ 5= $0.5 < \text{HT} \leq 1\text{m}$ 6= $0.2 < \text{HT} \leq 0.5\text{m}$ 7= $\text{HT} < 0.2\text{m}$

VR 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	<10	N	10 - 24	N	25 - 50	N	>50
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BUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	☒ PIONEER	☐ YOUNG	☐ MID-AGE	☐ MATURE	☐ OLD GROWTH
-----------------	---	--------------------------------	----------------------------------	---------------------------------	-------------------------------------

VEGETATION TYPE: Cultural Meadow Old Field		CODE: CAM131
COMPLEX		CODE:

Evidence of Disturbance / Notes:

[illegible]

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Field Personnel)

Signature:

(Project Manager)

ELC Polygon: # 73-2 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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 Polygon: # 74-1 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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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Stantec

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number:	160950269	Project Name:	Niagara Region WC
Date:	July 4, 2012	Field Personnel:	Katharine J St-James
Weather Conditions:	TEMP (°C): 33 WIND: 1 CLOUD: 60 PPT: none PPT (in last 24 hrs): none		

POLYGON	TOPOGRAPHIC FEATURE		HISTORY
	☐ LACUSTRINE ☐ RIVERINE ☐ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☒ ROLL UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	☐ NATURAL ☒ CULTURAL
START TIME:	74-2		
END TIME:	14:56		
	15:03		

STAND DESCRIPTION:			
LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	1	Black locust 2 weeping willow
2 SUB-CANOPY	4	1	Black locust 2 Stephorn sumac
3 UNDERSTOREY	5	1	Riverbank grape 2 ash sp.
4 GRD. LAYER	6	4	Red canopy grass 77 Goldenrod sp.
HT CODES: 1=25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=50<CVR<60% 5=60<CVR<75% 6=75<CVR<90% 7=90<CVR<100% 8=100%<CVR<110% 9=110%<CVR<120% 10=120%<CVR<130% 11=130%<CVR<140% 12=140%<CVR<150% 13=150%<CVR<160% 14=160%<CVR<170% 15=170%<CVR<180% 16=180%<CVR<190% 17=190%<CVR<200% 18=200%<CVR<210% 19=210%<CVR<220% 20=220%<CVR<230% 21=230%<CVR<240% 22=240%<CVR<250% 23=250%<CVR<260% 24=260%<CVR<270% 25=270%<CVR<280% 26=280%<CVR<290% 27=290%<CVR<300% 28=300%<CVR<310% 29=310%<CVR<320% 30=320%<CVR<330% 31=330%<CVR<340% 32=340%<CVR<350% 33=350%<CVR<360% 34=360%<CVR<370% 35=370%<CVR<380% 36=380%<CVR<390% 37=390%<CVR<400% 38=400%<CVR<410% 39=410%<CVR<420% 40=420%<CVR<430% 41=430%<CVR<440% 42=440%<CVR<450% 43=450%<CVR<460% 44=460%<CVR<470% 45=470%<CVR<480% 46=480%<CVR<490% 47=490%<CVR<500% 48=500%<CVR<510% 49=510%<CVR<520% 50=520%<CVR<530% 51=530%<CVR<540% 52=540%<CVR<550% 53=550%<CVR<560% 54=560%<CVR<570% 55=570%<CVR<580% 56=580%<CVR<590% 57=590%<CVR<600% 58=600%<CVR<610% 59=610%<CVR<620% 60=620%<CVR<630% 61=630%<CVR<640% 62=640%<CVR<650% 63=650%<CVR<660% 64=660%<CVR<670% 65=670%<CVR<680% 66=680%<CVR<690% 67=690%<CVR<700% 68=700%<CVR<710% 69=710%<CVR<720% 70=720%<CVR<730% 71=730%<CVR<740% 72=740%<CVR<750% 73=750%<CVR<760% 74=760%<CVR<770% 75=770%<CVR<780% 76=780%<CVR<790% 77=790%<CVR<800% 78=800%<CVR<810% 79=810%<CVR<820% 80=820%<CVR<830% 81=830%<CVR<840% 82=840%<CVR<850% 83=850%<CVR<860% 84=860%<CVR<870% 85=870%<CVR<880% 86=880%<CVR<890% 87=890%<CVR<900% 88=900%<CVR<910% 89=910%<CVR<920% 90=920%<CVR<930% 91=930%<CVR<940% 92=940%<CVR<950% 93=950%<CVR<960% 94=960%<CVR<970% 95=970%<CVR<980% 96=980%<CVR<990% 97=990%<CVR<1000% 98=1000%<CVR<1010% 99=1010%<CVR<1020% 100=1020%<CVR<1030% 101=1030%<CVR<1040% 102=1040%<CVR<1050% 103=1050%<CVR<1060% 104=1060%<CVR<1070% 105=1070%<CVR<1080% 106=1080%<CVR<1090% 107=1090%<CVR<1100% 108=1100%<CVR<1110% 109=1110%<CVR<1120% 110=1120%<CVR<1130% 111=1130%<CVR<1140% 112=1140%<CVR<1150% 113=1150%<CVR<1160% 114=1160%<CVR<1170% 115=1170%<CVR<1180% 116=1180%<CVR<1190% 117=1190%<CVR<1200% 118=1200%<CVR<1210% 119=1210%<CVR<1220% 120=1220%<CVR<1230% 121=1230%<CVR<1240% 122=1240%<CVR<1250% 123=1250%<CVR<1260% 124=1260%<CVR<1270% 125=1270%<CVR<1280% 126=1280%<CVR<1290% 127=1290%<CVR<1300% 128=1300%<CVR<1310% 129=1310%<CVR<1320% 130=1320%<CVR<1330% 131=1330%<CVR<1340% 132=1340%<CVR<1350% 133=1350%<CVR<1360% 134=1360%<CVR<1370% 135=1370%<CVR<1380% 136=1380%<CVR<1390% 137=1390%<CVR<1400% 138=1400%<CVR<1410% 139=1410%<CVR<1420% 140=1420%<CVR<1430% 141=1430%<CVR<1440% 142=1440%<CVR<1450% 143=1450%<CVR<1460% 144=1460%<CVR<1470% 145=1470%<CVR<1480% 146=1480%<CVR<1490% 147=1490%<CVR<1500% 148=1500%<CVR<1510% 149=1510%<CVR<1520% 150=1520%<CVR<1530% 151=1530%<CVR<1540% 152=1540%<CVR<1550% 153=1550%<CVR<1560% 154=1560%<CVR<1570% 155=1570%<CVR<1580% 156=1580%<CVR<1590% 157=1590%<CVR<1600% 158=1600%<CVR<1610% 159=1610%<CVR<1620% 160=1620%<CVR<1630% 161=1630%<CVR<1640% 162=1640%<CVR<1650% 163=1650%<CVR<1660% 164=1660%<CVR<1670% 165=1670%<CVR<1680% 166=1680%<CVR<1690% 167=1690%<CVR<1700% 168=1700%<CVR<1710% 169=1710%<CVR<1720% 170=1720%<CVR<1730% 171=1730%<CVR<1740% 172=1740%<CVR<1750% 173=1750%<CVR<1760% 174=1760%<CVR<1770% 175=1770%<CVR<1780% 176=1780%<CVR<1790% 177=1790%<CVR<1800% 178=1800%<CVR<1810% 179=1810%<CVR<1820% 180=1820%<CVR<1830% 181=1830%<CVR<1840% 182=1840%<CVR<1850% 183=1850%<CVR<1860% 184=1860%<CVR<1870% 185=1870%<CVR<1880% 186=1880%<CVR<1890% 187=1890%<CVR<1900% 188=1900%<CVR<1910% 189=1910%<CVR<1920% 190=1920%<CVR<1930% 191=1930%<CVR<1940% 192=1940%<CVR<1950% 193=1950%<CVR<1960% 194=1960%<CVR<1970% 195=1970%<CVR<1980% 196=1980%<CVR<1990% 197=1990%<CVR<2000% 198=2000%<CVR<2010% 199=2010%<CVR<2020% 200=2020%<CVR<2030% 201=2030%<CVR<2040% 202=2040%<CVR<2050% 203=2050%<CVR<2060% 204=2060%<CVR<2070% 205=2070%<CVR<2080% 206=2080%<CVR<2090% 207=2090%<CVR<2100% 208=2100%<CVR<2110% 209=2110%<CVR<2120% 210=2120%<CVR<2130% 211=2130%<CVR<2140% 212=2140%<CVR<2150% 213=2150%<CVR<2160% 214=2160%<CVR<2170% 215=2170%<CVR<2180% 216=2180%<CVR<2190% 217=2190%<CVR<2200% 218=2200%<CVR<2210% 219=2210%<CVR<2220% 220=2220%<CVR<2230% 221=2230%<CVR<2240% 222=2240%<CVR<2250% 223=2250%<CVR<2260% 224=2260%<CVR<2270% 225=2270%<CVR<2280% 226=2280%<CVR<2290% 227=2290%<CVR<2300% 228=2300%<CVR<2310% 229=2310%<CVR<2320% 230=2320%<CVR<2330% 231=2330%<CVR<2340% 232=2340%<CVR<2350% 233=2350%<CVR<2360% 234=2360%<CVR<2370% 235=2370%<CVR<2380% 236=2380%<CVR<2390% 237=2390%<CVR<2400% 238=2400%<CVR<2410% 239=2410%<CVR<2420% 240=2420%<CVR<2430% 241=2430%<CVR<2440% 242=2440%<CVR<2450% 243=2450%<CVR<2460% 244=2460%<CVR<2470% 245=2470%<CVR<2480% 246=2480%<CVR<2490% 247=2490%<CVR<2500% 248=2500%<CVR<2510% 249=2510%<CVR<2520% 250=2520%<CVR<2530% 251=2530%<CVR<2540% 252=2540%<CVR<2550% 253=2550%<CVR<2560% 254=2560%<CVR<2570% 255=2570%<CVR<2580% 256=2580%<CVR<2590% 257=2590%<CVR<2600% 258=2600%<CVR<2610% 259=2610%<CVR<2620% 260=2620%<CVR<2630% 261=2630%<CVR<2640% 262=2640%<CVR<2650% 263=2650%<CVR<2660% 264=2660%<CVR<2670% 265=2670%<CVR<2680% 266=2680%<CVR<2690% 267=2690%<CVR<2700% 268=2700%<CVR<2710% 269=2710%<CVR<2720% 270=2720%<CVR<2730% 271=2730%<CVR<2740% 272=2740%<CVR<2750% 273=2750%<CVR<2760% 274=2760%<CVR<2770% 275=2770%<CVR<2780% 276=2780%<CVR<2790% 277=2790%<CVR<2800% 278=2800%<CVR<2810% 279=2810%<CVR<2820% 280=2820%<CVR<2830% 281=2830%<CVR<2840% 282=2840%<CVR<2850% 283=2850%<CVR<2860% 284=2860%<CVR<2870% 285=2870%<CVR<2880% 286=2880%<CVR<2890% 287=2890%<CVR<2900% 288=2900%<CVR<2910% 289=2910%<CVR<2920% 290=2920%<CVR<2930% 291=2930%<CVR<2940% 292=2940%<CVR<2950% 293=2950%<CVR<2960% 294=2960%<CVR<2970% 295=2970%<CVR<2980% 296=2980%<CVR<2990% 297=2990%<CVR<3000% 298=3000%<CVR<3010% 299=3010%<CVR<3020% 300=3020%<CVR<3030% 301=3030%<CVR<3040% 302=3040%<CVR<3050% 303=3050%<CVR<3060% 304=3060%<CVR<3070% 305=3070%<CVR<3080% 306=3080%<CVR<3090% 307=3090%<CVR<3100% 308=3100%<CVR<3110% 309=3110%<CVR<3120% 310=3120%<CVR<3130% 311=3130%<CVR<3140% 312=3140%<CVR<3150% 313=3150%<CVR<3160% 314=3160%<CVR<3170% 315=3170%<CVR<3180% 316=3180%<CVR<3190% 317=3190%<CVR<3200% 318=3200%<CVR<3210% 319=3210%<CVR<3220% 320=3220%<CVR<3230% 321=3230%<CVR<3240% 322=3240%<CVR<3250% 323=3250%<CVR<3260% 324=3260%<CVR<3270% 325=3270%<CVR<3280% 326=3280%<CVR<3290% 327=3290%<CVR<3300% 328=3300%<CVR<3310% 329=3310%<CVR<3320% 330=3320%<CVR<3330% 331=3330%<CVR<3340% 332=3340%<CVR<3350% 333=3350%<CVR<3360% 334=3360%<CVR<3370% 335=3370%<CVR<3380% 336=3380%<CVR<3390% 337=3390%<CVR<3400% 338=3400%<CVR<3410% 339=3410%<CVR<3420% 340=3420%<CVR<3430% 341=3430%<CVR<3440% 342=3440%<CVR<3450% 343=3450%<CVR<3460% 344=3460%<CVR<3470% 345=3470%<CVR<3480% 346=3480%<CVR<3490% 347=3490%<CVR<3500% 348=3500%<CVR<3510% 349=3510%<CVR<3520% 350=3520%<CVR<3530% 351=3530%<CVR<3540% 352=3540%<CVR<3550% 353=3550%<CVR<3560% 354=3560%<CVR<3570% 355=3570%<CVR<3580% 356=3580%<CVR<3590% 357=3590%<CVR<3600% 358=3600%<CVR<3610% 359=3610%<CVR<3620% 360=3620%<CVR<3630% 361=3630%<CVR<3640% 362=3640%<CVR<3650% 363=3650%<CVR<3660% 364=3660%<CVR<3670% 365=3670%<CVR<3680% 366=3680%<CVR<3690% 367=3690%<CVR<3700% 368=3700%<CVR<3710% 369=3710%<CVR<3720% 370=3720%<CVR<3730% 371=3730%<CVR<3740% 372=3740%<CVR<3750% 373=3750%<CVR<3760% 374=3760%<CVR<3770% 375=3770%<CVR<3780% 376=3780%<CVR<3790% 377=3790%<CVR<3800% 378=3800%<CVR<3810% 379=3810%<CVR<3820% 380=3820%<CVR<3830% 381=3830%<CVR<3840% 382=3840%<CVR<3850% 383=3850%<CVR<3860% 384=3860%<CVR<3870% 385=3870%<CVR<3880% 386=3880%<CVR<3890% 387=3890%<CVR<3900% 388=3900%<CVR<3910% 389=3910%<CVR<3920% 390=3920%<CVR<3930% 391=3930%<CVR<3940% 392=3940%<CVR<3950% 393=3950%<CVR<3960% 394=3960%<CVR<3970% 395=3970%<CVR<3980% 396=3980%<CVR<3990% 397=3990%<CVR<4000% 398=4000%<CVR<4010% 399=4010%<CVR<4020% 400=4020%<CVR<4030% 401=4030%<CVR<4040% 402=4040%<CVR<4050% 403=4050%<CVR<4060% 404=4060%<CVR<4070% 405=4070%<CVR<4080% 406=4080%<CVR<4090% 407=4090%<CVR<4100% 408=4100%<CVR<4110% 409=4110%<CVR<4120% 410=4120%<CVR<4130% 411=4130%<CVR<4140% 412=4140%<CVR<4150% 413=4150%<CVR<4160% 414=4160%<CVR<4170% 415=4170%<CVR<4180% 416=4180%<CVR<4190% 417=4190%<CVR<4200% 418=4200%<CVR<4210% 419=4210%<CVR<4220% 420=4220%<CVR<4230% 421=4230%<CVR<4240% 422=4240%<CVR<4250% 423=4250%<CVR<4260% 424=4260%<CVR<4270% 425=4270%<CVR<4280% 426=4280%<CVR<4290% 427=4290%<CVR<4300% 428=4300%<CVR<4310% 429=4310%<CVR<4320% 430=4320%<CVR<4330% 431=4330%<CVR<4340% 432=4340%<CVR<4350% 433=4350%<CVR<4360% 434=4360%<CVR<4370% 435=4370%<CVR<4380% 436=4380%<CVR<4390% 437=4390%<CVR<4400% 438=4400%<CVR<4410% 439=4410%<CVR<4420% 440=4420%<CVR<4430% 441=4430%<CVR<4440% 442=4440%<CVR<4450% 443=4450%<CVR<4460% 444=4460%<CVR<4470% 445=4470%<CVR<4480% 446=4480%<CVR<4490% 447=4490%<CVR<4500% 448=4500%<CVR<4510% 449=4510%<CVR<4520% 450=4520%<CVR<4530% 451=4530%<CVR<4540% 452=4540%<CVR<4550% 453=4550%<CVR<4560% 454=4560%<CVR<4570% 455=4570%<CVR<4580% 456=4580%<CVR<4590% 457=4590%<CVR<4600% 458=4600%<CVR<4610% 459=4610%<CVR<4620% 460=4620%<CVR<4630% 461=4630%<CVR<4640% 462=4640%<CVR<4650% 463=4650%<CVR<4660% 464=4660%<CVR<4670% 465=4670%<CVR<4680% 466=4680%<CVR<4690% 467=4690%<CVR<4700% 468=4700%<CVR<4710% 469=4710%<CVR<4720% 470=4720%<CVR<4730% 471=4730%<CVR<4740% 472=4740%<CVR<4750% 473=4750%<CVR<4760% 474=4760%<CVR<4770% 475=4770%<CVR<4780% 476=4780%<CVR<4790% 477=4790%<CVR<4800% 478=4800%<CVR<4810% 479=4810%<CVR<4820% 480=4820%<CVR<4830% 481=4830%<CVR<4840% 482=4840%<CVR<4850% 483=4850%<CVR<4860% 484=4860%<CVR<4870% 485=4870%<CVR<4880% 486=4880%<CVR<4890% 487=4890%<CVR<4900% 488=4900%<CVR<4910% 489=4910%<CVR<4920% 490=4920%<CVR<4930% 491=4930%<CVR<4940% 492=4940%<CVR<4950% 493=4950%<CVR<4960% 494=4960%<CVR<4970% 495=4970%<CVR<4980% 496=4980%<CVR<4990% 497=4990%<CVR<5000% 498=5000%<CVR<5010% 499=5010%<CVR<5020% 500=5020%<CVR<5030% 501=5030%<CVR<5040% 502=5040%<CVR<5050% 503=5050%<CVR<5060% 504=5060%<CVR<5070% 505=5070%<CVR<5080% 506=5080%<CVR<5090% 507=5090%<CVR<5100% 508=5100%<CVR<5110% 509=5110%<CVR<5120% 510=5120%<CVR<5130% 511=5130%<CVR<5140% 512=5140%<CVR<5150% 513=5150%<CVR<5160% 514=5160%<CVR<5170% 515=5170%<CVR<5180% 516=5180%<CVR<5190% 517=5190%<CVR<5200% 518=5200%<CVR<5210% 519=5210%<CVR<5220% 520=5220%<CVR<5230% 521=5230%<CVR<5240% 522=5240%<CVR<5250% 523=5250%<CVR<5260% 524=5260%<CVR<5270% 525=5270%<CVR<5280% 526=5280%<CVR<5290% 527=5290%<CVR<5300% 528=5300%<CVR<5			

ELC Polygon: # 74-2 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?

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

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

Contains potential bat hibernacula features?

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

[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

Contains potential bat roosting features?

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

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

Contains large stick nests?

☐-Y* / ☒-N / ☐-Unknown, no access (*if yes, describe in table below)**STICK NEST(S) IDENTIFIED**

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

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

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

Am. Robin (4)



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

Stantec

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number:	160950269	Project Name:	Niagara Region WLC
Date:	July 4, 2012	Field Personnel:	Katherine St. James
Weather Conditions:	TEMP (°C): 83	WIND: 1	CLOUD: 35
	PPT: 53	PPT (in last 24 hrs): none	PPT: none

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON DESCRIPTION		HISTORY
	POLYGON: 75-1	☐ TALUS ☐ LACUSTRINE ☐ RIVERINE ☐ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☐ ROLL: UPLAND ☐ CLIFF	☒ NATURAL ☐ CULTURAL
	START TIME: 11:30 END TIME: 11:42	☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	

STAND DESCRIPTION:	SPECIES IN ORDER OF DECREASING DOMINANCE
LAYER	(>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2 3 Red maple > G. ash > Am. elm > Trem. aspen
SUB-CANOPY	3 3 Red maple > G. ash > Am. elm > Trem. aspen
UNDERSTOREY	4 2 Am. elm > C. buckthorn > Riverbank grape
GRD. LAYER	5 2 Goldenrod >> Sensitive Fern

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<50% 4=50<CVR<60% 5=60<CVR<75% 6=75<CVR<85% 7=85<CVR<95% 8=95<CVR<100% 9=100%<CVR<110% 10=110%<CVR<120% 11=120%<CVR<130% 12=130%<CVR<140% 13=140%<CVR<150% 14=150%<CVR<160% 15=160%<CVR<170% 16=170%<CVR<180% 17=180%<CVR<190% 18=190%<CVR<200% 19=200%<CVR<210% 20=210%<CVR<220% 21=220%<CVR<230% 22=230%<CVR<240% 23=240%<CVR<250% 24=250%<CVR<260% 25=260%<CVR<270% 26=270%<CVR<280% 27=280%<CVR<290% 28=290%<CVR<300% 29=300%<CVR<310% 30=310%<CVR<320% 31=320%<CVR<330% 32=330%<CVR<340% 33=340%<CVR<350% 34=350%<CVR<360% 35=360%<CVR<370% 36=370%<CVR<380% 37=380%<CVR<390% 38=390%<CVR<400% 39=400%<CVR<410% 40=410%<CVR<420% 41=420%<CVR<430% 42=430%<CVR<440% 43=440%<CVR<450% 44=450%<CVR<460% 45=460%<CVR<470% 46=470%<CVR<480% 47=480%<CVR<490% 48=490%<CVR<500% 49=500%<CVR<510% 50=510%<CVR<520% 51=520%<CVR<530% 52=530%<CVR<540% 53=540%<CVR<550% 54=550%<CVR<560% 55=560%<CVR<570% 56=570%<CVR<580% 57=580%<CVR<590% 58=590%<CVR<600% 59=600%<CVR<610% 60=610%<CVR<620% 61=620%<CVR<630% 62=630%<CVR<640% 63=640%<CVR<650% 64=650%<CVR<660% 65=660%<CVR<670% 66=670%<CVR<680% 67=680%<CVR<690% 68=690%<CVR<700% 69=700%<CVR<710% 70=710%<CVR<720% 71=720%<CVR<730% 72=730%<CVR<740% 73=740%<CVR<750% 74=750%<CVR<760% 75=760%<CVR<770% 76=770%<CVR<780% 77=780%<CVR<790% 78=790%<CVR<800% 79=800%<CVR<810% 80=810%<CVR<820% 81=820%<CVR<830% 82=830%<CVR<840% 83=840%<CVR<850% 84=850%<CVR<860% 85=860%<CVR<870% 86=870%<CVR<880% 87=880%<CVR<890% 88=890%<CVR<900% 89=900%<CVR<910% 90=910%<CVR<920% 91=920%<CVR<930% 92=930%<CVR<940% 93=940%<CVR<950% 94=950%<CVR<960% 95=960%<CVR<970% 96=970%<CVR<980% 97=980%<CVR<990% 98=990%<CVR<1000% 99=1000%<CVR<1100% 100=1100%<CVR<1200% 101=1200%<CVR<1300% 102=1300%<CVR<1400% 103=1400%<CVR<1500% 104=1500%<CVR<1600% 105=1600%<CVR<1700% 106=1700%<CVR<1800% 107=1800%<CVR<1900% 108=1900%<CVR<2000% 109=2000%<CVR<2100% 110=2100%<CVR<2200% 111=2200%<CVR<2300% 112=2300%<CVR<2400% 113=2400%<CVR<2500% 114=2500%<CVR<2600% 115=2600%<CVR<2700% 116=2700%<CVR<2800% 117=2800%<CVR<2900% 118=2900%<CVR<3000% 119=3000%<CVR<3100% 120=3100%<CVR<3200% 121=3200%<CVR<3300% 122=3300%<CVR<3400% 123=3400%<CVR<3500% 124=3500%<CVR<3600% 125=3600%<CVR<3700% 126=3700%<CVR<3800% 127=3800%<CVR<3900% 128=3900%<CVR<4000% 129=4000%<CVR<4100% 130=4100%<CVR<4200% 131=4200%<CVR<4300% 132=4300%<CVR<4400% 133=4400%<CVR<4500% 134=4500%<CVR<4600% 135=4600%<CVR<4700% 136=4700%<CVR<4800% 137=4800%<CVR<4900% 138=4900%<CVR<5000% 139=5000%<CVR<5100% 140=5100%<CVR<5200% 141=5200%<CVR<5300% 142=5300%<CVR<5400% 143=5400%<CVR<5500% 144=5500%<CVR<5600% 145=5600%<CVR<5700% 146=5700%<CVR<5800% 147=5800%<CVR<5900% 148=5900%<CVR<6000% 149=6000%<CVR<6100% 150=6100%<CVR<6200% 151=6200%<CVR<6300% 152=6300%<CVR<6400% 153=6400%<CVR<6500% 154=6500%<CVR<6600% 155=6600%<CVR<6700% 156=6700%<CVR<6800% 157=6800%<CVR<6900% 158=6900%<CVR<7000% 159=7000%<CVR<7100% 160=7100%<CVR<7200% 161=7200%<CVR<7300% 162=7300%<CVR<7400% 163=7400%<CVR<7500% 164=7500%<CVR<7600% 165=7600%<CVR<7700% 166=7700%<CVR<7800% 167=7800%<CVR<7900% 168=7900%<CVR<8000% 169=8000%<CVR<8100% 170=8100%<CVR<8200% 171=8200%<CVR<8300% 172=8300%<CVR<8400% 173=8400%<CVR<8500% 174=8500%<CVR<8600% 175=8600%<CVR<8700% 176=8700%<CVR<8800% 177=8800%<CVR<8900% 178=8900%<CVR<9000% 179=9000%<CVR<9100% 180=9100%<CVR<9200% 181=9200%<CVR<9300% 182=9300%<CVR<9400% 183=9400%<CVR<9500% 184=9500%<CVR<9600% 185=9600%<CVR<9700% 186=9700%<CVR<9800% 187=9800%<CVR<9900% 188=9900%<CVR<10000% 189=10000%<CVR<10100% 190=10100%<CVR<10200% 191=10200%<CVR<10300% 192=10300%<CVR<10400% 193=10400%<CVR<10500% 194=10500%<CVR<10600% 195=10600%<CVR<10700% 196=10700%<CVR<10800% 197=10800%<CVR<10900% 198=10900%<CVR<11000% 199=11000%<CVR<11100% 200=11100%<CVR<11200% 201=11200%<CVR<11300% 202=11300%<CVR<11400% 203=11400%<CVR<11500% 204=11500%<CVR<11600% 205=11600%<CVR<11700% 206=11700%<CVR<11800% 207=11800%<CVR<11900% 208=11900%<CVR<12000% 209=12000%<CVR<12100% 210=12100%<CVR<12200% 211=12200%<CVR<12300% 212=12300%<CVR<12400% 213=12400%<CVR<12500% 214=12500%<CVR<12600% 215=12600%<CVR<12700% 216=12700%<CVR<12800% 217=12800%<CVR<12900% 218=12900%<CVR<13000% 219=13000%<CVR<13100% 220=13100%<CVR<13200% 221=13200%<CVR<13300% 222=13300%<CVR<13400% 223=13400%<CVR<13500% 224=13500%<CVR<13600% 225=13600%<CVR<13700% 226=13700%<CVR<13800% 227=13800%<CVR<13900% 228=13900%<CVR<14000% 229=14000%<CVR<14100% 230=14100%<CVR<14200% 231=14200%<CVR<14300% 232=14300%<CVR<14400% 233=14400%<CVR<14500% 234=14500%<CVR<14600% 235=14600%<CVR<14700% 236=14700%<CVR<14800% 237=14800%<CVR<14900% 238=14900%<CVR<15000% 239=15000%<CVR<15100% 240=15100%<CVR<15200% 241=15200%<CVR<15300% 242=15300%<CVR<15400% 243=15400%<CVR<15500% 244=15500%<CVR<15600% 245=15600%<CVR<15700% 246=15700%<CVR<15800% 247=15800%<CVR<15900% 248=15900%<CVR<16000% 249=16000%<CVR<16100% 250=16100%<CVR<16200% 251=16200%<CVR<16300% 252=16300%<CVR<16400% 253=16400%<CVR<16500% 254=16500%<CVR<16600% 255=16600%<CVR<16700% 256=16700%<CVR<16800% 257=16800%<CVR<16900% 258=16900%<CVR<17000% 259=17000%<CVR<17100% 260=17100%<CVR<17200% 261=17200%<CVR<17300% 262=17300%<CVR<17400% 263=17400%<CVR<17500% 264=17500%<CVR<17600% 265=17600%<CVR<17700% 266=17700%<CVR<17800% 267=17800%<CVR<17900% 268=17900%<CVR<18000% 269=18000%<CVR<18100% 270=18100%<CVR<18200% 271=18200%<CVR<18300% 272=18300%<CVR<18400% 273=18400%<CVR<18500% 274=18500%<CVR<18600% 275=18600%<CVR<18700% 276=18700%<CVR<18800% 277=18800%<CVR<18900% 278=18900%<CVR<19000% 279=19000%<CVR<19100% 280=19100%<CVR<19200% 281=19200%<CVR<19300% 282=19300%<CVR<19400% 283=19400%<CVR<19500% 284=19500%<CVR<19600% 285=19600%<CVR<19700% 286=19700%<CVR<19800% 287=19800%<CVR<19900% 288=19900%<CVR<20000% 289=20000%<CVR<20100% 290=20100%<CVR<20200% 291=20200%<CVR<20300% 292=20300%<CVR<20400% 293=20400%<CVR<20500% 294=20500%<CVR<20600% 295=20600%<CVR<20700% 296=20700%<CVR<20800% 297=20800%<CVR<20900% 298=20900%<CVR<21000% 299=21000%<CVR<21100% 300=21100%<CVR<21200% 301=21200%<CVR<21300% 302=21300%<CVR<21400% 303=21400%<CVR<21500% 304=21500%<CVR<21600% 305=21600%<CVR<21700% 306=21700%<CVR<21800% 307=21800%<CVR<21900% 308=21900%<CVR<22000% 309=22000%<CVR<22100% 310=22100%<CVR<22200% 311=22200%<CVR<22300% 312=22300%<CVR<22400% 313=22400%<CVR<22500% 314=22500%<CVR<22600% 315=22600%<CVR<22700% 316=22700%<CVR<22800% 317=22800%<CVR<22900% 318=22900%<CVR<23000% 319=23000%<CVR<23100% 320=23100%<CVR<23200% 321=23200%<CVR<23300% 322=23300%<CVR<23400% 323=23400%<CVR<23500% 324=23500%<CVR<23600% 325=23600%<CVR<23700% 326=23700%<CVR<23800% 327=23800%<CVR<23900% 328=23900%<CVR<24000% 329=24000%<CVR<24100% 330=24100%<CVR<24200% 331=24200%<CVR<24300% 332=24300%<CVR<24400% 333=24400%<CVR<24500% 334=24500%<CVR<24600% 335=24600%<CVR<24700% 336=24700%<CVR<24800% 337=24800%<CVR<24900% 338=24900%<CVR<25000% 339=25000%<CVR<25100% 340=25100%<CVR<25200% 341=25200%<CVR<25300% 342=25300%<CVR<25400% 343=25400%<CVR<25500% 344=25500%<CVR<25600% 345=25600%<CVR<25700% 346=25700%<CVR<25800% 347=25800%<CVR<25900% 348=25900%<CVR<26000% 349=26000%<CVR<26100% 350=26100%<CVR<26200% 351=26200%<CVR<26300% 352=26300%<CVR<26400% 353=26400%<CVR<26500% 354=26500%<CVR<26600% 355=26600%<CVR<26700% 356=26700%<CVR<26800% 357=26800%<CVR<26900% 358=26900%<CVR<27000% 359=27000%<CVR<27100% 360=27100%<CVR<27200% 361=27200%<CVR<27300% 362=27300%<CVR<27400% 363=27400%<CVR<27500% 364=27500%<CVR<27600% 365=27600%<CVR<27700% 366=27700%<CVR<27800% 367=27800%<CVR<27900% 368=27900%<CVR<28000% 369=28000%<CVR<28100% 370=28100%<CVR<28200% 371=28200%<CVR<28300% 372=28300%<CVR<28400% 373=28400%<CVR<28500% 374=28500%<CVR<28600% 375=28600%<CVR<28700% 376=28700%<CVR<28800% 377=28800%<CVR<28900% 378=28900%<CVR<29000% 379=29000%<CVR<29100% 380=29100%<CVR<29200% 381=29200%<CVR<29300% 382=29300%<CVR<29400% 383=29400%<CVR<29500% 384=29500%<CVR<29600% 385=29600%<CVR<29700% 386=29700%<CVR<29800% 387=29800%<CVR<29900% 388=29900%<CVR<30000% 389=30000%<CVR<30100% 390=30100%<CVR<30200% 391=30200%<CVR<30300% 392=30300%<CVR<30400% 393=30400%<CVR<30500% 394=30500%<CVR<30600% 395=30600%<CVR<30700% 396=30700%<CVR<30800% 397=30800%<CVR<30900% 398=30900%<CVR<31000% 399=31000%<CVR<31100% 400=31100%<CVR<31200% 401=31200%<CVR<31300% 402=31300%<CVR<31400% 403=31400%<CVR<31500% 404=31500%<CVR<31600% 405=31600%<CVR<31700% 406=31700%<CVR<31800% 407=31800%<CVR<31900% 408=31900%<CVR<32000% 409=32000%<CVR<32100% 410=32100%<CVR<32200% 411=32200%<CVR<32300% 412=32300%<CVR<32400% 413=32400%<CVR<32500% 414=32500%<CVR<32600% 415=32600%<CVR<32700% 416=32700%<CVR<32800% 417=32800%<CVR<32900% 418=32900%<CVR<33000% 419=33000%<CVR<33100% 420=33100%<CVR<33200% 421=33200%<CVR<33300% 422=33300%<CVR<33400% 423=33400%<CVR<33500% 424=33500%<CVR<33600% 425=33600%<CVR<33700% 426=33700%<CVR<33800% 427=33800%<CVR<33900% 428=33900%<CVR<34000% 429=34000%<CVR<34100% 430=34100%<CVR<34200% 431=34200%<CVR<34300% 432=34300%<CVR<34400% 433=34400%<CVR<34500% 434=34500%<CVR<34600% 435=34600%<CVR<34700% 436=34700%<CVR<34800% 437=34800%<CVR<34900% 438=34900%<CVR<35000% 439=35000%<CVR<35100% 440=35100%<CVR<35200% 441=35200%<CVR<35300% 442=35300%<CVR<35400% 443=35400%<CVR<35500% 444=35500%<CVR<35600% 445=35600%<CVR<35700% 446=35700%<CVR<35800% 447=35800%<CVR<35900% 448=35900%<CVR<36000% 449=36000%<CVR<36100% 450=36100%<CVR<36200% 451=36200%<CVR<36300% 452=36300%<CVR<36400% 453=36400%<CVR<36500% 454=36500%<CVR<36600% 455=36600%<CVR<36700% 456=36700%<CVR<36800% 457=36800%<CVR<36900% 458=36900%<CVR<37000% 459=37000%<CVR<37100% 460=37100%<CVR<37200% 461=37200%<CVR<37300% 462=37300%<CVR<37400% 463=37400%<CVR<37500% 464=37500%<CVR<37600% 465=37600%<CVR<37700% 466=37700%<CVR<37800% 467=37800%<CVR<37900% 468=37900%<CVR<38000% 469=38000%<CVR<38100% 470=38100%<CVR<38200% 471=38200%<CVR<38300% 472=38300%<CVR<38400% 473=38400%<CVR<38500% 474=38500%<CVR<38600% 475=38600%<CVR<38700% 476=38700%<CVR<38800% 477=38800%<CVR<38900% 478=38900%<CVR<39000% 479=39000%<CVR<39100% 480=39100%<CVR<39200% 481=39200%<CVR<39300% 482=39300%<CVR<39400% 483=39400%<CVR<39500% 484=39500%<CVR<39600% 485=39600%<CVR<39700% 486=39700%<CVR<39800% 487=39800%<CVR<39900% 488=39900%<CVR<40000% 489=40000%<CVR<40100% 490=40100%<CVR<40200% 491=40200%<CVR<40300% 492=40300%<CVR<40400% 493=40400%<CVR<40500% 494=40500%<CVR<40600% 495=40600%<CVR<40700% 496=40700%<CVR<40800

ELC Polygon: # 754 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?

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

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

Contains potential bat hibernacula features?

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

[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

Contains potential bat roosting features?

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

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

Contains large stick nests?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**STICK NEST(S) IDENTIFIED**

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**SEEP / SPRING / VERNAL POOL 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)

Song Sparrow (S)

E. Wood Pewee (S)

Am. Crow (H)

Mourning Dove (S)

Yellow-bellied sapsucker (H)

Black-capped chickadee (H)

Red-tailed Hawk - Flyover

Blue Jay (H)

Baltimore Oriole (H)

Red-winged blackbird (H)

Rose-breasted grosbeak (S)

Downy woodpecker (H)

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
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Fax: (519) 836-2493

Stantec

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269
Date: July 4 2012
Project Name: Niagara Region W.C.
Field Personnel: Kathleen St. James
Weather Conditions: TEMP (°C): 33 WIND: 1 CLOUD: 15 PPT: none PPT (in last 24 hrs): none

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION
POLYGON: 75-2
START TIME: 11:55
END TIME: 12:10
TOPOGRAPHIC FEATURE: ☐ TALUS ☐ CREVICE / CAVE ☐ NATURAL
☐ RIVERINE ☐ ALVAR ☐ CULTURAL
☐ BOTTOMLAND ☐ ROCKLAND
☐ TERRACE ☐ BEACH / BAR
☐ VALLEY SLOPE ☐ SAND DUNE
☐ TABLELAND ☐ BLUFF
☐ ROLL-UP LAND ☐ CLIFF
HISTORY: ☒ NATURAL ☐ CULTURAL

STAND DESCRIPTION:
SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY 2 4 Sugar maple >> am beech > am. elm
2 SUB-CANOPY 3 2 Sugar maple >> am. elm
3 UNDERSTOREY 4 2 Spice bush >> Virginia creeper
4 GRD. LAYER 5 3 Wild Lily-of-the-valley > False Solomon's seal
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% NIO=not observed
STANDING SNAGS: 0 <10 0 10-24 0 25-50 0 N/A >50
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT NIO=Not observed
STAND MATURITY: PIONEER YOUNG X MID-AGE MATURE OLD GROWTH
VEGETATION TYPE: Dry-fresh Sugar maple-Beech
Deciduous Forest
CODE: FODMS-2
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 NIO=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL.
	1	2	3	4	≤5 m	>5 m	
TREES:							
Sugar maple	D	A	A				
Am. beech	O						
Am. elm	O	O					
Trembling aspen	R						
E. hemlock	R						
Yellow birch		O					
Black cherry		O					
White ash	O						
SHRUBS:							
Spice bush			A				
Virginia Creeper			O				
Allegheny blackberry			R				
GROUND:							
White trillium				O			
Wild Lily-of-the-valley				A			
Ostrich fern				O			
False Solomon's seal				O			
Tall white lettuce				R			

Signature: _____ (Field Personnel)
Signature: _____ (Project Manager)
Quality Control: This form is complete ☐ & legible ☐.

ELC Polygon: # 75-2 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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-eyed vireo (S)
 Yellow-bellied sapsucker (H)
 Am Crow (H)
 Ovenbird (S)



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Guelph, ON
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Stantec

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950267 Project Name: Niagara Region WC
Date: July 4, 2012 Field Personnel: Katherine St James

Weather Conditions: TEMP (°C): 33 WIND: 1 CLOUD: 45 PPT: none PPT (in last 24 hrs): none

POLYGON	POLYGON DESCRIPTION		HISTORY	
	TOPOGRAPHIC FEATURE		NATURAL	CULTURAL
ELC	☐ LACUSTRINE ☐ TALUS ☐ CREVICE / CAVE		☒	☐
	☐ RIVERINE ☐ ALVAR ☐ ROCKLAND		☐	☐
	☐ BOTTOMLAND ☐ TERRACE ☐ BEACH / BAR		☐	☐
	☐ VALLEY SLOPE ☐ TABLELAND ☐ SAND DUNE		☐	☐
	☐ ROLL-UP LAND ☐ CLIFF		☐	☐

START TIME: 14:35
END TIME: 14:40

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE
CANOPY	2	4	>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
SUB-CANOPY	3	3	Trem aspen >> Freeman's maple > Green ash
UNDERSTOREY	4	1	Trem aspen > Green Ash
GRD. LAYER			Riverbank grape

IT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<5m 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: N/b <10 N/a 10-24 N/b 25-50 N/b >50
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY: PIONEER X YOUNG MID-AGE MATURE OLD GROWTH

VEGETATION TYPE: Poplar Mineral Deciduous Swamp CODE: SWD413

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 N/O=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL.
	1	2	3	4	<5 m	>5 m	
TREES:							
Trembling aspen	A	A					
Green ash	O	A					
Freeman's maple	A						
Red maple	O						
SHRUBS:							
Staghorn sumac (edges)			A				
Riverbank grape			O				
Willow sp.							
GROUND:							

Signature: _____ (Field Personnel)
Signature: _____ (Project Manager)
Quality Control: This form is complete ☐ & legible ☐.

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

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

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

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

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

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

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

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

1. Name of the person or organization _____ _____ _____	
2. Address _____ _____ _____ _____ _____	
3. City _____	
4. State _____	
5. Zip _____	
6. Telephone Number _____ _____	
7. Date _____ _____	
8. Signature _____ _____	
9. Title _____	
10. Organization _____ _____	

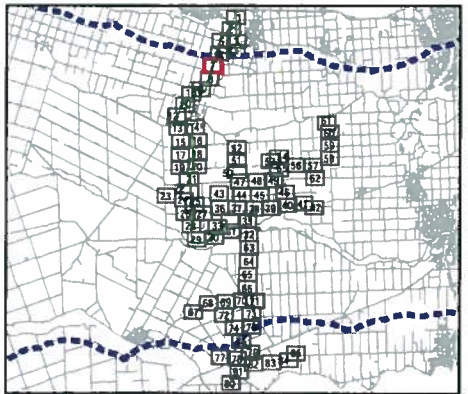
REV: 2012-01-03

V:\1609\Active\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_17_ELC_Collector_Map_Book_20120613.mxd
Revised: 2012-06-14 By: bower



Legend

- Proposed T Line Route
- Proposed Collector 120m Buffer
- Turbines in Signed Lands
 - Standard Turbine (105 dBA)
 - Potential Turbine Locations
- Turbines in Unsigned Lands
 - Standard Turbine (105 dBA)
 - 51 m Turbine Setback
- Proposed Collector Cable
- Alternate Collector Cable Route
- 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



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.



Stantec

June, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
7

Title
Proposed Collector Route
Map 7

*Roadside ditches dominated by TYPLATI along Thirty Rd.

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Fax: (519) 836-2493

Coll. Title 77; Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC
Date: July 13, 2012 Field Personnel: C. Puyette

Weather Conditions: TEMP (°C): 29 WIND: 3 CLOUD: 10% PPT: None PPT (in last 24 hrs): None

POLYGON DESCRIPTION

TOPOGRAPHIC FEATURE	HISTORY
☐ LACUSTRINE	☐ TALUS
☐ RIVERINE	☐ CREVICE / CAVE
☐ BOTTOMLAND	☐ ALVAR
☐ TERRACE	☐ ROCKLAND
☐ VALLEY SLOPE	☐ BEACH / BAR
☐ TABLELAND	☐ SAND DUNE
☐ ROLL. UPLAND	☐ BLUFF
☐ CLIFF	☐ NATURAL
	☒ CULTURAL

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 77-1
START TIME:
END TIME:

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2-3	3	E. cottonwood > trembling aspen > white birch
2 SUB-CANOPY			
3 UNDERSTOREY	3-4	3	E. cottonwood > trembling aspen > Staghorn Sumac
4 GRD. LAYER	5-7	3	goldenrod sp > common milkweed > Queen Anne's lace

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: ☒ <10 ☒ 10-24 ☒ 25-50 ☒ >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: poplar cultural woodland CODE: CUN-4
COMPLEX CODE: MA-1

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 N/O=Not observed

SPECIES CODE	LAYER				DISTANCE FROM RD.		COLL.
	1	2	3	4	≤5 m	>5 m	
TREES:							
trembling aspen	R-O		O	O			
white birch	R-O						
E. cottonwood	O		A	A			
SHRUBS:							
Staghorn Sumac			O				
GROUND:							
goldenrod sp				A			
Common milkweed				A			
Queen Anne's lace				O			
green sp				O			

Signature: _____

(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature: _____

(Project Manager)

ELC Polygon: # 77-1 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?

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

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

Contains potential bat hibernacula features?

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

[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

Contains potential bat roosting features?

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

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

Contains large stick nests?

☐ -Y* / ☐ -N / ☐ -Unknown, no access (*if yes, describe in table below)**STICK NEST(S) IDENTIFIED**

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?

☐ -Y* / ☐ -N / ☐ -Unknown, no access (*if yes, describe in table below)**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

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

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

--	--

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



Coll. Title 78; Roadside ELC,
Poly 2 Woodland & Wildlife Habitat
Assessment Form

NRWC

Field Personnel: C. Prouette

None

TOPOGRAPHIC FEATURE		HISTORY
☐ LACUSTRINE	☐ TALUS	☐ NATURAL
☐ RIVERINE	☐ CREVICE / CAVE	☒ CULTURAL
☒ BOTTOMLAND	☐ ALVAR	
☐ TERRACE	☐ ROCKLAND	
☐ VALLEY SLOPE	☐ BEACH / BAR	
☐ TABLELAND	☐ SAND DUNE	
☐ ROLL. UPLAND	☐ BLUFF	
☐ CLIFF		

ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

STAND DESCRIPTION:

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2-3	3	green ash - > black walnut
2	SUB-CANOPY			
3	UNDERSTOREY	4	3	riverbank grape > Staghorn Sumac > yig. c
4	GRD. LAYER	5-7	3	goldenrods > Fox Sedge > blueberries & c

IT CODES: 1= $\geq 25\text{m}$ 2= $10 < \text{HT} \leq 25\text{m}$ 3= $2 < \text{HT} \leq 10\text{m}$ 4= $1 < \text{HT} \leq 2\text{m}$ 5= $0.5 < \text{HT} \leq 1\text{m}$ 6= $0.2 < \text{HT} \leq 0.5\text{m}$ 7= $\text{HT} < 0.2\text{m}$

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:	N	<10	N	10-24	N	25-50	N	>50
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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:		CODE:
greenoak cultural woodland		CULW1-S
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 N/O=Not observed

[illegible]

Signature:

(Field Personnel)

Quality Control: This form is complete ☒ & legible ☒.

Signature

(Project Manager)

ELC Polygon: # 78-2 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?

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

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

Contains potential bat hibernacula features?

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

[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

Contains potential bat roosting features?

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

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

Contains large stick nests?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**STICK NEST(S) IDENTIFIED**

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**SEEP / SPRING / VERNAL POOL 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



Coll. Tile 80',
Poly 3 Wood

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

Stantec

Project Number: 160960709

Project Name: NZWC

Date: July 13, 2012

Field Personnel: C. Poyette

Weather Conditions:	TEMP (°C): 29	WIND: 3	CLOUD: 100%	PPT: None	PPT (in last 24 hrs): None
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:	TOPOGRAPHIC FEATURE		HISTORY
	80-3	☐ LACUSTRINE ☐ RIVERINE ☒ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☐ ROLL. UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	☐ NATURAL ☒ CULTURAL
	START TIME:			
	END TIME:			

STAND DESCRIPTION:

STAND DESCRIPTION:				
LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)	
1	CANOPY	2-3	3	green ash, white elm
2	SUB-CANOPY			
3	UNDERSTOREY	4	2	green ash = Staphorn Sumac, Frinkbark grape
4	GRD. LAYER	5-7	3	Red maple, green ash, green ash sp, white maple

HT CODES: 1= $\geq 25m$ 2= $10 < HT \leq 25m$ 3= $2 < HT \leq 10m$ 4= $\leq HT \leq 2m$ 5= $0.5 < HT \leq 1m$ 6= $0.2 < HT \leq 0.5m$ 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:	N	<10	N	10 - 24	N	25 - 50	N	>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: wet grassland cultural woodland		CODE: CWL-4
COMPLEX	Sumac cultural thick	CODE: CUT-1
	Culture Pine oak	CUT-1

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 N/O=Not observed

[illegible]

Signature:

Signature: [Signature]
(Field Personnel)

Quality Control: This form is complete ☒ & legible ☒.

Signature:

Signature:  _____
(Project Manager)

ELC Polygon: #80-3 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?

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

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

Contains potential bat hibernacula features?

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

[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

Contains potential bat roosting features?

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

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

Contains large stick nests?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**STICK NEST(S) IDENTIFIED**

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**SEEP / SPRING / VERNAL POOL 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)

Empty space for species and habitat observations
--

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

ELC Polygon: #80-4 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?

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

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

Contains potential bat hibernacula features?

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

[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

Contains potential bat roosting features?

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

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

Contains large stick nests?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**STICK NEST(S) IDENTIFIED**

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?

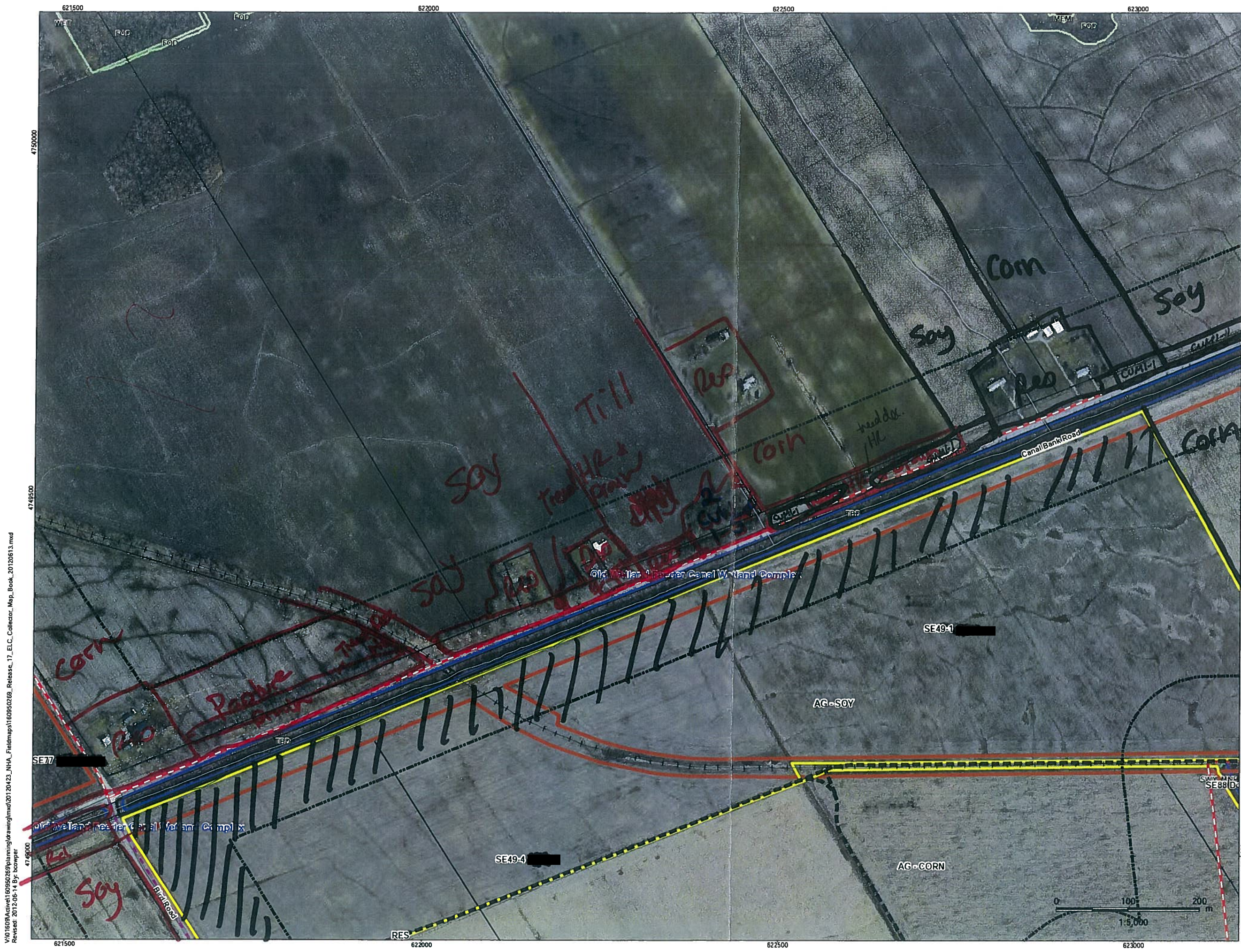
☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED**

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)

--	--

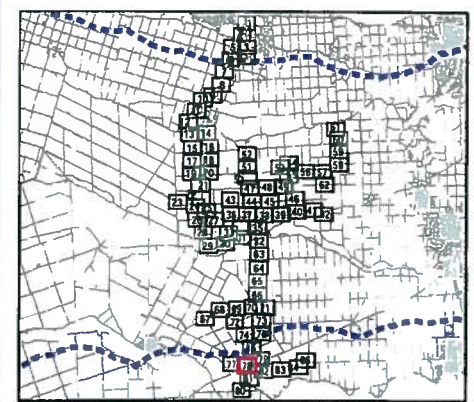
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=seat; SI=other sign; TK=track; VO=vocalization



Legend

- Proposed T Line Route
- Proposed Collector 120m Buffer
- Turbines in Signed Lands
 - Standard Turbine (105 dBA)
 - Potential Turbine Locations
- Turbines in Unsigned Lands
 - Standard Turbine (105 dBA)
 - 51 m Turbine Setback
- Proposed Collector Cable
- Alternate Collector Cable Route
- 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

ELC done =



- ### 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.

June, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
78

Title
Proposed Collector Route
Map 78

V:\160950269\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_17_ELC_Collector_Map_Book_20120613.mxd
Revised: 2012-06-14 By: bcowper

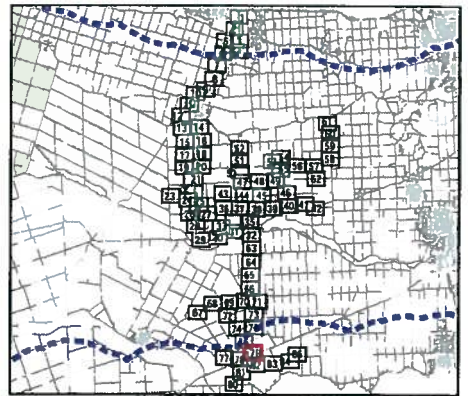
V:\1609\Active\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_17_ELC_Collector_Map_Book_20120613.mxd
Revised: 2012-06-14 By: bowper



Legend

- Proposed T Line Route
- Proposed Collector 120m Buffer
- Turbines in Signed Lands
 - Standard Turbine (105 dBA)
 - Potential Turbine Locations
- Turbines in Unsigned Lands
 - Standard Turbine (105 dBA)
 - 51 m Turbine Setback
- Proposed Collector Cable
- Alternate Collector Cable Route
- 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

ELC done



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.



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June, 2012
160950269

Client/Project

Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.

79

Title

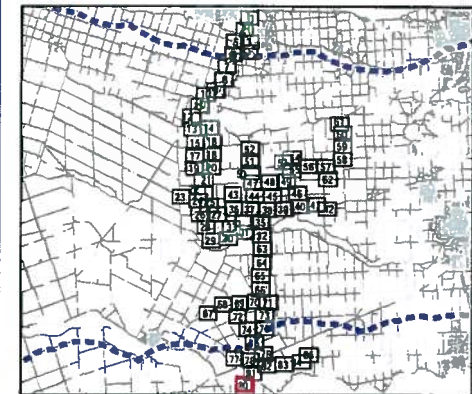
Proposed Collector Route
Map 79

V:\01609\Active\160950269\Planning\Drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_17_ELC_Collector_Map_Book_20120813.mxd
Revised: 2012-06-14 By: bcowper



Legend

- Proposed T Line Route
- Proposed Collector 120m Buffer
- Turbines in Signed Lands
 - Standard Turbine (105 dBA)
 - Potential Turbine Locations
- Turbines in Unsigned Lands
 - Standard Turbine (105 dBA)
 - 51 m Turbine Setback
- Proposed Collector Cable
- Alternate Collector Cable Route
- 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



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.



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June, 2012
160950269

Client/Project

Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.

80

Title

Proposed Collector Route
Map 80



Coll. Tile 86;
Poly 1 Wood

86, Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160958269

Project Name: NRWC

Date: July 27

Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C): 25	WIND: 3	CLOUD: 50	PPT: —	PPT (in last 24 hrs): 12.0
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION		TOPOGRAPHIC FEATURE		HISTORY
		POLYGON: 86-1 START TIME: 11:30 END TIME:	☐ LACUSTRINE ☐ RIVERINE ☐ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☒ ROLL UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF

STAND DESCRIPTION:

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	2	deciduous trees
2	SUB-CANOPY			
3	UNDERSTOREY	5-3	4	Gray dogwood
4	GRD. LAYER			

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% N/O=not observed

STANDING SNAGS:	2/0	<10	10 - 24	25 - 50	>50
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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: <i>gray dogwood cultural thicket</i>		CODE: <i>CUT 1-4</i>
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 N/O=Not observed

[illegible]

Signature:

(Field Personnel)

Quality Control: This form is complete ☒ & legible ☐.

Signature:

(Project Manager)

ELC Polygon: # 86-1 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (*indicate on map*)

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

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

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

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

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

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

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

SEEP / SPRING / VERNAL POOL 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



Coll. Tile 86; Roadside ELC,
Poly 2 Woodland & Wildlife Habitat
Assessment Form

Field Personnel: N. Charlton

POLYGON DESCRIPTION

ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

END TIME:**TOPOGRAPHIC FEATURE****TOPOGRAPHIC FEATURE**

HISTORY

☐ LACUSTRINE	☐ TALUS
☐ RIVERINE	☐ CREVICE / CAVE
☐ BOTTOMLAND	☐ ALVAR
☐ TERRACE	☐ ROCKLAND
☐ VALLEY SLOPE	☐ BEACH / BAR
☐ TABLELAND	☐ SAND DUNE
☒ ROLL. UPLAND	☐ BLUFF
☐ CLIFF	

☐ NATURAL
☒ CULTURAL**STAND DESCRIPTION:**

LAYER		HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	14	FRAPENN >> QUEMACR
2	SUB-CANOPY	3	3	FRAPENN > ULMAMER
3	UNDERSTOREY			NONE
4	GRD. LAYER	5-7	4	SOLIDAGO >> PHAARUN > DAUCARO

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

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

STANDING SNAGS:	1/0	<10	10 - 24	25 - 50	>50
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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: open grassland CODE: 11

COMPLEX		CODE:
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Evidence of Disturbance / Notes:

less maintained than 87-8

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

[illegible]

Signature:

(Field Personnel)

Quality Control: This form is complete ☒ & legible ☒

Signature:

(Project Manager

ELC Polygon: 86-2 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)**Reptile / Bat Hibernacula Features:**

Contains potential reptile hibernacula features?

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

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

Contains potential bat hibernacula features?

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

[i.e. karst topography, abandoned mines or caves]

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

Contains potential bat roosting features?

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

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

Contains large stick nests?

☐-Y* / ☒-N / ☐-Unknown, no access (*if yes, describe in table below)**STICK NEST(S) IDENTIFIED**

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?

☐-Y* / ☐-N / ☒-Unknown, no access (*if yes, describe in table below)**SEEP / SPRING / VERNAL POOL 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



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

Coll. Tile 86;
Poly 3

Roadside ELC,
Woodland & Wildlife Habitat
Assessment Form

Project Number: 160950269

Project Name: NRWC

Date: July 27

Field Personnel: N. Char Hon

Weather Conditions:	TEMP (°C): 25	WIND: 3	CLOUD: 50	PPT: —	PPT (in last 24 hrs): rain
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POLYGON DESCRIPTION

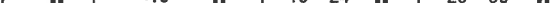
ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:	TOPOGRAPHIC FEATURE		HISTORY
	START TIME:	☐ LACUSTRINE ☐ RIVERINE ☒ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☐ ROLL. UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	☒ NATURAL ☐ CULTURAL

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	PARAUST

IT CODES: 1= $\geq 25m$ 2= $10 < HT \leq 25m$ 3= $2 < HT \leq 10m$ 4= $1 < HT \leq 2m$ 5= $0.5 < HT \leq 1m$ 6= $0.2 < HT \leq 0.5m$ 7= $HT < 0.2m$

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

STANDING SNAGS: *N/δ* 

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

STAND MATURITY:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
-----------------	---------	-------	---------	--------	------------

VEGETATION TYPE: <i>Swampy wooded upland marsh</i>	CODE: <i>11-12-11*</i>
--	------------------------

COMPLEX	CODE:
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Evidence of Disturbance / Notes:

- nothing but very edge visible

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

[illegible]

Signature:

(Field Personnel)

Quality Control: This form is complete ☒ & legible ☒.

Signature:

(Project Manager)

ELC Polygon: # 86-3 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (*indicate on map*)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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



Coll. Tile 86;
Poly 4 Wo

86, Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Name: NRWC

Field Personnel: N. (harc)ton

Weather Conditions:	TEMP (°C): 25	WIND: 3	CLOUD: 80	PPT: —	PPT (in last 24 hrs): rain
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POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON:	TOPOGRAPHIC FEATURE		HISTORY
	86-4	☐ LACUSTRINE	☐ TALUS	☐ NATURAL
	START TIME:	☐ RIVERINE	☐ CREVICE / CAVE	☒ CULTURAL
	11:50	☐ BOTTOMLAND	☐ ALVAR	
	END TIME:	☐ TERRACE	☐ ROCKLAND	
		☐ VALLEY SLOPE	☐ BEACH / BAR	
		☐ TABLELAND	☐ SAND DUNE	
	☒ ROLL UPLAND	☐ BLUFF		
		☐ CLIFF		

STAND DESCRIPTION:

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

IT CODES: 1= $\geq 25\text{m}$ 2= $10 < \text{HT} \leq 25\text{m}$ 3= $2 < \text{HT} \leq 10\text{m}$ 4= $1 < \text{HT} \leq 2\text{m}$ 5= $0.5 < \text{HT} \leq 1\text{m}$ 6= $0.2 < \text{HT} \leq 0.5\text{m}$ 7= $\text{HT} < 0.2\text{m}$

VR 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/A <10 6 10-24 2 25-50 N/A >50

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

STAND MATURITY:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
-----------------	---------	-------	---------	--------	------------

VEGETATION TYPE: 1111 CODE: C*

American elm cultural woodland	CUN1-S*
--------------------------------	---------

COMPLEX	CODE:
---------	-------

Evidence of Disturbance / Notes:

tree cover $\sim 25\%$

Shrub cover $\sim 40\%$

—likely very moist, could potentially be SWD

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

[illegible]

Signature:

(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Project Manager)

ELC Polygon: # 86-4 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (indicate on map)

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL 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; HIO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization



d. Coll. Tile 86; Roadside ELC,
Poly S Woodland & Wildlife Habitat
Assessment Form

Field Personnel: N. Chackleton

Weather Conditions:	TEMP (°C): 25	WIND: 3	CLOUD: 50	PPT: —	PPT (in last 24 hrs): rain
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TOPOGRAPHIC FEATURE

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	POLYGON: 86-5	☐ LACUSTRINE ☐ RIVERINE ☐ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☐ ROLL. UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	☒ NATURAL ☐ CULTURAL
	START TIME: 11:53			
	END TIME:			

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	QUEMACR/RICU > SALIX = ULMAMER > ACER
2 SUB-CANOPY			
3 UNDERSTOREY	4	3	CEPOCCI > SALIX > SPIALBA
4 GRD. LAYER	5-7	3	CAREX SP > PHAARUN > SOLIDAGO

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

STANDING SNAGS:		<10	10 - 24	25 - 50	>50
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BUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
-----------------	---------	-------	---------	--------	------------

VEGETATION TYPE:	CODE:
------------------	-------

COMPLEX	CODE:
---------	-------

Evidence of Disturbance / Notes:

- oak is the most abundant canopy species
- photos 1-2
- tree cover $\sim 25\% - 30\%$
- shrubs $\sim 50\%$
- gets dense past 120 m (closed canopy)

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

[illegible]

Signature:

(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Project Manager

ELC Polygon: # 86-5 Assessment Type: ☒ Visual; no access / ☐ Walk through featureExtent of Physical Investigation of Feature: ☐ Entire / ☐ Partial, walk through polygon (*indicate on map*)

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

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

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

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

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

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

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

SEEP / SPRING / VERNAL POOL 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



Coll. Tile 86; Roadside ELC,
Poly 6 Woodland & Wildlife Habitat
Assessment Form

Field Personnel: N. Charlton

van

☒ NATURAL
☐ CULTURAL

ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

86-6

12:15

END TIME:

LAYER

HT

CVR

SPECIES IN ORDER OF DECREASING DOMINANCE
(>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)

1	CANOPY	2	2	ALERUBR > ULMAMER > FRA PENN
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[illegible]

3	UNDERSTOREY	4	2	SP/ALBA > CFPKCI
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4	GRD. LAYER	5-7	TUPANGH >> PHA ARUN
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IT CODES: 1= $\geq 25\text{m}$ 2= $10 < \text{HT} \leq 25\text{m}$ 3= $2 < \text{HT} \leq 10\text{m}$ 4= $1 < \text{HT} \leq 2\text{m}$ 5= $0.5 < \text{HT} \leq 1\text{m}$ 6= $0.2 < \text{HT} \leq 0.5\text{m}$ 7= $\text{HT} < 0.2\text{m}$

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: N/O

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

STAND MATURITY:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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/EGETATION TYPE:	CODE:
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Cattail shallow marsh	MAJ2-
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COMPLEX	CODE:
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Evidence of Disturbance / Notes:

- tree cover close to making it a swamp
- shrub cover close to making it a thicket swamp

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

[illegible]

Signature:

(Field Personnel)

Quality Control: This form is complete ☐ & legible ☐.

Signature:

(Project Manager)

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

Contains potential reptile hibernacula features?

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

Contains potential bat roosting features?

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

Contains ~~large~~ stick nests?

Contains seeps/springs/vernal pools?

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

ELC Polygon: # 86-7 Assessment Type: ☒-Visual; no access / ☐-Walk through featureExtent of Physical Investigation of Feature: ☐-Entire / ☐-Partial, walk through polygon (indicate on map)

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

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

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

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

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

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

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

SEEP / SPRING / VERNAL POOL 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



Coll. Tile 86; Roadside ELC,
Poly 8 Woodland & Wildlife Habitat
Assessment Form

Project Name: NRWC

Field Personnel: N. Char Hon

—

POLYGON DESCRIPTION

TOPOGRAPHIC FEATURE

HISTORY

ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON:

86-8

START TIME:

12:30

END TIME:

☐ LACUSTRINE☐ TALUS☐ CREVICE / CAVE☐ ALVARO
☐ ROCKY☐ ROCKLAND
☐ BEACH / BAR☐ SAND DUNE

BLUFF

□ CULTURAL

STAND DESCRIPTION:

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

IT CODES: 1= ≥ 25 m 2= $10 < HT \leq 25$ m 3= $2 < HT \leq 10$ m 4= $1 < HT \leq 2$ m 5= $0.5 < HT \leq 1$ m 6= $0.2 < HT \leq 0.5$ m 7= $HT < 0.2$ m

SVR 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/A	<10	10 - 24	25 - 50	>50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT N/O=Not observed

STAND MATURITY:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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VEGETATION TYPE:

CODE:

FODG

CODE: SWT 2-4

Evidence of Disturbance / Notes:

- the ash is looking sick
 - ↳ hardly any leaves on many of them
- small inclusion of "buttonbush mineral thicket swamp"

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

[illegible]

Signature:

(Field Personnel)

Quality Control: This form is complete ☒ & legible ☒

Signature:

(Project Manager