ELC Polygon: #32-4 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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

Stantec

Coll. Tile 32; Poly 5

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 | Project Name: NRWC

Date: June 27 | Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20	2-3	90%	—	rain

POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION		TOPOGRAPHIC FEATURE		HISTORY
	POLYGON: 32-5	☐ LACUSTRINE ☐ RIVERINE ☒ BOTTOMLAND ☐ TERRACE ☐ VALLEY SLOPE ☐ TABLELAND ☐ ROLL. UPLAND ☐ CLIFF	☐ TALUS ☐ CREVICE / CAVE ☐ ALVAR ☐ ROCKLAND ☐ BEACH / BAR ☐ SAND DUNE ☐ BLUFF	☒ NATURAL ☐ CULTURAL
	START TIME: 3:45			
	END TIME:			

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	TYP ANGU > PHAARUN > Galium 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	<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: 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:							
SHRUBS:							
GROUND:							
PHAARUN				A-O		✓	
TYPANGU				A		✓	
Galium				O		✓	
PARINSE				R		✓	
ERIGERON				R		✓	
ASCSYRI				R		✓	

Signature: [illegible] (Field Personnel)

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

Signature: [illegible] (Project Manager)

ELC Polygon: #32-5 **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

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

Stantec

Coll. Tile 32; Poly 6

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 | Project Name: NRWC

Date: June 27 | Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20	2-3	90%	—	rain

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 32-6

START TIME: 3:50

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	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	5-7	4	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: reed canary grass mineral meadow marsh | CODE: MAM2-2

	COMPLEX		CODE:

Evidence of Disturbance / Notes:

borderline delineation – just over 1m on each side

LAYERS: 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:							
SHRUBS:							
GROUND:							
PHAARUN				D	✓	✓	

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #32-6 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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

Coll. Tile 32; Roll 7

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: June 27 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	20	2-3	90	—	rain

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 32 - 7

START TIME: 4:00

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	QUERUBR >> QUEALBA = ACESASA
2	SUB-CANOPY	3	3	ULMAMER > CAROVAT
3	UNDERSTOREY	—	—	
4	GRD. LAYER	5-7	4	SOLIDAGO > 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:	R	<10	R	10 – 24	O	25 – 50	A	>50

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

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

VEGETATION TYPE: Fresh-Moist Oak-Sugar Maple Deciduous Forest CODE: FOD9-1

COMPLEX: deciduous swamp CODE: SWD

Evidence of Disturbance / Notes:

visibility to interior low, can only see ~10m from road

LAYERS: 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	A				✓	✓	
QUEALBA	O-R				✓		
OSTVIRG		R			✓		
ACESASA	O-R				✓	✓	
ULMAMER		O			✓		
CAROVAT		O			✓		
SHRUBS:							
HAMVIRG		R			✓		
DIELONI		R		O	✓		
GROUND:							
SOLIDAGO				A	✓		
PTEAQUI				R	✓		
GRASS				A	✓		

Signature: Nate Charlton (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: Natasheara (Project Manager)

ELC Polygon: #32-7 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

Legend

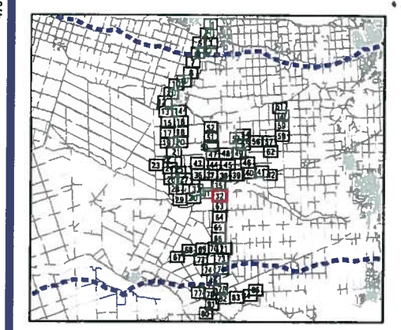
- Proposed T Line Route
- Proposed Collector 120m Buffer

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.
32

Title
Proposed Collector Route
Map 32

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

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

Coll. Tile 83; Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: June 27 Field Personnel: N.C

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	22	2-3	90	—	—

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 33-1

START TIME: 2:00

END TIME: 2:15

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	3	3	FRAPENN
2	SUB-CANOPY	4	2	FRAPENN >
3	UNDERSTOREY			
4	GRD. LAYER	5-7	4	SOLIDAGO > GRASSES >> Centaurea

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: Green Ash cultural woodland CODE: CUW1-3*

	COMPLEX		CODE:

Evidence of Disturbance / Notes:

(10m tall)

LAYERS: 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:							
FRAPENN	A	A			✓	✓	
SHRUBS:							
RHACATH		R-O			✓	✓	
CORNUS (gray)		R			✓	✓	
GROUND:							
SOLIDAGO				A	✓	✓	
GRASSES				O	✓	✓	
Centaurea				R	✓	✓	
ACHMILLE				R	✓	✓	

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #33-1 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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

Coll. Tile 33; Poly 2

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: June 27 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	22	2-3	90	—	✓

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 33-2

START TIME: 2:15

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	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	5-7	4	GRASSES = CLOVER

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: Pasture/hay CODE: N/A – Ag

COMPLEX: CODE:

Evidence of Disturbance / Notes:

- pasture/hay
- was cut this season

LAYERS: 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:							
SHRUBS:							
GROUND:							
Clover					✓	✓	
grasses					✓	✓	
SOLIDAGO					✓		

Signature: (Field Personnel)

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

Signature: (Project Manager)

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

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

Reptile / Bat Hibernacula Features:

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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

Coll. Tile 83; Poly 3

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC
Date: June 27 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	22	2-3	90	—	—

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 33-3
START TIME: 2:25
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	FRAPENN >> QUERUBR
2	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	5-7	4	ARTTRIF > 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: Greenash mineral deciduous swamp CODE: SWD2-2

	COMPLEX		CODE:

Evidence of Disturbance / Notes:

can only see edge species

LAYERS: 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:							
FRAPENN	A				✓		
SALIX SP		R			✓		
QUERUBR	R				✓		
SHRUBS:							
GROUND:							
ART TRIF				A	✓		
PHAARUN				OA	✓		

Signature: (Field Personnel)

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

ELC Polygon: #33-3 **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

Legend

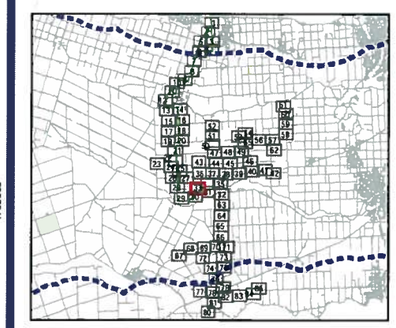
- Proposed T Line Route
- Proposed Collector 120m Buffer

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.
33

Title
Proposed Collector Route
Map 33

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

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

Coll. Tile 34; Poly 34-1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 13/12 Field Personnel: M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	28	3	Hazy	None	None

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 34-1

START TIME: 10:50

END TIME: 11:15

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	4	FRAPENN = QUERUBR = ULMAMER > ACERUB
2	SUB-CANOPY	3	4	QUEMACR = ACERUBR = ULMAMER = QUERUBR
3	UNDERSTOREY	4	3	Gray Dogwood > Hawthorn
4	GRD. LAYER	5-7	3	PHAARUN > TYPLAT

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: E-M Oak-Maple Dec Forest CODE: FOD 9-2

COMPLEX: Reed Canary grass Meadow Marsh, Meadow CODE: MAM 2-2

Evidence of Disturbance / Notes:

SOSP HOWR
GRFR
AMCR
COYE
BHVI

Calling from MAM that extends into field

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

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

SPECIES CODE	LAYER 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
QUEMACR	O	O					
FRAPENN	A						
ULMAMER	A	O					
W. Pine	R-O						
ACERUBR	O	O					
QUERUBR	A	O					
SHRUBS:							
Gray Dogwood			R				
Hawthorn sp.							
GROUND:							
PHAARUN				A			
TYPLAT				O			
Meadowsweet				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # 37-1 **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:

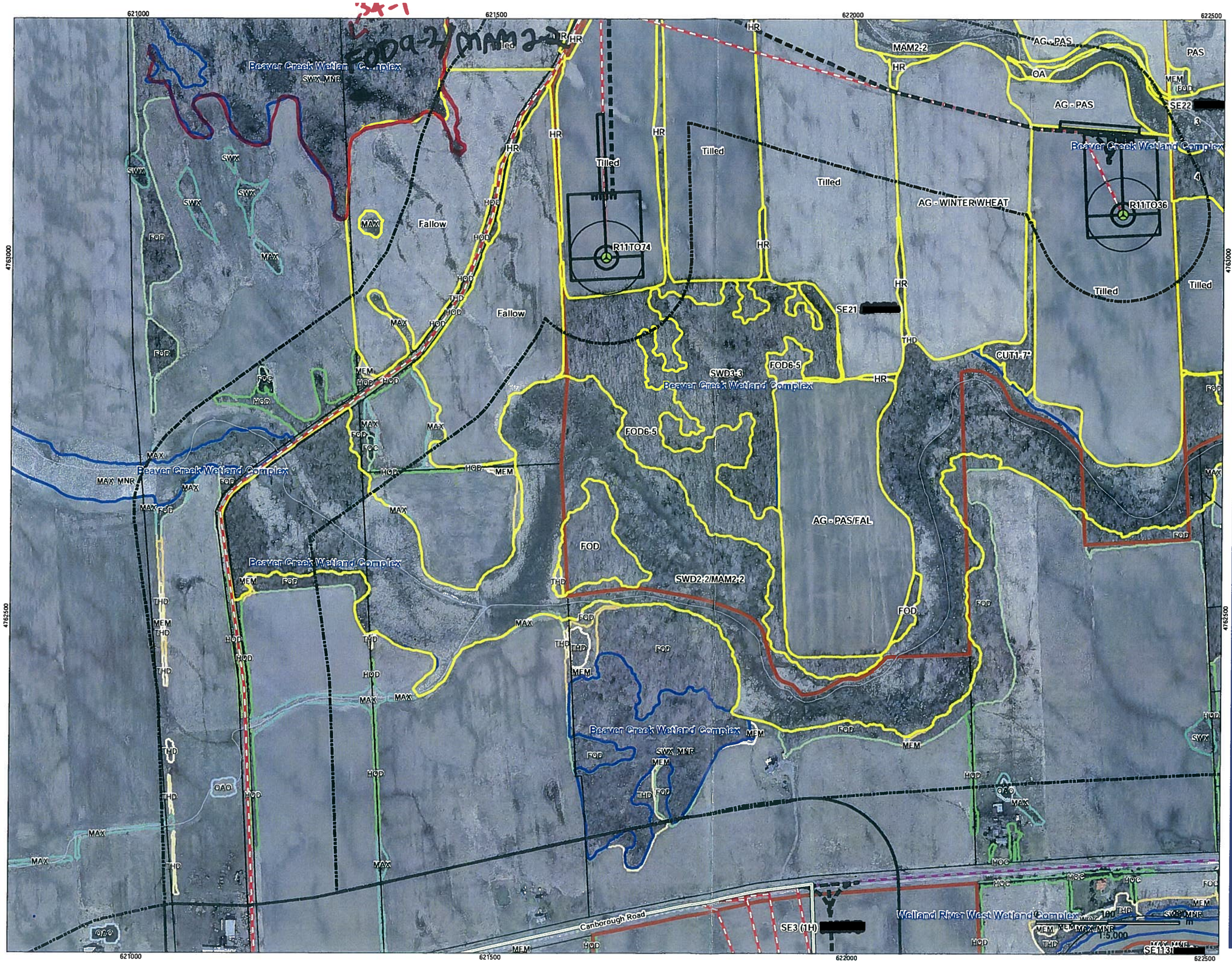
Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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



Legend

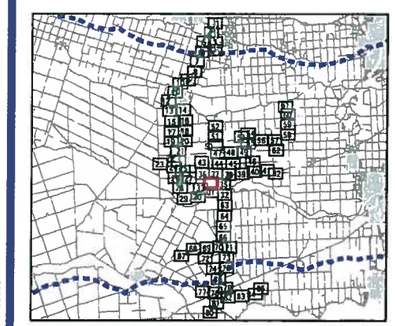
- Proposed T Line Route
- Proposed Collector 120m Buffer

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.
34

Title
Proposed Collector Route
Map 34

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

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

Coll. Tile 35; Poly 35-1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: July 12/12 Field Personnel: M Rossi

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	23	2	0	None	None

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 35-1

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	2	3	FRAPENN
2	SUB-CANOPY	3	2	FRAPENN >> ULMAMER
3	UNDERSTOREY	4	3	Gray Dogwood > VITRIPA
4	GRD. LAYER	5-7	3	Solidago > Timothy

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	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: Green Ash Cultural Woodland CODE: CUW1-4X

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:							
FRAPENN	A	A					
ULMAMER		O					
SHRUBS:							
Gray Dogwood			A				
VITRIPA			O				
GROUND:							
Solidago				A			
Timothy				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #35-1 **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

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

Stantec

Coll. Tile 35; Poly35-2

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number:	160950264	Project Name:	NRVC
Date:	July 17/12	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	2	0	Nil	None

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 35-2

START TIME: 10:50

END TIME: 11:10

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	FRAPENN >> Salix
2	SUB-CANOPY	3	3	FRAPENN > ULMAMER
3	UNDERSTOREY	4	3	VITRIPA = Gray 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:	<10	10 – 24	25 – 50	>50
	N	N	N	N

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 lowland Dec. Forest CODE: FOD7-2

COMPLEX: Cattail Mineral Shallow Marsh CODE: MAS2-1

Evidence of Disturbance / Notes:

BBCU
AM 60
SOSP

LAYERS: 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 COD	LAYER 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
FRAPENN	A	O					
Salix Sp	R						
ULMAMER		R-O					
SHRUBS:							
VITRIPA			A				
Gray Dogwood			A				
GROUND:							

Quality Control: This form is complete ☐ & legible ☐

Signature: (Field Personnel)

Signature: (Project Manager)

ELC Polygon: # 35-2 **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

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

Stantec

Coll. Tile 35; Poly 35-3

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number:	160950269	Project Name:	NRWC
Date:	July 12 12	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	2	0	None	None

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 35 - 3

START TIME: 11:10

END TIME: 11:15

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	3	FRAPENN=ULMAMER
2	SUB-CANOPY	3	2	JUGNIGR
3	UNDERSTOREY	4	2	Salix = Gray Dogwood = VITRIPA
4	GRD. LAYER	4-7	4	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: 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	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
FRAPENN	O						
ULMAMER	O						
JUGNIGR		R					
SHRUBS:							
Salix sp				O			
Gray Dogwood				O			
VITRIPA				O			
GROUND:							
PHAARUN				A			

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

Signature: (Field Personnel)

Signature: (Project Manager)

ELC Polygon: # 35-3 **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; EY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

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

Coll. Tile 35; Poly 35-4

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

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

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	2	0	None	None

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 35-4

START TIME: 11:10

END TIME: 11:25

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	
2	SUB-CANOPY	3	2	
3	UNDERSTOREY			N/O
4	GRD. LAYER	5-7	4	

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

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

STANDING SNAGS:	0	<10	0	10 – 24	0	25 – 50	N/A	>50

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

STAND MATURITY:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

VEGETATION TYPE: Green ash Mineral Dec Swamp CODE: SWD2-2

COMPLEX: Reed Canary Grass Min Meadow Marsh CODE: MAM2-2

Evidence of Disturbance / Notes:

SoSP
AMGO
AMRO
Painted Turtle

LAYERS: 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:							
SALIX S	O	A					
FRAPEN	O-A						
JUGNIG	R						
SHRUBS:							
GROUND:							
PHAARU				A			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #35-4 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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

Stantec

Coll. Tile 35; Poly 35-5

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number:	160950269	Project Name:	NRWC
Date:	July 12/12	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	25	2	0	None	None

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 35-5

START TIME: 1130

END TIME: 1140

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	ULMAMER >> FRAPENN
2	SUB-CANOPY	3	3	ULMAMER = FRAPENN
3	UNDERSTOREY	4	2	GRAY Dogwood – Hawthorn
4	GRD. LAYER	5-7	4	Solidago > Birds foot trefoil = teasel = 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:	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: Am. Elm Cultural Woodland — CODE: CUW 1-3*

COMPLEX		CODE:

Evidence of Disturbance / Notes:

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

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

SPECIES CODE	LAYER 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
FRAPENN	O	O					
ULMAMER	A	O					
SHRUBS:							
Gray Dogwood			O				
Hawthorn			O				
GROUND:							
Solidago				A			
Birds foot trefoil				O			
Wild carrot				R-O			
Wild teasel				O			
PHAARUN				O			
Knapweed				O			
Wild Parsnip				R-O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #35-5 **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

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

Stantec

Coll. Tile 35; Poly 35-6

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number:	160950269	Project Name:	NRWC
Date:	July 12/12	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	29	3	15	None	None

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 35-6
START TIME: 2:40
END TIME: 2:50

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	FRAPENN=ULMAMER
2	SUB-CANOPY	3	3	ULMAMER>FRAPENN
3	UNDERSTOREY	4	4	Gray Dogwood>Hawthorn
4	GRD. LAYER	5-7	4	Solidago>Knapweed>Teasel=Wild Carrot

HT CODES: 1=>25m 2=10<HT≤25m 3=2<HT≤10m 4=1<HT≤2m 5=0.5<HT≤1m 6=0.2<HT≤0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% N/O=not observed

STANDING SNAGS:	0	<10	O	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: 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	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
FRAPENN	O	O					
ULMAMER	O	A					
SHRUBS:							
Gray Dogwood			A				
Hawthorn			O				
GROUND:							
Solidago sp.				A			
Wild Teasel				O			
Knapweed				O-A			
Wild carrot				O			
Birds foot trefoil				O			
PHAARUN				O			

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

Signature: (Field Personnel)

Signature: (Project Manager)

ELC Polygon: #35-6 **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

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

Stantec

Coll. Tile 35; Poly 35-7

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number:	160950269	Project Name:	NRWC
Date:	July 12/12	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	29°	3	20	None	None

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 35-7

START TIME: 2:50

END TIME: 3:00

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	ULMAMER = FRAPENN >> Salix
2	SUB-CANOPY	3	3	ULMAMER = FRAPENN >> Salix
3	UNDERSTOREY	4	3	Gray Dogwood > ULMAMER = FRAPENN
4	GRD. LAYER	5-7	3	PHAARUN = 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:	N <10	O 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:	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	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
ULMAMER	A	A	O				
FRAPENN	A	A	O				
SALIX sp	R	R					
SHRUBS:							
Gray Dogwood			O-A				
GROUND:							
PHAARUN				O			
Solidago sp				O			

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

Signature: (Field Personnel)

Signature: (Project Manager)

ELC Polygon: #35-7 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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

Coll. Tile 35; Poly 35-8

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number:	160950269	Project Name:	NRWC
Date:	July 12/17	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	29	3	20	None	None

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 35-8
START TIME: 3:00
END TIME: 3:05

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	2	SALIX sp
3	UNDERSTOREY	4	2	SALIX sp
4	GRD. LAYER	5-7	4	PHAARUN > TYPANGU > Teasel

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
	N	N	N	N

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 Mix 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	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
SALIX sp		R	R				
SHRUBS:							
GROUND:							
PHAARUN				A			
TYPANGU				O			
Wild teasel				R-O			

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

Signature: (Field Personnel)

Signature: (Project Manager)

ELC Polygon: # 35 **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

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

Coll. Tile 35; Poly 35-9

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 13/12 Field Personnel:

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	26°	3	Hazy	None	None

POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 35-9

START TIME: 9:30

END TIME: 9:35

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	1	ULMAMER=FRAPENN
2	SUB-CANOPY	3	1	ULMAMER=FRAPENN
3	UNDERSTOREY	4	3	Dogwood Sp
4	GRD. LAYER	4-7	4	PHAARUN > TYPLATI > Carex 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 <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: Cattail Mineral Shallow Marsh CODE: MAS 2-1

COMPLEX: Reed Canary Grass Min. Meadow Marsh CODE: MAM 2-2

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	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
ULMAMER	R	R					
FRAPENN	R	R					
SHRUBS:							
Dogwood Sp			O				
GROUND:							
PHAARUN				A			
TYPLATI				O-A			
CAREX Sp				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #35-9 **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

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

Coll. Tile 35; Poly 35-10

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number:	160950264	Project Name:	MRWC
Date:	July 13/12	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	26°	3	Hazy	None	None

POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION		TOPOGRAPHIC FEATURE		HISTORY
	POLYGON: 35-10	☐ LACUSTRINE	☐ TALUS	☐ NATURAL
	START TIME: 10:25	☐ RIVERINE	☐ CREVICE / CAVE	☑ CULTURAL
	END TIME: 10:30	☐ 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	1	FRAPENN = ULMAMER
2	SUB-CANOPY	3	1	FRAPENN = ULMAMER
3	UNDERSTOREY			N/A
4	GRD. LAYER	5-7	4	DAUCARUN = Wild carrot > Solidago = Knapweed

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:	D-M Old Field Meadow	CODE:	CUM 1-1
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:							
ULM AMER	R	R					
FRAPENN	R	R					
SHRUBS:							
GROUND:							
DAUCARUN				A			
Wild Carrot				A			
Solidago sp				O-A			
Knapweed				O-A			
Wild teasel				O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #35-10 **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:

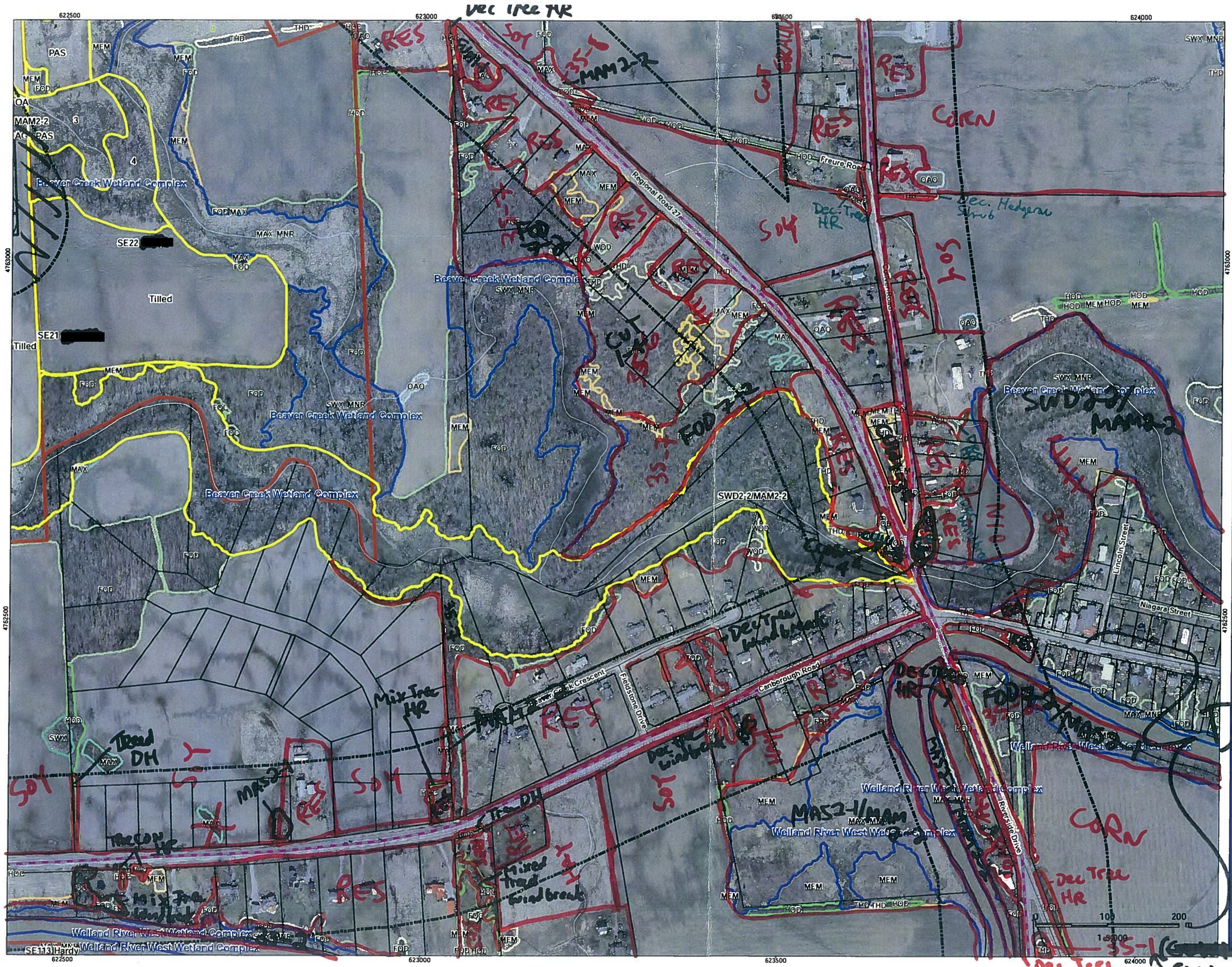
Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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



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.
35

Title
Proposed Collector Route
Map 35

V:\01609\Active\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_17_ELC_Collector_Map_Book_20120513.mxd
Revised: 2012-06-14 By: bowper

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

Stantec

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: June 29, 2012 Field Personnel: C. Paight

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	33	3-4	0%	none	none

POLYGON DESCRIPTION

ELC COMMUNITY DESCRIPTION & CLASSIFICATION		TOPOGRAPHIC FEATURE		HISTORY
	POLYGON: 36-2	☐ LACUSTRINE	☐ TALUS	☐ NATURAL
	START TIME:	☐ RIVERINE	☐ CREVICE / CAVE	☐ CULTURAL
		☐ BOTTOMLAND	☐ ALVAR	
		☐ TERRACE	☐ ROCKLAND	
		☐ VALLEY SLOPE	☐ BEACH / BAR	
	END TIME:	☐ 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 > Burroak > green ash = Sugar maple
2	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER			

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤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: Redoak Forest	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	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
red oak	A						
white ely	O						
Basswood	R-O						
green ash	O						
Bur oak	O						
Shagbark hickory	O						
Sugar maple	O						
SHRUBS:							
GROUND:							

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

Signature: _____ (Field Personnel)

Signature: _____ (Project Manager)

ELC Polygon: # 36-2 **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

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

Stantec

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: June 29, 2012 Field Personnel: C. Paylte

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs)
	33	3-4	0%	none	none

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 36-1

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			green ash > Shagbark hickory > Burroak
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: green ash swamp CODE: SWD2-2

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	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
green ash	D						
Shagbark hickory	O						
Burroak	O						
SHRUBS:							
GROUND:							

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

Signature: _____ (Field Personnel)

Signature: _____ (Project Manager)

ELC Polygon: # 36-1 **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)

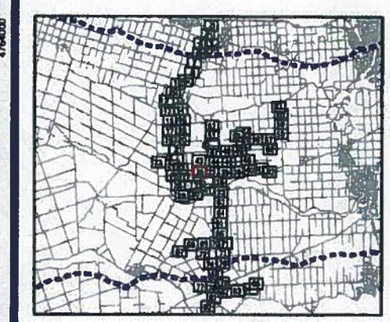
CA=carcass; DP=distinctive parts; FE=feeding evidence; FY=eggs/nest; HO=house/den; OB=observed; SC=scat; SI=other sign; TK=track; VO=vocalization

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.
36

Title
Proposed Collector Route
Map 36

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

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

Stantec

Coll. Tile 37; Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: June 28 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	50	—	rain

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 37 - 1

START TIME: 5:50

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	4	CAROVAT > FRAX = QUERUBR > TILAMER
2	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	5-7	4	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: F-M Oak-Hickory - Maple deciduous forest CODE: FOD9

	COMPLEX		CODE:

Evidence of Disturbance / Notes:

- could not ID other ground veg

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

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

SPECIES CODE	LAYER 1	2	3	4	DISTANCE FROM RD. ≤5 m	>5 m	COLL.
TREES:							
CAROVAT	A					✓	
QUERUBR	R-O					✓	
OSTVIRG		R				✓	
FRAX SP	O					✓	
TILAMER	R-O					✓	
QUEBICO	R					✓	
SHRUBS:							
GROUND:							
PHAARUN				A		✓	

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: (Project Manager)

ELC Polygon: #37-1 **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

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

Coll. Tile 37; Poly 2

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 | Project Name: NRWC

Date: June 28 | Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	50	—	rain

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 37-2

START TIME: 6:00 pm

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	4	PINSTRO
2	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	5-7	2	SOLIDAGO

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: White Pine coniferous Plantation | CODE: CUP3-2

COMPLEX | CODE:

Evidence of Disturbance / Notes:

– young trees ~ 10 m tall

– can't see inside far, ground veg doubtful

LAYERS: 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:							
PINSTRO	A					✓	
FRAX				O		✓	
SHRUBS:							
GROUND:							
DIPFULL				R		✓	
SOLIDAGO				A		✓	
DAISY				R		✓	

Signature: (Field Personnel)

Quality Control: This form is complete & legible ☑

Signature: (Project Manager)

ELC Polygon: #37-2 **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

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

Coll. Tile 37; Poly 3

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: June 28, 2012 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	50	–	rain

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 37-3

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	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	5-7	4	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:	NONE	≤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 CODE:

Evidence of Disturbance / Notes:

- depressional area along watercourse/channel
- polygon on east side of road is a strip ~ 4m wide

LAYERS: 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:							
SHRUBS:							
GROUND:							
PHAARUN				D	✓	✓	

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #37-3 **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

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

Coll. Tile 37; Poly 4

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: June 28, 2012 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	50	–	rain

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 37 - 4

START TIME: 6:30

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	3	ULMAMER
2	SUB-CANOPY			
3	UNDERSTOREY	4	4	Cornus
4	GRD. LAYER	1-7	4	SOLIDAGO > 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:	Elm cultural woodland	CODE:	CUW1-5*
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:							
ULMAMER	A						
SHRUBS:							
gray dogwood			A				
hawthorn		R					
GROUND:							
SOLIDAGO				A	✓	✓	
GRASS				A-D	✓	✓	
ACHMILLE				O	✓	✓	
Galium				O			

Signature: (Field Personnel)

Quality Control: This form is complete ☑ & legible ☑

Signature: (Project Manager)

ELC Polygon: #37-4 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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

Stantec

Coll. Tile 37; Poly 5

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950261 Project Name: NRWC

Date: June 28, 2012 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	50	—	rain

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 37-5

START TIME: 6:15

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	PINUS > ACEFREE > ULMAMER
2	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	5-7	4	Cum veg

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: mixed cultural woodland CODE: CUW1-6*

	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	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
PINRESI (red pine)	A				✓	✓	
ACEFREE	A	A			✓	✓	
ULMAMER	O				✓	✓	
SHRUBS:							
GROUND:							

Signature: (Field Personnel)

Quality Control: This form is complete ☒ & legible ☒

Signature: (Project Manager)

ELC Polygon: #37-5 **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

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

Coll. Tile 37; Poly 6

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number: 160950269 Project Name: NRWC

Date: June 28 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	50	–	rain

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 37-6

START TIME: 6:40

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	QUEMACR >> SALIX = CAROVAT = FRAPENN
2	SUB-CANOPY			
3	UNDERSTOREY	4	2	dogwood > SPIALBA
4	GRD. LAYER	5-7	4	PHAARUN > AVENS > 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/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: deciduous swamp or wet forest CODE: SWD / FOD

COMPLEX CODE:

Evidence of Disturbance / Notes:

- lots of swamp white oak by road, hard to see how it wouldn't end up being SWD
- appears to at least be very moist due to openings within indicating some degree of pooling in the spring, as well as reed-canary grass in interior

LAYERS: 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:							
QUEMACR	A	O			✓	✓	
CAROVAT	R	R			✓		
QUERCUS SP	R					✓	
ULMAMER		O			✓	✓	
POPTREM	R				✓		
ACERUBR		O				✓	
SALIX	R				✓	✓	
FRAPENN	R						
SHRUBS:							
Gray dogwood			A		✓		
SPIALBA			O			✓	
GROUND:							
PHAARUN				A	✓	✓	
Avens				A		✓	
michigan lilly				R		✓	
Grass				O		✓	
GLYSTRI				R		✓	
TYPANGU				R	✓	✓	
JUNCUS				R	✓		

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #37-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

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

Coll. Tile 37; Poly 7

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 | Project Name: NRWC
Date: June 28, 2012 | Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	50	–	rain

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 37 – 7
START TIME: 7:00 pm
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	3	4	ELM >> ACEFREE
2	SUB-CANOPY	4	2	ELM > THUOCCI > CAROVAT
3	UNDERSTOREY	4-5	3	Dogwood
4	GRD. LAYER	5-7	4	Solidago > 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	O	10 – 24	N	25 – 50	N	>50

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

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

VEGETATION TYPE: elm cultural woodland | CODE: CUW1-5*

COMPLEX: | CODE:

Evidence of Disturbance / Notes:

- thin strip in front of #8

LAYERS: 1=CANOPY >10m 2=SUB-CANOPY 3=UNDERSTOREY 4=GROUND (GRD.) LAYER
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT N/O=Not observed

SPECIES CODE	LAYER 1	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
PINSTRO	R				✓	✓	
ULMAMER	A	O			✓	✓	
ACEFREE	O				✓	✓	
THUOCC 1		R			✓		
CAROVAT		R			✓	✓	
SHRUBS:							
Gray dogwood					✓		
GROUND:							
SOLIDAGO					✓		
GRASS					✓		
ASCSYR1					✓		

Signature: (Field Personnel)

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

ELC Polygon: # 37-7 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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

Stantec

Coll. Tile 37; Poly 8

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: June 28 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	50	—	rain

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 37-8

START TIME: 7:15

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	PINSTRO
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/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: W. Pine coniferous plantation CODE: CUP3-2

COMPLEX CODE:

Evidence of Disturbance / Notes:

can't see well from road at all

CUP ~~CUW~~

LAYERS: 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:						✓	
PINSTRO	A						
SHRUBS:							
GROUND:							

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #37-8 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

621500
622000
622500
623000
4764500
4764000
4763500
AG - HAY
SE17
SWT2-2
AG - SOY
FOD6-5
FOD4-1
MAM2-2
MAM2-2/SWT2-2
Beaver Creek Wetland Complex
SE27 (18B)
Fallow
RES
Elcho Road
Regional Road 20
Tilled
SWD2-2
PAS
SE21
AG - SOY
OA
AG - PAS
MAM2-2
CUM1-1
SE22
SE16 (5A,B,C)
FOD6-5/MAS2-4/SWT
SWX MNR
MAX MNR
Spruce HR
Tree HR
Wheat
Soy
Corn
Hay
Pasture
Cut Hay
Cum
Res
Lawn
Tree
Cum HR
Typha HR
Cattail
Cattail
Hay
Res
Res
Res

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

Coll. Tile 38; Poly 38-1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number:	160950269	Project Name:	NRWC
Date:	July 12/12	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	27°	2	0	None	None

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 38-1

START TIME: 12:00

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	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	5-7	4	PHARUN > Wild Carrot = Wild 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:	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 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	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
SHRUBS:							
GROUND:							
Wild trefoil				O			
PHARUN				A			
Wild Carrot				O			

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

Signature: (Field Personnel)

Signature: (Project Manager)

ELC Polygon: # 38-1 **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

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

Coll. Tile 38; Poly 38-2

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number:	160950264	Project Name:	NRWC
Date:	July 12/12	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	27	2-3	0	None	None

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 38-2

START TIME: 12:05

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	FRAPENN = ULMAMER > ACERUBR > POPTREM
2	SUB-CANOPY	3	4	ULMAMER = FRAPENN > ACERUBR > TILAMER
3	UNDERSTOREY	4	3	Gray Dogwood > Hawthorn
4	GRD. LAYER	5-7	2	PHAARUN = 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:				
	0 <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:	Ash lowland Deciduous Forest	CODE:	FOD7-2
COMPLEX	Reed Canary Grass Mix. Meadow Marsh	CODE:	MAM2-2

Evidence of Disturbance / Notes:

Difficult to see understory

COYE AMKE
SOSP TUVU
AMRO GRCA
GRFR
EAKI
NOCA
WOTH

LAYERS: 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:							
ACERUBR	O	O					
FRAPENN	A	A					
W. Pine	R						
ULMAMER	A	A					
POPTREM	R-O						
TILAMER		R					
JUGNIGR			R				
SHRUBS:							
Gray Dogwood			A	A			
Hawthorn			O				
GROUND:							
PHAARUN				O			
Solidago				O			

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

Signature: (Field Personnel)

Signature: (Project Manager)

ELC Polygon: # 38-2 **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

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

Coll. Tile 38; Poly 38-3

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number:	160950269	Project Name:	NRWC
Date:	July 12/12	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	29	3	75	None	None

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 38-3

START TIME: 2:00

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	4	QUERUBR = FRAPENN = ULMAMER > QUEMACR
2	SUB-CANOPY	3	3	
3	UNDERSTOREY	4	2	Gray 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	<10	O	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: D_F Oak-Hickory Dec. Forest — CODE: FOD2-2

COMPLEX: — CODE: SWD

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:							
QUERUBR	A						
Shagbark Hickory	R-O						
FRAPENN	A						
ULMAMER	A						
QUEMACR	O						
SHRUBS:							
Gray Dogwood			O				
GROUND:							

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

Signature: (Field Personnel)

Signature: (Project Manager)

ELC Polygon: #38-3 **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

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

Coll. Tile 88; Poly 38-4

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number:	160950269	Project Name:	NRWC
Date:	July 12/12	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	29	3	15	None	None

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 38 – 4

START TIME: 2:20

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	4-7	4	PHAARUN = TYPLATI > wild carrot

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:	Cattail Mineral Shallow Marsh	CODE:	MAS 2-1
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:							
SHRUBS:							
GROUND:							
TYPLATI				A			
PHAARUN				A			
wild carrot				O			

Quality Control: This form is complete ☐ & legible ☐

Signature: _____ (Field Personnel)

Signature: _____ (Project Manager)

ELC Polygon: # 3D-4 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

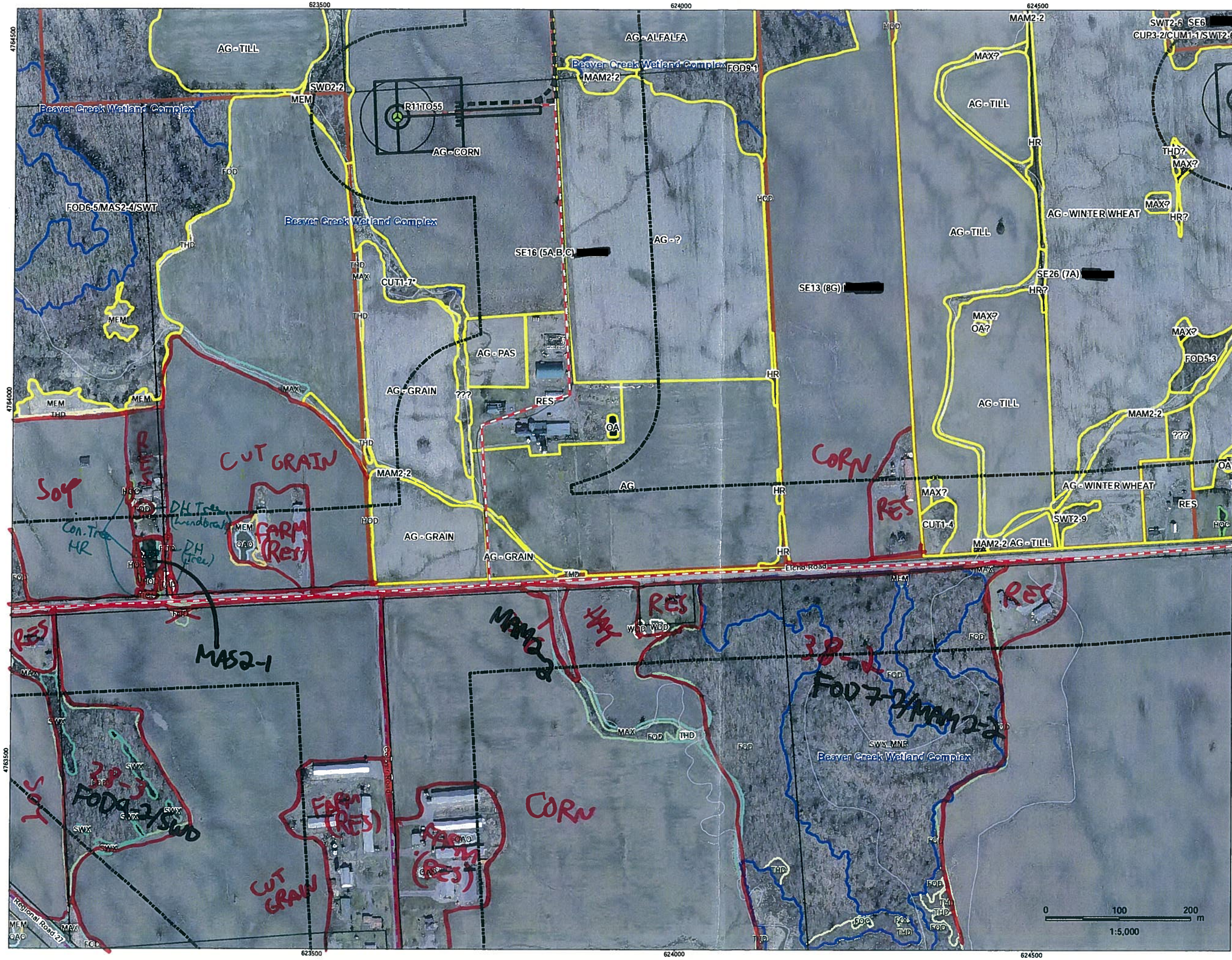
Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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



Legend

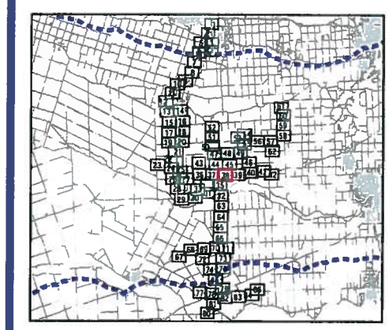
- Proposed T Line Route
- Proposed Collector 120m Buffer

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.
38

Title
Proposed Collector Route
Map 38

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

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

Stantec

Coll. Tile 39; Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160750269 Project Name: NRWC

Date: July 13/12 Field Personnel: M Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30°	3-4	15	None	None

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 39-1

START TIME: 2:15

END TIME: 2:30

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	FRAPENN=QUERUB>ACESASA=ACERUB
2	SUB-CANOPY	3	4	QUEMAGR=FAGGRAN
3	UNDERSTOREY	4	3	FRAPENN>ACESASA>Hawthorn
4	GRD. LAYER	5-7	3	Avens Sp=Solidago Sp=RUBALLEG>Grass Sp

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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:	F-M Oak-Sugar Maple Dec	CODE:	FOD 9-1
COMPLEX	forest	CODE:	

Evidence of Disturbance / Notes:

AMPO BCCH
GRCA
WOTH
GCFL

LAYERS: 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:							
ULMAMER	R-O						
FRAPENN	A		O				
ACESASA	O		O				
ACERUBR	O						
QUERUBR	A						
QUEMAGR		R-O					
FAGGRAN		R-O					
W. Pine	R						
SHRUBS:							
Hawthorn Sp			R				
GROUND:							
Avens Sp				O			
Solidago				O			
Grass Sp				R-O			
RUBALLEG				O			
PHARUN				R			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #39-1 **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:

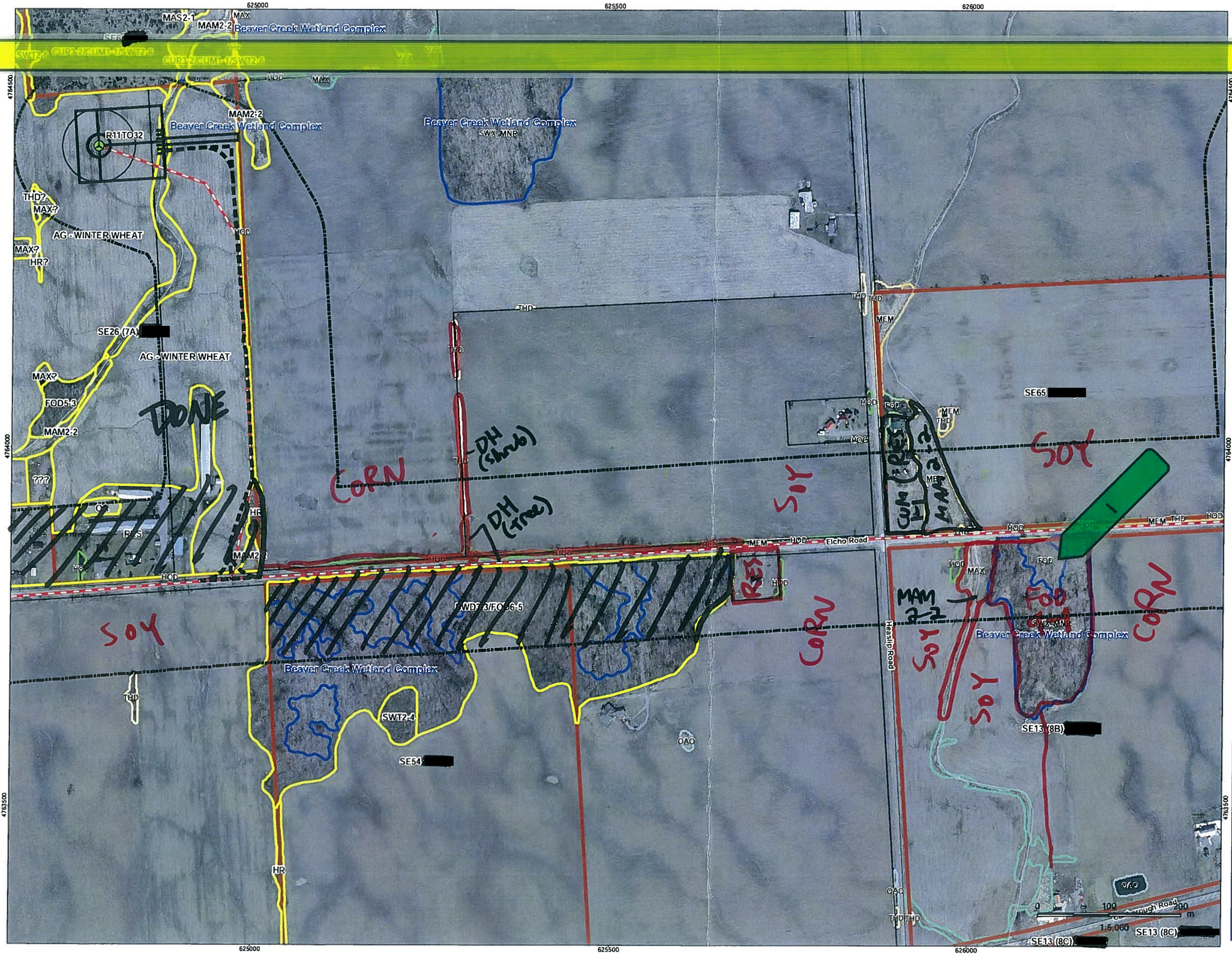
Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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

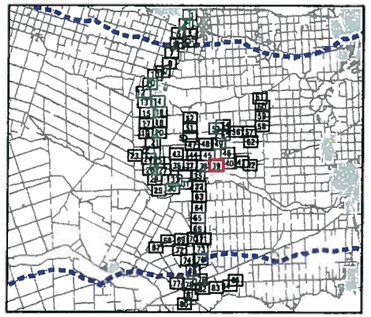


Legend

- 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.
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.
39

Title
Proposed Collector Route
Map 39

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

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

Coll. Tile 40; Poly 40-1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Stantec

Project Number:	160950269	Project Name:	NRWC
Date:	July 13/12	Field Personnel:	M. Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	28°	3	Hazy	None	None

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 40-1
START TIME: 11:45
END TIME: 11:55

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	3	FRAPENN > ULMAMER >> SALIX
2	SUB-CANOPY	3	3	FRAPENN > ULMAMER = ACENEGU > ACERUBR
3	UNDERSTOREY	4	4	Silky Dogwood = Gray Dogwood = VITRIPA
4	GRD. LAYER	5-7	1	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:	0	<10	0	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 lowland Dec. Forest — CODE: FOD7-2

	COMPLEX		CODE:

Evidence of Disturbance / Notes:

COYE
SOSP
NOFL
BLJA
GRCA
AMGO

LAYERS: 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:							
FRAPENN	A	A					
ULMAMER	O	O					
ACENEGU		O					
SALIX	R						
ACERUBR		R-O					
SHRUBS:							
Silky Dogwood			A				
Gray Dogwood			A				
VITRIPA			A				
GROUND:							
PHAARUN				R-O			

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

Signature: (Field Personnel)

Signature: (Project Manager)

ELC Polygon: # 40-1 **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

Legend

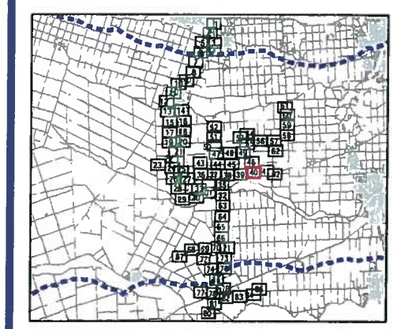
- Proposed T Line Route
- Proposed Collector 120m Buffer

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.
40

Title
Proposed Collector Route
Map 40

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

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

Stantec

Coll. Tile 42; Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 | Project Name: NKWC

Date: July 13/12 | Field Personnel: M. Ross

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

POLYGON DESCRIPTION

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 42-1

START TIME: 12:25

END TIME: 12:30

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		1	ULMAMER = FRAPENN
2	SUB-CANOPY		1	ACERUBR
3	UNDERSTOREY	4	2	Gray Dogwood > Hawthorn >> ACERUBR
4	GRD. LAYER	5-7	4	PHAARUN = BROINN = Agrostis = Solidago

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: D-M old Field Meadow | CODE: CUM 1-1

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:							
ACERUBR		R	R				
ULMAMER	R						
FRAPENN	R						
SHRUBS:							
Gray Dogwood			O-A				
Hawthorn			O				
GROUND:							
PHAARUN				O			
BROINN				O			
Agrostis &				O			
Solidago				O			
Wild Parsnip				R-O			
Knapweed				R-O			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #42-1 **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

Legend

- Proposed T Line Route
- Proposed Collector 120m Buffer

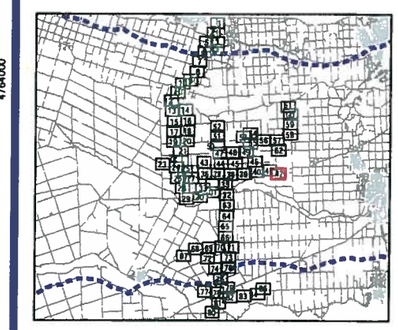
Turbines in Signed Lands

- 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

1 - ELC done



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

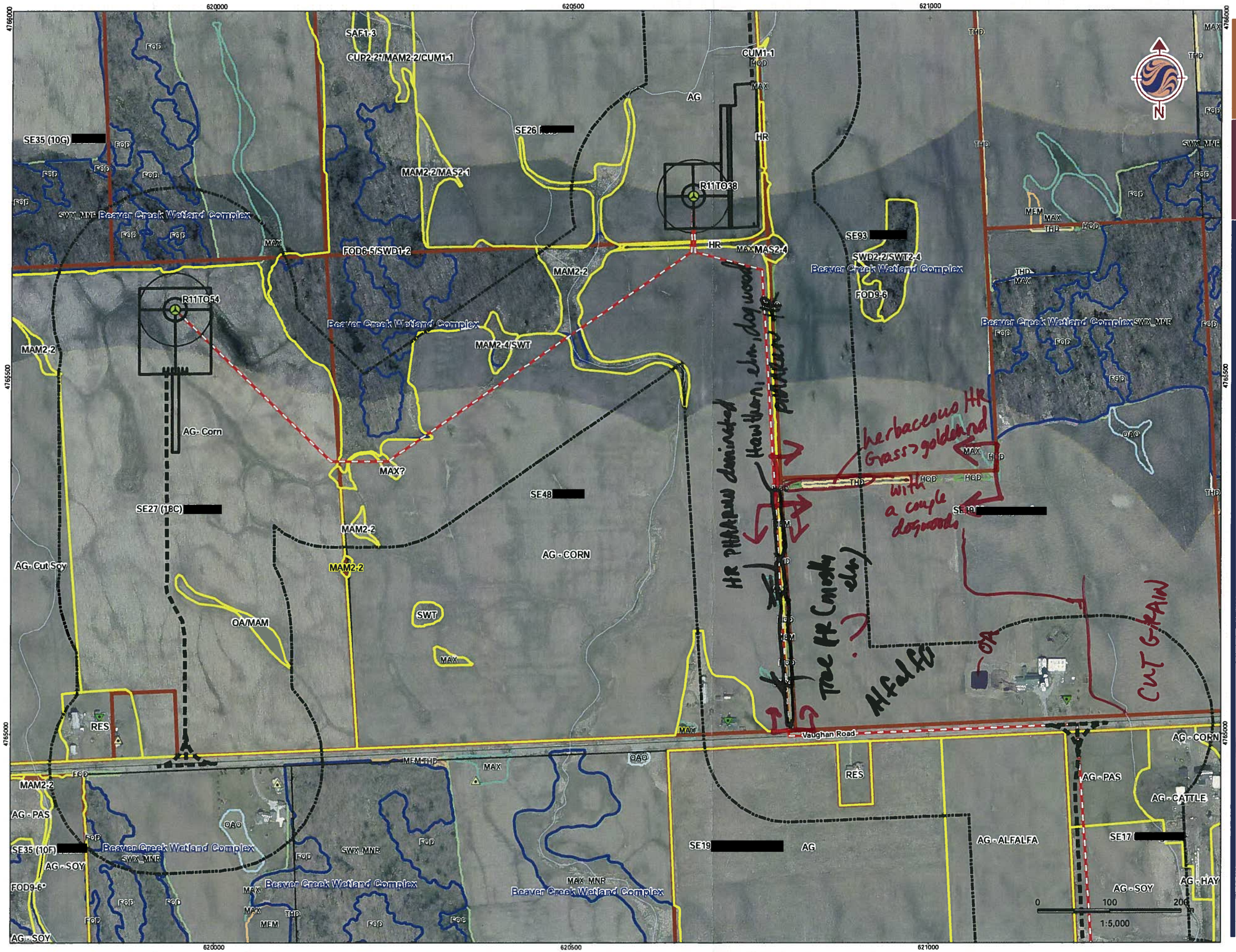
June, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
42

Title
Proposed Collector Route
Map 42

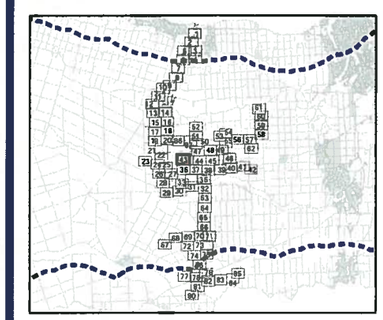
V:\01609\active\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_17_ELC_Collector_Map_Book_20120613.mxd
Revised: 2012-06-14 By: bcowper



Legend

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
- Non-Participating Receptors 550m Setback
- 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

August, 2012
160950269

Client/Project
Niagara Region Wind Corporation
ELC Delineation

Figure No.
43

Title
Transmission and Collector Line
Map: 43

V:\01609\Active\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_18_ELC_T_Line_Collector_Map_Book_20120727.mxd
Revised: 2012-08-08 By: bcowper

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

Coll. Tile 44; Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 16450269 Project Name: NRWC

Date: June 28 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	90	—	rain

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 44-1

START TIME: 4:40

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	3-4	3	LILAC > ACESASA
3	UNDERSTOREY			
4	GRD. LAYER	5-7	4	Grasses > DIPFULL = SOLIDAGO

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

CVR CODES: 0=NONE 1=0%<CVR≤10% 2=10<CVR≤25% 3=25<CVR≤60% 4=CVR>60% 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: LILAC Cultural Thicket CODE: CUT1-8*

	COMPLEX		CODE:

Evidence of Disturbance / Notes:

35% woody cover

LAYERS: 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:							
ACESASA	R	O			✓	✓	
SHRUBS:							
SYRVULG		A				✓	
Fruit tree		R				✓	
RUBIDST			O		✓	✓	
GROUND:							
grass				A	✓	✓	
DIPFULL				O-A	✓	✓	
Mullein				R		✓	
SOLIDAGO				O-A	✓	✓	

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #44-1 **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

Form used because it is an edge assessment

Edge of property

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

Coll. Tile 44; Poly 2

[redacted] ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 | Project Name: NRWC

Date: June 27 | Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	90	—	rain

ELC — COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 44-2

START TIME: 5:00 pm

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	SUB-CANOPY			
3	UNDERSTOREY	3-4	2	SPIALBA > ROSA SP > SAMRALE
4	GRD. LAYER	4-7	4	TYPLATI > PHAARUN > Juncus 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	A	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: cattail mineral shallow marsh | CODE: MAS2-1

	COMPLEX		CODE:

Evidence of Disturbance / Notes:

- snags abound at edges
- moist, but no H_2O
- ring of SPIALBA
- adjacent FOD is almost pure elm (<10 – 24 DBH) + JUGNIGR [young]

+ avens, ALLPETI, Solidago } 2 category

LAYERS: 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 [redacted] ≤5 m	DISTANCE FROM [redacted] >5 m	COLL.
TREES:							
ACEFREE	R				✓	✓	
ULMAMER	R				✓	✓	
SHRUBS:							
SAMRACE			R		✓	✓	
SPIALBA			R-O		✓	✓	
ROSA SP			R-O		✓	✓	
GROUND:							
TYPLATI				A		✓	
PHAARUN				O	✓	✓	
Juncus				R	✓	✓	

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: (Project Manager)

ELC Polygon: #44-2 **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

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

Coll. Tile 44, Poly 3

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: June 28 Field Personnel: N Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	90	–	rain

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 44-3

START TIME: 5:30

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	4-7	4	TYPANGU

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	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: Cultural 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:							
SHRUBS:							
GROUND:							
TYPHA ANGUS				D	✓	✓	

Signature: (Field Personnel)

Quality Control: This form is complete ☐ & legible ☐

Signature: (Project Manager)

ELC Polygon: #44-3 **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

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

Coll. Tile 44; Poly 4

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: June 28 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	20	—	rain

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 44-4

START TIME: 5:35

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	3	4	PINSTRO
2	SUB-CANOPY			
3	UNDERSTOREY	4	1	Cornus
4	GRD. LAYER	5-7	3	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	O	10 – 24	N	25 – 50	N	>50

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

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

VEGETATION TYPE: whitepine coniferous Plantation CODE: CUP3-2

	COMPLEX		CODE:

Evidence of Disturbance / Notes:

– low viribility to interior

LAYERS: 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:							
PINSTRO	D				✓	✓	
SHRUBS:							
Grey dogwood			O		✓		
GROUND:							
grass				O	✓		

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #44-4 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

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

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

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

Coll. Tile 44; Poly 5

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWL

Date: June 28 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	90	–	rain

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 44-5

START TIME: 5:45

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	3	gray dogwood
4	GRD. LAYER	5-7	4	Grasses = Solidago > ASCSYRI > ERIGERON

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: Dm-moist old field meadow CODE: CUM1-1

COMPLEX CODE:

Evidence of Disturbance / Notes:

almost cut (dogwood <1m tall)

LAYERS: 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:							
ULMAMER	R				✓	✓	
PINSTRO	R				✓	✓	
ACEFRE	O				✓	✓	
Picea	R						
SHRUBS:							
gray dogwood			A		✓	✓	
GROUND:							
Grasses			A	A	✓	✓	
SOLIDAGO			A	A	✓	✓	
ERIGERON			A	O	✓	✓	
ASCSYRI			A	O	✓	✓	

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # 44-5 **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:

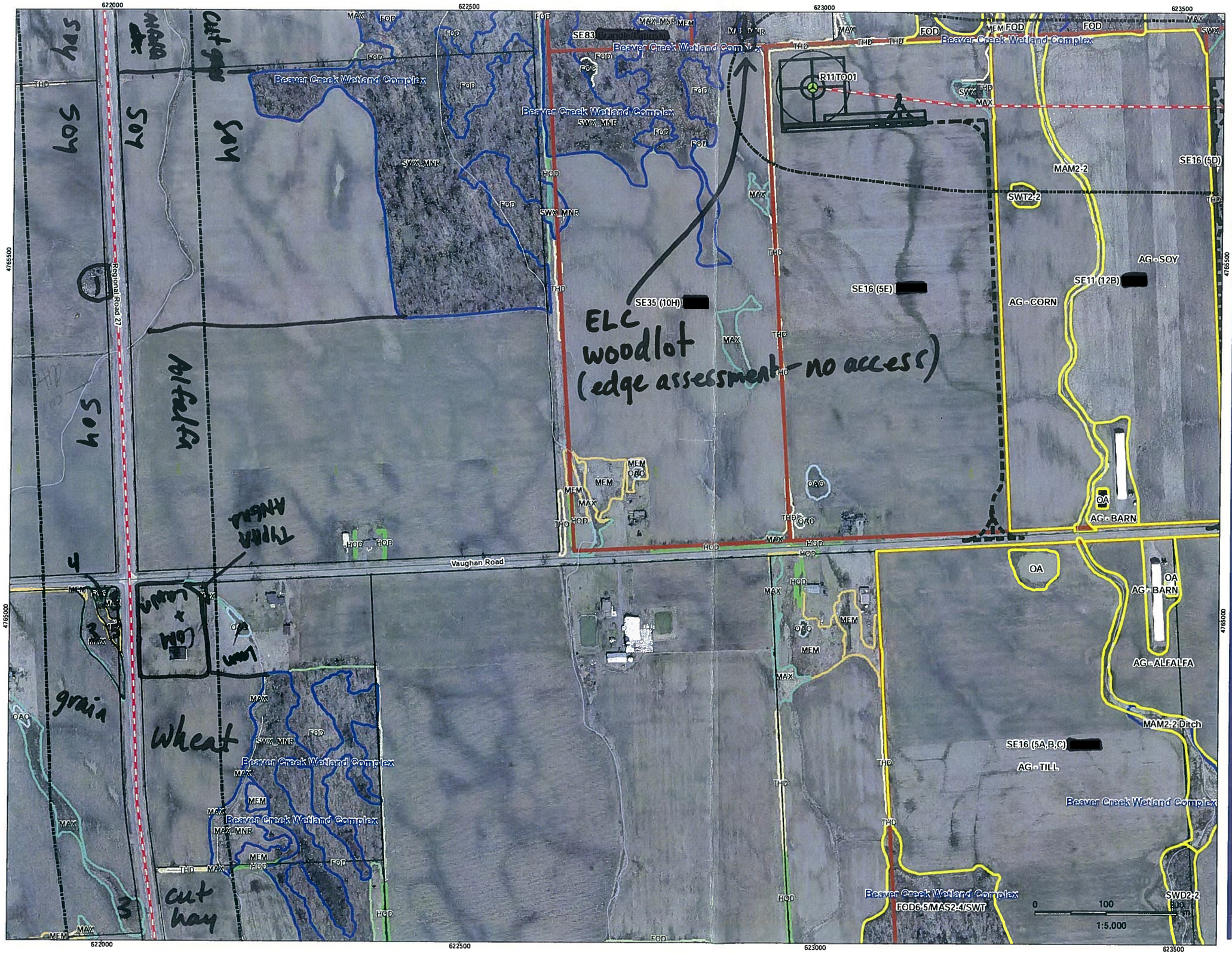
Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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



Legend

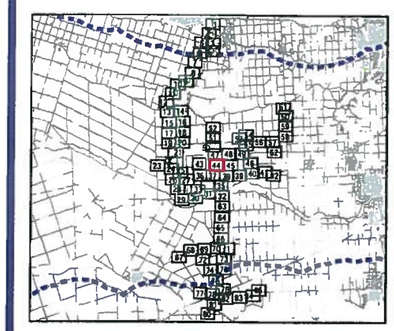
- Proposed T Line Route
- Proposed Collector 120m Buffer

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

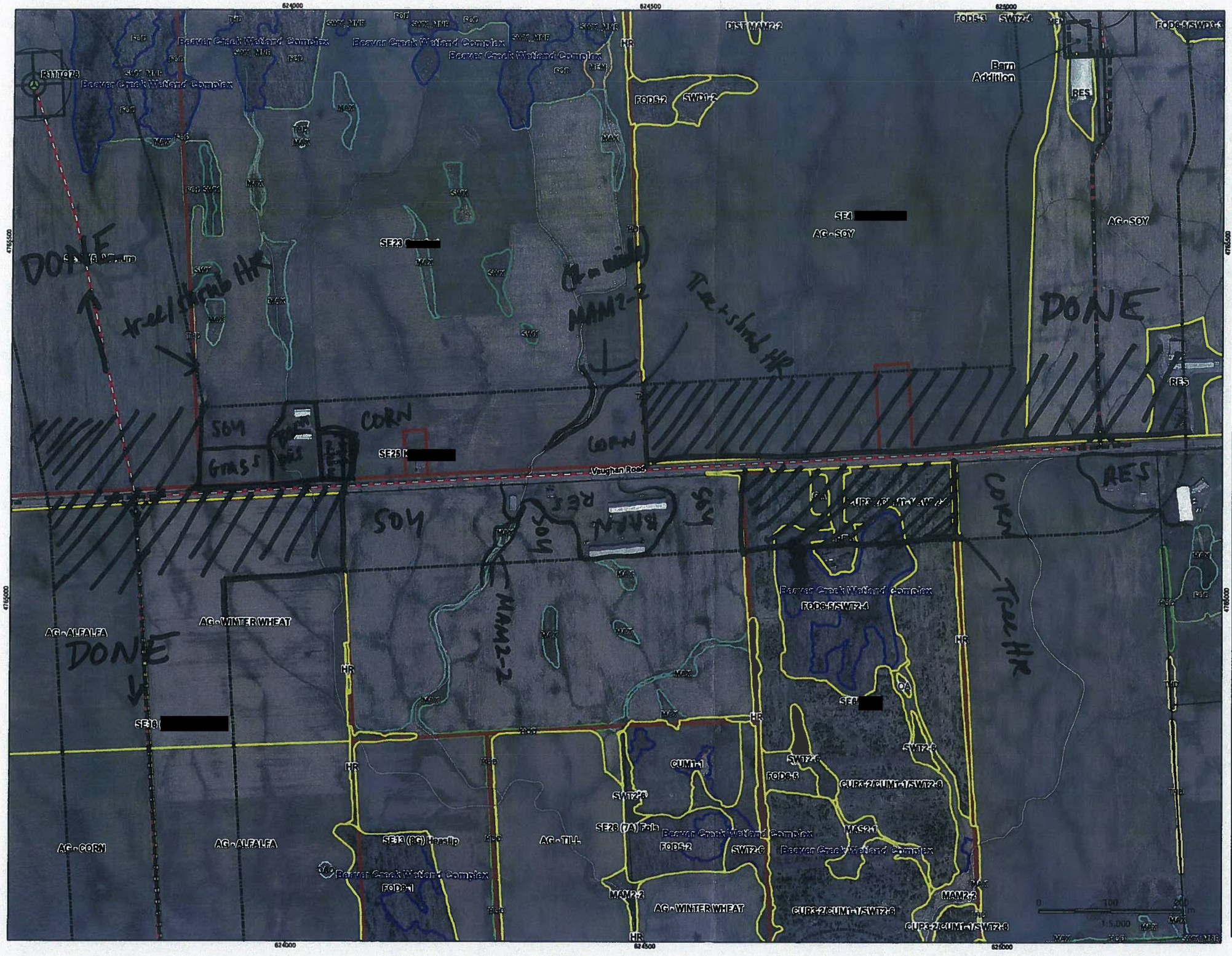
June, 2012
160950269

Client/Project
Niagara Region Wind Corporation
Amphibian Field Maps

Figure No.
44

Title
Proposed Collector Route
Map 44

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

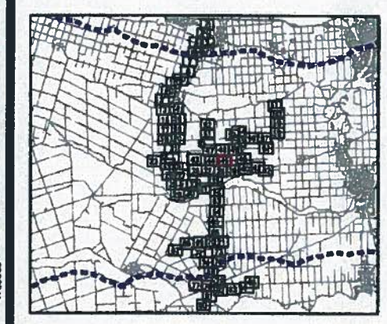
Turbines in Signed Lands

- 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

- ELC done



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.
45

Title
Proposed Collector Route
Map 45

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

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

Stantec

Coll. Tile 46; Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NRWC

Date: July 13/12 Field Personnel: M Ross

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	3-4	15	Non	Non

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 46-1

START TIME: 3.00

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	3	QUERUBR = FRAPENN > Shagbark H > QUEMACR
2	SUB-CANOPY	3	3	QUEMACR = ACESASA = QUERUBR = FRAPENN
3	UNDERSTOREY	4	3	Gray Dogwood = Shagbark H > Hawthorn
4	GRD. LAYER	5-7	2	AVENS > Solidago

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

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

STANDING SNAGS:	0	<10	0	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-Sugar Maple Dec. CODE: FOD 9-1

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	LAYER 2	LAYER 3	LAYER 4	DISTANCE FROM RD. ≤5 m	DISTANCE FROM RD. >5 m	COLL.
TREES:							
QUEMACR	O	O					
Shagbark Hickory	OA	O	O				
ACESASA	O	O					
QUERUBR	A	O					
FRAPENN	A	O					
SHRUBS:							
Hawthorn Sp			RO				
Gray Dogwood			O				
GROUND:							
AVENS Sp				O			
Solidago Sp				RO			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: # 46-1 **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:

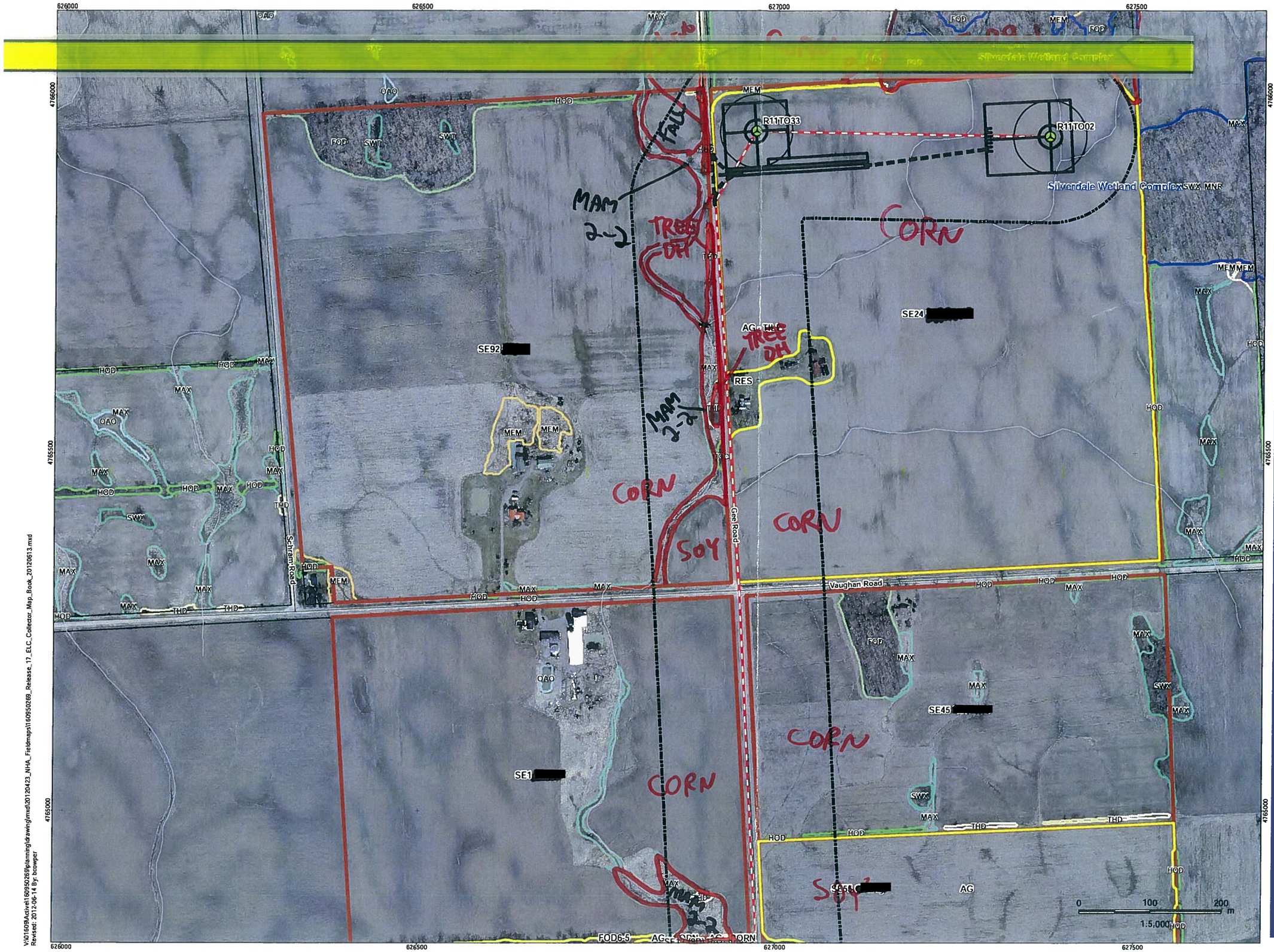
Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

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



Legend

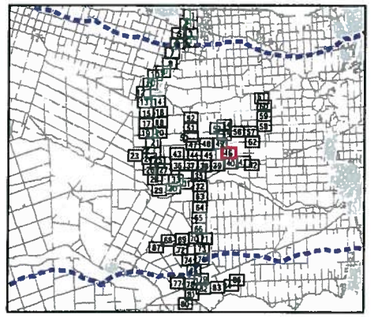
- Proposed T Line Route
- Proposed Collector 120m Buffer

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.
46

Title
Proposed Collector Route
Map 46

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

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

Coll. Tile 47; Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160150269 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%	—	—

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 47-1

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			
SUB-CANOPY			
UNDERSTOREY			
GRD. LAYER	5-7	4	PHAARUN >> DAUCARO = DIFFUSY

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		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:							
SHRUBS:							
GROUND:							
PHAARUN				A			
DAUCARO				R-O			
DIFFUSY				R-O			
TRIPERE				R			

Signature: (Field Personnel)

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

Signature: (Project Manager)

ELC Polygon: #47-1 **Assessment Type:** ☑-Visual; no access / ☐-Walk through feature

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

Reptile / Bat Hibernacula Features:

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

POTENTIAL HIBERNACULA FEATURE(S) IDENTIFIED

UTM	Feature Description	Photo No.	Spp. Observed Using Feature

Bat Roosting Features:

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

POTENTIAL BAT ROOSTING FEATURE(S) IDENTIFIED

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

Stick Nests:

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

STICK NEST(S) IDENTIFIED

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

Seeps/Springs/Vernal Pools:

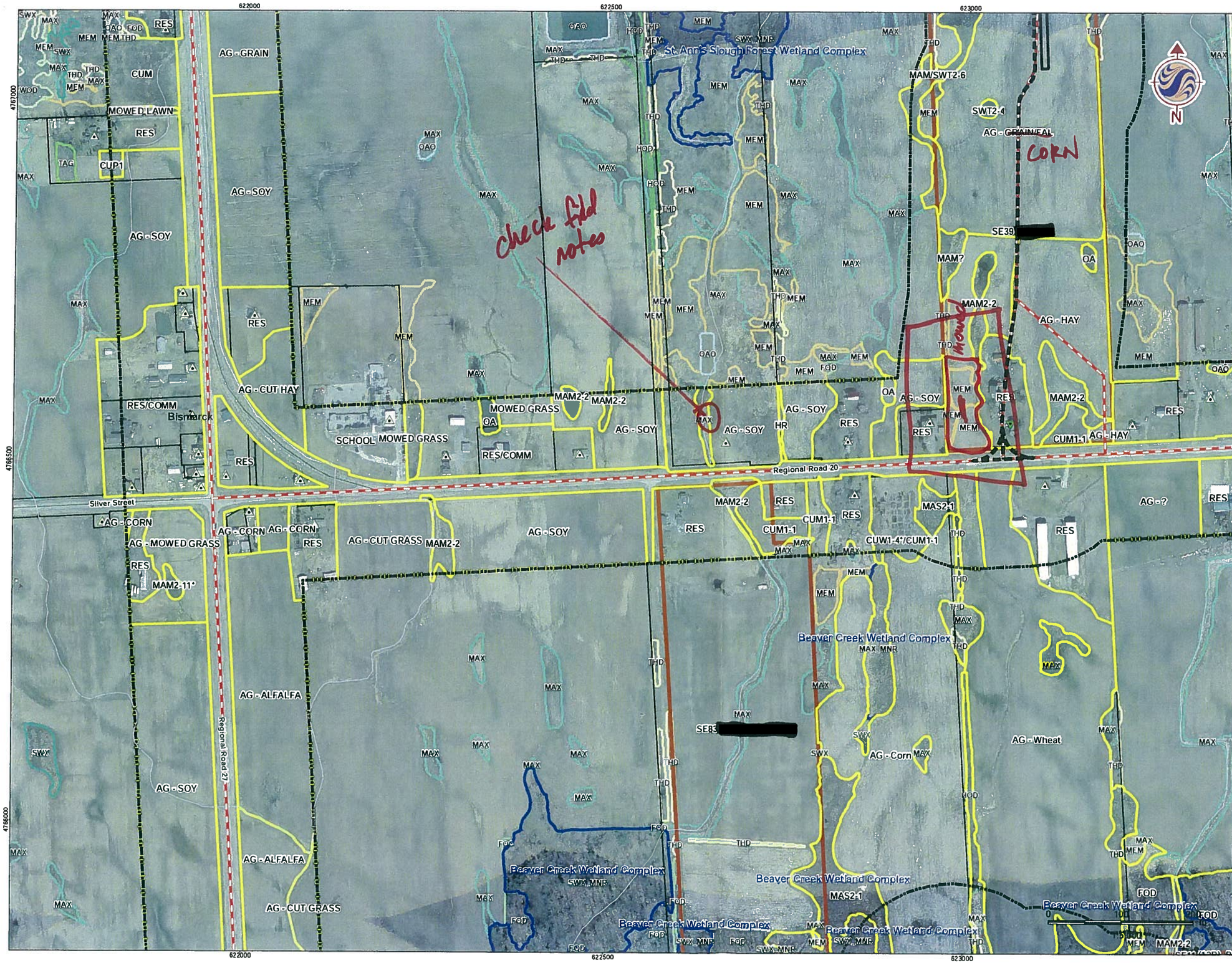
Contains seeps/springs/vernal pools?
☐-Y* / ☐-N / ☑-Unknown, no access *(*if yes, describe in table below)*

SEEP / SPRING / VERNAL POOL FEATURE(S) IDENTIFIED

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

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

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

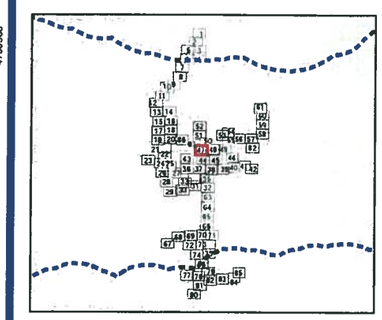


Legend

MEM Communiti

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
- Non-Participating Receptors 550m Setback
- 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

August, 2012
160950269

Client/Project
Niagara Region Wind Corporation
ELC Delineation

Figure No.
47

Title
Transmission and Collector Line
Map: 47

V:\01609\Active\160950269\planning\drawing\mxd\20120423_NHA_Fieldmaps\160950269_Release_18_ELC_T_Line_Collector_Map_Book_20120727.mxd
Revised: 2012-08-08 By: bcowper

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

Coll. Tile 48, Poly 1

Roadside ELC, Woodland & Wildlife Habitat Assessment Form

Project Number: 160950269 Project Name: NPWC

Date: June 28 Field Personnel: N. Charlton

Weather Conditions:	TEMP (°C):	WIND:	CLOUD:	PPT:	PPT (in last 24 hrs):
	30	2-3	90	—	rain

POLYGON DESCRIPTION

ELC – COMMUNITY DESCRIPTION & CLASSIFICATION

POLYGON: 48-1

START TIME: 2:35

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	5-7	4	Grasses > ASCSYRI > DIPFULL = ERIGERON

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	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: Dry-moist old field meadow CODE: CUM1-1

COMPLEX: reed-canary grass mineral meadow marsh CODE: MAM2-2

Evidence of Disturbance / Notes:

RWBB using MAM, which is mainly confined to western half

LAYERS: 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:							
FRAX SP	R				✓	✓	
SHRUBS:							
GROUND:							
PHAARUN				A	✓	✓	
ASCSYRI				O	✓	✓	
DIPFULL				O	✓	✓	
VICCRAC				R		✓	
BROINER				O		✓	
TRIFOLIUM				R		✓	
Erigeron				O		✓	

Signature: (Field Personnel)

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

Signature: (Project Manager)