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

Coll. Tile 55; Poly 7

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 12, 2012 Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	32	3	10%		none

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 55-7

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2-3	4	Red pine > white spruce > white pine = green ash
2	SUB-CANOPY			
3	UNDERSTOREY	4	3	gray dogwood
4	GRD. LAYER			n/a

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:	O	<10	R	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: red pine plantation — CODE: CUP3-1

COMPLEX — CODE:

Evidence of Disturbance / Notes:

Somewhat unmaintained, left to go wild.

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
white spruce	C						
white pine	C						
green ash	O						
E. cottonwood	O						
Red pine	A						
SHRUBS:							
gray dogwood			O				
GROUND:							

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #55-7 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 55; Poly 8

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 12, 2012 Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	32	3	10%	None	none

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 55-8

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2-3	3	honey locust
2	SUB-CANOPY			
3	UNDERSTOREY	4	2	gray dogwood
4	GRD. LAYER	5-7	4	phragmites > Reed canary grass

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

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

STANDING SNAGS:	N	<10	R	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: phragmites Shallow marsh CODE: MAS1-10

COMPLEX: Reed canary grass CODE: MAM2-2

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:	A						
honey locust							
SHRUBS:							
gray dogwood			O				
GROUND:							
Reed canary grass				A			
phragmites				A			

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: (Project Manager)

ELC Polygon: #55-8 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 55; Poly 9

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 12, 2012 Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	32	3	10%	none	none

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 55-9

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	Bur oak = white ash = maple sp. > red oak
2	SUB-CANOPY			
3	UNDERSTOREY	4	2	gray dogwood
4	GRD. LAYER			

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

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

STANDING SNAGS:	R <10	O 10 – 24	M 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: F-M Oak-Maple Dec. Forest type CODE: FOD9-2

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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
white elm	O						
balsam poplar	R						
Bur oak	O						
white oak	O						
green ash	R-O						
white ash	R						
red oak	O						
maple sp.	O						
SHRUBS:							
gray dogwood			O				
GROUND:							

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #554 **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

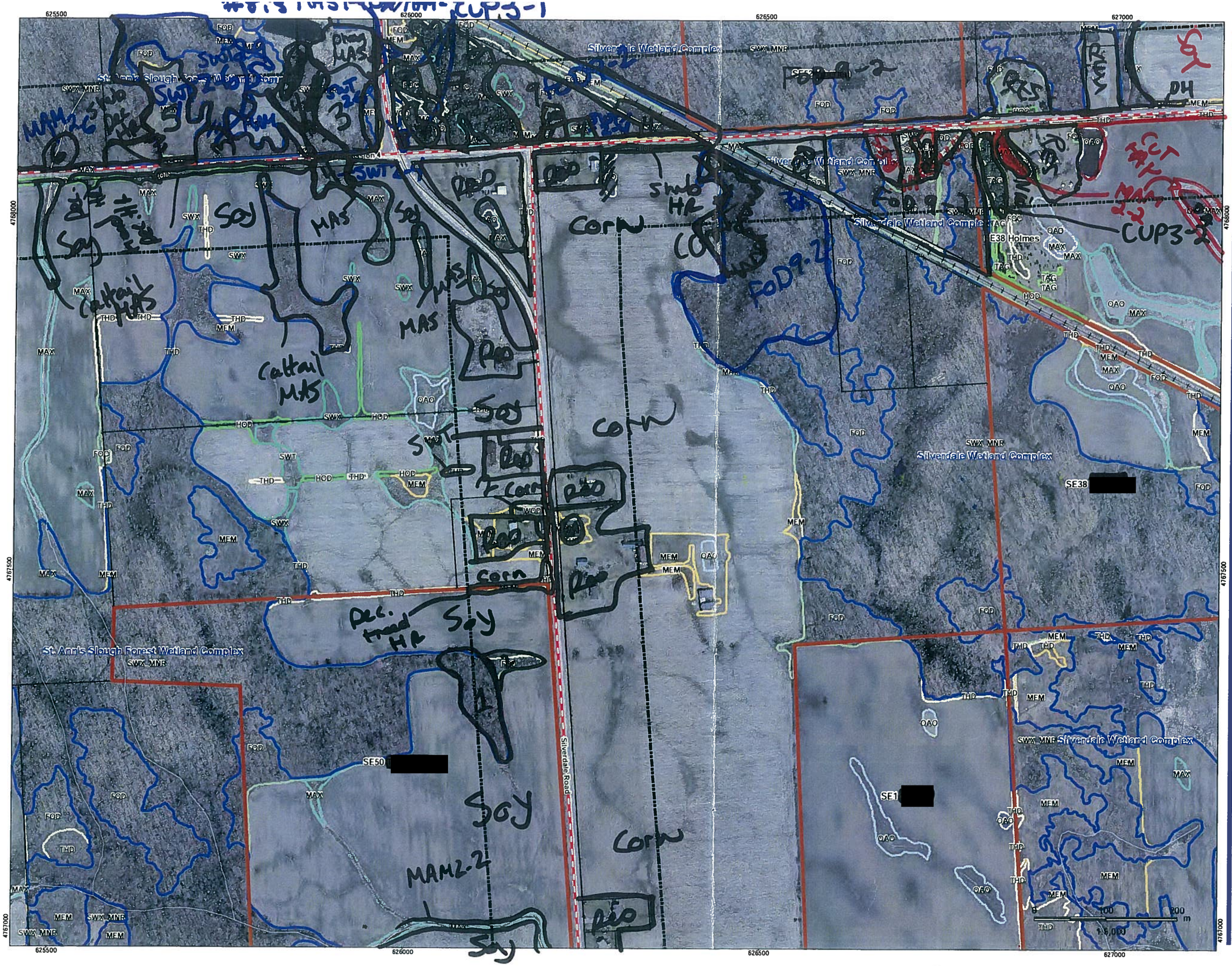
Seeps/Springs/Vernal Pools: Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

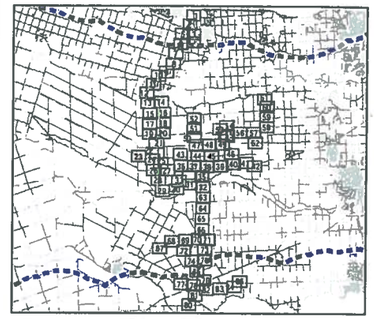


Legend

- 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



Notes

1. Coordinate System: NAD 1983 UTM Zone 17N.
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.

Stantec

June, 2012
t60950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
55

Title
Proposed Collector Route
Map 55

V:\01605\Active\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\t160950269_Release_17_ELC_Collector_Map_Book_20120613.mxd
Revised: 2012-06-14 By: bcowper

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Coll. Tile 56; Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 13, 2012 Field Personnel: C. Baglle

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 56-1

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		

STAND DESCRIPTION:

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

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

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

STANDING SNAGS:	N	<10	A	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: CODE: FOD7-3

COMPLEX: CODE:

Evidence of Disturbance / Notes:

open water in center

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
weeping willow	D						
SHRUBS:							
GROUND:							

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # 56-1 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 56; Poly 2

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 13, 2012 Field Personnel: C. Paquette

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 56-2

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		

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	2	grey dogwood > willow > Shrub
4	GRD. LAYER	5	4	Reed canary grass

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

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

STANDING SNAGS:		<10		10 – 24		25 – 50		>50
ABUNDANCE CODES:	N	N=NONE	R	R=RARE	O	O=OCCASIONAL	A	A=ABUNDANT

N/O=Not observed

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

VEGETATION TYPE: Reed Canary meadow marsh CODE: MAM2-2

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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
SHRUBS:							
grey dogwood			A				
willow Shrub			O				
GROUND:							
Reed canary grass				D			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #56-2 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Fax: (519) 836-2493

Coll. Tile 56; Poly 3

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 13, 2012 Field Personnel: C. Paquette

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 56-3

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	1	green ash
2	SUB-CANOPY		/	
3	UNDERSTOREY			
4	GRD. LAYER	4	4	Cattails >> Reed canary grass

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

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

STANDING SNAGS:	<10	10 – 24	25 – 50	>50
	M	M	M	M

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: Cattail Mineral Shallow Marsh CODE: MAS2-1

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 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
green ash	R						
SHRUBS:							
GROUND:							
cattails				D			
Reed canary grass				D			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #563 **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; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

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Coll. Tile 56, Poly 4

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRNC

Date: July 13, 2012 Field Personnel: C. Payette

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 56-4

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	2	greenash = Red oak ≥ Bur oak
2	SUB-CANOPY			
3	UNDERSTOREY	4	4	graydogwood
4	GRD. LAYER	5-7	3	Reed Canary grass

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤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: graydogwood thicket Swamp CODE: SWT2-9

COMPLEX CODE:

Evidence of Disturbance / Notes:

HR in front, difficult to see community

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
greenash	O						
Red oak	O						
Bur oak	O						
SHRUBS:							
graydogwood			A				
GROUND:							
Reed Canary grass				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #56-4 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

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

Bat Roosting Features:

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

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

Stick Nests:

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

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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

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

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

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Coll. Tile 56; Poly 5

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: WRWC

Date: July 13, 2012 Field Personnel: C. Payette

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 56-5

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	Bur oak = red oak = white oak > Silver maple
2	SUB-CANOPY			
3	UNDERSTOREY	4	2	gray dogwood
4	GRD. LAYER			

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: F-M oak - Maple - hickory Dec. Forest CODE: FOD9

COMPLEX CODE:

Evidence of Disturbance / Notes:

Too far back to determine vegetation Type.

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
Bur oak	O						
green ash	O						
Red oak	O						
Shagbark hickory	R						
Silver maple	R-O						
white oak	O						
SHRUBS:							
gray dogwood			O				
GROUND:							

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #56-5 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tik 56; Poly 6

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 13, 2012 Field Personnel: C. Paythe

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

ELC

COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: S6-5

START TIME:

END TIME:

POLYGON DESCRIPTION

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	2	green ash > crack willow >> Shagbark hickory
2	SUB-CANOPY			
3	UNDERSTOREY	4	4	Buttonbush > willow Shrub > meadow sweet
4	GRD. LAYER	5-7	3	Reed canary grass > Cattails > Aster sp.

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

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

STANDING SNAGS:	6 <10	R 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: Buttonbush thicket Swamp CODE: SWT

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:	R						
crack willow	O						
green ash	O						
Shagbark hickory	R						
SHRUBS:							
Buttonbush			D	R			
willow Shrub			O	R			
Virginia Creeper			O				
meadow Sweet			O				
GROUND:							
cattails				O			
Aster sp				O			
Reed canary grass				A			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #56-5 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 62; Poly 8

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 13, 2012 Field Personnel: C. Payette

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

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 62 (Poly-8)

START TIME:

END TIME:

POLYGON DESCRIPTION

TOPOGRAPHIC FEATURE

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

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	2	poplar sp > apple sp > Black walnut
2	SUB-CANOPY			
3	UNDERSTOREY	4	3	Sumac >> riverbank grape
4	GRD. LAYER	5-7	4	Reed canary grass > trefoil

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: Sumac cultural thicket CODE: CUT1-1

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
poplar sp.	A						
Black walnut	O						
Apple sp	O-A						
White pine			A				
SHRUBS:							
Sumac			A				
riverbank grape			O				
GROUND:							
Reed canary grass				A			
trefoil				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #62-8 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 62, Poly 9

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 13, 2012 Field Personnel: C. Pagette

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 62-9

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY			green ash > white elm > Red maple > pin oak
2	SUB-CANOPY			
3	UNDERSTOREY			gray dogwood
4	GRD. LAYER			

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: green ash Mineral Dec Swamp CODE: FOD/SWD2-2

COMPLEX: inclusion phrag shallow marsh CODE: FOD MAS1-10*

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
green ash	A						
Red maple	O						
white elm	O						
Pin oak	R						
Shagbark hickory	R						
SHRUBS:							
gray dogwood			A				
GROUND:							
* phragmites				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #62-9 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 58; Poly 10

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NHWC

Date: July 13, 2012 Field Personnel: C. Pagtht

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 58-10

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2-3	7	green ash > willow sp
2	SUB-CANOPY			
3	UNDERSTOREY	4	4	grey dogwood
4	GRD. LAYER	5-7	3	goldenrod sp > sunflower sp

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: grey dogwood cultural thicket CODE: CUT 1-4

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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
green ash	O						
willow sp	R						
SHRUBS:							
grey dogwood			A				
GROUND:							
goldenrod sp				O			
sunflower sp				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #58-10 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Stantec

Coll. Tile 58, Poly 11

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 13, 2012 Field Personnel: C. Paylette

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: S8-11

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2-3	2	green ash > white pine
2	SUB-CANOPY			
3	UNDERSTOREY	4	3	gray dogwood > Staghorn Sumac > willow
4	GRD. LAYER	5-7	4	Reed canary grass > Goldenrod sp > Goldenrod sp

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: Reed canary grass meadow marsh CODE: MAM2-2

COMPLEX: gray dogwood cut CODE: CUT1-4

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
green ash	8						
white pine	8						
SHRUBS:							
Staghorn Sumac			O				
willow sp			C				
gray dogwood			A				
GROUND:							
Reed canary grass				A			
goldenrod sp				A			
Milkweed (common)				O			
grass sp				A			
Queen Anne's lace				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #58-11 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 58; Poly 12

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950469 Project Name: NRWC

Date: July 13, 2012 Field Personnel: C. Pagtht

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 58-12

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY			Redoak=Buroak=Silver maple>Sugar maple
2	SUB-CANOPY			
3	UNDERSTOREY			Virginia creeper > gray dogwood
4	GRD. LAYER			

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: maple Mineral Dr Swamp CODE: SWD3

COMPLEX: Sugar maple hadwood CODE: FOD6-5

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
Redoak	O						
Buroak	O						
Silver maple	O						
white ash	R						
Sugar maple	R						
Shag bark hickory	R-O						
green ash	O						
SHRUBS:							
Virginia creeper			A				
gray dogwood			O				
GROUND:							

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #58-12 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 58; Poly 13

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 13, 2012 Field Personnel: C. Pagliett

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 58-13

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	2	Silver maple = green ash
2	SUB-CANOPY			
3	UNDERSTOREY	4	4	Meadowsweet
4	GRD. LAYER	5-7	3	Cattails

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:	R <10	N 10 – 24	V 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: Meadowsweet Swamp Thicket CODE: SWT2-6

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
Silver maple	C						
green ash	O						
SHRUBS:							
Meadowsweet			A				
GROUND:							
Cattails				A			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #58-13 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Fax: (519) 836-2493

Coll. Tile 58; Poly 14

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 13, 2012 Field Personnel: C. Baylis

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

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 58-14

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2-3	2	green ash > white elm
2	SUB-CANOPY			
3	UNDERSTOREY	4	3	grey dogwood > willow sp.
4	GRD. LAYER	5-7	4	chives > goldenrod sp > trees > 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: grey dogwood cultural thicket CODE: CUT1-4

COMPLEX: old field cultural meadow CODE: CUM1-1

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
white elm	O						
green ash	O						
SHRUBS:							
grey dogwood			A				
tw. Hawthsp.			O				
GROUND:							
chives				A			
asparagus				R-O			
goldenrod sp.				A			
milkweed (common)				O			
cultivar				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # 58-14 **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; EY=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

Coll. Tile 57; Poly 7

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 13, 2012 Field Personnel: C. Paythe

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: ST-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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2-3	3	trembling aspen >> green ash > Basswood
2	SUB-CANOPY			
3	UNDERSTOREY	4	2	grey dogwood
4	GRD. LAYER			N/O

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:	N/O	<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: F-M Poplar Deciduous ~~Shrub~~ CODE: FOD-8-1

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
trembling aspen	D						
Shagbark hickory	O						
Basswood	O						
red oak			O				
green ash	O						
SHRUBS:							
grey dogwood			O				
GROUND:							

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #57-7 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

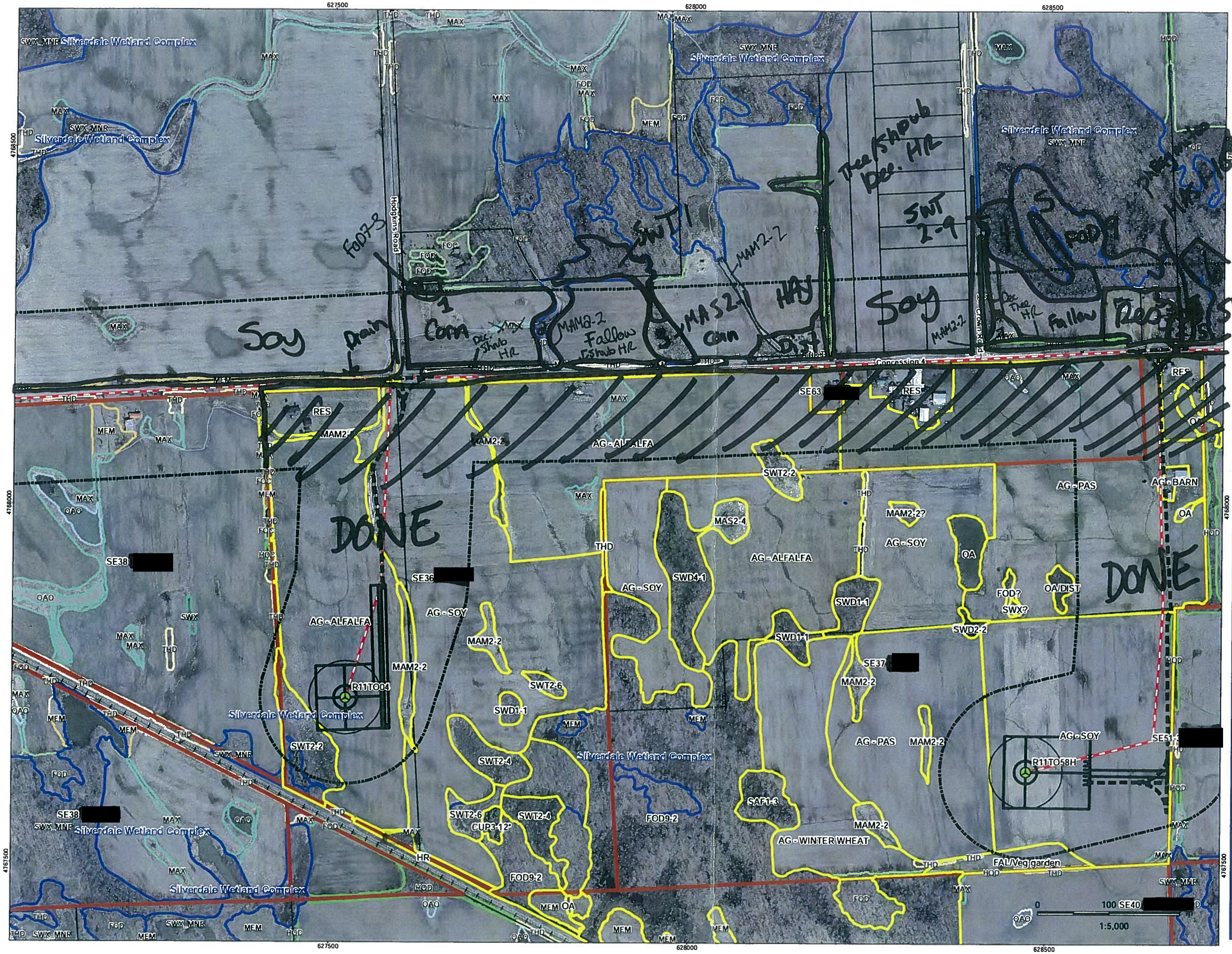
Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

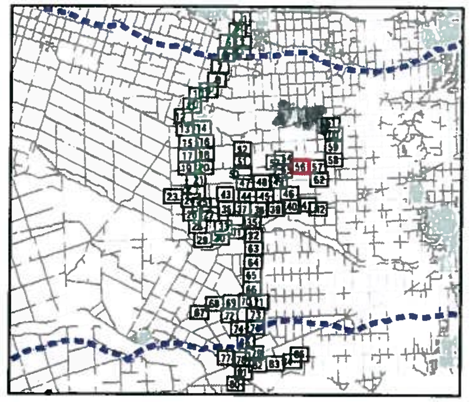
SPECIES & HABITAT OBSERVATIONS (list species and type of observation & indicate on map)

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; 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

1. Coordinate System: NAD 1983 UTM Zone 17N.
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June, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
56

Title
Proposed Collector Route
Map 56

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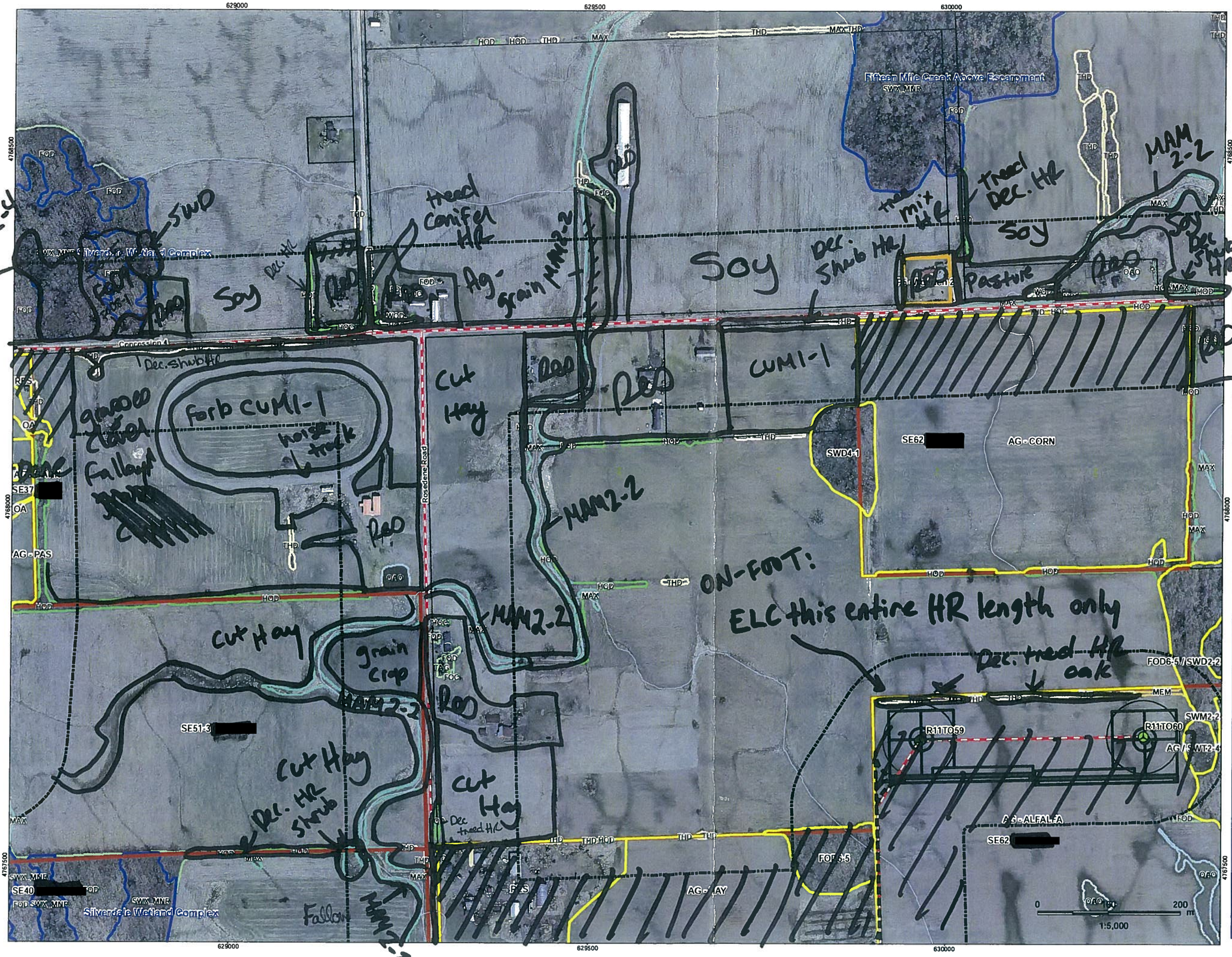
Revised: 2012-06-14 By: bcowper



Legend

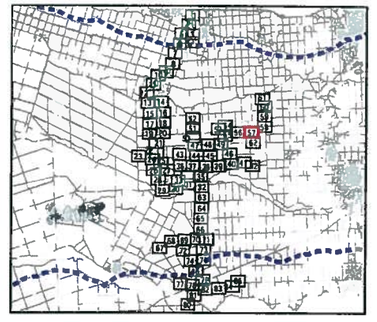
- Proposed T Line Route
- Proposed Collector 120m Buffer

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

1. Coordinate System: NAD 1983 UTM Zone 17N.
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.

Stantec

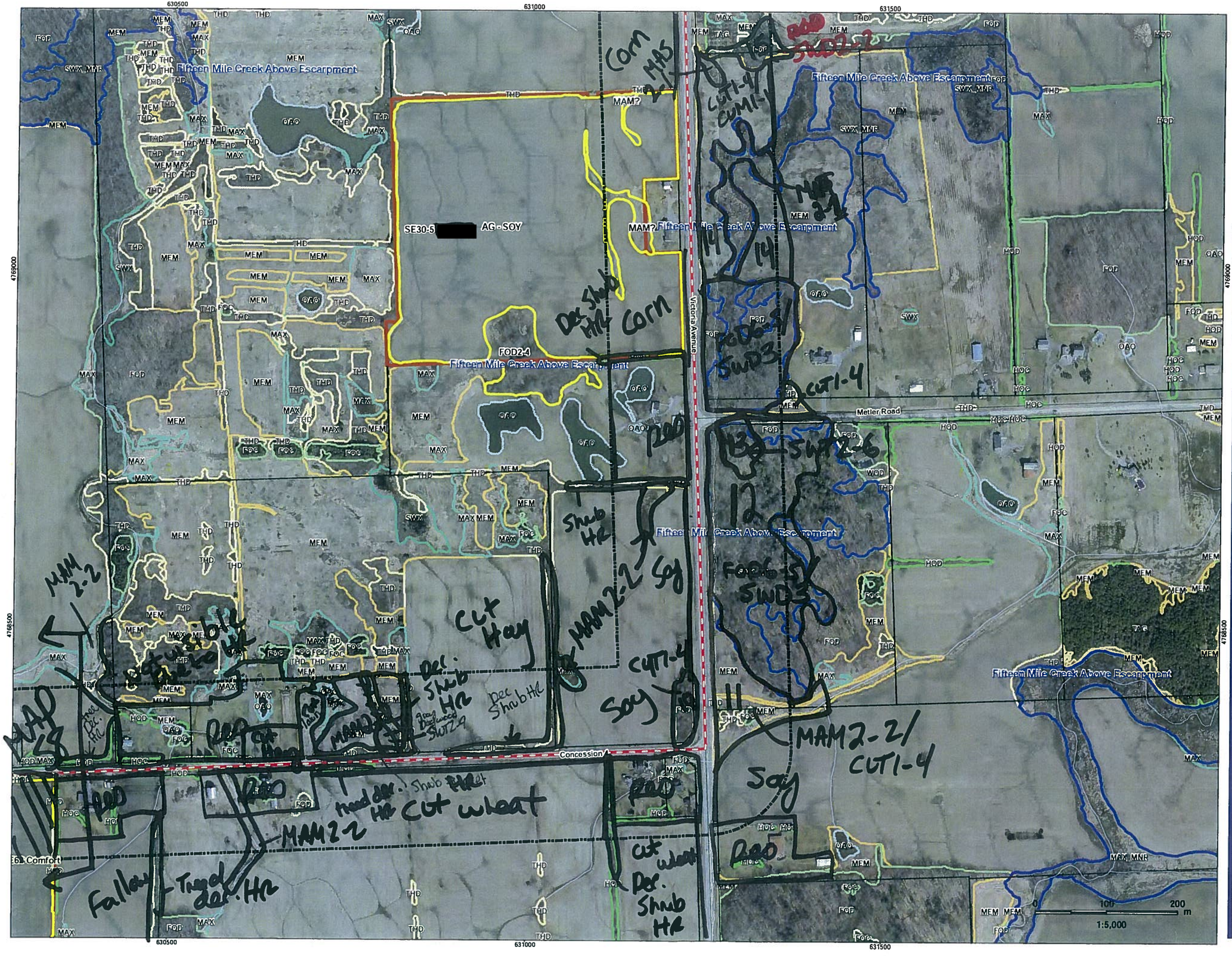
June, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
57

Title
Proposed Collector Route
Map 57

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



Legend

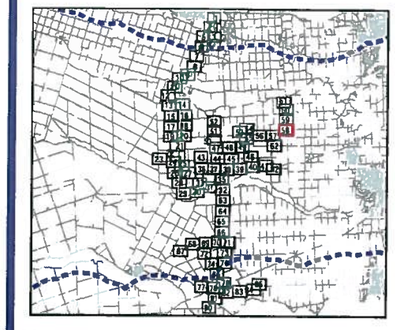
- Proposed T Line Route
- Proposed Collector 120m Buffer

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

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Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
58

Title
Proposed Collector Route
Map 58

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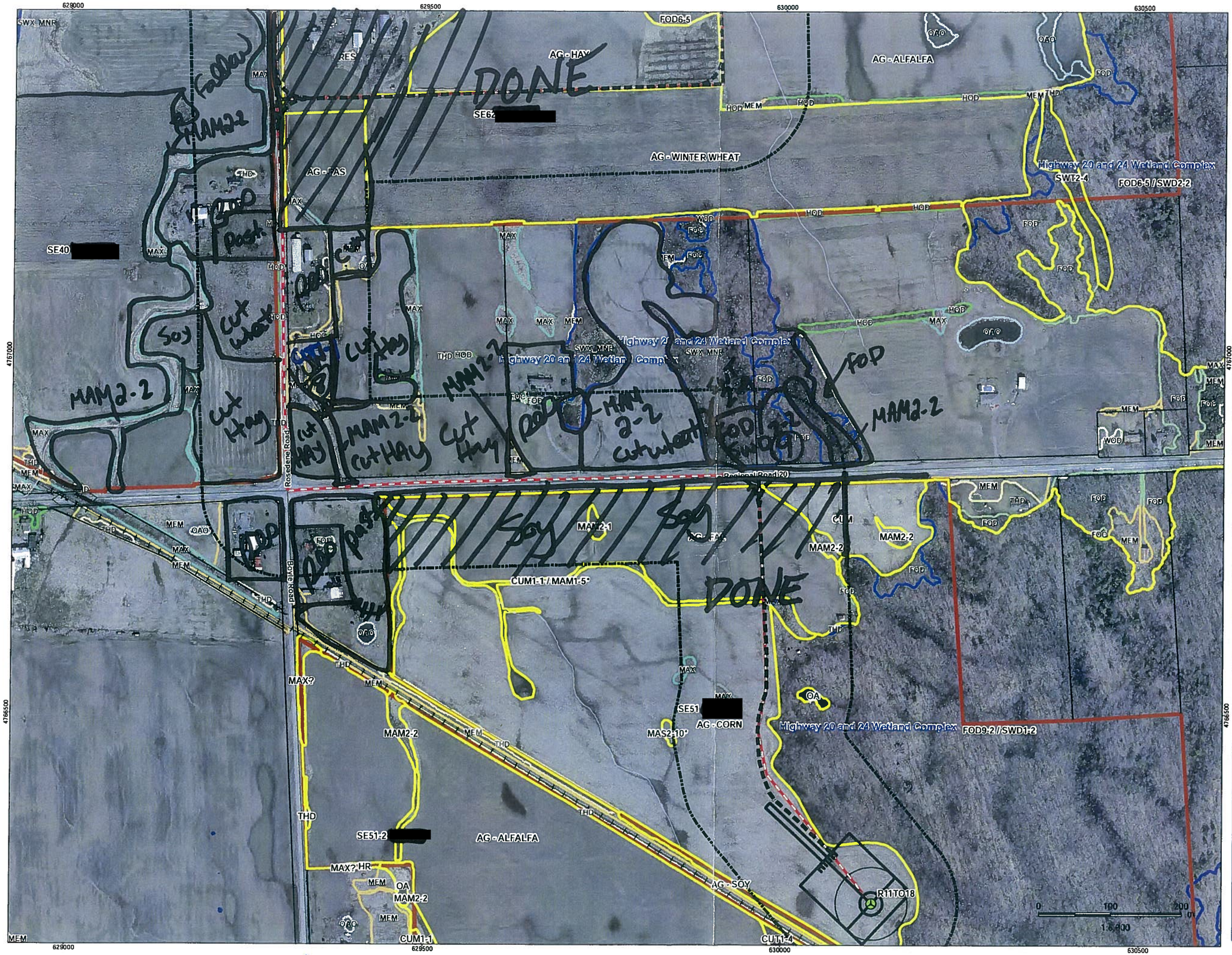
Revised: 2012-06-14 By: bcowper



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Revised: 2012-06-14 By: bcowper

Legend

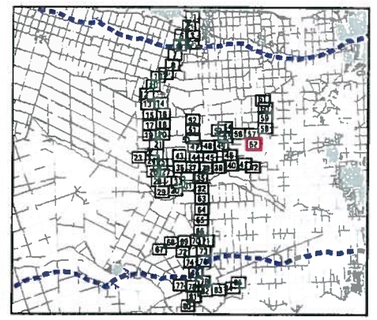
- Proposed T Line Route
- Proposed Collector 120m Buffer

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

1. Coordinate System: NAD 1983 UTM Zone 17N.
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.

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June, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
62

Title
Proposed Collector Route
Map 62

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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: 160950769 Project Name: NRWC

Date: Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	33	3-4	20 -	None	None

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: SG-1

START TIME: 2:30.

END TIME: 2:40

POLYGON DESCRIPTION

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	3	FRAPENN
2	SUB-CANOPY	3	3	FRAPENN
3	UNDERSTOREY	4	4	Gray Dogwood > Hawthorn
4	GRD. LAYER	5-7	2	PHAARUN

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: F-M Ash Lowland Dec Forest CODE: FOD 7-2

☐ 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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤6 m	>6 m	COLL.
TREES:							
FRAPENN	A	A					
SHRUBS:							
Gray Dogwood			A				
Hawthorn			O				
GROUND:							
PHAARUN				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # C **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

CA=carcass; DP=distinctive parts; FE=feeding evidence; EY=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: 160950262 Project Name: NRWC

Date: July 16/12 Field Personnel: M.Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	33	3-4	20	Nom	None

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: D59-2

START TIME: 2:40

END TIME: 2:45

POLYGON DESCRIPTION

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			

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: Reed Canary Grass Mineral Meadow CODE: MAM2-2

COMPLEX: Marsh 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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
SHRUBS:							
GROUND:							
PHAARUN			1	A			
TYPLAT			2	O			

Signature: _____ (Field Personnel)

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

Signature: _____ (Project Manager)

ELC Polygon: # D **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Stantec

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 16/12 Field Personnel: M. Ross

Weather Conditions:

TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
33	3-4	20	None	None

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 59-3

START TIME: 2:50

END TIME: 3:00

POLYGON DESCRIPTION

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	QUEMAC > Pin Oak > QUERUB = FRAPENN
2	SUB-CANOPY	3	3	QUERUB = Pin Oak ? POPTREM
3	UNDERSTOREY	4	4	FRAPENN = Hawthorn = Gray Dogwood
4	GRD. LAYER	5-7	2	Solidago = Virginia Creeper

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: F-M Bur Oak Dec forest CODE: FOD9-3

COMPLEX: F-M Ash Lowland ~~Dec~~ Forest CODE: FOD7-2

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:							
QUEMAC	A						
QUERUB	O	O					
FRAPENN	O	O	O				
Pin Oak	O-A	O					
POPTREM		R					
QUEALBA	R						
SHRUBS:							
Hawthorn			O				
Gray Dogwood			O				
GROUND:							
Solidago sp				O			
Virginia Creeper sp				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # E **Assessment Type:** ☐-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 16/12 Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	33	3-4	20	None	None

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 59_4

START TIME: 3:05

END TIME: 3:15

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	Gray Dogwood > POPTREM = ULMAMER = FRAPENN
4	GRD. LAYER		3	Solidago > PHAARUN = BROINN

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: Gray Dogwood Cultural Thicket CODE: CUT 1-4

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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
POPTREM			O				
ULMAMER			O				
FRAPENN			O				
SHRUBS:							
Gray Dogwood			A				
Salix sp			R				
GROUND:							
Solidago sp				A			
PHAARUN				O			
BROINN				O			

Signature: _____ (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: _____ (Project Manager)

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

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

Reptile / Bat Hibernacula Features:

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

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

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

Bat Roosting Features:

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

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

Stick Nests:

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

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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

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

CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=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: NRWC

Date: July 16/12 Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	33	3-4	40	None	None

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 59-5

START TIME: 315

END TIME: 3:25

POLYGON DESCRIPTION

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	5-7	4	PHAARUN > Wild Carrot = Wild tease(> S. Idaho

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: D-MOld Field Meadow CODE: CUM1-1

COMPLEX CODE:

Evidence of Disturbance / Notes:

Monarch

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 1	2	3	4	DISTANCE FROM RD. ≤6 m	>6 m	COLL.
TREES:							
SHRUBS:							
GROUND:							
PHAARUN				A			
Wild tease				O-A			
Wild Carot				O-A			
Timothy				O			
S. Idaho &				O			
Comm. Milkweed				O			
Birds Foot Trefoil				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

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

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

7-2

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

1. Coordinate System: NAD 1983 UTM Zone 17N.
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.

Stantec

June, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
59

Title
Proposed Collector Route
Map 59

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

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Coll. Tile 60, Poly1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 16/12 Field Personnel: M Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	33	3-4	40	None	None

POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 60-1

START TIME: 3:30

END TIME: 3:40

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)
CANOPY	2	4	QUEMACR = QUEALBA = QUERUBR = Shagbark Hickory
SUB-CANOPY	3	4	ACESASA = Shagbark Hickory
UNDERSTOREY	4	3	ACESASA = ULMAMER = Shagbark Hickory
GRD. LAYER	5-7	2	Solidago Sp

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

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

STANDING SNAGS:	<10	10 – 24	25 – 50	>50
ABUNDANCE CODES:	0	0	0	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
			✓		

VEGETATION TYPE: D-F Oak-Hickory Dec. Forest CODE: FOD2-2

COMPLEX: Ash lowland Dec Forest CODE: FOD7-2

Evidence of Disturbance / Notes:

LAYERS: 1=CANOPY >10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

SPECIES CODE	LAYER 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
ACESASA		O	O				
QUEMACR	O						
QUEALBA	O						
QUERUBR	O						
FRAPENN	O	O					
ULMAMER			O				
Shagbark Hickory	O	O	O				
SHRUBS:							
GROUND:							
Solidago Sp				O			

Signature: _____ (Field Personnel)

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

Signature: _____ (Project Manager)

ELC Polygon: # H **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

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

Bat Roosting Features:

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

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

Stick Nests:

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

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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

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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Coll. Tile 60; Poly 2

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 6/12 Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	33	3 - 4	45	None	None

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 60-2

START TIME: 400

END TIME: 4:15

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		

LAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	4	QUERUBR > QUEMACR = FRAPENN = Shagbark
SUB-CANOPY	3	3	QUERUB = Shagbark > QUEMACR
UNDERSTOREY	4	3	FRAPENN = ULMAMER = Shagbark
GRD. LAYER			N/D

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: D-F Oak-Hickory Dec. forest CODE: FOD 2-7

COMPLEX: Green Ash Mix Deciduous Swamp CODE: SWD2-2

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
FRAPENN	O		O				
ULMAMER	R-O		O				
QUERUBR	A	O					
QUEMACR	O	R-O					
Shagbark Hickory	O	O	O				
SHRUBS:							
GROUND:							
RHAARUN				A			
TYPLATI				O			

Signature: _____ (Field Personnel)

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

Signature: _____ (Project Manager)

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

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 60; Poly 3

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 16/12 Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	33	3 – 4	45	None	None

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 60-3

START TIME: 4:15

END TIME: 4:25

POLYGON DESCRIPTION

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)
CANOPY	2		QUERUBR = FAGGRAN > TILAMER > ACESASA
SUB-CANOPY	3		TILAMER > FAGGRAN > JUGNIGR > ACESAS
UNDERSTOREY			Gray Dogwood = Lonicera Sp.
GRD. LAYER			N/O

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: N <10 O 10 – 24 R 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: FM Sugar Maple-Hardwood Dec CODE: FOD6-5

COMPLEX: Forest 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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
JUGNIGR	R-O	R O					
QUERUBR	O-A						
QUEMACR	B-O						
TILAMER	O	O					
FAGGRAN	O-A	O					
ACESASA	O	R O					
FRAPENN	R						
ULMAMER		R					
SHRUBS:							
Gray Dogwood			R O				
Lonicera			R-O				
GROUND:							

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # J **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

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

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

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

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

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

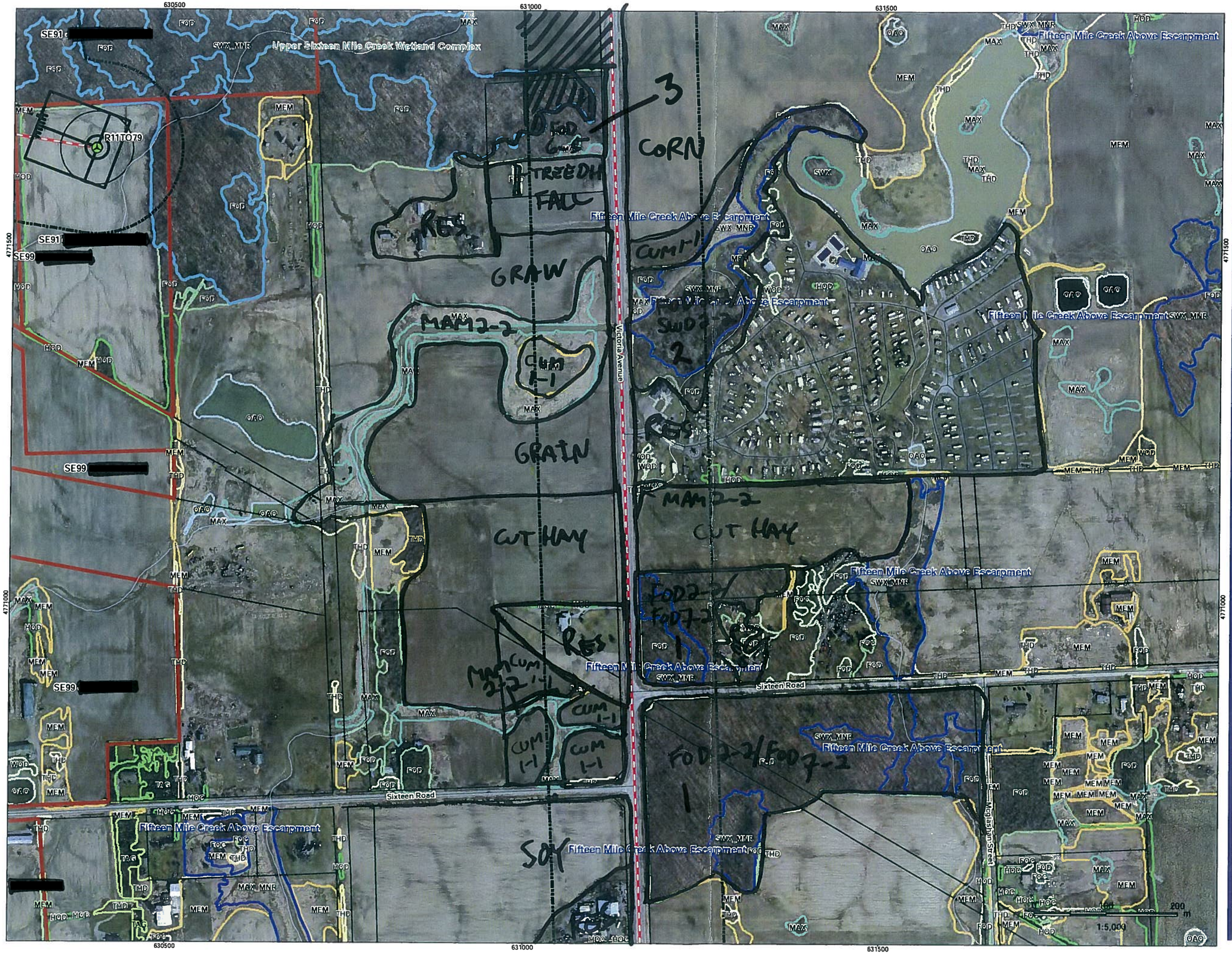
STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

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

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

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

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



Legend

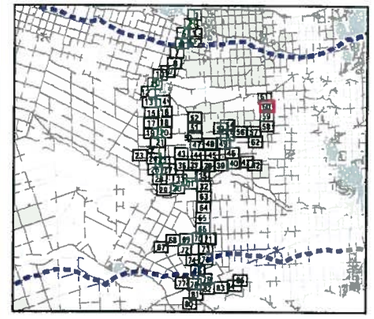
- Proposed T Line Route
- Proposed Collector 120m Buffer

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

1. Coordinate System: NAD 1983 UTM Zone 17N.
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.

Stantec

June, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
60

Title
Proposed Collector Route
Map 60

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

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Coll. Tile 61; Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950216? Project Name: NRWC

Date: [illegible] 15, 2016 Field Personnel: NC, AO

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	3-4	40%	—	—

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 61 – 1

START TIME:

END TIME:

POLYGON DESCRIPTION

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)
CANOPY	2	3	FRAMER > QUEMACR > Shagbark hickory
SUB-CANOPY	3	3	FRAMER > QUEMACR > Shagbark hickory
UNDERSTOREY	5	2	CORRACE > CRA_SP
GRD. LAYER	5	2	PHAARUN > ASTER_SP

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

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

STANDING SNAGS: N/O	≤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: Fresh-Moist Oak-Maple-Hickory Deciduous Forest CODE: FOD9

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
FRAPENN	A	A					
QUEMACR	O	A					
Shagbark hickory	O	O					
SHRUBS:							
CRA_SP			R				
CORRACE			A				
GROUND:							
PHAARUN				A			
ASTER_SP				O			
SOL_SP				R			

Signature: [signature] (Field Personnel)

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

Signature: [signature] (Project Manager)

ELC Polygon: #61-1 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 61, Poly 3

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: Aug 15, 2012 Field Personnel: NC, AO

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	3-4	40%	none	none

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 61-2

START TIME:

END TIME:

POLYGON DESCRIPTION

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)
CANOPY	2	2	FRAPENN
SUB-CANOPY	3	2	QUERICO
UNDERSTOREY	4	2	CORRACE
GRD. LAYER	5-7	4	PHAARUN >SOLIDAGO > TYPLATI = DIPFUSY

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:	N	<10	O	10 – 24	O	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: green ash swamp CODE: SWD2-2

COMPLEX: red maple CODE: MAM2-2

Evidence of Disturbance / Notes:

- Floodplain community

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
FRAPENN	A						
QUERICO		A	A				
SHRUBS:							
CORRACE			A				
GROUND:							
PHAARUN				A			
LYTSALI				R			
SOLIDAGO				A-O			
DIPFUSY				R			
TYPLATI				O			
				R-O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #61-2 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

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

Bat Roosting Features:

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

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

Stick Nests:

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

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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

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

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

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Fax: (519) 836-2493

Coll. Tile 61, Poly 3

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: Aug 15 Field Personnel: N. Charlton, A. Orr

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	3-4	40%	—	—

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 61-3

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		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
CANOPY	2	4	ACESASA >QUERUBR = TILAMER
SUB-CANOPY	—	—	
UNDERSTOREY	—	—	
GRD. LAYER	—	—	

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

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

STANDING SNAGS:	N/O	<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: Fresh-Moist Sugar Maple Hardwood deciduous forest CODE: FOD6

COMPLEX CODE:

Evidence of Disturbance / Notes:

- low visibility to interior
- can't see other layers
- goldenrod and BROMIN at edge and listed shrubs + VITIS

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 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
QUERUBR	O						
ACESASA	A						
TILAMER	O						
SHRUBS:							
CORRACE			A				
LONTART			R				
GROUND:							
VITRIPA	O		O				

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #61-3 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 61; Poly 5

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: Aug 15, 2012 Field Personnel: NC, AO

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	3-4	40%	—	—

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 61-5

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		

STAND DESCRIPTION:

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

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

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

STANDING SNAGS: N/O — <10 | 10 – 24 | 25 – 50 | >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: Deciduous forest CODE: FOD

COMPLEX CODE:

Evidence of Disturbance / Notes:

- Edge only
→ composition ratios most likely do not reflect interior conditions
∴ no vegetation type selected

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
QUERUBR	A						
PINSTRO	R-O						
ACESASA	R	R					
TILAMER	R						
FRAX SP	R						
Salix	R						
SHRUBS:							
CORRACE			O				
GROUND:							
PHAARUN				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #61-5 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

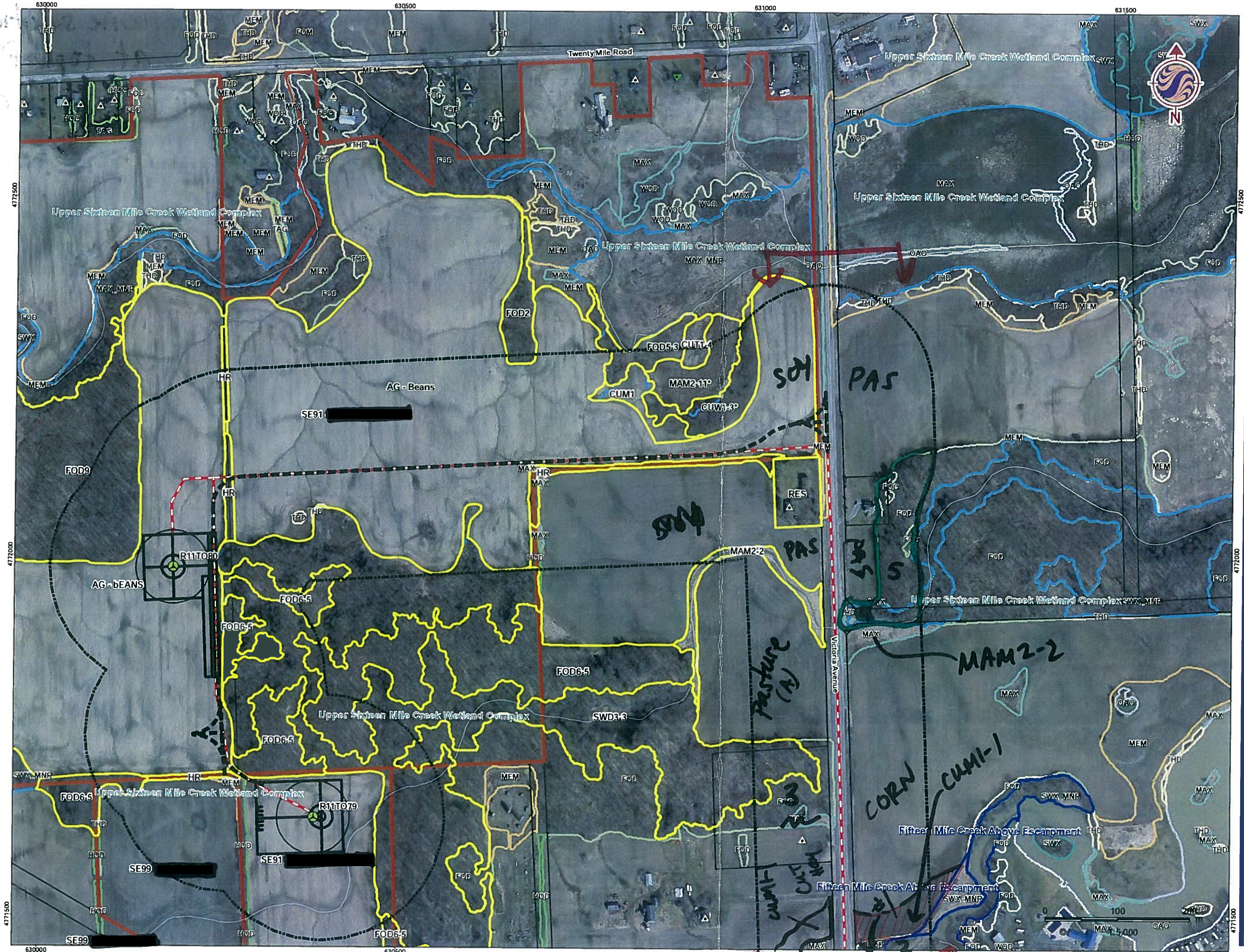
Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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



Legend

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

Notes

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

Stantec

July, 2012
160950269

Client/Project
Niagara Region Wind Corporation
ELC Delineation

Figure No.
61

Title
Transmission and Collector Line
Map: 61

V:\01609\active\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_18_ELC_T_Line_Collector_Map_Book_20120727.mxd
Revised: 2012-07-27 By: bcowper

needs full ELC along Victoria Ave.

was not done due to concern Turbine

Find Field Sheet - deg. incomplete

A: DAUCARO, Grass

if this section has already been ELCd please use that instead (mapping will be better)

one section
at top of
tile to be done

61

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Coll. Tile 61; Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: Niagara

Date: Aug 27, 2012 Field Personnel: Katherine S

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	27	2	100	rain	rain

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 61-1

START TIME: 945

END TIME: 1000

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY		N/O	
2	SUB-CANOPY		N/O	
3	UNDERSTOREY		N/O	
4	GRD. LAYER	6	4	reed canary >> goldenrod > 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:	☒ <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: Reed canary grass meadow marsh — CODE: MAM2-2

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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
SHRUBS:							
GROUND:							
reed canary grass				D			
tease!				R			
chicory				R			
goldenrod sp				O			
common milkweed				R			
wild carrot				R			
calico aster				R			

Signature: Katherine Stanton (Field Personnel)

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

Signature: (Project Manager)

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

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

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

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

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

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

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

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

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

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

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

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

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Coll. Tile 61; Poly 2

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: Niagara

Date: Aug 27, 2012 Field Personnel: Katherine S

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	27	2	100	rain	rain

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 61-2

START TIME: 845

END TIME: 910

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	4	Red oak >> Sugar maple > basswood
2	SUB-CANOPY	3	3	Red oak
3	UNDERSTOREY	4	3	Riverbank grape > Staghorn sumac
4	GRD. LAYER	5	N/O	

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:	N/O <10	N/O 10 – 24	N/O 25 – 50	N/O >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 Oak-hardwood deciduous forest CODE: FOD2-4

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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
Red oak	D	O					
Sugar maple	O						
White pine	R						
White ash	R						
Am basswood	R						
SHRUBS:							
Staghorn Sumac			O				
Riverbank grape			A				
GROUND:							

Signature: Katherine Stanz (Field Personnel)

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

Signature: Nick Charette (Project Manager)

ELC Polygon: # 2 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

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

STICK NEST(S) IDENTIFIED

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

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 61; Poly 3

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: Niagara

Date: Aug 27, 2012 Field Personnel: Katherine S

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	27	2	100	rain	rain

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 61-3.

START TIME: 910

END TIME: 925

TOPOGRAPHIC FEATURE		HISTORY
☐ LACUSTRINE	☐ TALUS	~~☐ NATURAL~~
☐ RIVERINE	☐ CREVICE / CAVE	
☒ ~~BOT~~TOMLAND	☐ ALVAR	☐ CULTURAL
☐ 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)
CANOPY	2	4	Black walnut = White elm > Willow sp.
SUB-CANOPY	3	3	Willow sp.
UNDERSTOREY	4	2	Gray dogwood > riverbank grape
GRD. LAYER	5	N/O	Virginia creeper

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: White elm Deciduous Swamp CODE: SWD4-2

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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
Willow sp.	R	O					
White elm	O						
Black walnut	O						
SHRUBS:							
Riverbank grape			A				
Gray dogwood			A				
GROUND:							
Virginia creeper				O			

Signature: Katherine Stern (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # 3 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

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

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

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

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

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

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

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

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

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

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

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Coll. Tile 61, Poly 4

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: Niagara

Date: Aug 27, 2012 Field Personnel: Katherine S

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	27	2	100	rain	rain

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 61-4

START TIME: 925

END TIME: 940

POLYGON DESCRIPTION

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	3	1	Silver maple = white elm
2	SUB-CANOPY	4	1	White spruce
3	UNDERSTOREY	5	N/O	
4	GRD. LAYER	6	4	reed canary >> cattail > phragmites

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: Reed canary grass mineral meadow marsh CODE: MAM2-2

COMPLEX: Cattail shallow marsh CODE: MAS2-1

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
Silver maple	R						
White elm	R						
SHRUBS:							
White spruce		R					
GROUND:							
Broad-leaved cattail				A			
Reed canary grass				D			
Phragmites				A			
Teasel				R			

Signature: Katherine S (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # 4 **Assessment Type:** ☒-Visual; no access / ☐-Walk through feature

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

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

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

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

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

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

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

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

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

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

Am. crow

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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Coll. Tile 61; Poly 5

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: Niagara

Date: Aug 27, 2012 Field Personnel: Katherine S

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	27	2	100	rain	rain

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 61-5

START TIME: 940

END TIME: 945

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	1	Manitoba maple
2	SUB-CANOPY	3	1	Black walnut
3	UNDERSTOREY	4	3	Gray dogwood > riverbank grape
4	GRD. LAYER	5	2	goldenrod

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: Gray dogwood deciduous shrub thicket CODE: CUT1-4

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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
Black walnut		R					
Manitoba maple	R						
SHRUBS:							
White cedar			R				
Riverbank grape			A				
Gray dogwood			D				
GROUND:							
Solidago sp.				O			

Signature: Katherine Stam (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # 5 **Assessment Type:** ☒-Visual; no access / ☐-Walk through feature

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

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

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

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

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

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

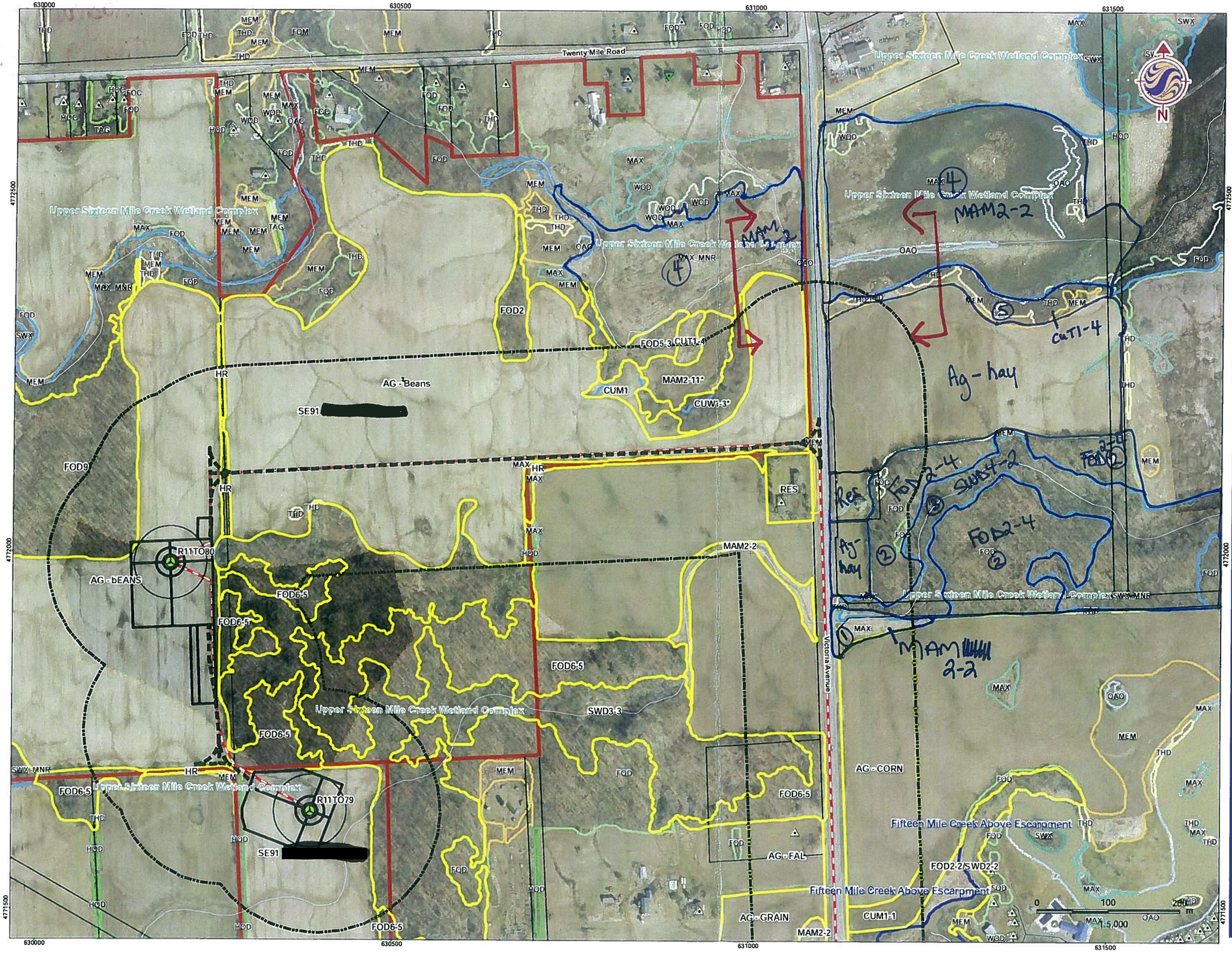
STICK NEST(S) IDENTIFIED					
UTM	Tree ID	Tree Spp.	Nest Size	Photo No.	Spp. Observed Using Feature

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

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

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

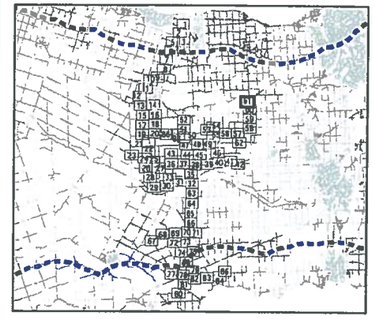
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization



Legend

Turbines in Signed Lands
- Standard Turbine (105 dBA)
- 51 m Turbine Setback
- Non-Particpating Receptor
- Particpating Receptor
- Proposed Collector Cable
- Preliminary Study Area
- Signed Property
- Potential Signed Property
- ELC Boundary
- Provincially Significant Wetland
- Other/Locally Significant Wetland
- Property Boundary
- Non-Participating Receptors 550m Setback
- Turbine and Access Road 150m buffer

(1) Polygon numbers correspond to ELC sheets)



Notes

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

Stantec

August, 2012
160950269

Client/Project
Niagara Region Wind Corporation
ELC Delineation

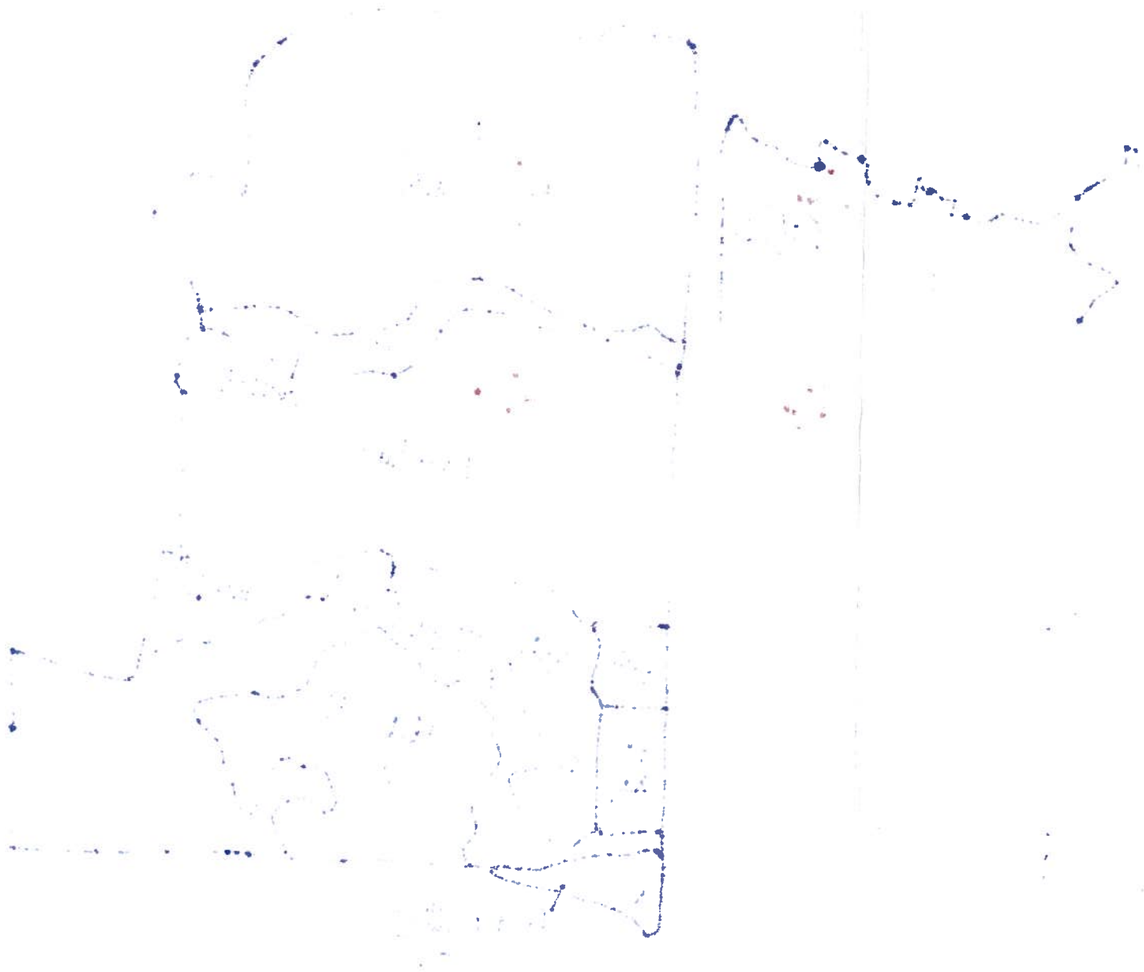
Figure No.
61

Title
Transmission and Collector Line
Map: 61

V:\01609\Active\160950269\planning\drawing\mxd\20120809_NHA_FieldMaps\160950269_Release_20_ELC_T_Line_Collector_Map_Book_20120809.mxd
Revised: 2012-08-11 By: bcowper

Niagara ELC
Tile 19, 20, 61
~~NL. BH.~~
KST
61

[redacted]



[redacted]

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Coll. Tile 63; Rd 4 10

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160960529 Project Name: NRWC

Date: July 12, 2012 Field Personnel: C. Payette

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

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 63-10

START TIME:

END TIME:

POLYGON DESCRIPTION

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	3	green ash > Silver maple > Bur oak.
2	SUB-CANOPY			
3	UNDERSTOREY	4	3	honeysuckle > riverbank grape > virg. creeper
4	GRD. LAYER			

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

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

STANDING SNAGS:	R <10	R 10 – 24	M 25 – 50	M >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: green 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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:	A						
green ash	D						
Silver maple	O						
Sugar maple	R						
Bur oak	3						
white elm	RO						
SHRUBS:							
honeysuckle (tatarian)			A				
riverbank grape			A				
virginia creeper			O				
GROUND:							

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # 63-10 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

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

Bat Roosting Features:

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

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

Stick Nests:

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

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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

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

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

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Coll. Tile 63; Poly 11

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 12, 2012 Field Personnel: C. Payette

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

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 63-11

START TIME:

END TIME:

POLYGON DESCRIPTION

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	Silver maple > green ash > white elm
2	SUB-CANOPY			
3	UNDERSTOREY	4	3	gray dogwood > buttonbush
4	GRD. LAYER	5-7	3	Cattails > Dark

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: Silvermaple Swamp CODE: SWD-3-2

COMPLEX CODE:

Inclusion: Buttonbush thicket swamp SWT 2-4

Evidence of Disturbance / Notes:

inclusion 2 Reed canary/cultural meadow MAM2-2 / CUM1-1

LAYERS: 1=CANOPY >10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

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

SPECIES CODE	LAYER 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
Green ash	C-A						
Silver maple	A						
white elm	O						
Apple	R						
Red oak	R						
Black walnut	R						
white oak	C						
SHRUBS:							
gray dogwood			A				
Riverbank grape			O				
buttonbush			A				
meadow sweet			O				
willow shrub			R-C				
GROUND:							
Cattails				O			
Dark green bulrush				O			
Sedge sp.				O			
2 Reed canary grass				A			
2 bulrush sp.				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #63-11 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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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Coll. Tile 68; Poly 12

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 12, 2012 Field Personnel: C. Payette

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

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 63-12

START TIME:

END TIME:

POLYGON DESCRIPTION

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	Red oak = Bur oak = white oak = Silver maple
2	SUB-CANOPY			
3	UNDERSTOREY	4	3	gray dogwood > Buttonbush > tartarian honeysuckle
4	GRD. LAYER			N/O

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: oak-maple-hickory forest CODE: FOD9

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 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
Red oak	O						
Bur oak	O						
white oak	O						
Silver maple	O						
green ash	R-O						
~~[illegible]~~							
Shagbark hickory	R						
SHRUBS:							
tartarian honeysuckle			A				
gray dogwood			A				
Buttonbush			O				
Blue beech			R				
GROUND:							

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #63-12 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

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

Bat Roosting Features:

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

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

Stick Nests:

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

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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

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

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

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Coll. Tile 68; Poly 13

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 12, 2012 Field Personnel: C. Paylette

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 63-13

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	Red oak > Sugar maple > white oak
2	SUB-CANOPY			
3	UNDERSTOREY	4-5	3	gray dogwood > willow shrub > Dawn yew wood
4	GRD. LAYER	<7	1	Bracken Fern

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: F-M redoak - Sugar maple CODE: FOD9-1

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
Redoak	A						
white oak	O						
Black cherry	R						
green ash	R						
Sugar maple	O						
white elm	O						
Bur oak	O						
Shagbark hickory	R						
~~Black cherry~~							
SHRUBS:							
gray dogwood			O				
willow shrub			O				
Rose sp.			R				
Dawn yew wood			R				
GROUND:							
bracken fern			D	C			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #63-B **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 63; Poly 14

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 12, 2012 Field Personnel: C. Paylette

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 63-14

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		

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			grass sp > riverbank grape > Queenanneslace > goldenrod sp

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: grass cultural meadow — CODE: CUM1-1

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 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
SHRUBS:							
riverbank grapes				A			
GROUND:							
Queenannes lace				O			
goldenrod sp				O			
Reed canary grass				C			
grass sp				A			

Signature: _____ (Field Personnel)

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

Signature: _____ (Project Manager)

ELC Polygon: # 63-14 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

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

Bat Roosting Features:

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

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

Stick Nests:

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

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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

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

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

Coll. File 63, Poly 15

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Stantec

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950 ...9 | Project Name: NRWC

Date: July 12, 2012 | Field Personnel: C. Payette

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

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 63-15

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	red oak > green ash > Bur oak > white elm
2	SUB-CANOPY			
3	UNDERSTOREY	4	3	gray dogwood > Hawthorn > Staghorn sumac > honeysuckle
4	GRD. LAYER			N/O

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:	1	<10	R	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: FoM Oak-Maple Deciduous Forest | CODE: FoD9-2

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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
Red oak	A						
white elm	O						
Bur oak	O						
White oak	O						
green ash	O-A						
Cherry Sp.	R						
Black walnut	R						
Freeman maple	R						
SHRUBS:							
Hawthorne			O				
honeysuckle			O				
gray dogwood			O				
Buttonbush			R-O				
riverbank grape			O				
meadowsweet			R-O				
GROUND:							

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #63-15 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

623000 623500 624000

4760500 4760000 4759500

Chippawa Creek Slough Forest Wetland Complex SWX, MNR

Sideroad 42 Road

Wellandport Road

Legend

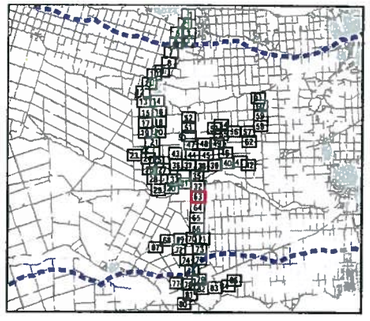
- Proposed T Line Route
- Proposed Collector 120m Buffer

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

1. Coordinate System: NAD 1983 UTM Zone 17N.
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.

Stantec

June, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
63

Title
Proposed Collector Route
Map 63

200 m

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

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Coll. Tile 64; Poly 3

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 12, 2012 Field Personnel: C. Payette

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

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 64-3

START TIME:

END TIME:

POLYGON DESCRIPTION

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	4	Silver maple > bur oak > white elm
2	SUB-CANOPY			
3	UNDERSTOREY	4	3	riverbank grape > gray dogwood > virginia creeper
4	GRD. LAYER	5-7	3	Reed canary grass > goldenrod sp

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

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

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

VEGETATION TYPE: Silver maple cultural woodland CODE: CUW-1-6

COMPLEX CODE:

Evidence of Disturbance / Notes: planted possibly?

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 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
white oak	R						
red oak	R						
white elm	O						
trembling aspen	O						
Silver maple	A						
green ash	O						
Bur oak	O						
SHRUBS:							
gray dogwood			O-A				
riverbank grape			A				
virginia creeper			O				
Downy arrowood			O				
GROUND:							
goldenrod sp				O			
Reed canary grass				A			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # 64-3 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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Coll. Tile 64, Poly 9

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160960529 Project Name: NRWC
Date: July 12, 2012 Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	33.5	3	10%	none	none

POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION		TOPOGRAPHIC FEATURE		HISTORY
POLYGON: 64-9		☐ LACUSTRINE	☐ TALUS	☑ NATURAL
START TIME:		☐ RIVERINE	☐ CREVICE / CAVE	☑ CULTURAL
END TIME:		☐ 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	2	green ash > bur oak > white spruce
2	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	5-7	4	grass sp > golden rods > 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:	<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: Ash Cultural Savannah CODE: CUS1-4

COMPLEX CODE:

inclusion phrag shallow marsh MAS

Evidence of Disturbance / Notes:

young Community

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 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
green ash	O						
white elm	O						
Bur oak	O						
white spruce	O			A			
SHRUBS:							
GROUND:							
goldenrods				A			
milkweed				O			
grasses				A			
phragmites				O			
wild teasel				O			
Queen Annes lace							

Signature: (Field Personnel)

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

ELC Polygon: # 64-9 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

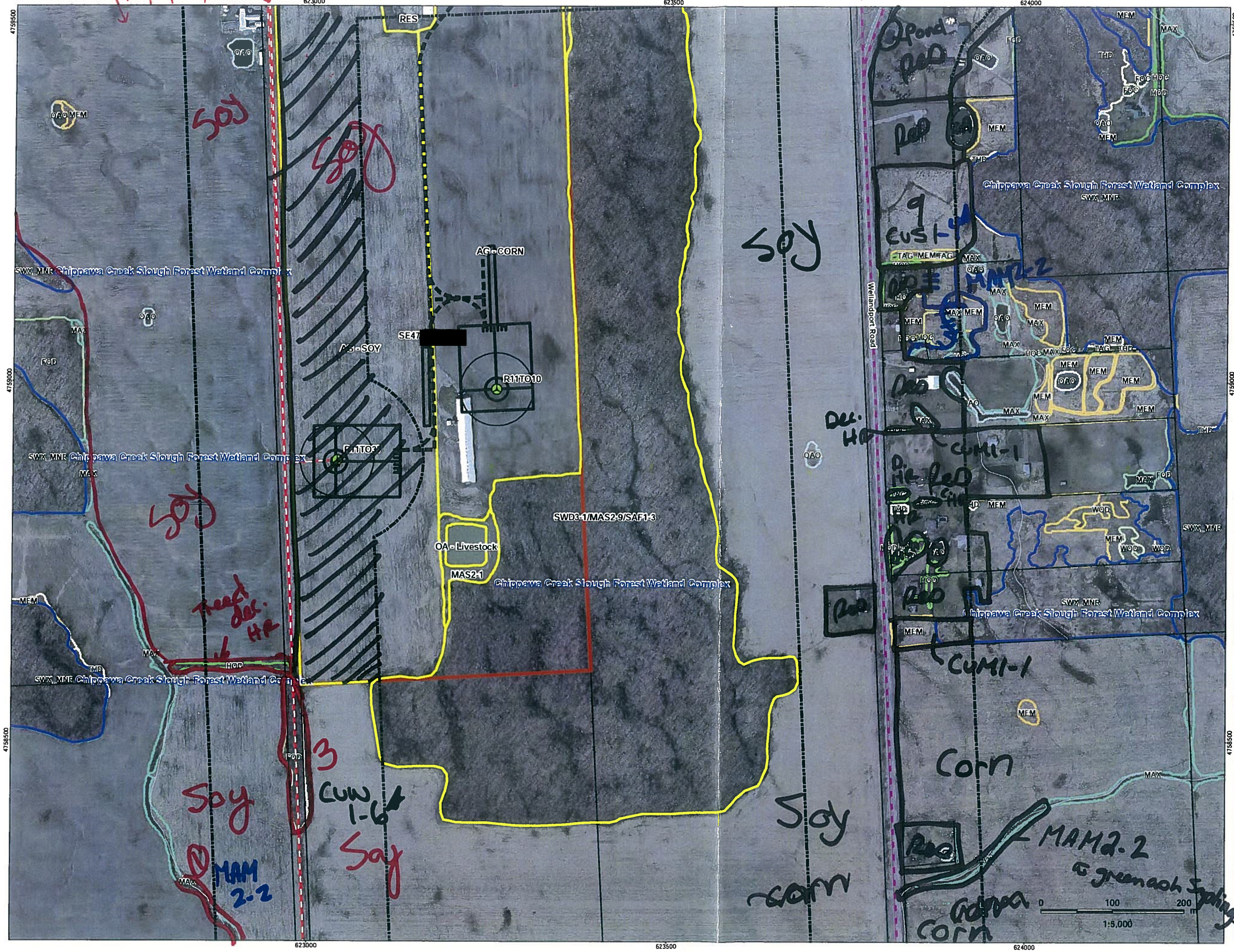
SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

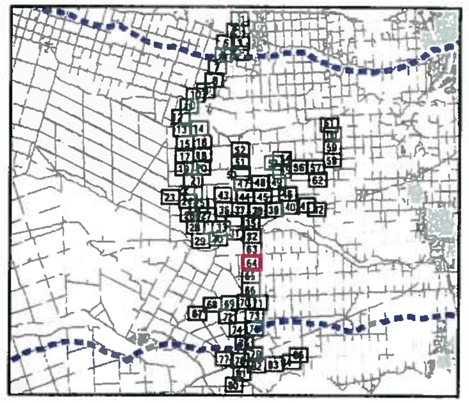
[no property access so use this unopened road allowance to ELC (it continues south to Concession 5)]



V:\01609\Active\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_17_ELC_Collector_Map_Book_20120613.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

1. Coordinate System: NAD 1983 UTM Zone 17N.
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.

Stantec

June, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
64

Title
Proposed Collector Route
Map 64

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Coll. Tile 65, Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 12, 2012 Field Personnel: C. Payette

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	3	20%	none	none

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 65-1

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		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>>MUCH GREATER THAN; >GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	1	green ash
2	SUB-CANOPY			
3	UNDERSTOREY	4	1	Sumac > riverbank grape
4	GRD. LAYER	5-7	4	Reed Canary grass > dark green bulrush > Smartweed > duckweed

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:	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: Reed Canary meadow marsh CODE: MAM2-2

COMPLEX CODE:

Evidence of Disturbance / Notes:

Drain ditch w water present

LAYERS: 1=CANOPY >10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER

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

SPECIES CODE	LAYER 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
green ash	R						
SHRUBS:							
Sumac		A	A				
riverbank grape		A	A				
GROUND:							
Reed Canary grass				A			
dark green bulrush				O-A			
Cattails				O			
wild teasel				O			
Bur-reed Species				R-O			
pickerelweed				R-O			
queen anne's lace				O			
Smartweed sp.				O-A			
Duckweed				O-A			
Timothy grass				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #65-1 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

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

Bat Roosting Features:

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

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

Stick Nests:

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

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

Seeps/Springs/Vernal Pools:

Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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

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

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

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Coll. Tile 65; Poly 2

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC
Date: July 12, 2012 Field Personnel: C.Payette

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

Deciduous thicket HR bordering train track

POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION		TOPOGRAPHIC FEATURE		HISTORY
	POLYGON: 65-2	☐ LACUSTRINE	☐ TALUS	☐ NATURAL
	START TIME:	☐ RIVERINE	☐ CREVICE / CAVE	☑ CULTURAL
	END TIME:	☐ 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	2	trembling aspen = E. cottonwood > white elm
2	SUB-CANOPY			
3	UNDERSTOREY	4	4	Sumac > riverbank grape > willow shrub > wild red raspberry
4	GRD. LAYER	5-7	4	Reed Canary grass > white Sweet Clover > Cow parsnip

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: mineral cultural thicket CODE: CUT1

COMPLEX CODE:

Evidence of Disturbance / Notes:

highly disturbed, spraying has occured

marein Tile 64

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 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
trembling aspen	O						
E. cottonwood	O						
white elm	O						
crack willow	R						
Basswood	R						
SHRUBS:							
Sumac			A				
riverbank grape			A				
willow shrub sp.			O-A				
honeysuckle sp.			R-O				
wild red raspberry			O				
GROUND:							
Reed canary grass				A			
queen anne's lace				O			
Daisy Fleabane				R-O			
goat's beard				O			
white Sweet clover				A			
Cow vetch							
common mullein				O			
wild mint				O-A			
Butter n eggs				R-O			
milkweed				O-A			
chickory				O			
phragmites				O			
Cow parsnip				A			

Signature: [signature] (Field Personnel)

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