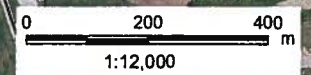


W:\bch\60960577\Drawings\GIS\MXD\NaturalHeritageAssessment\Map\Mapa\60960577_FIELDMAP_ProjectLocation_Mapbook_20100921_PW.mxd - 02/27/2010 @ 5:35:56 PM

588487 589487 590487 591487 592487 4752865 4752865 4752865 4752865



September 2010
160960577



	Project Location		Transmission Line (OBM)
	Proposed Turbine Location		Deer Wintering Area
	Proposed Access Road		Provincially Significant Wetland
	Proposed Collector Line		Non-Provincially Significant Wetland
	ROW Installation Zone		Watercourse (OBM)
	120m Investigation Zone		Waterbody
	Elenco Acquired Agreements	Area of Natural and Scientific Interest (ANSI)	
	Government Lands		Life Science, Provincially Significant
	UDI Lands		Earth Science, Provincially Significant
	Road		Earth Science, Regionally Significant
	Railway		
	Abandoned Railway		



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 3

Title
PROJECT LOCATION MAP



Stantec

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

Wildlife Habitat Assessment

Project Number: 160960577

Project Name: Samsung

Date / Time: 10-Oct-2010 11:45AM

Field Personnel: Melissa Straus

Weather Conditions:	Temp: <u>10°C</u>	Wind: <u>6</u>	Cloud: <u>30%</u>	PPT: <u>none</u>	PPT in last 24 hrs: <u>Heavy Rain</u>
----------------------------	-------------------	----------------	-------------------	------------------	---------------------------------------

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO ENST-OB RBWO-VO BICH-OB MADD-OB AMCR-OB SOSP-OB WAWO-OB TUVU-OB HOLA-OB BSHV-OB GUKI-OB WTSR-OB WBNU-VO EPME-OB	DEER-TK RACCOON-TK	GRFR-OB		

Feature 14

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : A

Approximate age of stand 60 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand <1%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) Or

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 1 @ 2.5m ↑ DBH ~ 25cm no bark

4@

30-40cm; loose bark, ↑ 20m ~ 6-8/ha

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Ash	7	7	5-7	Small-med.

Snag
do

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
1	Inclusion in 3596333/ 4751835	None @ present	10m x ~ 20m	Gray Sycamore swamp	

Not
Vernal
pool →

Feature 14

	SITE:		POLYGON: 3	
	SURVEYOR(S):		DATE:	UTME:
	START: 13:00	END: 13:45	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CAROVAT > QUERUB > TILAMEIK
2 SUB-CANOPY	2	4	ACESACS > CAROVAT
3 UNDERSTOREY	3-4	4	ACESACS > OSTVIRG
4 GRD. LAYER	0-1	3	FLAPPAN > CAROVAT

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 < 10 0 10-24 0 25-50 R > 50

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

DEADFALL / LOGS: 0 < 10 0 10-24 0 25-50 N > 50

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

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

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

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION: COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: F-M Oak-Maple-Hickory Dec. Forest CODE: FOD9

VEGETATION TYPE: F-M Shorebank-Hickory Dec. Forest CODE: FOD9

INCLUSION: Gray Dogwood, Thicket Swam CODE: SWT2-9

COMPLEX: Mineral CODE:

Notes: Pct 1648

SITE:	Samsung
POLYGON:	3
DATE:	12-Oct-2010
SURVEYOR(S):	M. STAVUS

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	Code	Code	Code	Code
CAROVAT	A	O	O	O
ACESACS	R	O	O	O
QUERUB	A	R	-	-
OSTVIRG	-	O	-	-
FAAGRAW	R	R	R	R
TILAMEIK	O	O	R	R
UMAMEIK	R	R	-	-
FLAPPAN	R	-	O	-
FLAPPAN	-	R	-	-
CAROVAT	-	R	-	-
FLAVIRG			O	
Hawthorn		R		
CARCARP		R		
KUBIDEA				
RIB - Spineless		R		
Poisony		R		
Gray Dogwood		R		
B. Hairy			O	
Goldbrill			R	

ELC
COMMUNITY
DESCRIPTION

SITE: _____ POLYGON: 2

SURVEYOR(S): _____ DATE: _____ UTMZ: _____ UTMN: _____

START: 12.15 END: 12.30

POLYGON DESCRIPTION

<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECELUOUS	<input type="checkbox"/> SOG
		<input type="checkbox"/> TALLUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THicket
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

SITE

OPEN WATER

SHALLOW WATER

SURFICIAL DEP.

BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	1	FRAPENN
2 SUB-CANOPY	2	2	FRAPENN 7 Salix sp.
3 UNDERSTOREY	3-4	2	CORSTOL
4 GRD. LAYER	3-7	4	Red canopy grass

HT CODES: 1 = > 25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-0.5 m 7 = 0-0.2 m

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

STAND COMPOSITION:

BA: _____

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

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

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

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

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G = _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE _____ DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: _____ CODE: _____

Koovian Hedgerow(s)

INCLUSION _____ CODE: _____

COMPLEX _____ CODE: _____

Notes:

1644-1645 2

2a = just grass 1643

db = 40.5 buffer of woods on east side P 1646

ELC

SITE: 2019110

POLYGON: 2

DATE: 12-Oct-2010

SURVEYOR(S): M. X. Y. A. U. S.

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	R	O	A	D
FRAPENN	R	O		
ULMACEAE	R			
Salix sp.	R			
CORSTOL				
Golden rod sp.				

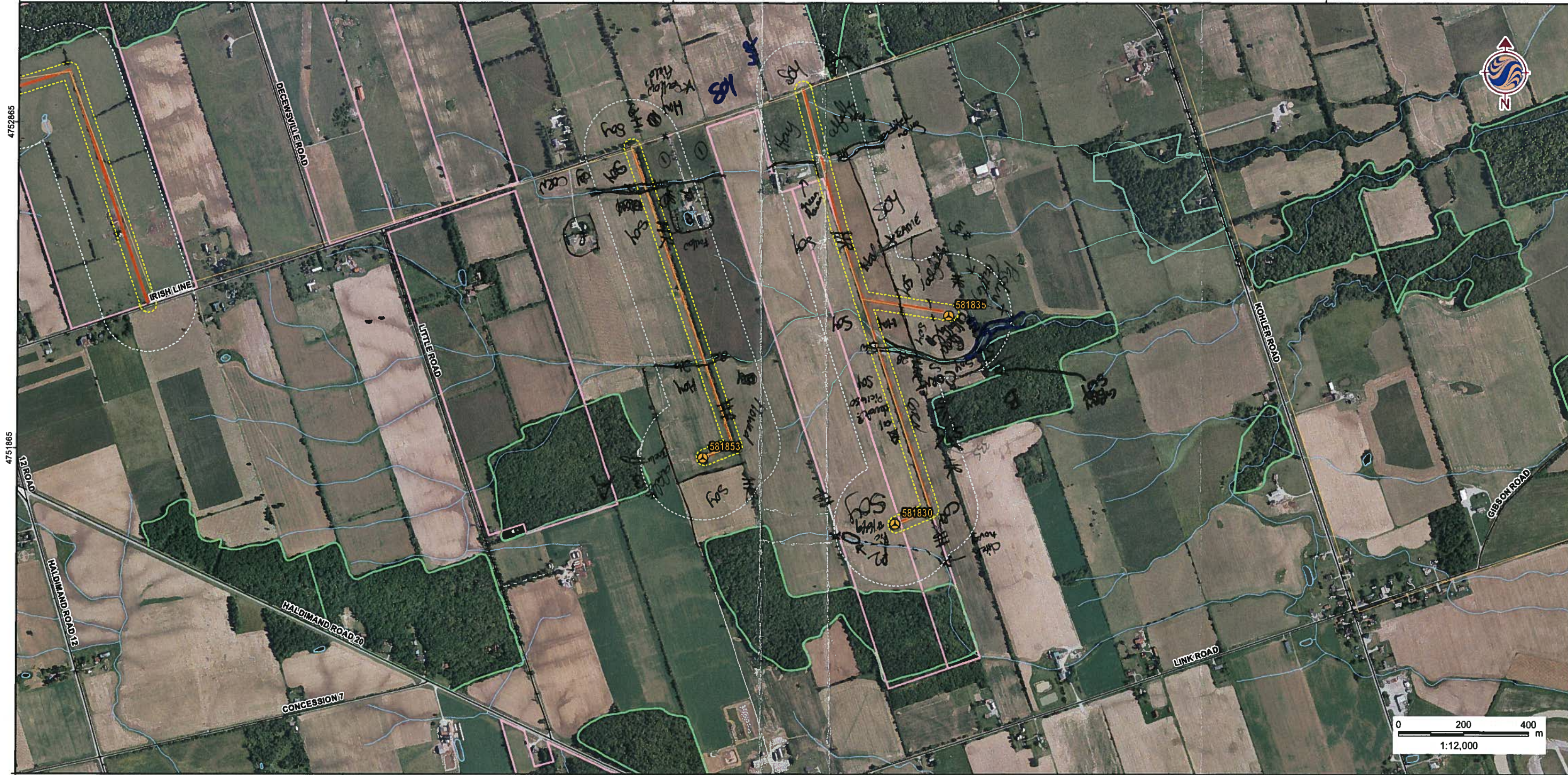
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September 2010
160960577

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Legend

- | | | | |
|--|----------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Acquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |




Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 3

Title
PROJECT LOCATION MAP

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

Project Number: <u>160960577</u>	Project Name: <u>Samsung</u>
Date / Time: <u>12 Oct - 2010 11:45 am</u>	Field Personnel: <u>Malissa Strauss</u>

Weather Conditions:	Temp: <u>10°C</u>	Wind: <u>6</u>	Cloud: <u>30%</u>	PPT: <u>none</u>	PPT in last 24 hrs: <u>Heavy Rain</u>
----------------------------	----------------------	-------------------	----------------------	---------------------	--

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> Blue Jay Starling House Sparrow Chipping Sparrow Song Sparrow Cowbird Goldfinch Downy Woodpecker Nuthatch Red-bellied Woodpecker Striped Gophers White-footed Mouse Field Squirrel Red Squirrel Grey Squirrel Eastern Chipmunk Eastern Shrew Eastern Skunk Eastern Cottontail Eastern Fox Squirrel Eastern Gray Squirrel Eastern Woodrat Eastern Chipmunk Eastern Shrew Eastern Skunk Eastern Cottontail Eastern Fox Squirrel Eastern Gray Squirrel Eastern Woodrat	Deer - FE Raccoon - FE	Gopher - FE		

Feature 15

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : B

Approximate age of stand 50 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 1%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. All in inclusion dead in blues, 25-35cm DBH, 10-15m tall all loose bark.

located in ground in 3/ha.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
snag (2 snags)	10m	25cm	1-10	hollow - small
	3m	15cm	3	small
	4m	40cm	0-4	hollow

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Paths, driving through inclusion

Seeps/ springs present? Yes No

If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No

If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	<u>in ground</u>			Some dogwoods	

No feature

	SITE:		POLYGON: ①	
	SURVEYOR(S):		DATE:	UTME:
	START: 11/4/10	END: 12/15	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

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	White Aster Type > goldenrod > Ps Aster

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

STAND COMPOSITION: BA:

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

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Mineral Cultural meadow	CODE: Cum
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Across road 1642 - 1141

	SITE: Samsung
	POLYGON: 1
	DATE: 12 Oct 2010
	SURVEYOR(S): M. Straus

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

ABUNDANCE CODES: R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

Species	1	2	3	4	Code
Ps Aster					O
R.F. Trefoil					O
N. Flat Aster					R
Chickory					R
Dandelion					O
Red Clover					A
Timothy					O
A.A. Lace					O
White Astertype					A ✓
Goldenrod					A

ELC

SITE: _____ POLYGON: 2

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: 12.15 END: 12.30 UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

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

SITE

OPEN WATER

SHALLOW WATER

SURFICIAL DEP.

BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (=> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	1	FRAPENN
2 SUB-CANOPY	2	2	FRAPENN 7 Salix sp.
3 UNDERSTOREY	3-4	2	CORSTOL
4 GRD. LAYER	5-7	4	Reed canarygrass

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

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

STAND COMPOSITION: _____ BA: _____

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

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

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

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

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

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY: g = _____ G = _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE: _____ DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: Riparian Hedgerow(s) CODE: _____

INCLUSION: _____ CODE: _____

COMPLEX: _____ CODE: _____

Notes:

1644-1645 2

2a = just grass 1643

db = 20.5m buffer of weeds on each side Pl 1646

2b = 11.1m

No feature.

ELC

SITE: Samsung

POLYGON: 2

DATE: 12-Oct-2010

SURVEYOR(S): M. Straus

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Code
FRAPENN	1	1	R O
ULMACEAE	2	2	R
SOIX sp	3-4	2	R
Red Canary Grass	5-7	4	D
CORSTOL			R
Golden rod sp			R

2 {

2+2
+26

Feature 14

	SITE:		POLYGON: 3	
	SURVEYOR(S):		DATE:	UTME:
	START: 13.00	END: 13.45	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CAROVAT > QUERUB > TILAMER
2 SUB-CANOPY	2	4	ACESACS > CAROVAT
3 UNDERSTOREY	3-4	4	ACESACS > OSTVIRG
4 GRD. LAYER	5-7	3	FRAPEN > CAROVAT

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

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	0 < 10	0 10-24	0 25-50	R > 50
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STANDING SNAGS:	N < 10	0 10-24	R 25-50	N > 50
-----------------	--------	---------	---------	--------

DEADFALL / LOGS:	0 < 10	0 10-24	0 25-50	N > 50
------------------	--------	---------	---------	--------

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE: F-M Oak-Maple-Hickory Dec. Forest	CODE: FOD9
VEGETATION TYPE: F-M Shagbark Hickory Dec. Forest	CODE: FOD9-4
INCLUSION: Gray Dogwood, Thicket Swamp	CODE: SWTA-9
COMPLEX: Mixed	CODE:

Notes:

Pc1648

SITE: Samsung
POLYGON: 3
DATE: 12-Oct-2010
SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	Code	Code	Code	Code
CAROVAT	A	O	O	O
ACESACS	R	O	O	O
QUERUB	A	R	-	-
OSTVIRG	-	O	-	-
FRAGRAV	R	R	R	R
TILAMER	O	O	R	R
ULMAMER	R	R	-	-
FRAPEN	R	-	O	-
RIBES	-	R	-	-
CAROVAT	-	R	-	-
FRAPEN				
Hawthorn				
CAREARP				
ICUBIDEA				
RIB - Spine Nodes Fair Petioles				
Poison Ivy				
Grey Dogwood				
Buttercup sp				
Goldenrod				

RIBES SYNOSMATS

ELC SITE: POLYGON: 4

SURVEYOR(S): DATE: UTME:

START: 14:30 END: 15:00 UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CARDUAT > QUERUBR
2 SUB-CANOPY	2	4	CARDUAT > TILAMER
3 UNDERSTOREY	3-4	4	TILAMER > Gray Dogwood & OSTVIRG
4 GRD. LAYER	5-7	4	Wood Nettle & Poison Ivy

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

STAND COMPOSITION: BA:

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: F-M Oak - Maple - Hickory Dec. Forest CODE: F009

VEGETATION TYPE: F-M Red Oak - Shagbark Hickory Dec. Forest CODE: F009-6 *

INCLUSION: Red canopy Grass, Mineral Marsh CODE: MAM a-2

COMPLEX CODE:

Notes:

Pic 1563 - Lowland Cyp. Hickory
Inclusion - Pic # 1651

Feature 15

ELC SITE: Samsung

POLYGON: 4

DATE: 12-Oct-2010

SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	R	O	A	D
ACEPAC	R	-	-	-
ACESACS	R	R	-	-
FRAPPEN	R	R	-	-
FRANIGR	-	R	-	-
OSTVIRG	-	-	O	O
QUERUBR	O	O	R	R
TILAMER	R	O	-	-
Red Canopy Grass				I D
White Fl. Aster				I O
S.T. Me Nds				I O
Wood Nettle				O
CARCARO	R			
FRAVIRG		O		
Pissalvy		O		
Gray Dogwood	R			
RUBIDRA		O		
Buttercup sp				O

Feature 15

EIG	SITE:	POLYGON: 5	
	SURVEYOR(S):	DATE:	UTME:
	START: 5:00	END: 5:30	UTMZ:

SYSTEM	SUBSTRATE	TOPOGRAPHIC	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LV.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDR.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDR.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDR.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> SOG
		<input type="checkbox"/> TALLS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> SARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> OPEN		<input type="checkbox"/> THicket
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREE		<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ALCESACS > TILAMER > QUERUB
2 SUB-CANOPY	2	4	ALCESACS > TILAMER
3 UNDERSTOREY	3	4	ALCESACS < PRAGGLAN
4 GRD. LAYER	5-7	3	FRAMMER

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE: D-F Sugar Maple	CODE: F006
VEGETATION TYPE: FMS Sugar Maple-Hardwood Dec. Fore	CODE: F006-5
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes: Pic 1652

EIG	SITE: Samsung
	POLYGON: 5
	DATE: 12-Oct-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	Code	Code	Code	Code
ALCESACS	D	O	O	
TILAMER	O			
PRAGGLAN	R	O	O	-
QUERUB	R	-	-	
QUERUB	O	+R	R	
FRAMMER	R	-	O	
QUERUB	R	-		
OSTVIRA	-			
FRAPPAN	R			
M. Y. ...	R			
RUBRUS	R			
RUBRUS	R			

ELC
ENVIRONMENTAL
LIFE HISTORY
CLASSIFICATION

SITE: _____ POLYGON: **6**

SURVEYOR(S): _____ DATE: _____ UTM: _____

START: **5:30** END: **15:45** UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	1	Manitoba Maple
2 SUB-CANOPY			
3 UNDERSTOREY	4	3	Hawthorn > Gray Dogwood > RUBUS
4 GRD. LAYER	27	4	Reed Grass & Grass

HT CODES: 1 = >25 m 2 = 10-24 m 3 = 2-9 m 4 = 1-9 m 5 = 0.5-1 m 6 = 0.2-0.5 m 7 = HT < 0.2 m

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

STAND COMPOSITION: _____ BA: _____

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

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

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

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

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

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

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION: COMMUNITY CLASS: _____ CODE: **ma**

COMMUNITY SERIES: _____ CODE: **mam**

ECOSITE: _____ CODE: **mama**

VEGETATION TYPE: **Reed-grass Grass Mineral Meadow Marsh** CODE: **mama-2**

INCLUSION CODE: _____

COMPLEX CODE: _____

Notes: **mam - w cultural influences**

Feature 15

ELC
ENVIRONMENTAL
LIFE HISTORY
CLASSIFICATION

SITE: **Samsung**

POLYGON: **6**

DATE: **12-Oct-2010**

SURVEYOR(S): **M. Straus**

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Code
Manitoba Maple			R
Hawthorn			O
Gray Dogwood			O
Rubus			O

Species	HT	CVR	Code
Reed-grass			A
Water-hyacinth			R
White Aster			O ✓
Goldenrod			

Feature 16

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

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 3-5	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Straus	

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	LILMAMER > QUE (MACK+ALBA) >> CAROUAT
2 SUB-CANOPY	1/2	4	LILMAMER
3 UNDERSTOREY			
4 GRD. LAYER			

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

STAND COMPOSITION: BA:

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

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Fresh-moist White Elm Lowland Dec. Forst	CODE: F007-1
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Creek feature running through

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
LILMAMER D												
QUEMACK												
QUEMACK												
CAROUAT												



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December 2010
160960577

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2. Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1. Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2. Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4. Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1. Dry-fresh Poplar Deciduous Forest
 - FOD4-1. Dry-fresh Beech Deciduous Forest
 - FOD4-2. Dry-fresh White Ash Deciduous Forest
 - FOD5-1. Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2. Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3. Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8. Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*. Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*. Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1. Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5. Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-8*. Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1. Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2. Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1. Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4. Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6*. Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1. Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2. Green Ash Mineral Deciduous Swamp
 - SWD2-3*. Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*. Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1. Red Maple Mineral Deciduous Swamp
 - SWD3-2. Silver Maple Mineral Deciduous Swamp
 - SWD3-5*. Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1. Willow Mineral Deciduous Swamp
 - SWD4-2. White Elm Mineral Deciduous Swamp
 - SWD3-3. Swamp Maple Mineral Deciduous Swamp
 - SWD4-6*. Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4. Buttonbush Mineral Thicket Swamp
 - SWT2-5. Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8. Silky Dogwood Mineral Thicket Swamp
 - SWT2-9. Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*. Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*. Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*. Red Maple Mineral Thicket Swamp
 - SWT3-7. Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2. Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10. Forb Mineral Meadow Marsh
 - MAM2-11*. Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1. Cattail Mineral Shallow Marsh
 - MAS2-8. Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1. Mineral Cultural Meadow
 - CUT1-7. European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*. Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*. Green Ash Mineral Cultural Woodland
 - CUW1-5*. Maple-Ash Cultural Woodland
 - CUW1-6*. Green Ash Cultural Woodland
 - CUW1-7*. Red maple Mineral Cultural Woodland
 - CUP3-12*. White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*. White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 3

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



Feature 16 + 17

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

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

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

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

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

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

COMMUNITY CLASSIFICATION:
COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
ECOSITE: CODE:
VEGETATION TYPE: CODE: Fresh moist Shagbark Hickory Dec. FOD9-4
INCLUSION: CODE: Forest
COMPLEX: CODE:

Notes:

ELC	SITE: Samsung
PLANT SPECIES LIST	POLYGON: 3-3
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRATENN	0	0			
CARDUAT	0	0			
QUEALBA	R				
FAGGRAN	R	0	0		
Cornus sp				0	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<input type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input checked="" type="checkbox"/> > 50
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STANDING SNAGS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
DEADFALL / LOGS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

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

Mineral Meadow Marsh

MAM2

Notes: Sp. all dead - cannot tell MAM type.

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 3-4	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Straus	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
Cornus sp.					O								

Feature 16

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

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

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ULM AMER > QUE (MAKR+ABA) > CAROJAT
2 SUB-CANOPY	2	4	ULM AMER
3 UNDERSTOREY			
4 GRD. LAYER			

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

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

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

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Fresh-moist White Elm Lowland Dec. Forest	F07-1
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Creek feature running through

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 3-5
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
ULM AMER D													
QUE MAER O													
QUE ABA O													
CAROJAT O													

No feature

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____
 POLYGON: _____

SURVEYOR(S): _____ DATE: _____
 UTME: _____
 START: _____ END: _____
 UTMZ: _____ UTMN: _____

ELC
 PLANT SPECIES LIST

SITE: *Samsung*
 POLYGON: *3-8*
 DATE: *20-Dec-2010*
 SURVEYOR(S): *M. Straus*

POLYGON DESCRIPTION

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

SITE
 OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> >> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	<i>5-9</i>	<i>4</i>	<i>Red Canary Grass</i>

HT CODES: 1=>25m 2=10<HT<.25m 3=2<HT<.10m 4=1<HT<.2m 5=0.5<HT<.1m 6=0.2<HT<.05m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR<.10% 2=10<CVR<.25% 3=25<CVR<.60% 4=CVR>60%

STAND COMPOSITION: _____ BA: _____

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

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

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

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

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

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

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION: COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: *Red canary Grass Meadow Marsh* CODE: *MAMA2-2*

INCLUSION _____ CODE: _____

COMPLEX _____ CODE: _____

Notes:

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
<i>P.C. grass</i>						<i>P.C. grass</i>				D	



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December 2010
160960577

- Legend**
- Proposed Turbine Location
 - 120m Zone of Investigation
 - ROW Installation Zone
 - ELC Communities
 - Access Road
 - Overhead Collector Line
 - Underground Collector Line
 - Substation Property
 - Road
 - Transmission Line (OBM)
 - Provincially Significant Wetland
 - Non-Provincially Significant Wetland
 - Watercourse (OBM)
 - Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osler Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE????**
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 5

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



No Feature

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	1	FRAPENN
2 SUB-CANOPY	3		
3 UNDERSTOREY	4	1	Cornus
4 GRD. LAYER	5-7.4		Reed-canary grass

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

STAND COMPOSITION: BA:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Reed-canary grass Meadow Marsh	MAMA-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 5-3
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAPENN	R					Red-canary grass					D
Cornus					R						

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QULFRUBR > CAROVAT > FRAPENN
2 SUB-CANOPY	2	4	CAROVAT > FRAPENN
3 UNDERSTOREY	3	4	FRAGGRAN
4 GRD. LAYER	4		Cornus sp

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

STAND COMPOSITION:	BA:
--------------------	-----

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

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Fresh-moist Red Oak - Shagbark	F009-6*
INCLUSION Hickory Deciduous Forest	CODE:
COMPLEX	CODE:

Notes:

4b - Cattle grazed - no little groundcover
 some Ag dominant parts.
 ↳ Feature 25

Feature 27

ELC PLANT SPECIES LIST	SITE: <u>Samsung</u>	
	POLYGON: <u>5-4</u>	
	DATE: <u>22-Dec-2010</u>	
	SURVEYOR(S): <u>M. Straus</u>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
CAROVAT	O	O				Aster				O	
QULFRUBR	O										
FRAGGRAN		O	O								
FRAPENN	O	O									
Cornus					O						

Feature 17/24

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

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

STAND DESCRIPTION:

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

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

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

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

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Fresh-moist Shagbark Hickory Decid.	FDD9-4
INCLUSION Forest	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: S-5
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
CAROUAT	O	O										
QUERUBR	O											
FRAGRAN	D											
FRAPPEN	O											

Feature 24

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

POLYGON DESCRIPTION

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

SITE

OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA: _____

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

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:
Gray Dogwood Mineral Thicket Swamp SWT 2-9

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 5-6
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.										
	1	2	3	4			1	2	3	4											
CORRACE					D																



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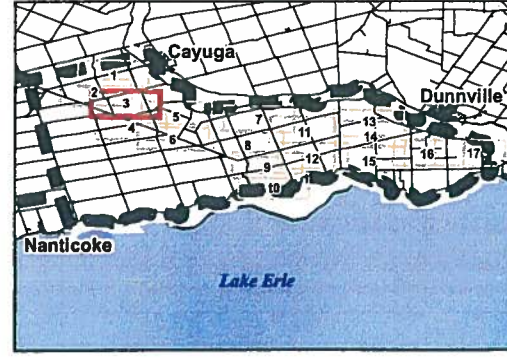
December 2010
160960577

- Legend**
- Proposed Turbine Location
 - 120m Zone of Investigation
 - ROW Installation Zone
 - ELC Communities
 - Access Road
 - Overhead Collector Line
 - Underground Collector Line
 - Substation Property
 - Road
 - Transmission Line (OBM)
 - Provincially Significant Wetland
 - Non-Provincially Significant Wetland
 - Watercourse (OBM)
 - Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-6- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6*- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6*- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3*- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-3*- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-8*- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11*- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-6- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*- Green Ash Mineral Cultural Woodland
 - CUW1-5*- Maple-Ash Cultural Woodland
 - CUW1-6*- Green Ash Cultural Woodland
 - CUW1-7*- Red maple Mineral Cultural Woodland
 - CUP3-12*- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 3

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



Feature 16 + (17)

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Fresh-moist Shagbark Hickory Dec. FOD9-4 CODE:

INCLUSION: 0 Forest CODE:

COMPLEX CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: B-3	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Strauss	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
FRAPENN		00			-							
CALOUAT		00			-							
QUEALBA	R				-							
FAGGRAN	R	00			-							
Cornus sp												

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input checked="" type="checkbox"/> > 50
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STANDING SNAGS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input checked="" type="checkbox"/> > 50
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DEADFALL / LOGS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input checked="" type="checkbox"/> > 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

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

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

COMMUNITY CLASSIFICATION:

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

Mineral Meadow Marsh

MAM2

Notes: Sp. all dead - cannot tell MAM type.

Feature 16

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 3-4
	DATE: 22-DEC-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.			
	1	2	3	4			1	2	3	4				

Cornus sp. O

feature H

	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

	SITE: Samsung
	POLYGON: 3-2
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

POLYGON DESCRIPTION

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

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	1 4	FRAXENN SACB PRG.E.
2	SUB-CANOPY	2 4	"
3	UNDERSTOREY	3	"
4	GRD. LAYER	5 7 4	Dead canopy grass (2b)

Species	HT	CVR	Abundance
FRAXENN	10	4	D
SACB PRG.E.	10	4	D
FRAXENN	12	4	D
FRAXENN	R	4	R
Koplar	R	4	R

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

STAND COMPOSITION:

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

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

INCLUSION Swamp CODE:

COMPLEX CODE:

Notes:
 2b - and sp is QUEMACK instead of ACEPAC
 + has some MAMA-2 bits. 23
 - 50% mha in some parts

Feature 7

EFC ENVIRONMENTAL FIELD CENTER	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

EFC ENVIRONMENTAL FIELD CENTER	SITE: Samsung	
	POLYGON: 3-1	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Straus	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY		
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION		
<table border="1"> <tr> <td> <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK </td> <td> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED </td> </tr> </table>						<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED						

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUEALBA, CAROUAT, FLAPENN, ACESALS
2 SUB-CANOPY	2	4	FRAGERAN, FRAPENN
3 UNDERSTOREY	3	4	FRAGLANT
4 GRD. LAYER			

Species	Code	Abundance	Other
PINSTRD	0	-	
QUEALBA	0	-	
CAROUAT	00	-	
FLAPENN	00	-	
FRAGERAN	00	-	
FRAPENN	00	-	
FRAGLANT	00	-	

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Fresh-moist Sugar Maple-Hardwood	F006-5
INCLUSION: Deciduous Forest	CODE:
COMPLEX:	CODE:

Notes: From edge - mo marsh



W:\active\6096057\drawing\GIS\MXD\NaturalHeritageAssessment\field\Map\6096057_FIELDMAP1_ProjectLocation_20100920_PW.mxd - 9/20/2010 @ 1:17:14 PM



Legend

- | | | | |
|--|----------------------------|---|---|
| | Project Location | | ROW Study Area |
| | Proposed Turbine Location | | Crane Pad Study Area |
| | Proposed Collector Line | | ROW Installation Zone |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Road | | Non-Provincially Significant Wetland |
| | Railway | | Watercourse (OBM) |
| | Abandoned Railway | | Waterbody |
| | Transmission Line (OBM) | Area of Natural and Scientific Interest (ANSI) | |
| | Deer Wintering Area | | Life Science, Provincially Significant |
| | MEI | | Earth Science, Provincially Significant |
| | Elenco Acquired Agreements | | Earth Science, Regionally Significant |



Original:
Don't Throw
Out

Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006.

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 4

Title
PROJECT LOCATION MAP

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
POLYGON: ①

SURVEYOR(S): GAW
DATE: Sept. 21, 2010
UTME:
START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA = Shagbar K = FAGGRAN > Quercus
2 SUB-CANOPY	3	4	" " " > FRAAMER
3 UNDERSTOREY	4-5	4	" " " "
4 GRD. LAYER	6-7	4	EUOBOV, RHURANE, GERBICK, CIRLEUT, FRAVESC

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

STAND COMPOSITION: BA:

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

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: F0

COMMUNITY SERIES: Deciduous Forest CODE: FOD

ECOSITE: D-F Sugar Maple Dec Forest CODE: FOD5

VEGETATION TYPE: Dry-fresh Sugar Maple - Hickory - Beech Forest CODE: FOD5-12*

INCLUSION CODE:

COMPLEX CODE:

Notes:
Crop - Soy beans

ELC
PLANT SPECIES LIST

SITE: Turbine 2 + access rd. 581827

POLYGON: Feature 19

DATE:

SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAAMER	0	0	0	0		CIRLEUT				0	
ACESASA	A	A	A	0		EUOBOV				0	
Shagbar K	A	A	A	0		RHURANE				A	
FAGGRAN	A	A	A	0		DRYCART				R	
QUERUBR	0	0				GERROBE				0	
Blue Beech			A			GEUAPPEL				0	
QUEALBA	0	0				FRAVESC				0	
OSTVIRG		0				GERMACV				0	
TILAMER	0	0				OXASTRI				0	
FRAPENN		R	R			SOLCANA				0	
PRUSERO	R	R				ASTNOVA				0	
PROVINI			0	0		Viola sp				0	
VIBACER			R			imb.p.ivy				0	
LONDIOI				0	*	ASTLATE				0	
blackberry				0		Gm.st.J.wort				0	
RUBIDAE				0		EUTGRAM				0	
RIBCYNO				0		EPIHELL				0	
CORPORA				0		GLYSTRI				0	
Witchhazel				0		beech drops				0	
downy arrowwood				0		AGRGRYP				0	
Crataegus sp			0		*	mitrewort				0	
RHACATH				0		l.l. aster				0	
VITRIPA				0		PAEALBA				R	
ACERUBR	R	O	O			ARANUDI				R	
						VEROFFI				0	

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

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

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: ② - inclusion	
	SURVEYOR(S): GAW	DATE: Sept. 21, 2010	UTME:
	START:	END:	UTMZ:
			UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	3	FRAPENN, ACERUBR
2 SUB-CANOPY	5	4	IMPCAPE, st.nettle
3 UNDERSTOREY	6	4	GLYSTRI, ONOSENS
4 GRD. LAYER	7	4	

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

STAND COMPOSITION: BA:

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

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Marsh	CODE: MA
COMMUNITY SERIES: Meadow Marsh	CODE: MAM
ECOSITE: Mineral Meadow Marsh	CODE: MAM2
VEGETATION TYPE: forb-graminoid min. meadow Marsh	CODE: MAM2-11*
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Turbine 1 + access rd. 581827
	POLYGON: Feature 19
	DATE:
	SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
IMPCAPE		A	A										
SOLDVLC		O	O										
st.nettle		O	O										
st.nettle ^{short} _{st. nettle}				O	X								
GLYSTRI			O	O									
BIDFRON		O											
ASTLATE		O											
l.l. avens				O									
reed canary	R												
turtlehead				O									
SAMCANA		O	O										
CORRACE		O	O										
PARINSE	R												
ONOSENS			O										
ACERUBR	O												
VIBCASS	O				X brown buds								

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

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

Notes:

ELC PLANT SPECIES LIST	SITE:	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
POLYGON: Edge

SURVEYOR(S): GAW
DATE: Sept. 21, 2010

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	4	Amaranth, bull thistle, Crataegus, RHACATH
2 SUB-CANOPY	5	4	DAUCARO, SOLCANA
3 UNDERSTOREY	6	4	Green foxtail, lady-thumb
4 GRD. LAYER	7	4	alsike clover, Plantago

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

STAND COMPOSITION: BA:

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

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

DEADFALL / LOGS: 0 < 10 10-24 25-50 > 50

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: Edge

INCLUSION: CODE:

COMPLEX: CODE:

Notes:

581827

ELC

SITE: Turbine 1 + access rd.

POLYGON: Feature 19

DATE:

SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
Green foxtail			A										
" amaranth	0												
DAUCARO		0											
VITRIPA	0												
Teasle	0												
SOLCANA	0												
hairy will herb		0											
ragweed		0											
bull thistle	0												
elecampagne	0												
RHACATH	0												
Crataegus sp.	0												
ERIPH. VPH		0											
IMPEAPE		R											
ROSMULTI			R										
BIDFRON		0											
l.l. aster			0	0									
Com burdock			0										
lady thumb			0										
barneyard grass		0											
PLAMAJO				0									
lamb's quarters				0									
alsike clover				0									
ASCSYRI				R									
TAROFF1				0									
wht. spruce	R											planted	
N. spruce	R											"	

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

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

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	



Stantec

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

**Wildlife Habitat
Assessment**
Feature 19
Turbine # 7/ 581827

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 21. 2010

Field Personnel: GAW

**Weather
Conditions:**

Temp: 22°

Wind: 3

Cloud: 100%

PPT: ∅

PPT in last 24 hrs: ∅

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO BLJA Bcch	Red Squirrel - VO deer - TK	AMTO Gartersnake	cabbage wht	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 1

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) **trees present** Yes No

If yes, approximate # present or % of stand 20%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. very few, mostly beech, little/no loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	6m - 20m	30-40 cm	4m - 15m	~ 20 cm

Bat Mat Roost? No

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe minor evidence of past logging, edge dist (bee-keeping)

Seeps/ springs present? Yes No **If yes,**

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No **If yes,**

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
1	30m from edge (see map)	∅ mud	5m x 10m	γ - grassoid	γ



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4

Pond = Pic 1667



Legend	
	Project Location
	Proposed Turbine Location
	Proposed Access Road
	Proposed Collector Line
	ROW Installation Zone
	120m Investigation Zone
	Elenco Acquired Agreements
	Government Lands
	UDI Lands
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 6

Title
PROJECT LOCATION MAP

September 2010
 160960577

ELC
 SITE: 1609160577
 POLYGON: 9
 SURVEYOR(S):
 DATE:
 UTME:
 START: 16.5 END 16.30
 UTMZ:
 UTMN:

POLYGON DESCRIPTION

<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> PEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> GREYCE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> OPEN		<input type="checkbox"/> THicket
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> TREE		<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

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

HT CODES: 1=>25m 2=10-24m 3=2-9m 4=1-9m 5=0.5-1m 6=0.2-1m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 <10 0 10-24 0 25-50 N >50

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: F0

COMMUNITY SERIES: Deciduous Forest CODE: F00

ECOSITE: F-m Oak-maple-Hickory Dec. Forest CODE: F009

VEGETATION TYPE: F-m Shagbark Hickory Decid. Forest CODE: F009-4

INCLUSION CODE:

COMPLEX CODE:

Notes: From road (Hu 20) Pic 1671

ELC
 SITE: Scumlung
 POLYGON: 9
 DATE: 13-Oct-2010
 SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species Code	1	2	3	4
CARQUAT	0	0	0	0
FRAPENN	N	R	O	0
FRAPENN	O	R	R	R
QUENPAC	O	R	R	R
OSTVIRG	-	O	0	
ACEPUBR	R	R	R	R
ASTLATE				R
CARCARO	-	O	-	

Feature 20

EUC CONTINENTAL DESIGNATION CLASSIFICATION	SITE: 1609160577	POLYGON: 10		
	SURVEYOR(S):	DATE:	UTME:	
	START 1630	END 1645	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY	4	3	CORNUS (Silky > Red Deer)
4 GRD. LAYER	5-7	4	Red Canary Grass

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0	< 10	N	10 - 24	N	25 - 50	N	> 50
----------------------	---	------	---	---------	---	---------	---	------

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Marsh	CODE: MA
COMMUNITY SERIES: meadow marsh	CODE: MAM
ECOSITE: Mineral meadow marsh	CODE: MAMZ
VEGETATION TYPE: Red-canary Grass Min Meadow Marsh	CODE: MAMZ-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pic 1669 - From road. + Pic 1673 (latter side)
 106 - + Typhalactifolia @ road edge

EUC CONTINENTAL DESIGNATION CLASSIFICATION	SITE: Samsung
	POLYGON: 10
	DATE: 13 Oct 2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Code
ULMUS			R in 3
snags			
Red Canary Grass			A
Spotted T.M. Note			O
Silky Dogwood			O
CORSTOL			O

ELC SITE: 160960577 POLYGON: 11

SURVEYOR(S): DATE: UTMZ: UTMN:

START: 16.45 END: 17.15

POLYGON DESCRIPTION

<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> PEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALLUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THicket
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREE		<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

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

HT CODES: 1 = >25 m 2 = 10-24 m 3 = 5-9 m 4 = 1-4 m 5 = 0.5-4 m 6 = 0.2-4 m 7 = HT < 0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:

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

STANDING SNAGS:

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

DEADFALL / LOGS:

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO

COMMUNITY SERIES: Deciduous Forest CODE: FOD

ECOSITE: Dry Fresh Deciduous Forest CODE: FOD4

VEGETATION TYPE: D-F Beech Deciduous Forest CODE: FOD4-1

INCLUSION CODE:

COMPLEX CODE:

Notes: Pic 1670 - From road.

Feature 20

ELC SITE: Samsung

POLYGON: 11

DATE: 13-Oct-2010

SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4
PREGAN	O	O	A	O
ACESACS	R	O	O	O
CAROUAT	O	R	R	O
PRAPEN	O	R	R	O
TILAMER	R	R	R	R
OSTVIRG	-	O		
ACERU3K	R	R	O	O
Spinulose Woodfern				R
Beech Drops				R
M. L. Viburnum				R
CAROUAT				R

Feature 20

Woodland Assessment- complete 1 assessment for each woodland

13-Oct-2010 Woodlot # (indicate on map): 2

Approximate age of stand 50-60 years

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand 1/1000

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No Quite a few Beech snags

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Ea in #10 habitat, loose bark - 3 @ 20cm & 18m

Snags - 20-45cm DBH & 2-3m, h to loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
snag → 1	4.5m	25cm	4m	medium
Be 1	15m	30cm	0	hollow
scag Be	4m	30cm	2m	med-hollow
scag Be	4m	30cm	3m	Large

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs logs at pond edge
	Habitat #10				

From road

9 snags / ha.

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : _____

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) **trees present** Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs logs at pond edge



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v=calvert

Pond = Pic 1667



Legend	
	Project Location
	Proposed Turbine Location
	Proposed Access Road
	Proposed Collector Line
	ROW Installation Zone
	120m Investigation Zone
	Elexco Acquired Agreements
	Government Lands
	UDI Lands
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 6

Title
PROJECT LOCATION MAP

September 2010
160960577

FIG
COMMUNITY
CLASSIFICATION

SITE: 1609160577 POLYGON: 12

SURVEYOR(S): DATE: UTME:

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	2	3	FRAPENN = PDPTREM > ALERUBR
3 UNDERSTOREY	3-4	4	Hawthorn - OSTVIRG - TORSTR
4 GRD. LAYER	5-7	4	Goldenrod sp. > ASTMACR

HT CODES: 1 = > 25 m 2 = 10-24 m 3 = 5-9 m 4 = 1-4 m 5 = 0.5-1 m 6 = 0.2-0.4 m 7 = HT < 0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

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

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	Forest	CODE:	FOR
COMMUNITY SERIES:	Deciduous Forest	CODE:	FOD
ECOSITE:	Dry-Fresh Polar-White Birch	CODE:	FOD3
VEGETATION TYPE:	Dry-Fresh Poplar Decid. Forest	CODE:	FOD3-1
INCLUSION		CODE:	
COMPLEX		CODE:	

Notes: Pic 1672 (from road) Mid slope early successional

FIG
COMMUNITY
CLASSIFICATION

SITE: Samsung

POLYGON: 12

DATE: 14-Oct-2010

SURVEYOR(S): M Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4
PDPTREM			OOR	
ALERUBR			R	
ALERUBR			OOO	
FRAPENN			O	
PRUSELO			- RR	
OSTVIRG			- OO	
TILAMER			- RR	
CARONAT			R	
CORSTOL			O	
Hawthorn			O	

Species	1	2	3	4
P.S. Aster				R
ASTMACR				O
ASTLATE				O
Goldenrod sp.				O

FLC
COMMUNITY DESCRIPTION

SITE: 160960577 POLYGON: 14

SURVEYOR(S): DATE: UTM E: UTM N:

START: END: UTM Z: UTM N:

POLYGON DESCRIPTION

<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALLS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARN
		<input type="checkbox"/> GREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THicket
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

SITE

OPEN WATER

SHALLOW WATER

SURFICIAL DEP.

BEDROCK

STAND DESCRIPTION:

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

HT CODES: 1 = >25m 2 = 10-24m 3 = 2-9m 4 = 1-4m 5 = 0.5-1m 6 = 0.2-0.5m 7 = HT < 0.2m

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	R 10-24	M 25-50	N > 50
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STANDING SNAGS:	< 10	10-24	25-50	> 50
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DEADFALL / LOGS:	< 10	10-24	25-60	> 50
------------------	------	-------	-------	------

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW

COMMUNITY SERIES: Thicket Swamp CODE: SWT

ECOSITE: Mineral Thicket Swamp CODE: SWT2

VEGETATION TYPE: Gray Dogwood Mineral Thicket Swamp CODE: SWT2-9

INCLUSION CODE:

COMPLEX CODE:

Notes: Pic # 1675
Off property - hard to see from edge.

FLC
SITE: Samsung

POLYGON: 14

DATE: 14-Oct-2010

SURVEYOR(S): M. Strauss

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Code
FRAPENN	2	2	FRAPENN
ACEFREE			R
POPTRM			RR
Gray Dogwood			D
Goldenrod			O

Feature 19

Woodland Assessment- complete 1 assessment for each woodland

14-Oct-2010

Woodlot # (indicate on map): D map 6

Approximate age of stand 20 years western - 50-60 years

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand 1%

Location in stand (i.e. throughout, in west side only, in FOD2-6 only etc..) Eastern 1/2

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

1.60cm DBH - loose bark - 15m tall

Elms (typical) ~ 20-35cm DBH, 2-15m; some have loose bark mostly in SWT
ash @ 45cm DBH @ 10m, many Beech in 15 @ 35cm DBH - short < 3m, no loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	4m	20cm	3.5	small

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e. logging, roads, paths, ATV use, trails) Yes No


If yes, describe old logging on top of hill - hence the dense Beech understorey (mid on E side)

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat
	592437		

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
✓ 1	592437.474570	< 5cm	2m	no	no
X 2	Inclusion	none @ present	10m	yes - Silky Dogwood	no

 Stantec	Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493	Wildlife Habitat Assessment
	Project Number: <u>160960577</u>	

Date / Time: <u>14-Oct-2010 @ 11:5AM</u>	Field Personnel: <u>M. Straus</u>
--	-----------------------------------

Weather Conditions:	Temp: <u>10°</u>	Wind: <u>3</u>	Cloud: <u>100%</u>	PPT: <u>light rain - none</u>	PPT in last 24 hrs: <u>5-10mm</u>
----------------------------	------------------	----------------	--------------------	-------------------------------	-----------------------------------

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO AMRO/OB NOCA/OB BCCH/OB SOSP/VO WTS9/OB BLJA/OB RB WD-VO	Eastern Cottontail - OB Deer - TK.			

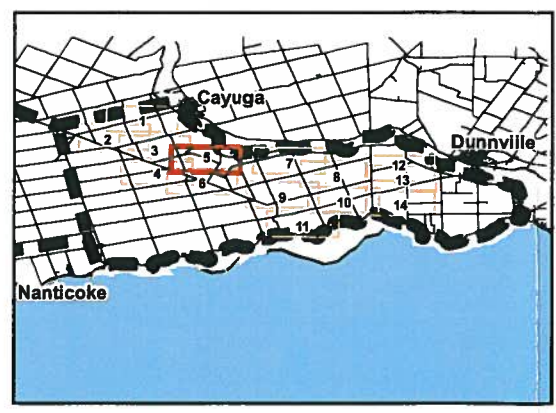


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September 2010
16096577

Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | ROW Study Area |
| | Proposed Turbine Location | | Crane Pad Study Area |
| | Proposed Collector Line | | ROW Installation Zone |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Road | | Non-Provincially Significant Wetland |
| | Railway | | Watercourse (OBM) |
| | Abandoned Railway | | Waterbody |
| | Transmission Line (OBM) | Area of Natural and Scientific Interest (ANSI) | |
| | Deer Wintering Area | | Life Science, Provincially Significant |
| | MEI | | Earth Science, Provincially Significant |
| | Elexco Aquired Agreements | | Earth Science, Regionally Significant |




Original:
Don't Throw
out

- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 5

Title
PROJECT LOCATION MAP

 Stantec		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		Wildlife Habitat Assessment Feature 22 Turbine #3 581855	
Project Number: 161010646		Project Name: Samsung			
Date / Time: Sept. 21. 2010		Field Personnel: GAW			
Weather Conditions:	Temp: 24°	Wind: 4	Cloud: 25%	PPT: ∅	PPT in last 24 hrs: ∅

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO HOFI TUVU AMCR AMKE BLJA RTHA	Grey squirrel	AMTO	monarch Sulphur Cabbage	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : only one

Approximate age of stand mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand 10%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Few, usually ≈ 20 cm DBH

Trees with cavities present? No Rare Occasional Abundant None seen

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Bat Mat Roost? No.

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe logging (recent), 2 logging trails

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
1	throughout	dry, likely very shallow	Variable. Small & shallow	No	Yes

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
 SURVEYOR(S): GAW
 DATE: Sept. 21, 2010
 POLYGON: ①
 UTME:
 UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

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

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

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

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

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

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

COMMUNITY CLASSIFICATION:
 COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: CODE: Pasture/fallow
 INCLUSION CODE:
 COMPLEX CODE:

Notes:

ELC
 PLANT SPECIES LIST

SITE: Turbine #3 + access Road
 POLYGON: Feature 22
 DATE:
 SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Roanweed						barnyard grass					
BROINER						woolgrass					
ACESYRI						Juncus sp					
C. burdock						hairy w. herb					
alsike clover						green foxtail					
TAROFFI						blue vervain					
SOLCANA						alfalfa					
ERLPHDH						AGRSTOL					
ASTNOVA						Grass sp.					
DAVCARO											
bull thistle											
RUMCRIS											
teale											
lamb's quarters											
reed canary											
lady's thumb											
VICCRACC											
chamomile											
wormwood											
Canada thistle											
green foxtail											
red clover											
PLANMAJO											
big birdweed											
chicory											
HYPPERF											
b.f. refoil											

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: ②		
	SURVEYOR(S): GAW	DATE: Sept. 21, 2010	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA = FAGGRAN > Quercus > Hickory
2 SUB-CANOPY	3	4	" " " "
3 UNDERSTOREY	4-5	4	" " > FRAAMER
4 GRD. LAYER	6-7	4	EUOBOV, RHURA.NE, GERROBE, CIRLEUT

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: Dry-fresh Sugar Maple Dec. Forest	CODE: FOD5
VEGETATION TYPE: Dry-fresh Sugar Maple-Beech Dec. Forest	CODE: FOD5-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Turbine #3 + Access Road
	POLYGON: Feature 22
	DATE:
	SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
POPTREM			R			sp. dogbane				0	
bitternut hick.	0	0	0	0		barren strawberry				0	
FRAAMER	0	0	0	0		TRIEREC				0	
ACESASA	A	A	A	A		CIRLEUT				0	
Shagbark	0	0	0	0		EUOBOV				0	
ACERUBR	0	0	0	0		RHURA.NE				A	
FAGGRAN	A	A	A	0		DRYCART				R	
blue beech			A			GERROBE				0	
QUEALBA	0	0				GEUAPPEL				0	
OSTVIRG		0				FRAVESC				0	
TILAMER	0	0				GERMACU				0	
FRAPENN		0	0			SOLCANA				0	
PRUSERO		D				ASTNOVA				0	
						Viola sp.				0	
						ASTLATE				0	
PRUVIVI			A	0		GLYSTRI				0	
LONDIOI				0		beechdrops				0	
blackberry			0	0		MBGRYP				0	
RIBCYNO			0			l.l. aster				0	
witchhazel			R			VEROFFI				0	
downy arrow.				0							
Crotaea sp.			0								
RHACATH			0								



W:\active\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\FldMap\FldMAP1_FIELDMAP1_ProjectLocation_20100620_PW.mxd - 9/20/2010 @ 1:17:14 PM

September 2010
160960577



Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | ROW Study Area |
| | Proposed Turbine Location | | Crane Pad Study Area |
| | Proposed Collector Line | | ROW Installation Zone |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Road | | Non-Provincially Significant Wetland |
| | Railway | | Watercourse (OBM) |
| | Abandoned Railway | | Waterbody |
| | Transmission Line (OBM) | Area of Natural and Scientific Interest (ANSI) | |
| | Deer Wintering Area | | Life Science, Provincially Significant |
| | MEI | | Earth Science, Provincially Significant |
| | Elexco Aquired Agreements | | Earth Science, Regionally Significant |



*Original:
Don't Throw
Out*

Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 6

Title
PROJECT LOCATION MAP



Stantec

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

**Wildlife Habitat
Assessment**

Feature 22
Turbine #4 + Access Rd

Project Number	161010646	Project Name:	581822 Samsung
Date / Time:	Sept. 21. 2010	Field Personnel:	GAW

Weather Conditions:	Temp: 24°	Wind: 4	Cloud: 25%	PPT: ∅	PPT in last 24 hrs: ∅
----------------------------	-----------	---------	------------	--------	-----------------------

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO TUVU MOBO	/	/	monarch sulphur yellow	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : A

Approximate age of stand mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand 10%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. very few due to logging. Most under 20cm DBH. No loose bark seen.

Trees with cavities present? No Rare Occasional Abundant None seen

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Bat Mat Roost? No

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe logging + logging trails.

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

→ outside study area toward north edge of woodlot.

Sept. 21. 2010

Turbine 4 - access rd
Feature 22

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : B

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout E+W ends of woodlot.

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. very few, all under 25cm DBH, no loose bark.

Trees with cavities present? No Rare Occasional Abundant None Seen
If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Bat Mat Roost? No.

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe road through centre. Evidence of logging, dumping.

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge



Stantec

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

Wildlife Habitat Assessment

Project Number

Project Name:

Date / Time:

Field Personnel:

Weather Conditions:

Temp:

Wind:

Cloud:

PPT:

PPT in last 24 hrs:

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
e. AMRO/VO				

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
 POLYGON: ①

SURVEYOR(S): GAW
 DATE: Sept. 21, 2018
 UTME
 START: END
 UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA >> QUERUBR >> TILAMER = Hickories
2 SUB-CANOPY	3	4	" >>> FAGGRAN
3 UNDERSTOREY	4-5	4	" >> PRUVIVI = FAGGRAN
4 GRD. LAYER	6-7	3	CIRLEUT, Saplings

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10 - 24	A 25 - 50	R > 50
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STANDING SNAGS:	0 < 10	0 10 - 24	1 25 - 50	1 > 50
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DEADFALL / LOGS:	0 < 10	0 10 - 24	1 25 - 50	1 > 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: Fo
 COMMUNITY SERIES: Deciduous Forest CODE: FOD
 ECOSITE: Dry-fresh Sugar Maple Dec. Forest CODE: FOD5
 VEGETATION TYPE: Dry-fresh Sugar Maple - Oak Dec. Forest CODE: FOD5-3
 INCLUSION CODE:
 COMPLEX CODE:

Notes:

ELC
 PLANT SPECIES LIST

SITE: Turbine Access Road 581822
 POLYGON: Feature 22
 DATE:
 SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Bifernut	0	0				LGNDIO1				0	
ACESASA	D	D	D	D		CIRLEUT				0	
Shagbark	0	0	0			ED00BOV				0	
TILAMER	A	0	0			RHURANE				0	
QUERUBR	A	0	0								
FAGGRAN	R	0	0								
OSTVIRG		0	0								
PRUSERO		R	R								
ACERUBR		0									
ULMAMER			R								
FRAPENN		R									
FRAAMER	R	0	0								

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ②	
	SURVEYOR(S):		DATE:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	QUERUBR >
2 SUB-CANOPY	3	4	" > Hickories > ACESASA
3 UNDERSTOREY	4.5	4	ACESASA = Hickories > FAGGRAN
4 GRD. LAYER	6-7	4	RHURA.NE 1.1. aster VEROFFI

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

STAND COMPOSITION: BA:

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO
COMMUNITY SERIES: Deciduous Forest CODE: FOD
ECOSITE: Dry-fresh Oak-Maple-Hickory Dec. For. CODE: FODZ
VEGETATION TYPE: Dry-fresh Oak-Hickory Deciduous Forest CODE: FOD2-2
INCLUSION CODE:
COMPLEX CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Turbine #4 + Access Road	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
QUERUBR	D	A	O	O		VEROFFI				O	
ACESASA			O	O	O	1.1. aster					O
Bitternut			O	O		AGRGRYP					O
Shagbark			O	O		beech drops					O
TILAMER			O	O		GLYSTR1					O
FRAAMER	R	O	O			EPIHELL				R	
OSTVIRG			O			Viola sp					O
FAGGRAN			O	O		ASTNOVA					O
blue beech				O		SOLCANA					O
PRUVIVI				A		GERMACU					O
LONDIOI					O	FRAVESC					O
blackberry				O		GEVAPPE					O
BIBCYNO				O		GERROBE					O
CORFORA				O		DRYCART					R
witchhazel				O		RHURA.NE					A
d. arrowwood				R		EUOBOV					O
RHACATH				O		CIRLEUT					O
Crataegus sp				O							

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
 SURVEYOR(S): GAW
 DATE: Sept. 21, 2010
 POLYGON: ③

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

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

SITE

OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	Shagbark >> QUERUBR
2 SUB-CANOPY	3	4	"
3 UNDERSTOREY	4-5	4	CORFO.RA > Saplings
4 GRD. LAYER	6-7	4	RHURA.NE, FRAVESC, GEUAPPE

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

STAND COMPOSITION: BA:

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO

COMMUNITY SERIES: Deciduous Forest CODE: FOD

ECOSITE: F-M oak Maple - Hickory Dec. Forest CODE: FOD9

VEGETATION TYPE: Fresh-moist Shagbark Hickory Dec. Forest CODE: FOD9-4

INCLUSION CODE:

COMPLEX CODE:

Notes: likely due to logging of other species.

581822

ELC
 PLANT SPECIES LIST

SITE: Turbine 4 - Access Road
 POLYGON: Feature 22
 DATE:
 SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Shagbark	D	D	A	A		CIRLEUT				0	
PINSTRO			R			RHURA.NE				0	
PINSYLV		R				EVOOBOV				0	
QUEMACR		O				SOLCANA				0	
ACESASA	O	O	O			ASTNOVA				0	
ACERUBR	R					GEUAPPE				0	
						ASTLATE				0	
CORFO.RA			A	O		AGRGRYP				0	
PRUVI.VI		O				VEROFFI				0	
RUBIDAE		O									
blackberry		O									
RHACATH		O									
Craegus		O									

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: (4)	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	4	Amaranth, DAUCARO, teasle
2 SUB-CANOPY	5	4	Solidago spp + asters
3 UNDERSTOREY	6	4	lady thumb, ragweed, grasses
4 GRD. LAYER	7	4	clovers, plantago

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Cultural	CODE: CU
COMMUNITY SERIES: Cultural Meadow	CODE: CUM
ECOSITE: Mineral Cultural Meadow	CODE: CUM1
VEGETATION TYPE: old-field Mineral Cultural Meadow	CODE: CUM1-1
INCLUSION	CODE:
COMPLEX	CODE:

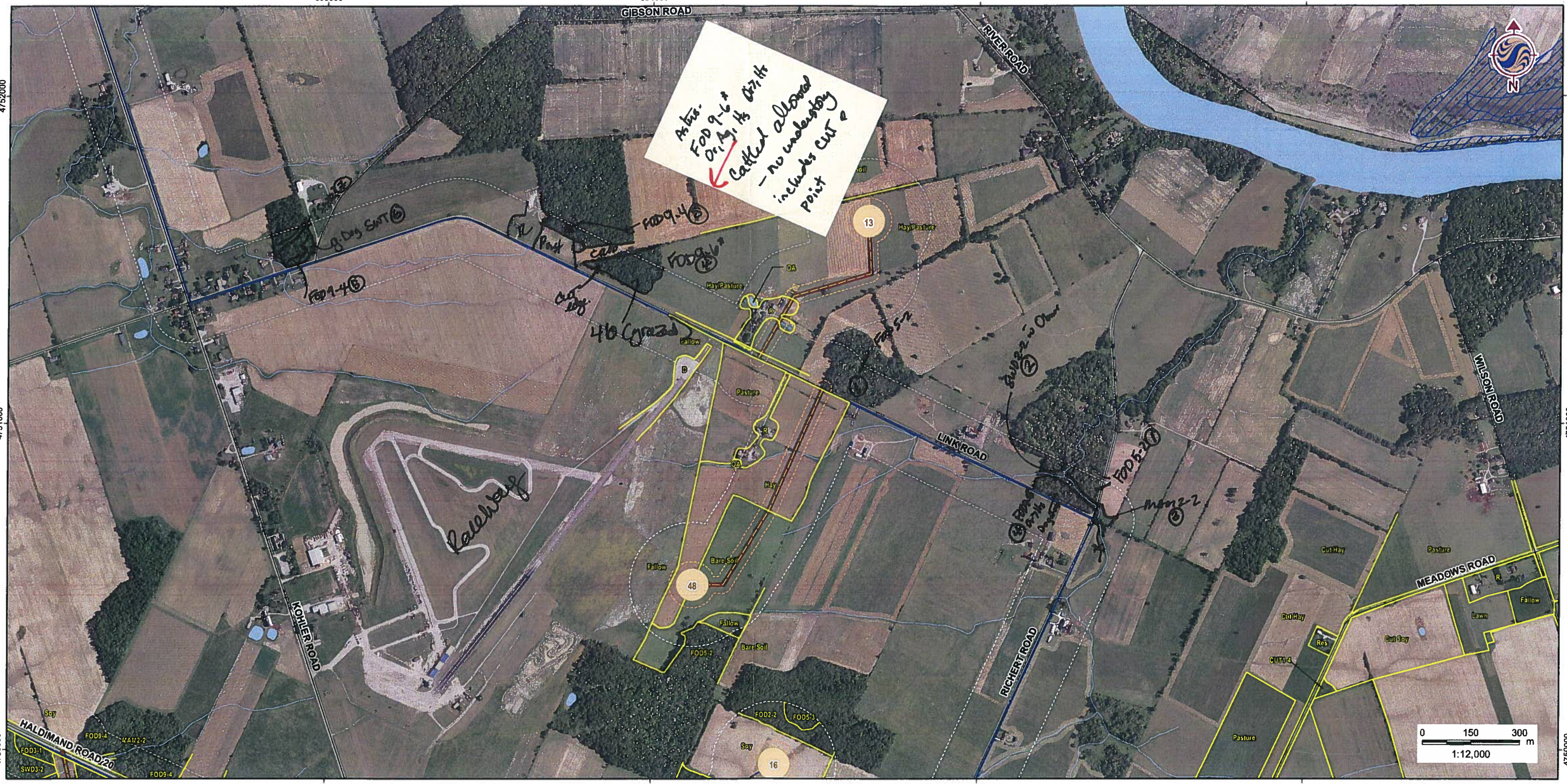
Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
lamb's quarters				O								
Green foxtail			O									
teasle	O											
VITRIPA	O											
DAUCARO		O										
SOLCANA		A										
SOLALTI		A										
ragweed			A									
bull thistle	O											
RHACATH	O											
ERIPH. PH	O											
com burdock		O										
lady thumb			O									
barnyard grass	O											
PLAMAJO				O								
alsike clover				O								
red clover				O								
ASCSYR1	O											
TAROFF1			A									
chickory	O											
c. burdock		O										
RUMCRIS		O										
HYPPERF		O										
AGRSTOL	O											
BROINER	O											
ASTNOVA	O											



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December 2010
160960577

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-4- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-8- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-8- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 5

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

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

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

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

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

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

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

COMMUNITY CLASSIFICATION:
 COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: Fresh-moist Shagbark Hickory Decid. Forest CODE: F009-4
 INCLUSION: Forest CODE:
 COMPLEX CODE:

Notes:

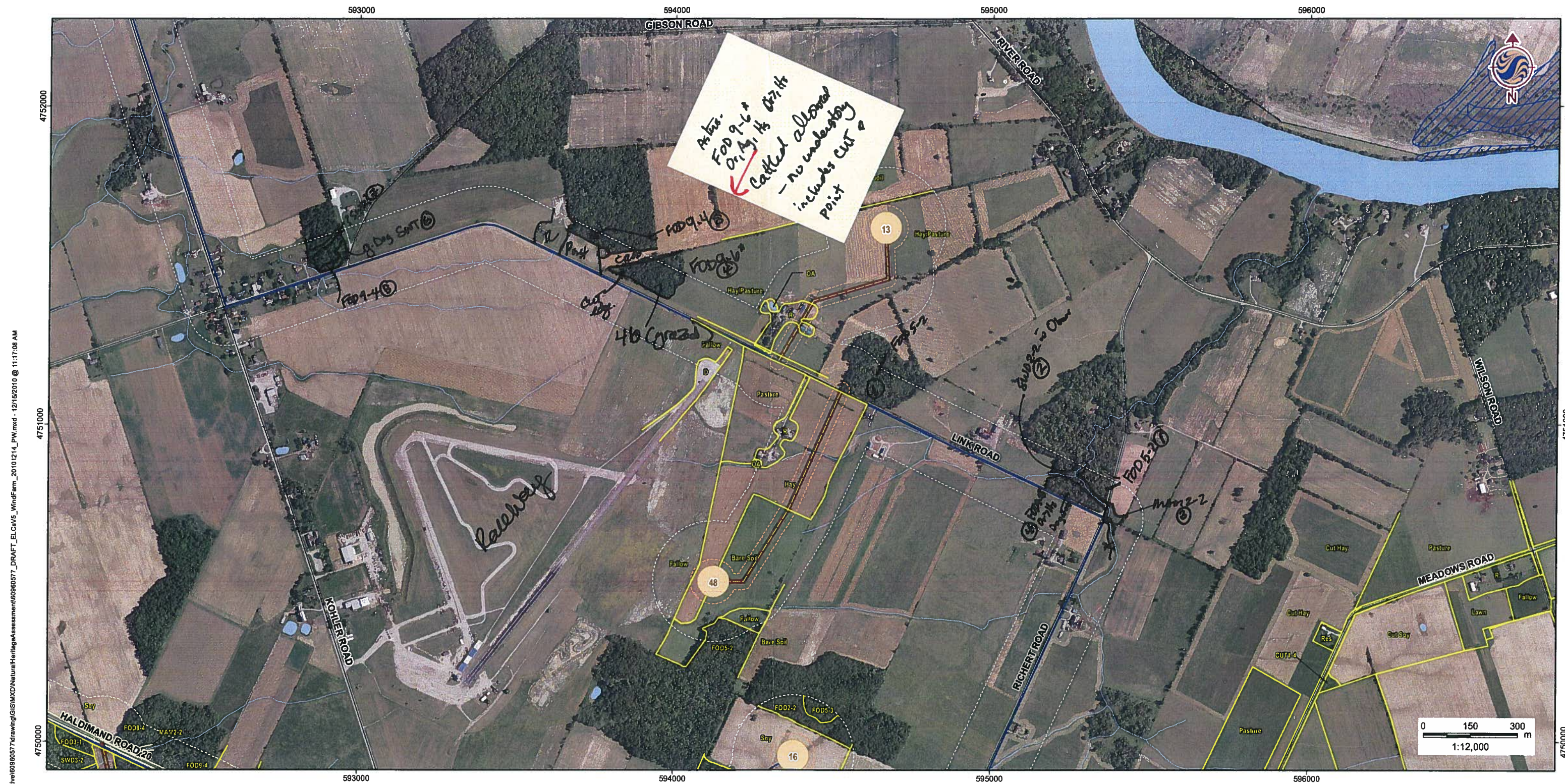
Feature 17/24

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: S-5	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Straus	

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
CAROUAT	O	O											
QUERUBR	O												
FABSIKAN													
FLAPENNY	O												



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December 2010
160960577

- Legend**
- Proposed Turbine Location
 - 120m Zone of Investigation
 - ROW Installation Zone
 - ELC Communities
 - Access Road
 - Overhead Collector Line
 - Underground Collector Line
 - Substation Property
 - Road
 - Transmission Line (OBM)
 - Provincially Significant Wetland
 - Non-Provincially Significant Wetland
 - Watercourse (OBM)
 - Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Hickory Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6*- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-8*- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3*- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5*- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-8*- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osler Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11*- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*- Green Ash Mineral Cultural Woodland
 - CUW1-5*- Maple-Ash Cultural Woodland
 - CUW1-6*- Green Ash Cultural Woodland
 - CUW1-7*- Red maple Mineral Cultural Woodland
 - CUP3-12*- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 5 **DRAFT**

Title
**ELC VEGETATION
COMMUNITIES**



ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____
 SURVEYOR(S): _____ DATE: _____ UTME: _____
 START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	11	ACUSACS 7 FAGGRAN 7 QUERUBER
2 SUB-CANOPY	2	11	" " 7 CARBYAT
3 UNDERSTOREY	3	4	FAGGRAN
4 GRD. LAYER			

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

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS: 0 < 10 0 10 - 24 0 25 - 50 1 > 50

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____
 COMMUNITY SERIES: _____ CODE: _____
 ECOSITE: _____ CODE: _____
 VEGETATION TYPE: Dry-fresh Sugar Maple-Beech CODE: FODS-2
 INCLUSION: Deciduous Forest CODE: _____
 COMPLEX: _____ CODE: _____

Notes: _____

Feature 27/26

ELC
PLANT SPECIES LIST

SITE: Samsburg
 POLYGON: S-1
 DATE: 20-Dec-2010
 SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.			
	1	2	3	4			1	2	3	4				
ACUSACS	0	0	-											
FAGGRAN	0	0	0	-										
QUERUBER	0	-	-											
CARBYAT	1	0	-											



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December 2010
160960577

- Legend**
- Proposed Turbine Location
 - 120m Zone of Investigation
 - ROW Installation Zone
 - ELC Communities
 - Access Road
 - Overhead Collector Line
 - Underground Collector Line
 - Substation Property
 - Road
 - Transmission Line (OBM)
 - Provincially Significant Wetland
 - Non-Provincially Significant Wetland
 - Watercourse (OBM)
 - Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6*- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6*- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3*- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5*- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6*- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osler Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11*- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*- Green Ash Mineral Cultural Woodland
 - CUW1-5*- Maple-Ash Cultural Woodland
 - CUW1-6*- Green Ash Cultural Woodland
 - CUW1-7*- Red maple Mineral Cultural Woodland
 - CUP3-12*- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

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3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 5

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



Feature 27/26

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

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>	
	POLYGON: <i>5-1</i>	
	DATE: <i>20-Dec-2010</i>	
	SURVEYOR(S): <i>M. Strauss</i>	

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

STAND DESCRIPTION:			
LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	11	<i>ACE SACS 7 FAGGZAN 7 QW RUMOR</i>
2 SUB-CANOPY	2	0	<i>7 CARAVAT</i>
3 UNDERSTOREY	3	4	<i>FAGGZAN</i>
4 GRD. LAYER			

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

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

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

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Dry-fresh Sugar Maple-Beech</i>	CODE: <i>FODS-2</i>
INCLUSION <i>Deciduous Forest</i>	CODE:
COMPLEX	CODE:

Notes:

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<i>ACE SACS</i>	0	0			
<i>FAGGZAN</i>	0	0	0		
<i>QW RUMOR</i>	0				
<i>CARAVAT</i>	1	0			

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 < 10 0 10 - 24 0 25 - 50 A > 50

STANDING SNAGS: 10 - 24 25 - 50 > 50

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Green Ash Mineral Deciduous Swamp	SWDa-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Feature 27

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 5-2	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Straus	

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
FRAXENN	O	O										
QUERMAER	O	O										
Cornus sp.					O							

591802

592802

593802

594802

595802

4749887

4749887

591802

592802

593802

594802

595802

4749887

4749887

4747887

x=calvert

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4



September 2010
160960577



Legend	
	Project Location
	Proposed Turbine Location
	Proposed Access Road
	Proposed Collector Line
	ROW Installation Zone
	120m Investigation Zone
	Elenco Acquired Agreements
	Government Lands
	UDI Lands
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant

Pond = Pic 1667



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 6

Title
PROJECT LOCATION MAP

13-Oct-2010 - Feature 28

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): B → from edge of field

Approximate age of stand 50-60 years

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No
 If yes, approximate # present or % of stand none visible from edge
 Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No
 If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.
1 visible - 15cm DBH; ↑ 3m
other - yes loose bark elem ~25cm ↑ 18m

Trees with cavities present? No Rare Occasional Abundant (from edge)
 If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No
 If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No
 If yes, describe Trails

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : _____

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) **trees present** Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

EIC SITE: 160960577 POLYGON: 8

SURVEYOR(S): DATE: UTME:

START: 15:30 END: 16:00 UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CARDVAT > QUERUBR > FRAPENN
2 SUB-CANOPY	2	4	CARDVAT > ACESACS
3 UNDERSTOREY	3-4	4	ACESACS > DSTVIRG > TABGRAN
4 GRD. LAYER	5-9	3	TILAMEL > TOSTVIRG > PRALVLG

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

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:

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

STANDING SNAGS:

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

DEADFALL / LOGS:

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO

COMMUNITY SERIES: Deciduous Forest CODE: FOD

ECOSITE: Fresh-Moist Oak-maple-Hickory Dec. CODE: FODA

VEGETATION TYPE: F-M Shagbark Hickory Decid. Forest CODE: FOD9-4

INCLUSION CODE:

COMPLEX CODE:

Notes:

From edge Pic # 1668

Feature 28

EIC SITE: Samsung

POLYGON: 8

DATE: 13-Oct-2010

SURVEYOR(S): M Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	Layer 1	Layer 2	Layer 3	Layer 4
CARDVAT	D	O	O	O
QUERUBR	R	R	R	R
ACESACS	R	R	R	R
QUERUBR	O	R	R	R
TILAMEL	R	-	O	
LILMAMEL	-	R	R	
ACESACS	R	O	O	R
FRAPENN	O	R	R	O
DSTVIRG	-	O	O	O
Willow	R	-		
Running S. Bush				O
RUBIDEA				R
HIREVULLO				R
River Grape				R
Silky Doanwood				O
FRALVLG				O

	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

STANDING SNAGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

DEADFALL / LOGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

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

COMM. AGE:

PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
---------	-------	---------	--------	------------

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

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

Notes:

	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

DATE	TIME	SURVEYOR	HT	CVR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

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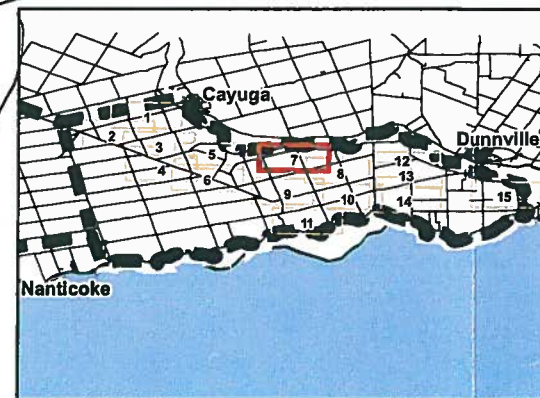


Legend

- | | | | |
|--|---------------------------|--|--|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | | Area of Natural and Scientific Interest (ANSI) |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |

Warning

Original:
Don't Throw
out



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project

SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.


FIELD MAP 7

Title

PROJECT LOCATION MAP

No Access

581864

	Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493			Turbine <input checked="" type="checkbox"/> Wildlife Habitat Assessment Feature 31	
	Project Number: 161010646		Project Name: Samsung		
Date / Time: Sept. 29. 2010		Field Personnel: GAW			
Weather Conditions:	Temp: 20°	Wind: 2-3	Cloud: 25%	PPT: ∅	PPT in last 24 hrs: RAIN

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

None Seen

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

None Seen

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO /	/	/	/	/

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____ No Access

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

None seen

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

None Seen

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Bat Mat Roost? None Seen

Presence of large stick nests (i.e. raptor nests)? Yes No None Seen

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Trail

Seeps/ springs present? Yes No

If yes, None Seen

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No

If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs at pond edge
	<u>edge</u>	<u>dry</u>	<u>10 x 10 m</u>	<u>yes</u>	<u>yes</u>

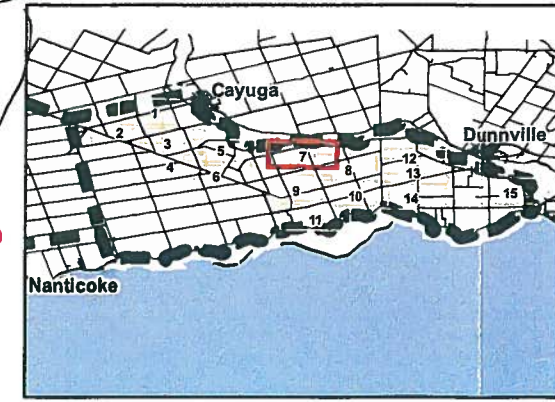


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Legend			
	Project Location		Transmission Line (OBM)
	Proposed Turbine Location		Deer Wintering Area
	Proposed Access Road		Provincially Significant Wetland
	Proposed Collector Line		Non-Provincially Significant Wetland
	ROW Installation Zone		Watercourse (OBM)
	120m Investigation Zone		Waterbody
	Elexco Aquired Agreements	Area of Natural and Scientific Interest (ANSI)	
	Government Lands		Life Science, Provincially Significant
	UDI Lands		Earth Science, Provincially Significant
	Road		Earth Science, Regionally Significant
	Railway		
	Abandoned Railway		

Original:
 Don't Throw
 out



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
 SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK

Figure No.
 FIELD MAP 7

Title
 PROJECT LOCATION MAP

September 2010
 160960577



Stantec

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

**Wildlife Habitat
Assessment**

Feature 32
Turbine #5 + Access Rd

Project Number 161010646 Project Name: 581823 Samsung

Date / Time: Sept. 22, 2010 Field Personnel: GAW

Weather Conditions:	Temp: <u>20°</u>	Wind: <u>1</u>	Cloud: <u>100%</u>	PPT: <u>Showers</u>	PPT in last 24 hrs: <u>Rain</u>
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO NOFL AMRO GRCA KWBB	deer	NOLF SPPE GRTR		

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) at rear of 120m setback

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. very few; less than 20cm DBH. No loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Bat Mat Roost? No

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe one old road, some dumping.

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

→ swamp thicket.

Sept. 29. 2010

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): Polygons 3+4

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

BAT MAT ROOST? No.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe trail (ATV)

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	<u>in poly 4 Nice</u>	<u>dry</u>	<u>10-15m</u>	<u>no</u>	<u>yes</u>

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : _____

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) **trees present** Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs logs at pond edge

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Polygons 1-2

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand > 10%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Very few. Some w loose bark. 15-25 cm DBH

BAT MAT ROOST: No

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe One trail

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	<u>few throughout</u>	<u>dry</u>	<u>10-15m</u>	<u>yes</u>	<u>yes</u>

→ ephemeral stream in Poly 1



Stantec

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**Wildlife Habitat
Assessment**
Feature 32
Turbine 20 + Access Rd
581832

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 29, 2010

Field Personnel: GAW

Weather Conditions:	Temp: <u>20°</u>	Wind: <u>2-3</u>	Cloud: <u>25%</u>	PPT: <u>Ø</u>	PPT in last 24 hrs: <u>RAIN</u>
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO AMCR BLJA SOSP AMRO BCCH	Deer Raccoon			

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ②	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA >> FRAPENN > TILAMER = Quercus
2 SUB-CANOPY	3	4	" " " "
3 UNDERSTOREY	4-5	4	" " CORFORA, PRUVINI
4 GRD. LAYER	6-7	4	EUOBOV, Viola sp., MAICANA

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

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

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

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

COMMUNITY CLASS: Forest	CODE: FO
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COMMUNITY SERIES: Deciduous Forest	CODE: FOD
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ECOSITE: F-M Sugar Maple Dec. Forest.	CODE: FODb
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VEGETATION TYPE:	CODE:
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Fresh-moist Sugar Maple-low. ash Dec. Forest	FODb-1
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INCLUSION	CODE:
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COMPLEX	CODE:
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Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESASA	D	D	A	A		EUOBOV				O	
ACERUBR		O	O			GEUCANA				O	
Shagbark	O	O	O			Viola sp				A	
ULMAMER		R				GALCIRC				O	X
FRAPENN	A	A	A	A		FRAUESC				O	
QUERUBR	O	O	O			IMPCAPE				O	
TILAMER	O	O				MAICANA				O	
bluebeech			O			false sol. seal				O	
OSTVIRG		O	O			AGRGRYP				O	
FAGGRAN		R				Carex sp				O	
PRUSERO	R					GERMACU				O	
QUEMACR	R					DRYCART				O	
CORFORA			A			GLYSTRI				O	
PRUVINI			A			OXASTRI				O	
RIBCYNO				O		RUBIDAE				O	
PARINSE				O							
Crataegus sp				O							
VITRIPA				O							
buttonhush			R								
ROSBLAN			O								
highhush cran			R								
wifehazel			O								
d. arrowwood				O							
blkberry				O							
nanny berry			R								
LONDIDP				O							
Rose			R		X						

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ②	
	SURVEYOR(S):		DATE:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > FAGGRAN = QUERUBR
2 SUB-CANOPY	3	4	" "
3 UNDERSTOREY	4-5	4	FAGGRAN > ACESASA
4 GRD. LAYER	6-7	4	Seedlings SOLCAES

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

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

COMM. AGE:	PIIONEER	YOUNG	MID-AGE	<input checked="" type="checkbox"/> MATURE	OLD GROWTH
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SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest+	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: DMF Sugar Maple Deciduous Forest	CODE: FOD5
VEGETATION TYPE: Dry fresh Sugar Maple - Oak Beech Dec. Forest	CODE: FOD5-1d*
INCLUSION	CODE:
COMPLEX	CODE:

Notes: 0399232
4750391

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
SURVEYOR(S):	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
QUERUBR	A	O			
OSTVIRG		O	O		
Shagbark	O	O	O		
ACESASA	A	A	A	A	
FRAPENN	O	O	O	O	
FAGGRAN	A	A	A	A	
blue beech		O	O		
bitternut	O	O	O	O	
PRUSERO	R	O			
TILAMER	O	O	O		
POPTREM	R				
Witchhazel		O			
RUBIDAE		O			
RIBCYNO		O			
PRUVIVI		O			
Amelanch.		O			
LIGVULG			O	X	
M. W. WORT			R	X	Photo
GLYSTR1			O		
SOLCAES			O		
sh. lobe hepat			O		
l.l. aster			O		
Carex sp.			O		
EUOBOV			O		
sweet cicely			O		
GIRLEUT			O		
SANCANA A			O	X	
SANMARIB			O	X	
SOLFLEX			O		
grapefern			O	X	
Viola sp.			O		
blue cohosh			O		
early m. rue			O		
CRYCANA			O	X	
DRYCAR T			O		
xmas fern			O		
licorice			O		
beech drops			O		

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: ①	
	SURVEYOR(S): GAW	DATE: Sept. 29 2010	UTME:
	START:	END:	UTMZ:
	UTMN:		

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA >> FRAAMER > FAGGRAN
2 SUB-CANOPY	3	4	" " " "
3 UNDERSTOREY	4.5	4	" " > FAGGRAN > PRUSERO
4 GRD. LAYER	6-7	4	Saplings, l.l. aster, SOLCAES, grapefern, SELFEX

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

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

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

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: D-F Sugar Maple Dec. Forest	CODE: FOD5
VEGETATION TYPE: D-F Sugar Maple - Ash Dec. Forest	CODE: FOD5-8
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Turbine 20 + Access Rd
	POLYGON: 581832
	DATE: Feature 32
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
QUERUBR	0	0			
OSTVIRG		0			
Shagbark	0	0			
ACESASA	P	D	A	O	
FRAAMER	A	A	O	O	
FAGGRAN	O	A	A	O	
blue beech			0		
TILAMER	0	0	0		
bitternut		0	0		
POPTREM	0				
PRUSERO	R				
ACENIGR	0				
beak. hazel			R		
RUBIDAE	0				
Amelanchier sp	0				
PROVINI	0				
RIBCYNO	0				
WIBACER	0			X	
LONGANAI			R	X	
OXASTRI			R		
wild licorice			R		
GEUCANA	0				
X-mas fern			R		
TRIEREC			R		
beech drops			0		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
SOLCAES				A	
sh. lobe h. papaya				0	
l.l. aster				A	
Carex sp.				0	
EUOBOV				0	
Sweet cecily				0	
CIRLEUT				0	
SANMARA				0	X
false sol. seal				0	
SOLFLEX				A	
Virg waterleaf				0	
grapefern				0	X
whit. baneberry				R	
branch sol. seal				0	X
Viola sp.				0	
SANCANAB				0	X
GERROBE				0	
cat's paw fern				0	X
blue cohosh				0	
early rue.				0	
LARANA				R	X
GERMACU				0	
ELYHYST				0	
ARANUDI				R	
RHURA.NE				0	
AGRGRYP				R	
DRYCART				R	

ELC SITE: 161010646 POLYGON: ③
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): GAW DATE: Sept. 22, 2010 UTME:
 START: END UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	1	FRAPENN > ULMAMER
2 SUB-CANOPY	4	4	CORNUS >> SPIALBA > ULMINCA
3 UNDERSTOREY	5	4	IMPCAPE = carex sp.
4 GRD. LAYER	6-7	4	nettle, ONOSENS, tearthumb

HT CODES: 1 = >25 m 2 = 10-24 m 3 = 2-9 m 4 = 1-9 m 5 = 0.5-1 m 6 = 0.2-0.5 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
STANDING SNAGS:	<input type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
DEADFALL / LOGS:	<input type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW
 COMMUNITY SERIES: Thicket Swamp CODE: SWT
 ECOSITE: Mineral Thicket Swamp CODE: SWT2
 VEGETATION TYPE: Red Osier Dogwood Min. Thicket Swamp CODE: SWT2-5

INCLUSION CODE:
 COMPLEX CODE:

Notes:

ELC SITE: Turbine 5 + Access Road 581823
 PLANT SPECIES LIST POLYGON: Feature 32
 DATE:
 SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ULMINCA		0				IMPCAPE					A
SPIALBA		0	0			Carex sp.					A
CORFO-RA		A	A			blue vervain					R
CORSTOL		A	A			ONOSENS					0
buttonbush		0				Polygonum sp.					0
FRAPENN	R					SOLDULC					0
ULMAMER	R					BIDFRON					0
						giant ragweed					0
						EUPPERF					0
						P. loosestrife					0
						arrow tearthumb					0
						SIUSUAV					0
						LEMM/NO					0
						LYCUNIF					0
						st. nettle					0
						willow herb					0
						sp. H.O Hemlock					0

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE		POLYGON: (4)	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > QUERUBR > shagbark
2 SUB-CANOPY	3	4	" > "
3 UNDERSTOREY	4-5	4	PROVINI, ACESASA
4 GRD. LAYER	6-7	4	Seedlings, EUO0BOV, SOLCAES, SOLFLEX, I.l. aster

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

STAND COMPOSITION: BA:

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: Dry-fresh Sugar Maple Dec. Forest	CODE: FOD5
VEGETATION TYPE: Dry-fresh Sugar Maple - oak Deciduous Forest	CODE: FOD5-3
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
PINSTRO	R				
ULMAMER			O		
ACESASA	A	A	A	A	
QUERUBR	A	O	O	O	
TILAMER	O	O			
FRAPENN	O	O	O	O	
shagbark	A	O	O		
PROVINI			O		
nitchhazel			O		
RIBCYNO			O		
d. arrowwood			O		
RHACATH			O		
VITRIPA			R		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
EU00BOV				A	
shagbark				O	
Sweet cecily				O	
SOLCAES				A	
SOLFLEX				A	
STRAMPL				O	X
Viola sp.				O	
CIRLEUT				O	
false s. seal				O	
GERROBE				O	
I.l. aster				A	
wht. hancberry				O	
hog peanut				O	
GLYSTR1				O	
meadow rue				O	
CRYCANA				R	X
st. nettle				O	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: (3)	
	SURVEYOR(S): GAW	DATE: Sept. 29, 2010	UTME:
	START:	END:	UTMZ:
			UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	QUERUBR > Shagbark
2 SUB-CANOPY	3	4	Shagbark
3 UNDERSTOREY	4-5	4	Amelanchier
4 GRD. LAYER	6-7	4	l.l. aster, POTSIMP, FRAVESC

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: D-F Oak-Maple-Hickory Dec. Forest	CODE: FOD2
VEGETATION TYPE: Dry+fresh Oak-Hickory Deciduous Forest	CODE: FOD2-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Turbine 20 + Access Rd
	POLYGON: 581832
	DATE: Feature 32
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
shagbark	A	A	O			l.l. aster				A	
bitternut	O	O	O	O		POTSIMP				O	
PINSTRO	R					Galium sp.				O	
TILAMER	O	O	O	O		FRAVESC				O	
QUERUBR	A	O	O	O		false s. seal				O	
QUEALBA	O	O				GERMACK				O	
ACESASA	O	O	O	O		Viola sp.				O	
FRA-PENN	O	O	O	O		wht. hanc berry				O	
ULMAMER	O	O				AGRG RYP				O	
PRUSERO	R					SOLCAES				O	
QUEMACR	R	O				OXAstri				O	
Witchhazel			O								
ROSMULT			O								
blue beech			O								
RUBALLE			O								
Craegus			O								
d. arrowwood			O								
Amelanchier sp.	O	O									
PROVIVI			O								
CORFO. RA			O								
RUBIDAE			O								
RIBCYNO			O								

581864

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: ①
	SURVEYOR(S): GAW	DATE: Sept. 29, 2010
	START: _____	END: _____
	UTME: _____	UTMN: _____

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > FAGGRAN > QUERUBR
2 SUB-CANOPY	3	4	" "
3 UNDERSTOREY	4-5	4	FAGGRAN > ACESASA
4 GRD. LAYER	6-7	4	Seedlings, arrowwood

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: D-F Sugar Maple - Beech Dec. Forest	CODE: FOD5
VEGETATION TYPE: D-F Sugar Maple - Beech Decid. Forest	CODE: FOD5-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Turbine 19
	POLYGON: Feature 32
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ACESASA	D	A	A	A	
FAGGRAN	A	A	A	A	
OSTVIRG		O	O		
Shagbark	O				
QUERUBR	A				
FRAPENN	O	O	A		
PINSTRO	R				
bitternut					
Crotaegus sp			O		
d. arrowwood				A	
PRUNVI			O		
witchhazel			O		
LONDIOL				O	
bark hazel			O		
RUBALLE			O		
RIBICNO			O		
RHACATH			O		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CIRLEUT				O	
false s. seal				O	
licorice				O	
MAICANA				O	
wht. hawberry				O	
EUOBOV				O	
GLYSTR1				O	
l-l. aster				O	
Spokenst				O	
sweet cicely				O	
beech drops				O	
Viola sp.				O	
Carex sp.				O	
ARANUDI				O	
PRVCART				O	
Partridgeberry				R	
PREALBA				O	
dust bedstraw				O	
hog peanut				O	
POTSIMP				O	
AGRGYF				O	
VERCFE1				O	
PARINSE				O	
Ranunculus				O	

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
 SURVEYOR(S): GAW
 DATE: Sept. 29, 2010
 POLYGON: ②

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	Fraxinus > ACERUBR > ULMAMER
2 SUB-CANOPY	3	4	ILEVERT > buttonbush
3 UNDERSTOREY	4	4	" "
4 GRD. LAYER	6-7	4	ferns, Bidens, sedges

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

STAND COMPOSITION: BA:

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

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW
 COMMUNITY SERIES: Thicket Swamp CODE: SWT
 ECOSITE: Mineral Thicket Swamp CODE: SWT2
 VEGETATION TYPE: Winterberry-buttonbush Mineral Thicket Swamp CODE: SWTD2-14*

INCLUSION CODE:
 COMPLEX CODE:

Notes: 12 GPS Points

581864

ELC
 PLANT SPECIES LIST

SITE: Turbine 19 + Access Rd
 POLYGON: Feature 32
 DATE:
 SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAPENN	0					Smilax hispida				R	X
ACERUBR	0					OSMREGA				O	
FRANIGR	0					dewberry				O	
ULMAMER	0					BIDFRON				A	
						ONOSENS				A	
						LYCUNIF				O	
						st. nettle				A	
ULNINCA	0					Pyrola sp.				O	
buttonbush	A	A				Goldthread				O	
ILEVERT	A	A				IMPCAPE				O	
Highbush blueberry	O	O			X	CARINTU				O	
ROSPALI	O	O									



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**Wildlife Habitat
Assessment**

Feature 32
Turbine 19 + Access Rd
581864

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 29. 2010

Field Personnel: GAW

Weather Conditions:	Temp: 20°	Wind: 2-3	Cloud: 25%	PPT: ∅	PPT in last 24 hrs: RAIN
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO Bcch WITU AMRO	Deer Raccoon Gr. Sq. Cat.	SPPE CHFR	Cabbage wht Sulphur yellow	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 10%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) mostly @ edges

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Very few, mainly beech 15-25cm DBH, some w loose bark

BAT MAT ROOST? No

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	4m - 20m	15-25cm	2-10m	small

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe light dumping @ edge

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	SWT	~10cm	entire SWT	yes	yes

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: ①
	SURVEYOR(S): GAW	DATE: Sept. 24, 2010
	START:	END:
	UTM Z:	UTM N:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1-2	4	ACESASA > QUERUBR >> FAGGRAN
2 SUB-CANOPY	3	4	" >> FAGGRAN
3 UNDERSTOREY	4-5	4	" > bluebeech
4 GRD. LAYER	6-7	4	Saplings, l.l. aster, SOLCAES

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

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: D-F Sugar Maple Dec. Forest	CODE: FOD5
VEGETATION TYPE: Dry-fresh Sugar Maple - Oak Dec. Forest	CODE: FOD5-3
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

581836

ELC PLANT SPECIES LIST	SITE: Turbine 16 + Access Road
	POLYGON: Feature 32
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
PINSTRO	R					low, opp. trailing				R	X
ACESASA	D	A	A	A		dry CART				O	
QUERUBR	A	A	O	O		barran straw				O	
ACERUBR	O	O				EUDOBV				O	
TILAMER	O	O	O			GERMACU				O	
OSTVIRG		O	O			GEUAPPE				O	
FAGGRAN	O	A	A			GEUCANA				O	
PRUSERO		O				IMPCAPE				O	
blue beech		D	O			ONOSEN'S				O	
FRAPENN	R	O	O	O		st. nettle				O	
QUEMACR	O					Viola sp				O	
Shagbark	R/O	O				RHURANE				O	
LIGVULG			R			GLYSTR1				O	
blackberry			O			FRAVESC				O	
d. arrowwood				O		PARINSE				O	
LONHIRS				O	X	Gallium sp				O	
RUBIDAE			O			AGRGRYP				O	
CORFORA			O			RUBPUBE				O	
RIBCYNO			O			l.l. aster				O	
SAMCANA			O			OXASTRI				O	
LONDIO1				R		herb carrion f.				R	
RHACATH	O	O				CIRLEUT				O	
Crataegus	O					wht. haneberry				R	
						hag peanut				O	
						PREALBA				O	
ASTLATE			O			beech drops				O	
SOLCAES			A			hairy S. seal				O	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE		POLYGON: (2)	
	SURVEYOR(S):		DATE:	
	START:		END:	
	UTMZ:		UTMN:	

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	4	buttonbush >> Rosa
2 SUB-CANOPY	4	4	" "
3 UNDERSTOREY	5	4	Rosa > BIDFRO
4 GRD. LAYER	6-7	4	ONOSENS GLYSTR, BIDFRO

HT CODES: 1=>25 m 2=10<HT<25 m 3=2<HT<10 m 4=14HT<2 m 5=0.5<HT<1 m 6=0.2<HT<0.5 m 7=HT<0.2 m
 CVR CODES: 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 50% 4= CVR > 50%

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

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

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

COMMUNITY CLASS: Swamp	CODE: SW
COMMUNITY SERIES: Thicket Swamp	CODE: SWT
ECOSITE: Mineral Thicket Swamp	CODE: SWT2
VEGETATION TYPE: Buttonbush Mineral Thicket Swamp	CODE: SWT2-4
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
buttonbush	A	A			
BIDFRO			A	A	
ONOSENS			A		
GLYSTR			A		
IMPCAPE			A		
SPIALBA	O	O			
ROSPALU	A	A	O		X
St nettle			O	O	
SOLDULC			O	O	
Lonicera sp.	R	O			
turtle head			O		
CARLUPI			O		
Highbush blueberry	R				X
Salix	R				
LEEORYZ			O	O	
LYCUNIF			O		
SIUSUAV			O		
Arrow leathum			O		
CARINTU			O		X
ILEVERT	O	O			

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
 SURVEYOR(S):
 DATE: Sept. 24, 2010
 POLYGON: 3
 UTME:
 START: END
 UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	4	TYPLATI > Woolgrass
2 SUB-CANOPY	5	4	Woolgrass = Sedges
3 UNDERSTOREY	6	4	Sedges = grasses
4 GRD. LAYER	7	4	LEMMINGO

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

STAND COMPOSITION: BA:

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

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Marsh CODE: MA
 COMMUNITY SERIES: Shallow Marsh CODE: MAS
 ECOSITE: Mineral Shallow Marsh CODE: MAS2
 VEGETATION TYPE: Cattail Mineral Shallow Marsh CODE: MAS2-1
 INCLUSION CODE:
 COMPLEX CODE:

Notes:

521836

ELC
 PLANT SPECIES LIST

SITE: Turbine 16 + Access Road
 POLYGON: Feature 32
 DATE:
 SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
TYPLATI	A	O											
Woolgrass	A	A	O										
LEMMINGO				O									
EQUARVE				O									
BIDFRON			A										
IRINERS			O										
Canx sp			A										
IMPCAF			A										
St. n. Hlo			O										
GLYSTPI			O										
LEFORYZ			O										
SCIATRO			O										



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**Wildlife Habitat
Assessment**

Feature 32
Turbine 1/6 + Access Rd
581836

Project Number	161010646	Project Name:	Samsung		
Date / Time:	Sept. 24, 2010	Field Personnel:	GAW		
Weather Conditions:	Temp: 29°	Wind: 5	Cloud: 75%	PPT: ∅	PPT in last 24 hrs: ∅

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO	deer		monarch cab. wht sulph. yellow	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only One

Approximate age of stand Maifure

Are large (i.e. >40cmDBH and >25m tall) **trees present** Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) at edges

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Few, 10-20m, DBH 20-25cm, some w loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Bat Mat Roost? No

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe old roads, small dump (old)

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	<u>mostly in SWT within woods</u>	<u>mud</u>	<u>20 x 80 m</u>	<u>yes</u>	<u>yes</u>

\\active\60860577\Drawing\GIS\Map\NaturalHeritageAssessment\FIELDMAP_7\FIELDMAP_7_P1.mxd - 9/22/2010 @ 12:15:19 PM



September 2010
160960577



Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |

Handwritten orange scribble

Original:
Don't Throw
out



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 7

Title
PROJECT LOCATION MAP

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
SURVEYOR(S): GAW
DATE: Sept. 24, 2010
POLYGON: (H)
UTME
UTMZ: UTMN

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	4	Salix > CORNUS >> buttonbush
2 SUB-CANOPY	4	4	ROSA, ILEX
3 UNDERSTOREY	5	4	" " > IMPCAPE
4 GRD. LAYER	6-7	4	IMPCAPE, SOLRUGO, EUTGRAM

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

STAND COMPOSITION: BA:

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

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

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

SOIL ANALYSIS:

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

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW

COMMUNITY SERIES: Thicket Swamp CODE: SWT

ECOSITE: Natural Thicket Swamp CODE: SWT2

VEGETATION TYPE: Willow - dogwood Mineral Thicket Swamp CODE: SWT2-13*

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: TURBINE 16 + Access Rd
POLYGON: Feature 33
DATE:
SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
QUEALBA					edge	Solidago bicolor					X
PINSTRO					edge	Sciadops					edge
QUERUBR					"	Lil. aster					"
ACCASA					"	POTSIMP					"
QUEMACR					"	MAIPAH					"
Salix sp	D	A	A			SOLICANA					O
Norm Spruce	R					SOICATI					O
CORFARA	A	A	A			ASTNOVA					O
CORSTOL	A	A	A			ASTIATE					O
buttonbush	O	O	O			SAIRUGO					A
UCMACR	R	O				EUTGRAM					A
ILEVERT	O					SCIATRO					O
ROSPALU	A	O			X	TYPANSU					O
SPIALBA	A	A				umbellifer					O
Wt. thicket					edge	RIDERO					O
A. latifolia					"	ORIOSENS					O
C. latifolia					"	Carex sp					O
RHACAT					"	LYCUNIF					O
						of. n. fl.					



Stantec

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**Wildlife Habitat
Assessment**

Feature 33
Turbine 17 + Access Rd
581849

Project Number	161010646	Project Name:	Samsung
Date / Time:	Sept. 24. 2010	Field Personnel:	GAW
Weather Conditions:	Temp: 29°	Wind: 5	Cloud: 75%
			PPT: ∅
			PPT in last 24 hrs: ∅

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO TVVU			monarch sulph. yellow sum. azure	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) mostly @ edges

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Few, some large (> 35cm DBH), one very good, large, hollow beech with peeling bark. Most 15-20cm DBH. Large snags in FOD5-3.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	15-20m	20-35cm	4-10m	5-15cm

Bat Mat Roost? Possible

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe old roads, old logging, old trash heap

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	near edge, SWT's + MASS	mud	10-20m	yes	yes

581849

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: ①
	SURVEYOR(S): GAW	DATE: Sept. 24, 2010
	START:	END:
	UTME:	UTMN:

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > QUERUBR >> FAGGRAN
2 SUB-CANOPY	3	4	" >> FAGGRAN
3 UNDERSTOREY	4-5	4	" > blue beech
4 GRD. LAYER	6-7	4	Sapling l.l. aster SOLCAES

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

STAND COMPOSITION:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: D-F Sugar Maple Dec. Forest	CODE: FOD5
VEGETATION TYPE: Dry-fresh Sugar Maple - Oak Dec. Forest	CODE: FOD5-3
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Turbine 17 + Access Rd
	POLYGON: Feature 33
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ACESASA	D	A	A	A	
QUERUBR	A	A	O	O	
PINSTRO	R				
FAGGRAN	O	A	A		
ACERUBR	O	O			
TILAMER	O	O	O		
OSTVIRG		O	O		
PRUSERO			O		
blue beech		O	O		
FRAPENN	R	O	O	O	
QUEMACR	O				
QUEALBA	R				
Shagbark	O	O			
blackberry			O		
d. arrowwood			O		
RUBIDAE			O		
CORFORA			O		
RIBCYNO			O		
SAMCANA			O		
LONDIOI			O		
RHIACATH			O		
Crataegus sp			O		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
UVUSESS				O	
SANMARI				O	
wild rice				R	
MAICANA				O	
POTSIMP				O	
sp. dogbane				R	
ARITR.TR				R	
RUBHISP				O	
DRYCAR				O	
EUOBOV				O	
GERMACU				O	
GEUAPPE				O	
RHURA.NE				O	
GLYSTR1				O	
PARINSE				O	
l.l. aster				O	
CIRLEUT				O	
PREALBA				O	
hairy S.seal				O	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ②	
	SURVEYOR(S):		DATE:	
	START:	END:	UTMZ:	UTMN:
	UTME:		UTME:	

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	4	TYPLATI = Woolgrass
2 SUB-CANOPY	5	4	Sedges
3 UNDERSTOREY	6	4	" = grasses
4 GRD. LAYER	7	4	LEMMINO

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Marsh	CODE: MA
COMMUNITY SERIES: Shallow Marsh	CODE: MAS
ECOSITE: Mineral Shallow Marsh	CODE: MAS2
VEGETATION TYPE: Cattail Mineral Shallow Marsh	CODE: MAS2-1
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY >10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
SCIATRO			0		
Woolgrass	A	A	0		
LEMMINO			0		
TYPLATI	A	0			
IRIVERS			0		
BIDFRON			A		
IMPCAPE			A		
St. nettle			0		
EQUARVE			0		
Carex sp			0		
GLYSTR1			0		
LEEORYZ			0		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
POLYGON: ③

SURVEYOR(S): GAW
DATE: Sept. 24, 2010
UTME

START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	4	Salix = Cornus >> buttonbush
2 SUB-CANOPY	4	4	Rosa > ILEX
3 UNDERSTOREY	5	4	" " > IMPCAPE
4 GRD. LAYER	6-7	4	IMPCAPE SOLRUGO, EUTGRAM

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	D < 10	R 10-24	/ 25-50	/ > 50
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STANDING SNAGS:	0 < 10	/ 10-24	/ 25-50	/ > 50
-----------------	--------	---------	---------	--------

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW

COMMUNITY SERIES: Thicket Swamp CODE: SWT

ECOSITE: Mineral Thicket Swamp CODE: SWT2

VEGETATION TYPE: Willow - Dogwood Mineral Thicket Swamp CODE: SWT2-13*

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: Turbine 17 + Access Road
POLYGON: Feature 33
DATE:
SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
SPIALBA		O	O		
ROSPALU	O	A	O		X
buttonbush	O	O			
ILEVERT	O	O			
ULMAMER	R				
ACERUBR	R				
CORSTOL	A	A	A		
CORFORA	A	A	A		
Salix sp.	A	A	A		
SOLRUGO				O	
SOLALTI				O	
EUTGRAM				O	
TYPANGU				O	
SCIATRO				O	
BIDFRON				O	
Woolgrass				O	
ONOSENS				O	
Carex sp				O	
LYCUNIF				O	
st. nettle				O	

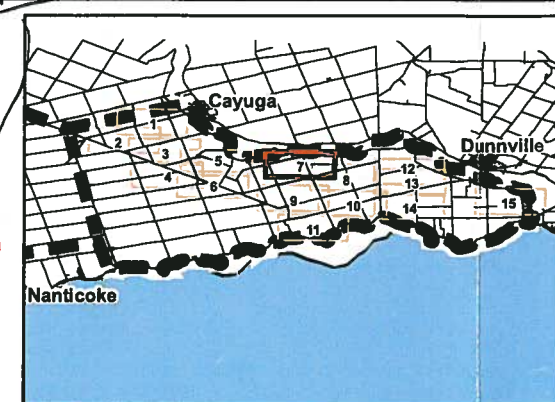
W:\active\60860577\Drawing\GIS\MXD\NaturalHeritageAssessment\field\Map\Map60860577_FIELDMAP_ProjectLocation_Mapbook_20100921_PWK.mxd - 9/22/2010 @ 12:15:19 PM



Legend	
	Project Location
	Proposed Turbine Location
	Proposed Access Road
	Proposed Collector Line
	ROW Installation Zone
	120m Investigation Zone
	Elenco Aquired Agreements
	Government Lands
	UDI Lands
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant

Handwritten orange scribble

Original: Don't Throw out



** landowner notes that extensive #1546 River Rd. flooding occurs through fields + along all watercourses shown on map.*

Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 7

Title
PROJECT LOCATION MAP



Stantec

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

Wildlife Habitat Assessment

Feature 34
Turbine #1 + Access Rd
581838

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 29, 2010

Field Personnel: GAW

Weather Conditions:	Temp: 21°	Wind: 1-3	Cloud: 95%	PPT: Ø	PPT in last 24 hrs: RAIN
---------------------	-----------	-----------	------------	--------	--------------------------

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO	/	/	/	/

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 7-10, 15-25 cm DBH, Some loose bark

BAT/MAT ROOST: NO

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	5-15m	15-20 cm	4-10m	small + medium

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Some logging + trail

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	Single OA	>50cm	10x10m	yes	yes

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
 POLYGON: ①
 SURVEYOR(S): GAW
 DATE: Sept. 29, 2010
 START: END
 UTME: UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > QUERUBR > hickory = FAGGRAN
2 SUB-CANOPY	3	4	" > FAGGRAN = OSTVIRG
3 UNDERSTOREY	4-5	4	" > ZANAMER
4 GRD. LAYER	6-7	4	Shakeroot

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

STAND COMPOSITION:

BA:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO
 COMMUNITY SERIES: Deciduous Forest CODE: FOD
 ECOSITE: Dry-fresh Sugar Maple Dec. Forest CODE: FOD5
 VEGETATION TYPE: Dry-fresh Sugar Maple - Oak Deciduous Forest CODE: FOD5-3

INCLUSION CODE:
 COMPLEX CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: Turbine 21 + Access Rd
 POLYGON: Feature 34
 DATE:
 SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ACESASA	D	D	D	A	
FRAPENN	O	O	O	O	
QUERUBR	A	O			
Shagbark	O	O			
TILAMER	O	O			
ULMAMER		O			
OSTVIRG		O	O		
PRUSERO	R				
PINSIRO	R				
QUEALBA	O				
FAGGRAN	O	O	O		
PINSYLV	R				
LONDIOL				O	
ZANAMER			A	A	
RHACATH		O	O		
Crataegus		O	O		
CORFORA		O			
RUBALLE		O			
RUBOCCI		O			
RUBIDAE		O			
Amelanchier		O	O		
Witchhazel		O			
RIBCYNG		O			
SANCAANA		O			

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Wild coffee				R	
SANMARI				A	
SANCAANA				A	
l.l. asfer				A	
GEUCANA				O	
licorice				O	
VITRIPA				O	
EVOOBOV				O	
GERMACU				O	
Viola sp				O	
early m. rue				O	
false s. seal				O	
blunt hepatica				O	
hog peanut				O	
CIRLEUT				O	
RHURANE				O	
PARINSE				O	
barrren shrub				O	
PREALBA				O	
VEROFFI				O	
OXASTRI				O	
SW. recily				O	



Stantec

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

**Wildlife Habitat
Assessment**
Feature 34
Turbine 22 + Access Rd
581829

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 29. 2010

Field Personnel: GAW

**Weather
Conditions:**

Temp: 21°

Wind: 1-3

Cloud: 95%

PPT: ∅

PPT in last
24 hrs:
RAIN

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> GRCA		NLFR - landowner notes Ambystoma sp. + snapping turtle WOFR SPPE CHFR AMTD		

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Very few, 10-20cm DBH, some loose bark.

BAT MAT ROOST? No

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	<u>5-15m</u>	<u>10-20cm</u>	<u>4-10m</u>	<u>Small + medium</u>

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Some logging

Seeps/ springs present? Yes No. If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No. If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

→ watercourse present.

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646 POLYGON: 2

SURVEYOR(S): GAW DATE: Sept. 29, 2010

START: END UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > QUERUBR >> hickory = TILAMER
2 SUB-CANOPY	3	4	" > FAGGRAN = OSTVIRG = FRAPENN
3 UNDERSTOREY	4.5	4	" > ZANAMER
4 GRD. LAYER	6-7	4	ZANAMER, Shakeroot, l.l. aster

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	A 25-50	0 > 50
----------------------	--------	---------	---------	--------

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

DEADFALL / LOGS:	A < 10	0 10-24	R 25-50	0 > 50
------------------	--------	---------	---------	--------

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

COMM. AGE:	PIIONEER	YOUNG	MID-AGE	<input checked="" type="checkbox"/> MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO

COMMUNITY SERIES: Deciduous Forest CODE: FOD

ECOSITE: Dry-fresh Sugar Maple Decid. Forest CODE: FOD5

VEGETATION TYPE: Dry-fresh Sugar Maple - Oak Decid. Forest CODE: FOD5-3

INCLUSION Riparian Area CODE:

COMPLEX CODE:

Notes: Giant ragweed, Plant, fl. nettle, Riparian: * Red hair, Fox, Virg. Mallow

ONOSENS, ASTLATE, turtle head, LEECRYZ, MIPRAPE, Skulleap, Ranunculus, ALI-PL-AO,

ELC PLANT SPECIES LIST

SITE: Turbine 72 + Access Rd 581829

POLYGON: FEATURE 34

DATE:

SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESASA		D	D	A		SANMARI				A	
FRAPENN	O					SANCANA				A	
QUERUBR	A	O				l.l. aster				A	
Shakeroot	O					GEUCANA				O	
TILAMER						FRAVESC				O	
ULMAMER		O				licorice				O	
OSTVIRG		O				AGRGRYP				O	
PRUSERO		R				POTSIMP				O	
PINSTRO		R				VITRIPA				O	
QUEALBA						EUOOBOV				O	
FAGGRAN						GERMAU				O	
PINSYLV		R				Viola sp				O	
ROSPALU				R		early m. rue				O	
LONDIOI					O	false s. seal				O	
ZANAMER			A	A		blunt hepatica				O	
RHACATH			O			hog peanut				O	
CORFO·RA			O			CIRLEUT				O	
RUBALLE			O			RHURA·NE				R	
Craetagus sp			O			PARINSE				O	
d. arrow wood			O	O		barren straub.				O	
RUBIDAE			O			PREALBA				O	
RUBOCCI			O			VEROFFE				O	
Amelanchier sp		O	O			OXASTRI				O	
witchhazel			O			GLYSTRI				O	
RIBOVNO			O			sw. pecily				O	
SANCANA			R			SOLCAES				O	
						beech drops				O	

turk's cap lily (michigan)



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December 2010
160960577

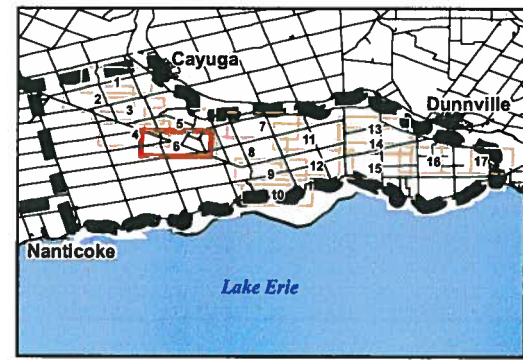
Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-8- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 6

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____
 SURVEYOR(S): _____ DATE: _____ UTME: _____
 START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CAROUAT, FLAPPENN, QUERUBR
2 SUB-CANOPY	2	4	" " "
3 UNDERSTOREY	3	4	FAGGRAN
4 GRD. LAYER			

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

STAND COMPOSITION:

BA: _____

SIZE CLASS ANALYSIS:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____
 COMMUNITY SERIES: _____ CODE: _____
 ECOSITE: _____ CODE: _____
 VEGETATION TYPE: _____ CODE: _____
 Fresh-moist Shagbark Hickory Dec Forest FOD9-4
 INCLUSION _____ CODE: _____
 COMPLEX _____ CODE: _____

Notes:

ELC
 PLANT SPECIES LIST

SITE: Samsung
 POLYGON: 6-1
 DATE: 22-Dec-2010
 SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
CAROUAT					-							
FAGGRAN					-							



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December 2010
160960577

Legend

- Solar Lands Study Area
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Proposed Turbine Location
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osler Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential

Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N)
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
Tile 2 of 2

Title
**ELC VEGETATION
COMMUNITIES - SOLAR
LANDS**

DRAFT



Feature 36

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

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

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50
DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Swampy Sand Mineral Deciduous</i>	CODE: <i>SW03-3</i>
INCLUSION: <i>Swamp</i>	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: <i>Samsung Solar</i>
	POLYGON: <i>Star 02-1</i>
	DATE: <i>22 Dec 2010</i>
	SURVEYOR(S): <i>M. Straus</i>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
<i>ACEFREE</i>	<i>D</i>												
<i>PLAEWN</i>													

Feature 36

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0	< 10	0	10 - 24	0	25 - 50	4	> 50
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STANDING SNAGS:		< 10		10 - 24		25 - 50		> 50
-----------------	--	------	--	---------	--	---------	--	------

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:
 Fresh-moist Shagbark Hickory FOD9-4

INCLUSION: Deciduous CODE:

COMPLEX: Forest CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: Solar 2-2
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
CAROUAT	O	O											
FRAPENM	O	O											
QUERUBR	R												
FAGGLAN	R	O											

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: _____ **BA:** _____

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

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = _____ G = _____

MOISTURE: DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE: DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ **CODE:** _____

COMMUNITY SERIES: _____ **CODE:** _____

ECOSITE: _____ **CODE:** _____

VEGETATION TYPE: _____ **CODE:** _____
Fresh-moist Sugar Maple-Hardwood F0065

INCLUSION: Dead. Frost _____ **CODE:** _____

COMPLEX: _____ **CODE:** _____

Notes:

Feature 36

ELC
PLANT SPECIES LIST

SITE: Samsung
POLYGON: Solar 2-3
DATE: 22-Dec-2010
SURVEYOR(S): M. Straus

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FLAPENN	0	0			
QUEBALBA					
ALESACS	0	0			
FAGGRAN		0	0		



Stantec

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

Wildlife Habitat Assessment

Project Number

100960577

Project Name:

Samsberg - Wind

Date / Time:

17 Dec 2010

Field Personnel:

Melissa Straus

Weather Conditions:	Temp: 4°C - 0°C	Wind: 0	Cloud: 100%	PPT: light snow	PPT in last 24 hrs: snow
----------------------------	---------------------------	-------------------	-----------------------	---------------------------	------------------------------------

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

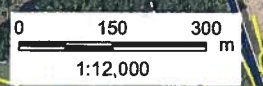
Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO RTHA-OB RLHA-OB HAWD-OB DOWD-OB				



PIC 1931 -
 Cuckoo
 ← MAM - PIC 1930 22
 ← FOD9-4
 ← Ag 1 Hs 1
 ← Mh 1
 ← 6-5r
 ← MF



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Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-8- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple - Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osler Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N)
2. Data Sources: Ontario Ministry of Natural Resources
© Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 8

Title
**ELC VEGETATION
COMMUNITIES**



DRAFT

feature 42

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	Poplar
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	57	4	Asters, goldenrods

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	D < 10	A 10 - 24	N 25 - 50	N > 50
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STANDING SNAGS:	N < 10	N 10 - 24	N 25 - 50	N > 50
-----------------	--------	-----------	-----------	--------

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Hybrid Poplar Deciduous Plantation	CUPI-4
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Poplar plantation - coll

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 8-1
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Poplar		D				Asters				O	
						Goldenrods				O	



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Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2 Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1 Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2 Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4 Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1 Dry-fresh Poplar Deciduous Forest
 - FOD4-1 Dry-fresh Beech Deciduous Forest
 - FOD4-2 Dry-fresh White Ash Deciduous Forest
 - FOD5-1 Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2 Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3 Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8 Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11* Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12* Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1 Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5 Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6* Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1 Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2 Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1 Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4 Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6* Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1 Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2 Green Ash Mineral Deciduous Swamp
 - SWD2-3* Dry-fresh Oak – Red Maple Mineral Deciduous Swamp
 - SWD2-4* Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1 Red Maple Mineral Deciduous Swamp
 - SWD3-2 Silver Maple Mineral Deciduous Swamp
 - SWD3-5* Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1 Willow Mineral Deciduous Swamp
 - SWD4-2 White Elm Mineral Deciduous Swamp
 - SWD3-3 Swamp Maple Mineral Deciduous Swamp
 - SWD4-8* Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4 Buttonbush Mineral Thicket Swamp
 - SWT2-5 Red Osler Dogwood Mineral Thicket Swamp
 - SWT2-8 Silky Dogwood Mineral Thicket Swamp
 - SWT2-9 Gray Dogwood Mineral Thicket Swamp
 - SWT2-13* Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14* Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15* Red Maple Mineral Thicket Swamp
 - SWT3-7 Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2 Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10* Forb Mineral Meadow Marsh
 - MAM2-11* Forb – Graminoid Mineral Meadow Marsh
 - MAM2-1 Cattail Mineral Shallow Marsh
 - MAS2-8 Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7 European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3* Ash – Sumac Mineral Cultural Woodland
 - CUW1-4* Green Ash Mineral Cultural Woodland
 - CUW1-5* Maple-Ash Cultural Woodland
 - CUW1-6* Green Ash Cultural Woodland
 - CUW1-7* Red maple Mineral Cultural Woodland
 - CUP3-12* White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13* White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N)
2. Data Sources: Ontario Ministry of Natural Resources
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 9

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



No. Feature 42

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	?
2 SUB-CANOPY	3	2	RHACATH, Quiluba
3 UNDERSTOREY	4	4	Cornus, Staghorn Sumac
4 GRD. LAYER			

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Mineral thicket swamp	CODE: SWT2
INCLUSION Red-canopy grass Meadow	CODE: MAMB-2
COMPLEX Marsh	CODE:

Notes:

Depression in Ag Field - dense under brush.
- Accessed from road. Dogwood SWT.
- MAM

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 9-1
	DATE: 22-Dec-2010
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CARDUAT	R				
QUILUBA		O			
FRAPENN		O			
Stag Sumac			O		
Cornus			O		
RHACATH		O			

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
R.C. Grass				O	

Feature 42

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

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

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:

Fresh-moist Sugar Maple - F206-5

INCLUSION Hardwood Dec CODE:

COMPLEX F206-7 CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 9-2	
	DATE: 20-Dec-2010	
	SURVEYOR(S): M. Straus	

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
ALBESACS	O	O			-							
TILAMER	O	O			-							
FRAPENNO	O	O			-							

Feature 42

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____
 SURVEYOR(S): _____ DATE: _____ UTMZ: _____
 START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

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

SITE
 OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; ≈ ABOUT EQUAL TO)
1 CANOPY	1	4	CARLOUAT > FRAPEAN > QUERUBR
2 SUB-CANOPY	2	4	CARLOUAT > FRAPEAN
3 UNDERSTOREY	3	4	FRAGGRAN
4 GRD. LAYER			

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

STAND COMPOSITION: _____ BA: _____

SIZE CLASS ANALYSIS: 0 < 10 A 10 - 24 0 25 - 50 R > 50

STANDING SNAGS: ~~10~~ < 10 10 - 24 25 - 50 > 50
 DEADFALL / LOGS: ~~10~~ < 10 10 - 24 25 - 50 > 50

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

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

Notes:

ELC
 PLANT SPECIES LIST

SITE: Samsung
 POLYGON: 9-4
 DATE: 22-Dec-2010
 SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
CARLOUAT	0	0									
FRAPEAN	0	0									
QUERUBR	0										
FRAGGRAN	R	0	0								

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY	2	2	Cornus sp.
4 GRD. LAYER	57	4	Red-canary grass

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

STAND COMPOSITION: BA:

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

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

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT
COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Red-canary Grass Mineral Meadow	MAM2-2
INCLUSION: Marsh.	CODE:
COMPLEX:	CODE:

Notes:

No feature

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 9-50
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
						Red-canary grass					D
Cornus				R							

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	PRAPPENN > Salix sp.
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	5-7	4	Aster, goldenrod, Reed-can grass

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 < 10 0 10 - 24 R 25 - 50 R > 50

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
ECOSITE: CODE:
VEGETATION TYPE: CODE:
Minimal Thicket Swamp SWT2
INCLUSION CODE:
COMPLEX CODE:

Notes: Surrounding a pond - cum sp
Pic 1933 Mm2-2 portion
+ willows

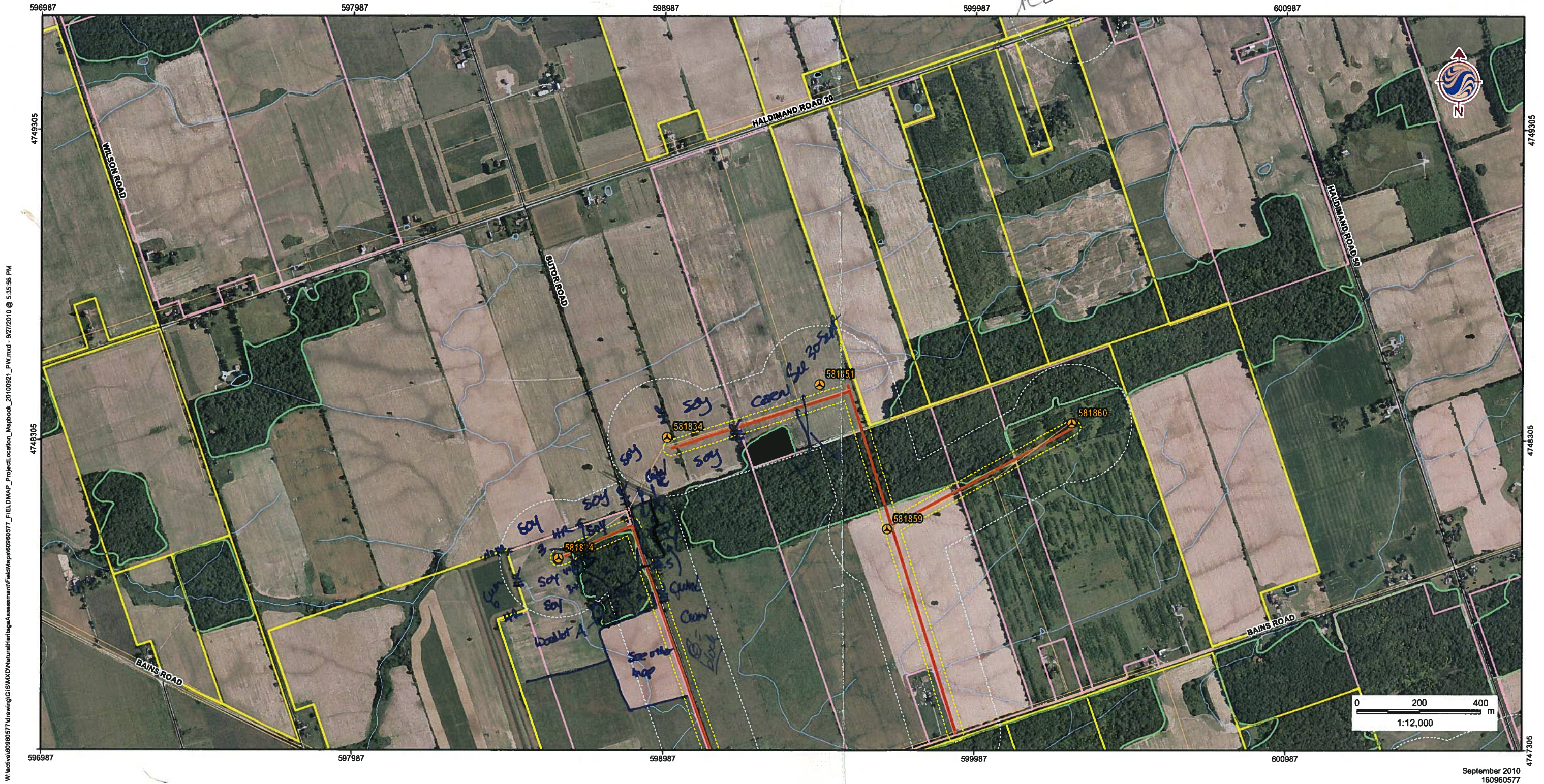
No feature

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 9-6	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Straus	

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Salix sp	R					Aster				A	
PRAPPENN						Goldenrod				A	
						Reed-canary				O	
Hawthorn											
Cornus sp.					O						



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596987 597987 598987 599987 600987 4749305 4749305 4749305 4749305 4749305



Legend			
	Project Location		Transmission Line (OBM)
	Proposed Turbine Location		Deer Wintering Area
	Proposed Access Road		Provincially Significant Wetland
	Proposed Collector Line		Non-Provincially Significant Wetland
	ROW Installation Zone		Watercourse (OBM)
	120m Investigation Zone		Waterbody
	Elexco Acquired Agreements	Area of Natural and Scientific Interest (ANSI)	
	Government Lands		Life Science, Provincially Significant
	UDI Lands		Earth Science, Provincially Significant
	Road		Earth Science, Regionally Significant
	Railway		
	Abandoned Railway		



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 8

Title
PROJECT LOCATION MAP

September 2010
 160960577

598308

599308

600308

4747338

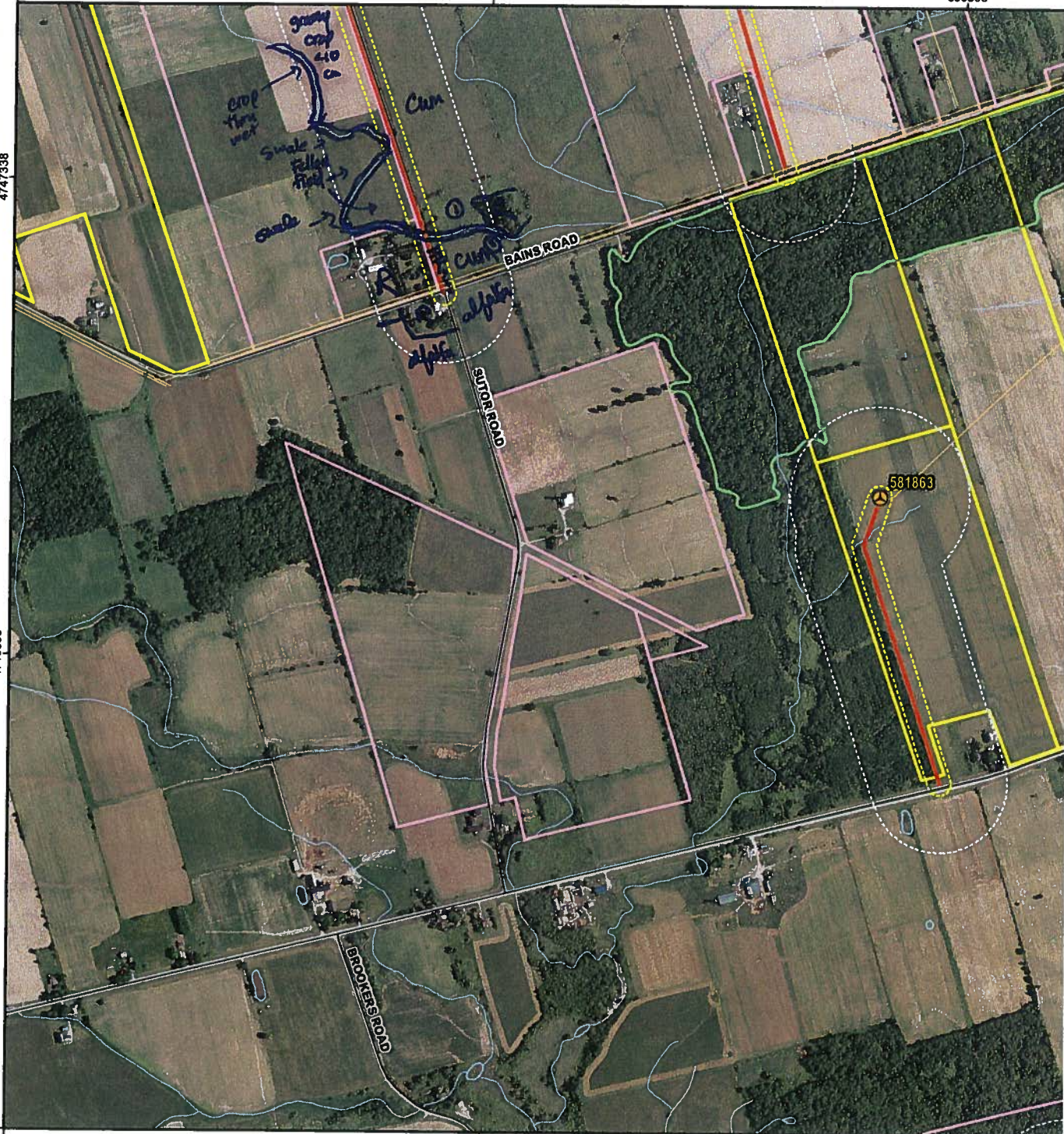
4746338

598308

599308

600308

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Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



Stantec



Stantec

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

Wildlife Habitat Assessment

Project Number
160960377

Project Name:
Samsung

Date / Time:
13-Oct-2010 @ 09:30

Field Personnel:
M. Straus

Weather Conditions:	Temp: <u>5°-15°C</u>	Wind: <u>1-3</u>	Cloud: <u>5%</u>	PPT: <u>none</u>	PPT in last 24 hrs: <u>Fog + frost</u>
----------------------------	----------------------	------------------	------------------	------------------	--

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO GCKT-VO RBWD-OB SANS-OB EUST-OB AMRO-OB NDF-VO TUVH-OB NOMO-VO	AMCR-VO EAME-OB HAWO-VO DDWO-OB WOTY-VO BELH-VO WTSP-OB SUSA-OB RTHA-VO	Raccoon - TK, SC Deer - TK Gartersnake - OB	Morning Glowlk - OB	

Feature 42

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): A

Approximate age of stand 50-60

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand 1%

Location in stand (i.e. throughout, in west side only, in FOD2-6 only etc..) Throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

8/ha in 2

3 beech @ 2-10m tall; N 20cm DBH no loose bark; 1 @ 30cm 7 4m. E @ 20cm 7 18m; no loose bark. Many be 20-30m broken @ 2m @ 110cm

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	12m	20cm	3m	Small
	7m	35cm	3m	hollow
	10-15	25cm	5m	Small

lots of Woodpeckers feeding in area #2 - lots of snags - Abundant feeding cavities

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Many Squirrel nests though

Evidence of disturbance? (i.e. logging, roads, paths, ATV use, trails) Yes No

If yes, describe old logging evidence

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat
	See Habitat #5		

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	See Habitat #5	none @ present	~5m x length @ habitat	no - now wet up eg. Emergents	

FLC
COMMUNITY
EVALUATION

SITE: _____ POLYGON: ①

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	0	
2 SUB-CANOPY	3	1	<i>ACERUBR</i> (cum.)
3 UNDERSTOREY	4	2	<i>RUBIDEA</i> ← Dogwoods
4 GRD. LAYER	5	4	<i>Goldenrod sp.</i>

HT CODES: 1 = >25 m 2 = 10-4HT<25 m 3 = 2-4HT<10 m 4 = 1-4HT<2 m 5 = 0.5-4HT<1 m 6 = 0.3-4HT<0.5 m 7 = HT<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:

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

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

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

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

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

SOIL ANALYSIS:

TEXTURE: _____ **DEPTH TO MOTTLES / GLEY** g = _____ G = _____

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

HOMOGENEOUS / VARIABLE **DEPTH TO BEDROCK:** _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ **CODE:** _____

COMMUNITY SERIES: _____ **CODE:** _____

ECOSITE: _____ **CODE:** _____

VEGETATION TYPE: Mineral Cultural meadow **CODE:** CUM1

INCLUSION _____ **CODE:** _____

COMPLEX _____ **CODE:** _____

Notes:

Pic 1659
 CUMB - shorter than B.F. Trifol / Cume = more success in + slightly wetter
 - Same groundcover but ↑ *ACERUBR*

No feature

FLC
VEGETATION
EVALUATION

SITE: Samsung

POLYGON: 1

DATE: 13 Oct 2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	C1	C2	C3	C4
<i>PRUSERO</i>		R		
<i>POPELT</i>		NR		
<i>ACERUBR</i>		O		
<i>SALDISC</i>		R		
<i>RHACATH</i>		RR		
<i>Apple sp.</i>		OR		
<i>Green Dogwood</i>		R		
<i>Manitoba Mado</i>		R		
<i>VIBLENT</i>		R		
<i>RUBIDEA</i>		R		
<i>Silky Dogwood</i>		R		
<i>Vetiv</i>				O
<i>Goldenrod sp.</i>				A

FIG SITE: _____ POLYGON: 2

SURVEYOR(S): _____ DATE: _____ UTMZ: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAPENN > CAROVAT > ACEBUBR
2 SUB-CANOPY	2	4	FRAGGRAN > TILAMER
3 UNDERSTOREY	3	4	FRAGGRAN > OSTVIRG
4 GRD. LAYER	5	3	FRAPENN > PLAVILG

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

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:

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

STANDING SNAGS:

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

DEADFALL / LOGS:

	< 10		10 - 24		25 - 50		> 50
--	------	--	---------	--	---------	--	------

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

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

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G = _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: F-M Shagbark Hickory Deciduous Forest CODE: FQ9-4

INCLUSION: _____ CODE: _____

COMPLEX: _____ CODE: _____

Notes: Pic 1661

Feature 42

FIG SITE: Samsung

POLYGON: 2

DATE: 13-Oct-2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	Code	Code	Code	Code
CAROVAT	O	R	R	R
FRAGGRAN	-	O	A	R
ACEBUBR	R	R	R	R
FRAPENN	O	R	R	O
TILAMER	R	O	R	R
QUERUBR	R	-	-	-
ALCSKS	-	R	R	R
OSTVIRG	-	O	O	-
PHURAPI			O	
PLAVILG			R	
Current ^{sp. 0} holes			R	✓
RUBIDEA			R	
FRAVIRG			O	
RUBRUBR			R	
By Hercep 9				O

RIBCYNO

Feature 42

EG
MINNER
DESIGN
CORP.

SITE: _____ POLYGON: **3**

SURVEYOR(S): _____ DATE: _____ UTM: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUERUBR > CARQUAT > FRAPENN
2 SUB-CANOPY	2	4	CARQUAT = FRAPENN
3 UNDERSTOREY	3	4	OSTVIRG > CARCARO
4 GRD. LAYER	57	3	FRAVIRG

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

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS: 0 < 10 10-24 R 25-50 R > 50

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE: _____

COMMUNITY SERIES: CODE: _____

ECOSITE: CODE: _____

VEGETATION TYPE: CODE: FOD96*

INCLUSION: CODE: _____

COMPLEX: CODE: _____

F-M

Red Oak - Shagbark Hickory Dec. forest

Notes:

3 Ric1663

SITE: Samsung

POLYGON: 3

DATE: 13 Oct - 2010

SURVEYOR(S): M Strauss

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT T = Trace

Species	1	2	3	4	5	6	7	8	9	10
CARQUAT										
ACERUBR										
FRAPENN										
QUANUBR										
QUERUBR										
JACGLAN										
OSTVIRG										
POPTREM										
CUBIDEP										
CALCARO										
FRAVIRG										

ELC
 COUNTY OF ...
 SITE: 160960577
 POLYGON: 4
 SURVEYOR(S):
 DATE:
 START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> PEN <input type="checkbox"/> BOG <input type="checkbox"/> BARRON <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
--	---	--	---	--	---

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY	4-5	4	SP ALBA >> RUB 10BA > Goldenrod sp. (all p)
4 GRD. LAYER	6-7	3	RUBIDEA < < < (all p)

HT CODES: 1 = >25m 2 = 10-24m 3 = 2-9m 4 = 1-9m 5 = 0.5-9m 6 = 0.2-9m 7 = HT < 0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Meadow sweet + Mineral thickets swamp	CODE: SWT2-6
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

pic 1662

ELC
 COUNTY OF ...
 SITE: Sumburg
 POLYGON: 4
 DATE: 13-Oct-2010
 SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Code
PS Aster			R
ASTLAT			R
Apple			R
RHACATH			R
Silky Dog			O
Itawhorn			R
Manitoba Maple			R
SAMCANNA			R
RUBIDEA			OO
SPALBA			D
Reed Canary Grass			R
Goldenrod sp.			OO

	SITE: 160960577	POLYGON: 5		
	SURVEYOR(S):	DATE:	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACER sp. > QUERNAUL
2 SUB-CANOPY	2	1	ULMAMER
3 UNDERSTOREY	3-4	4	ACEFUBR 70STVIRG
4 GRD. LAYER	5-7	4	Scotted T.M. Not 7 RUBIDEA

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

STAND COMPOSITION:					BA:
SIZE CLASS ANALYSIS:	0 < 10	0 10 - 24	0 25 - 50	N > 50	
STANDING SNAGS:	2 < 10	0 10 - 24	N 25 - 50	N > 50	
DEADFALL / LOGS:	2 < 10	R 10 - 24	N 25 - 50	N > 50	
ABUNDANCE CODES:	N = NONE R = RARE O = OCCASIONAL A = ABUNDANT				
COMM. AGE:	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input checked="" type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH

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

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Swamp Made Mineral Deciduous Swam	CODE: SWDB-3
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes: PRZ 1664

	SITE: Samsung
	POLYGON: 5
	DATE: 13 Oct 2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Code
ACER FREE	10	4	R R
QUERNAUL	R	R	R R
ULMAMER	-	R	
ACEFUBR	R		
ULMAMER	-	R R R	
FRAXIN	R		
OSTVIRG		0	
ASPLATE			R
Scotted T.M. Not			0
Wood Nettle			0
Gray Dogwood			R
Rubus			R
RUBIDEA			0 0

Feature 42

FIG	SITE: 160960577	POLYGON: (A)
	SURVEYOR(S):	DATE:
	START: END	UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	3	3	S&T Maples
3 UNDERSTOREY	4	2-3	Silky Dogwood > SPIALBA
4 GRD. LAYER	5-7	4	Red Canary Grass, CUM sp.

HT CODES: 1 = >25m 2 = 10-24m 3 = 2-9m 4 = 1-9m 5 = 0.5-1m 6 = 0.2-1m 7 = HT < 0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10% < CVR < 25% 3 = 25% < CVR < 50% 4 = CVR > 50%

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Red Made Mineral Cultural	CUM1-7
INCLUSION	CODE:
Complex	CODE:

Notes: Bleeds into CUM/woodlot border - gradient ↓ to the west
 1609605

SPECIES	SITE: Samsung
	POLYGON: 10
	DATE: 13-Oct-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES	HT	CVR	ABUNDANCE
ACERUBR			O
ACESACC			R
ALUMBEN			R
FRAPENN			R
TRAVAT			R
RHULAD			R
SPIALBA			O
Riverbank Grass			R
SALDISC			R
PLUBIDA			
Silky Dogwood			O
Red Canary Grass			O
Spotted T.M. Dog			R
Sensitive Fern			R
P.S. Aster			O
Wild Carrot			O
Goldenrod sp			A
Viola sp.			R
Vine Nightshade			R
Scirpus sp			R

FLC COUNTY OFFICE

SITE: 160960577 POLYGON: (7)

SURVEYOR(S): DATE: UTME:

START: END UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CAROVAT > ACER (soft) > FRAPENN
2 SUB-CANOPY	2	4	CAROVAT > FAGGRAN
3 UNDERSTOREY	3-4	4	FAGGRAN < OSTVIRG
4 GRD. LAYER	5-7	4	ASTMACR < VIOLE SP.

HT CODES: 1 = >25 m 2 = 10-41; 25 m 3 = 2-41; 10 m 4 = 1-41; 2 m 5 = 0.5-41; 1 m 6 = 0.2-41; 0.5 m 7 = HT < 0.2 m

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 < 10 A 10-24 O 25-50 L > 50

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

DEADFALL / LOGS: B < 10 O 10-24 R 25-50 N > 50

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:

F.M. Shadbark History Decid. Forest FOD 9-4

INCLUSION CODE:

COMPLEX CODE:

Notes:

Pic 1666

Feature 42

FLC COUNTY OFFICE

SITE: Samsung

POLYGON: 7

DATE: 13-Oct-2010

SURVEYOR(S): M. Straus

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Code
FRAPENN	1	4	R
CAROVAT	2	4	R
FRANIGR	3-4	4	R
ACEFREE	5-7	4	R
QUERUBR	5-7	4	R
FAGGRAN	5-7	4	R
ALERUBR	5-7	4	R
QUERMACR	5-7	4	R
OSTVIRG	5-7	4	R
KUNBACE			
RITURADI			
Scotted T.M. Nod			R
Sensitive Fern			R
ASTMACR			O
WOOD Nod			R
Ligularia (old)			R
VIOLE SP.			O
B. thurcupp sp.			O

EIC ENVIRONMENTAL IMPACT		SITE:	POLYGON:		
		SURVEYOR(S):	DATE:	UTME:	
		START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

HT CODES: 1=>25 m 2=10-24 m 3=3-9 m 4=1-2 m 5=0.5-2.5 m 6=0.2-1.0 m 7=HT<0.2 m
 CVR CODES: 0=NONE 1=0% < CVR < 10% 2=10 < CVR < 25% 3=25 < CVR < 60% 4=CVR > 60%

STAND COMPOSITION:				BA:
SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 60	> 60
STANDING SNAGS:	< 10	10 - 24	25 - 60	> 60
DEADFALL / LOGS:	< 10	10 - 24	25 - 60	> 60
ABUNDANCE CODES:	N = NONE	R = RARE	O = OCCASIONAL	A = ABUNDANT
COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE OLD GROWTH

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

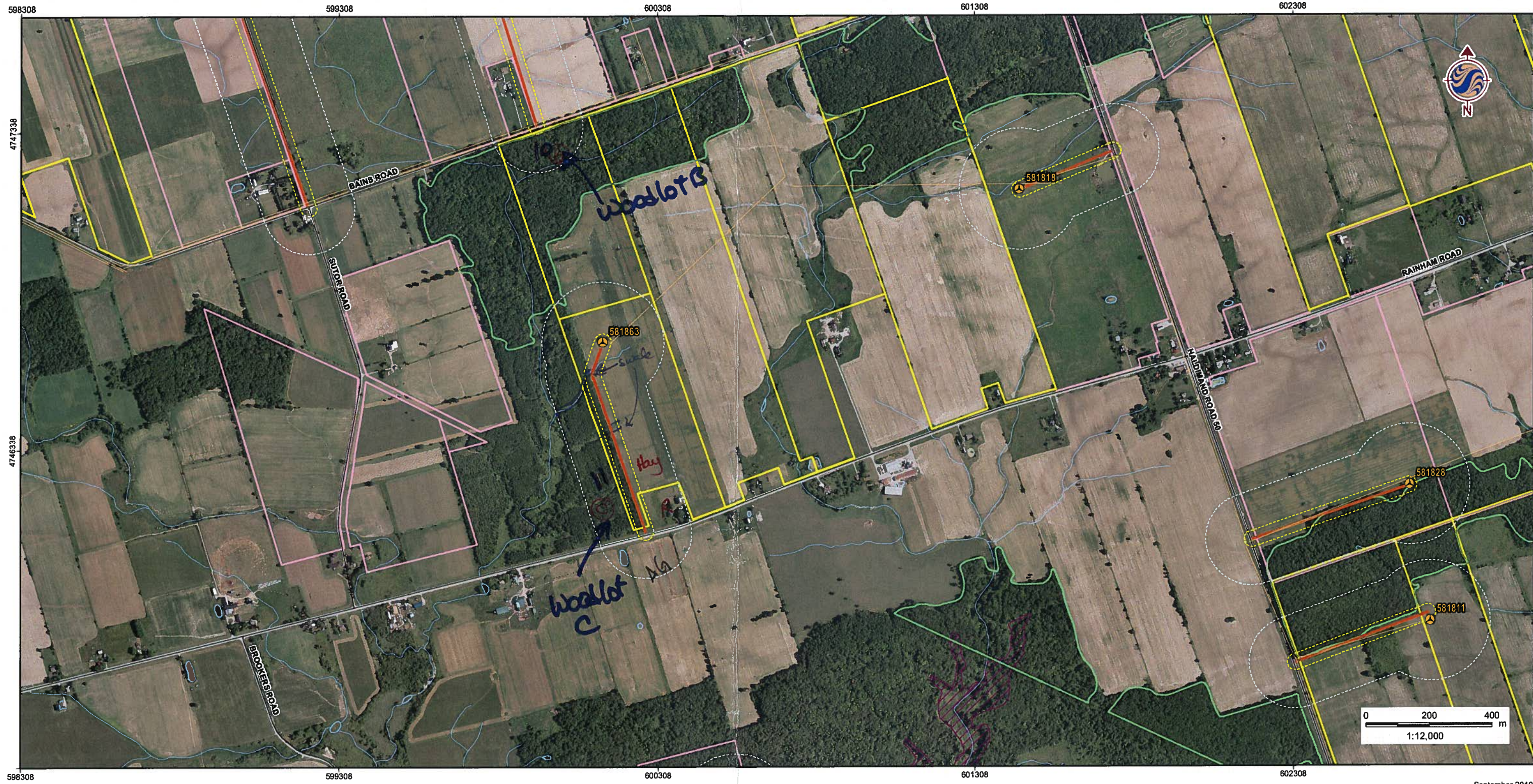
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COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

EIC ENVIRONMENTAL IMPACT	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

STAND ID	DATE	HT	CVR	1	2	3	4	5	6	7	8	9	10	11	12	13	14



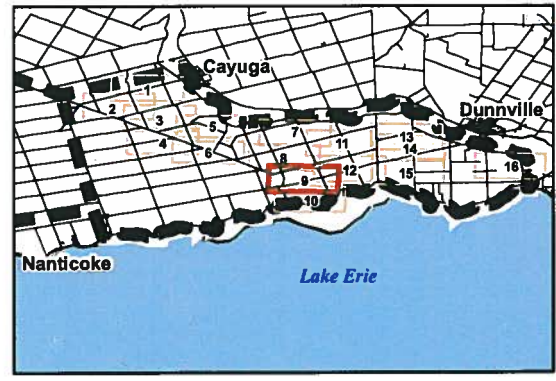
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598308 599308 600308 601308 602308 603308 604308 605308 606308 607308 608308 609308 610308 611308 612308 613308 614308 615308 616308 617308 618308 619308 620308 621308 622308 623308 624308 625308 626308 627308 628308 629308 630308 631308 632308 633308 634308 635308 636308 637308 638308 639308 640308 641308 642308 643308 644308 645308 646308 647308 648308 649308 650308 651308 652308 653308 654308 655308 656308 657308 658308 659308 660308 661308 662308 663308 664308 665308 666308 667308 668308 669308 670308 671308 672308 673308 674308 675308 676308 677308 678308 679308 680308 681308 682308 683308 684308 685308 686308 687308 688308 689308 690308 691308 692308 693308 694308 695308 696308 697308 698308 699308 700308 701308 702308 703308 704308 705308 706308 707308 708308 709308 710308 711308 712308 713308 714308 715308 716308 717308 718308 719308 720308 721308 722308 723308 724308 725308 726308 727308 728308 729308 730308 731308 732308 733308 734308 735308 736308 737308 738308 739308 740308 741308 742308 743308 744308 745308 746308 747308 748308 749308 750308 751308 752308 753308 754308 755308 756308 757308 758308 759308 760308 761308 762308 763308 764308 765308 766308 767308 768308 769308 770308 771308 772308 773308 774308 775308 776308 777308 778308 779308 780308 781308 782308 783308 784308 785308 786308 787308 788308 789308 790308 791308 792308 793308 794308 795308 796308 797308 798308 799308 800308 801308 802308 803308 804308 805308 806308 807308 808308 809308 810308 811308 812308 813308 814308 815308 816308 817308 818308 819308 820308 821308 822308 823308 824308 825308 826308 827308 828308 829308 830308 831308 832308 833308 834308 835308 836308 837308 838308 839308 840308 841308 842308 843308 844308 845308 846308 847308 848308 849308 850308 851308 852308 853308 854308 855308 856308 857308 858308 859308 860308 861308 862308 863308 864308 865308 866308 867308 868308 869308 870308 871308 872308 873308 874308 875308 876308 877308 878308 879308 880308 881308 882308 883308 884308 885308 886308 887308 888308 889308 890308 891308 892308 893308 894308 895308 896308 897308 898308 899308 900308 901308 902308 903308 904308 905308 906308 907308 908308 909308 910308 911308 912308 913308 914308 915308 916308 917308 918308 919308 920308 921308 922308 923308 924308 925308 926308 927308 928308 929308 930308 931308 932308 933308 934308 935308 936308 937308 938308 939308 940308 941308 942308 943308 944308 945308 946308 947308 948308 949308 950308 951308 952308 953308 954308 955308 956308 957308 958308 959308 960308 961308 962308 963308 964308 965308 966308 967308 968308 969308 970308 971308 972308 973308 974308 975308 976308 977308 978308 979308 980308 981308 982308 983308 984308 985308 986308 987308 988308 989308 990308 991308 992308 993308 994308 995308 996308 997308 998308 999308 1000308



Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 9

Title
PROJECT LOCATION MAP

September 2010
160960577



Stantec

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

**Wildlife Habitat
Assessment**

Project Number:

1609160577

Project Name:

Samsung

Date / Time:

30-Sept-2010

Field Personnel:

Melissa Strauss

**Weather
Conditions:**

Temp: 13°C

Wind: 2

Cloud: 100%

PPT: none

PPT in last 24 hrs: none

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO WBNU/CO HAWO/VO NO=4/CO	Deer-TK Raccoon-14/10/13 Grey squirrel-CO			

Feature 42

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : C

30-sept-2010

Approximate age of stand 15 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

P.4864

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : _____

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No

If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No

If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge



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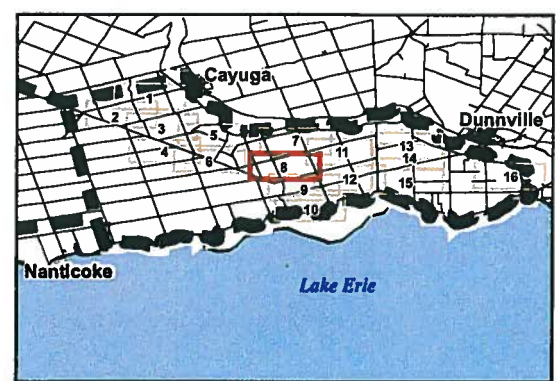
596987 597987 598987 599987 600987 4749305 4748305 4747305



Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |

100 x 75 = 7500



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 8

Title
PROJECT LOCATION MAP

September 2010
 160960577



Stantec

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

Wildlife Habitat Assessment

Project Number: 160960577 Project Name: Samsung

Date / Time: 30-Sept-2010 Field Personnel: Melissa Straus

Weather Conditions:	Temp: <u>13°C</u>	Wind: <u>2</u>	Cloud: <u>100%</u>	PPT: <u>none</u>	PPT in last 24 hrs: <u>none</u>
----------------------------	-------------------	----------------	--------------------	------------------	---------------------------------

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO BLJA/VO RBWD/OB SOSP/OB WBNV/OB AMRO/OB CEPW/OB NACA/OB BCCB/OB WTSR/VO HAWR/VO YBSR/NO NDFL/OB GCKI/OB POWD/OB HAWD/VO NDHA/OB	Deer - TK Raccoon - TK, HO, OB Grey Squirrel - OB			

Feature 42

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : A

Approximate age of stand 40⁻⁵⁰ years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand ~5% ; Mostly in ELC #4 ; large Quercus
 Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark
 1m, 15cm, no @ 20m⁺, 25cm, no @ 15cm, 20cm, ~ 10 trees/ha throughout but heavier in Be dominate areas (i.e. #4)
 45cm; no loose bark; 25m⁺ Overall: snags average 20-35cm DBH; hts 2-20m; loose bark on some

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Snags (no loose bark)	3-8m	40cm	0-7	hollow-med.
(snag)	1-2m	30cm	0-2	hollow, small
live trees w dens	25m	25-30	0	hollow

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Just @ edges some debris, some light trails, evidence of old logging

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
1	599362 4348232	<5cm	3x5m	none	none ✓

FOD2-6-S

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : B

Approximate age of stand 35 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 2m⁺ to 20m⁺, FAGGRAN mostly; loose bark on some

Trees with cavities present? No Rare Occasional Abundant

If present:

Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
<u>2⁺-20m⁺</u>	<u>10cm - 35cm</u>	<u>0-10</u>	<u>large (dens) - Small BCCIT holes</u>

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe light trail

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge



Stantec

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

Wildlife Habitat Assessment

Project Number _____		Project Name: _____			
Date / Time: _____		Field Personnel: _____			
Weather Conditions:	Temp:	Wind:	Cloud:	PPT:	PPT in last 24 hrs:

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i>				

Feature 42

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung		POLYGON: #1	
	SURVEYOR(S): ms		DATE: 30 Sept-2010	
	START: 08:45	END: 11:00	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL, UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <div style="border: 1px solid black; padding: 2px;">COVER</div> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input checked="" type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

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

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

STAND COMPOSITION:

BA:

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

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	Cultural	CODE: Cu
COMMUNITY SERIES:	Cultural Plantation	CODE: CuP
ECOSITE:	Mixed Plantation	CODE: CuP3
VEGETATION TYPE:	Norway Spruce / White Pine - White Spruce / Fir Plantation	CODE: CuP3-12*
INCLUSION		CODE:
COMPLEX		CODE:

Notes: Pic

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: #1 - Field map	
	DATE: 30-Sept-2010	
	SURVEYOR(S): Melissa Straus	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
PICGLAU						Teasel					O
FRAPMER						Ox-eye daisy					A
PICABIE						Flat top White Aster					A
PINSTRO						Wild Carrot					A
QUERUBR						Birds Foot Trefoil					O
						Reed Canary Grass					O
						Schirpus					R
RUBIDEA						Goldenrodsp					A

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

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

COMM. AGE :	PIIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

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

COMMUNITY CLASS:	CODE:
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COMMUNITY SERIES:	CODE:
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ECOSITE:	CODE:
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VEGETATION TYPE:	CODE:
------------------	-------

INCLUSION	CODE:
-----------	-------

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

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	

Feature 42

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: 2		
	SURVEYOR(S): MS	DATE: 30-Sept-2010	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACERUB = CAROAT > FAGGRAN
2 SUB-CANOPY	2	4	Shag = FAGGRAN < ACERUB
3 UNDERSTOREY	3-4	4	ACESACS < FAGGRAN
4 GRD. LAYER	5-7	3	ASTMACEY / IDO sp. > POISON IVY

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: Fresh-Moist Oak-Maple-Hickory	CODE: FOD9
VEGETATION TYPE: F-M Shagbark Hickory dec. Forest	CODE: (FOD9-4)
INCLUSION: Swamp Made mineral	CODE: SWD 3-3
COMPLEX: Deciduous Swamp	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 2-Field Map 8
	DATE: 30-Sept-2010
	SURVEYOR(S): Melissa Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Shag Hickory	O	R	R	R	
FAGGRAN	O	R	-	-	
OSTVIRG	-	-	O		
ACESACS	O				
FRAMER	R				
TILAME	R				
FRAPPEN	R				
ACERUBR	O	O	R	-	
ACEFREE	R	R	-		
QUEBICO	R	R	-		
FRANIGL	R	R	R	-	
QUERUBR	O	R	-		
ULMUSGL	-	R	R		
QUFALBA	R	-			
Hawthorn	-	R	-		
Blue Beech	-	R	-		
FRANIGL	-	-	O		
PRUVIRG	-	-	R	R	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Christmas Fern	-	-	-	R	
ASTMACEY	-	-	-	O	
Round L. Hepatica	-	-	-	R	
Virginia Creeper	-	-	-	R	
Rose-twisted Stalk	-	-	-	R	
Hog Peanut	-	-	-	R	
Wood Nettle	-	-	-	R	
Poison Ivy	-	-	-	O	
Beach Drop	-	-	-	R	
Sensitive Fern	-	-	-	R	
Water Hemlock	-	-	-	R	
Viola sp.	-	-	-	O	
Buttercup sp.	-	-	-	O	

Handwritten notes:
 - many tree sp.
 - incanopy
 - lots of CAROAT

Inclusion
 (1) on map

Pic 1568

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

HT CODES: 1 => 25m 2 = 10<HT-25m 3 = 2<HT-10m 4 = 1<HT-2m 5 = 0.5<HT-1m 6 = 0.2<HT-0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 80%

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

COMM. AGE:	PIIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

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

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		

Feature 42

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Samsung</u>	POLYGON: <u>3</u>	
	SURVEYOR(S): <u>MS</u>	DATE: <u>30 Sept 2010</u>	UTM:
	START:	END:	UTMZ:
	UTMN:		

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACEFREE >> ACERUBR >> QUERUBR
2 SUB-CANOPY	2	4	ACEFREE > FRAMICL > PRAPENN
3 UNDERSTOREY	3-4	3	OSTVIRG
4 GRD. LAYER	5-7	4	FRAMICL > Poison Ivy < Buttercup

HT CODES: 1=>25m 2=10<HT<25m 3=24HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES: 0= NONE 1= 0% < CVR . 10% 2= 10% < CVR . 25% 3= 25% < CVR . 60% 4= CVR > 60%

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

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

COMM. AGE:	<input type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input checked="" type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
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SOIL ANALYSIS:	DEPTH TO MOTTLES / GLEY	g =	G =
TEXTURE:	DEPTH OF ORGANICS:	(cm)	
MOISTURE:	DEPTH TO BEDROCK:	(cm)	
HOMOGENEOUS / VARIABLE			

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE: <u>SW</u>
COMMUNITY SERIES:	CODE: <u>SWP</u>
ECOSITE:	CODE: <u>SWD3</u>
VEGETATION TYPE: <u>Swamp Maple Mineral Dec. Swamp</u>	CODE: <u>SWD3-3</u>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: <u>Samsung</u>
	POLYGON: <u>3 - Field Map 8</u>
	DATE: <u>30 Sept 2010</u>
	SURVEYOR(S): <u>MS</u>

*More open understory
lowland
maple dominated
- same esp.*

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
QUERUBR	0	-	-	R		ASTMACE				A	
ACERUBR	0	O	R	R		Christmas Fern				R	
TILAME	R	R	R	R		Poison Ivy				O	
ACEFACG	R	-	R	-							
ACEFREL	D	O	R	-							
FAGGRAN	R	R	O	-							
OSTVIRG	-	O	-	-							
CAROVATL	R	-	R	-							
FRAPENN	R	R	R	-							
QUERUBA	R										
Red Raspberry	-	-	-	R							
Virginia Creeper	-	-	-	R							
FRAMICL	-	-	-	O							
RUBRUB	-	-	-	O		Buttercup sp				O	

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA: _____

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		

Feature 42

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Samsung POLYGON: 4

SURVEYOR(S): ms DATE: 30 Sept 2010 UTME

START: END UTMZ: UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FAGGRAN > ACESACS > PRAMERL
2 SUB-CANOPY	2	4	FAGGRAN > ACESACS = ACERUAR
3 UNDERSTOREY	3-4	4	FAGGRAN > OST VIRG
4 GRD. LAYER	5-7	3	ASTORACE > POISON LY

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

STAND COMPOSITION: BA:

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FOD

COMMUNITY SERIES: Deciduous Forest CODE: FOD

ECOSITE: Dry-Fresh Decid. Forest CODE: FOD4

VEGETATION TYPE: D-F Beech Deciduous Forest CODE: FOD4-1

INCLUSION: Shortleaf Pine Dry Swamp CODE: SW03-2

COMPLEX CODE:

Notes:

ELC PLANT SPECIES LIST

SITE: Samsung POLYGON: 4

DATE: 30 Sept 2010

SURVEYOR(S): Melissa Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FAGGRAN	A	A	D	O	
ACESACS	O	R	R	R	
PRAMERL	O	R	R	O	
Shortleaf Pine	R	-	-	R	
ACERUAR	O	R	R	R	
QUERUBR	R	-	-	R	
FRAXIN	R	-	-	-	
TILAMER	R	R	R	R	
ACESAEC	R	-	-	-	
Virginia Creeper				R	
Ostrya	-	-	O	O	
Blue Beech	-	-	R	-	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Beech logs	-	-	-	R	
ASTORACE	-	-	-	O	
Poison Ly	-	-	-	O (I)	
Spotted Towhee	-	-	-	R	
Buttercup				O	

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

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

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		

Feature 42

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: #5	
	SURVEYOR(S): ms	DATE: 30 Sept 2010	UTME:
	START:	END:	UTMZ:
	UTMN:		

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE: F0
COMMUNITY SERIES:	CODE: F0D
ECOSITE: E-M Sugar Maple Dec. Forest	CODE: F0D6
VEGETATION TYPE: Sugar Maple - Beech Deciduous Forest	CODE: F0D65
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Some parts Be dominated (mostly) or Mh + Be, some have more Or

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: #5
	DATE: 30 Sept 2010
	SURVEYOR(S): Melissa Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESACS	O	O	O	R		ASTINAK				O	
QUERUBE	O	R	R	-		Christmas Fern				R	
FAGGRAN	O	O	O	R		Sensitive fern				R	
GARUATE	O	O	R	R		Beech Drops				R	
FRAPMEL	O	O	R	R		Zig Zag Goldbrake				R	
OSTVIRG	-	R	O	R		Rose twisted stalk				R	
TILAMER	R	R	R	R						R	
ACERUBE	O	O	R	R						R	
ACERUB	O	R	-	-							
VIBAVER										R	
RUBRIFA										R	

Feature #2

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: 6		
	SURVEYOR(S): ms	DATE: 30-Sept-2010	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Dec. Forest	CODE: FOD
ECOSITE: FM Sugar Maple Dec. Forest	CODE: FODB
VEGETATION TYPE: FM Sugar Maple - Hardwood Dec. Forest	CODE: FOD6-S
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Some patches of Bedominated.
less Hs than 2; but otherwise same.
+ some Mr
some Mh.

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 6
	DATE: 30-Sept-2010
	SURVEYOR(S): melissa straus

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
See Polygon #2					
Same species comp.					
exclude OUEALBA					
CAROUAT					R
FAGGRAN					R
ACERUBR					R
ACESACS					R
OSTURG					R

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Beach Droop					R
ASTMAER					O
Hy Peanut					R
GERROBE					R

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: 7
	SURVEYOR(S): ms	DATE: 30-Sept-2010
	START:	END
	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACEFREE >> FRAPENN >> CAROVAT
2 SUB-CANOPY	2	4	Same as canopy
3 UNDERSTOREY	3-4	3	UIMAMER
4 GRD. LAYER	3-7	3	Poison Ivy >> Wood Nettle

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

STAND COMPOSITION: BA:

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

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

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

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW
COMMUNITY SERIES: Dec. Swamp CODE: SWD
ECOSITE: Maple Mineral Dec. Swamp CODE: SWP3
VEGETATION TYPE: Swamp Maple Mineral Dec. Swamp CODE: SWP3-3

INCLUSION CODE:
COMPLEX CODE:

Notes: Along creek bed

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 7
	DATE: 30-Sept-2010
	SURVEYOR(S): Melissa Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACEFREE	0	0	-	7		Poison Ivy				R	
CAROVAT	0	R	-	0		Wood Nettle				R	
FRAPENN	0	0	-	0		Christmofern				R	
UIMAMER	-	R	-	-		Sensitivefern				R	

Feature 42

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Samsung</u>	POLYGON: <u>10</u>	
	SURVEYOR(S): <u>MS</u>	DATE: <u>30 Sept 2010</u>	UTME:
	START:	END:	UTMZ:
	UTMN:		

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACESACS > FAGBRAN > CAROVAT
2 SUB-CANOPY	2	4	See above
3 UNDERSTOREY	3-4	4	ACESACS = FAGBRAN > OSTVIRG
4 GRD. LAYER	5-7	3	FRAMER > Poison Ivy

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE: FO
COMMUNITY SERIES:	CODE: F00
ECOSITE:	CODE: F005
VEGETATION TYPE:	CODE: F005-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: <u>Samsung</u>
	POLYGON: <u>10</u>
	DATE: <u>30-Sept-2010</u>
	SURVEYOR(S): <u>Melissa Straus</u>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FAGBRAN	0	0	0	0		GERLOBE				R	
ACESACS	D	0	0	0		Wood Nettle				R	
CAROVAT	R	R	R	R							
QUERPUB	R										
FRAPEN	R										
BARGORD	R										
FRAMER	R			0							
OSTVIRG		0	0								
AENIGR		R	R								
PRUSERO				R							
Poison Ivy											
RUBALLE				R							
Blue Beech				R							
FRUVIRG			0								
Virginia Creeper				R							
Buttercup sp.										O	

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:		POLYGON:	
SURVEYOR(S):		DATE:	UTME:
START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: **BA:**

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

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

Notes:

ELC
PLANT SPECIES LIST

SITE:

POLYGON:

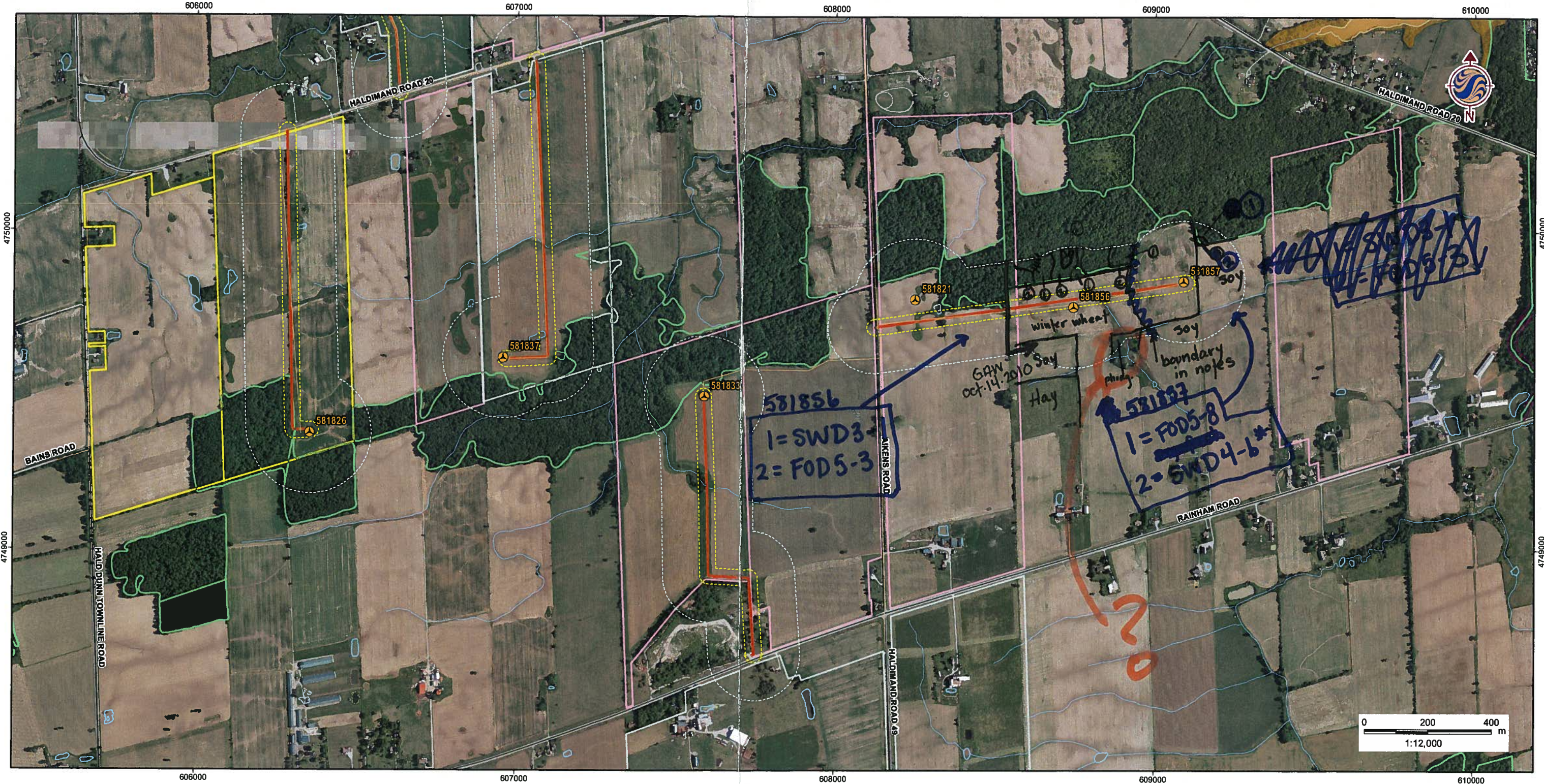
DATE:

SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		

W:\archive\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\FldMap\60960577_FIELDMAP_P\ProjectLocation_Mapbook_20100921_PW.mxd - 9/22/2010 @ 12:15:19 PM



September 2010
160960577

Legend

- | | | | |
|--|----------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elexco Acquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



ORIGINAL
Don't Throw out

Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 13

Title
PROJECT LOCATION MAP



Stantec

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

**Wildlife Habitat
Assessment**

Feature 49
Turbine 581857

Project Number <u>161010646</u>		Project Name: <u>Samsung</u>			
Date / Time: <u>Oct. 14, 2010</u>		Field Personnel: <u>GAW</u>			
Weather Conditions:	Temp: <u>10°</u>	Wind: <u>2</u>	Cloud: <u>100%</u>	PPT: <u>Showers</u>	PPT in last 24 hrs: <u>RAIN</u>

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> BLJA	deer - TK			

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only one

Approximate age of stand Mid-age - Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5% of stand

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout FOD

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Very few FRAPENN ~20cm DBH, no loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

BAT MAT ROOST? Nope.

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe one ATV trail

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	<u>small SWD</u>	<u>none</u>	<u>15m</u>	<u>yes</u>	<u>yes</u>

161010646

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Turbine 58185	POLYGON: ①	
	SURVEYOR(S): GAW	DATE: Oct 14, 10	UTME
	START:	END	UTMZ:
			UTMN

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA >> FRAMMER > QUERUBR
2 SUB-CANOPY	3	4	" > OSTVIRG = FAGGRAN
3 UNDERSTOREY	4-5	4	"
4 GRD. LAYER	6-7	4	" l.l. aster, Rubus

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

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: D-F Sugar Maple Deciduous Forest	CODE: FOD5
VEGETATION TYPE: Dry-fresh Sugar Maple - White Ash Dec. forest	CODE: FOD5-8
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Feature 49
	POLYGON:
	DATE:
	SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESASA	D	A	A	A		l.l. aster				A	
QUERUBR	O	O				AstLATE				O	
TILAMER	O	O	O			Carex sp.				O	
FAGGRAN	O	A	A			DRY CART				O	
FRAMMER	O	O	O	O		GLYSTR1				O	
OSTVIRG		A	A			PREALBA				O	
ACERUBR		O	O			hug peanut				R	
						VEROFF1				O	
						SOLCANA				O	
blue beech	O	O				beech drops				O	
PRUVIV1		O				BOTSIMP				O	
CORFO-RA			O			swt. cecily				O	
RHACATH			O			GERMACU				O	
RUBoccl			O			VITRIPA				O	
RUBIDAE			O								
ROSMULT			R								

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ②	
	SURVEYOR(S):		DATE:	UTM:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

SITE

- OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACEFREE ≥ FRAPENN
2 SUB-CANOPY	3	4	" " = TILAMER
3 UNDERSTOREY	4-5	3	Corstol
4 GRD. LAYER	6-7	4	grasses, Aldges, RHURA.NE

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

STAND COMPOSITION: BA:

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp	CODE: SW
COMMUNITY SERIES: Deciduous Swamp	CODE: SWD
ECOSITE: Mineral Deciduous Swamp	CODE: SWD4
VEGETATION TYPE: Green Ash - Swamp Maple & Dec. Swamp	CODE: SWD4-6*
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Very small.

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACEFREE	A	A				GEUCANA					O
FRAPENN	A	A				FRAVESC					O
ULMAMER	O	O				Carex sp					A
TILAMER	O	O				Viola sp					O
QVERUBR	R					URTDIOI					O
ACESASA	R	O	O			LAPCANA					O
						IMCAPE					O
						GLYSTR1					O
						LYCUNIF					O
CORFORA					O	RHURA.NE					O
ROSMULT					R	Grass sp.					O
RHACATH					O						
Crataegus sp					O						
CORSTOL					A A						
Spice bush					R						
SAMCANA					R						
PRUVI.VI					O						
RUBOCCI					O						



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**Wildlife Habitat
Assessment**

Feature 49
Turbine 581856

Project Number <u>161010646</u>	Project Name: <u>Samsung</u>
Date / Time: <u>Oct 14, 2010</u>	Field Personnel: <u>GAW</u>

Weather Conditions:	Temp: <u>10°</u>	Wind: <u>2</u>	Cloud: <u>100%</u>	PPT: <u>showers</u>	PPT in last 24 hrs: <u>Rain</u>
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> BCCH AMCR	Deer - TK			

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): only one

Approximate age of stand midage - mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand <5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Very few, ~20 cm DBH, no loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	<u>10-20 m</u>	<u>25-30 cm</u>	<u>4-6 m</u>	<u>medium</u>

Bat Mat Roost? No

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe ATV trails (2)

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	<u>SWD</u>	<u>none</u>	<u>variable</u>	<u>yes</u>	<u>yes</u>

161010646

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Turbine 581856	POLYGON: ①
	SURVEYOR(S): GAW	DATE: Oct. 14. 10
	START:	END:
	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACERUBR >> FRAPENN = ACESASA
2 SUB-CANOPY	3	4	" >> ACESASA
3 UNDERSTOREY	4-5	4	" " = blue beech
4 GRD. LAYER	6-7	3	FRAPENN Carex

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

STAND COMPOSITION: BA:

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

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp	CODE: SW
COMMUNITY SERIES: Deciduous Swamp	CODE: SWD
ECOSITE: Maple Mineral Dec. Swamp	CODE: SWD3
VEGETATION TYPE: red maple mineral Deciduous Swamp	CODE: SWD3-1
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Feature 49
	POLYGON:
	DATE:
	SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACERUBR	D	A	A			myrewort					0
FRAPENN	O	O	O	A		l.l. asfer					0
TILAMER	O	O				Ranunculus sp					0
ACESASA	O	O	O			GLYSTRI					0
PINSTRO	R					SOLRUGO					0
QUERUBR	R					DRYCAR					0
						LAPCAN					0
						delic. sol. seal					0 X
						LIGVULG					0
						CARINTU					A
						SMITHSP					0
						MAICANA					0
						PREALBA					0
						ASTLATE					0
						blue beech					0
						ONOSENS					0
						LYCUNIF					0
						IMPCAPE					0
						IRIVERS					0
						BIDFRON					0
						marsh fern					0
						URTDIO1					0

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: 2	
	SURVEYOR(S):		DATE:	
	START:		UTMZ:	
	END:		UTMN:	

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > QUERUBR = ACERUBR
2 SUB-CANOPY	3	4	" > OSTVIRG
3 UNDERSTOREY	4-5	4	" > FRAPENN
4 GRD. LAYER	6-7	3	1.1. asfer, FRAPENN, RHURA-NE, GERMACU

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.0.9m 7=HT<0.2m
CVR CODES 0= NONE 1= 0% < CVR, 10% 2= 10 < CVR, 25% 3= 25 < CVR, 60% 4= CVR > 60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:

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

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO

COMMUNITY SERIES: Deciduous Forest CODE: FOD

ECOSITE: D-F sugar Maple Dec. Forest CODE: FOD5

VEGETATION TYPE: Dry-fresh Sugar Maple - oak Dec. Forest CODE: FOD5-3

INCLUSION CODE:

COMPLEX CODE:

Notes: small area of Phragmites in Ag. field.

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ACESASA	D	A	A	O	
ACERUBR	A	A			
QUERUBR	A	O			
TILAMER	O	O	O		
shagbark	O				
bitternut	O				
FAGGRAN	O	O			
FRAPENN	O	O	O	O	
OSTVIRG		O	O		
QUEALBA	R				one v. large
PRUSERO				O	
blue beech		O	O		
highbush cran				R	
ROBIDAE				O	
PRUVI-VI				O	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
1.1. asfer				A	
RHURA-NE				O	
OXASTRI				O	
PREALBA				O	
ASTLATE				O	
GERMACU				O	
EUOBOV				O	

25 entire chunk along rd



W:\active\60960577\drawing\GIS\MXD\Natural\Haltapaka\assessment\60960577_DRAFT_ELCv5_WindFarm_20101214_PW.mxd - 12/15/2010 @ 11:17:08 AM

December 2010
160960577

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2. Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1. Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2. Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4. Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1. Dry-fresh Poplar Deciduous Forest
 - FOD4-1. Dry-fresh Beech Deciduous Forest
 - FOD4-2. Dry-fresh White Ash Deciduous Forest
 - FOD5-1. Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2. Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3. Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8. Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11. Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12. Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1. Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5. Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6. Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1. Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2. Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1. Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4. Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6. Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1. Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2. Green Ash Mineral Deciduous Swamp
 - SWD2-3. Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4. Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1. Red Maple Mineral Deciduous Swamp
 - SWD3-2. Silver Maple Mineral Deciduous Swamp
 - SWD3-5. Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1. Willow Mineral Deciduous Swamp
 - SWD4-2. White Elm Mineral Deciduous Swamp
 - SWD3-3. Swamp Maple Mineral Deciduous Swamp
 - SWD4-6. Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4. Buttonbush Mineral Thicket Swamp
 - SWT2-5. Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8. Silky Dogwood Mineral Thicket Swamp
 - SWT2-9. Gray Dogwood Mineral Thicket Swamp
 - SWT2-13. Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14. Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15. Red Maple Mineral Thicket Swamp
 - SWT3-7. Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2. Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10. Forb Mineral Meadow Marsh
 - MAM2-11. Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1. Cattail Mineral Shallow Marsh
 - MAS2-8. Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1. Mineral Cultural Meadow
 - CUT1-7. European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3. Ash – Sumac Mineral Cultural Woodland
 - CUW1-4. Green Ash Mineral Cultural Woodland
 - CUW1-5. Maple-Ash Cultural Woodland
 - CUW1-6. Green Ash Cultural Woodland
 - CUW1-7. Red maple Mineral Cultural Woodland
 - CUP3-12. White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13. White Spruce Coniferous Plantation
- D- Disturbed
R- Residential
- White Pine Cultural*



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N)
2. Data Sources: Ontario Ministry of Natural Resources
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006. LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 11

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FAGGIRON < ALSES. <
2 SUB-CANOPY	2	4	" > "
3 UNDERSTOREY	3	4	FAGGIRON, QSTVIRA
4 GRD. LAYER			

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

STAND COMPOSITION:

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

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

COMM. AGE:	PIIONEER	YOUNG	MID-AGE	<input checked="" type="checkbox"/> MATURE	OLD GROWTH
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SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Sugar-Maple-Beech Decid Forest	FODS-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

 ELC COMMUNITY DESCRIPTION CLASSIFICATION	SITE: ^{feature 73} Samsap
	POLYGON: 11-14
	DATE: 22 Dec 2010
	SURVEYOR(S): M. Straus

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species Name	Code	Layer	Code	Layer
FAGGIRON				
FRAXINUS	R	R		
QUERCUS	R			
ALNUS	O			

Feature 4f

FIG DATE: 06/20/10	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	23	Poplar (patch) / Red cedar
2 SUB-CANOPY	3		
3 UNDERSTOREY	4	3	Cornus
4 GRD. LAYER			

HT CODES: 1=>25m 2=10-24m 3=2-10m 4=1-2m 5=0.5-1m 6=0.2-0.5m 7=HT<0.2m
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 O 10-24 N 25-50 M > 50

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Pod Cedar Cultural Woodland	CODE: CUW1-1
INCLUSION	CODE:
COMPLEX	CODE:

Notes: pic 1926

FIG DATE: 06/20/10	SITE: Samsung	
	POLYGON: 11-13	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Straus	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Code	Notes
Poplar			O	
Red Cedar			O	scattered
Cornus			O	
FRAPENN			O	
Cum sp.				
goldenrods				
Oxalis				

Feature 43

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

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

STAND DESCRIPTION:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Deciduous Swamp</i>	CODE: <i>SWD</i>
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Can 4 see well enough to determine if 2-2 or 3-3.

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>	
	POLYGON: <i>11-15</i>	
	DATE: <i>20-Dec-2010</i>	
	SURVEYOR(S): <i>M. Straus</i>	

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

ABUNDANCE CODES: R = RARE 0 = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAPENN											
ACEFREE											

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

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

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

COMM. AGE :	PIIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

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

COMMUNITYCLASSIFICATION:

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

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	



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December 2010
160960577

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FC)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-8- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 11

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



Feature 44

	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

	SITE: Samsung	
	POLYGON: 11-13	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Strauss	

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	23	Poplar (patch) / Red cedar
2 SUB-CANOPY	3		
3 UNDERSTOREY	4	3	Cornus
4 GRD. LAYER			

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

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

COMM. AGE:	PIIONEER	<input checked="" type="checkbox"/> YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Pod Cedar Cultural Woodland	CUW1-1
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pic 192b

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Poplar	O																			
Red Cedar	O																			
Cornus			O																	
FRAPENN	O																			
Cum sp.																				
golden rods																				
Oaks																				

	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FAGGROAN < ALUSALS
2 SUB-CANOPY	2	4	" "
3 UNDERSTOREY	3	4	FAGGROAN, QSTVIRG
4 GRD. LAYER			

HT CODES: 1 = >25 m 2 = 10-24 m 3 = 2-9 m 4 = 1-9 m 5 = 0.5-1 m 6 = 0.2-0.5 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA: _____

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:
Sugar-Maple-Beech Decid Forest FODS-2

INCLUSION CODE:

COMPLEX CODE:

Notes:

	SITE: <i>Samsay</i>	
	POLYGON: <i>11-14</i>	
	DATE: <i>22 Dec-2010</i>	
	SURVEYOR(S): <i>M. Strauss</i>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	HT	CVR	ABUNDANCE	...
FAGGROAN				
FRADENN	AR		-	
CIARDIAT	GR		-	
ALUSALS			O	

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 < 10 R 10-24 M 25-50 N > 50

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

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

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

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

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

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION: COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:

Reed-canary grass Meadow Marsh M Am 2-2

INCLUSION CODE:

COMPLEX CODE:

Notes:

feature 44

ELC PLANT SPECIES LIST	SITE: Samsup
	POLYGON: 11-12
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Cornus					O

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Reed-canary grass					D
Aster					O

feature 43

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1-	3	FRAPPENN
2 SUB-CANOPY	2	?	
3 UNDERSTOREY	3-4	4	Cornus, RHACATH, Hawthorn
4 GRD. LAYER			Rubus

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 0 10 - 24 0 25 - 50 R > 50

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

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

ABUNDANCE CODES: N = NONE . R = RARE 0 = OCCASIONAL A = ABUNDANT

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Green Ash Cultural Woodland Cw1-4*

INCLUSION CODE:

COMPLEX CODE:

Notes:

Shrubby under growth - Cw1

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 11-110	
	DATE: 21-Dec-2010	
	SURVEYOR(S): M. Straus	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
 ABUNDANCE CODES: R = RARE 0 = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRAPPENN	0				
Cornus					
RHACATH					
Pridley Ash					
Stag Sumac					
Rubus					



W:\active\160960577\drawing\GIS\MXD\NaturalHeritageAssessments\160960577_DRAFT_ELC\GIS_Visualization\160960577_DRAFT_ELC\GIS_Visualization.mxd - 12/15/2010 @ 11:17:08 AM

December 2010
160960577



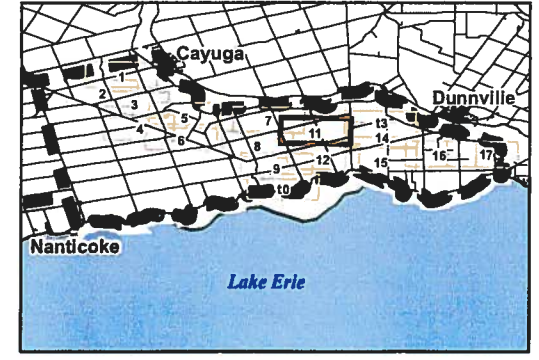
Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6*- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6*- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3*- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6*- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11*- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12*- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 11

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT

feature 43

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1-	3	FRAPPEN
2 SUB-CANOPY	2	2	
3 UNDERSTOREY	3-4	4	Cornus, RHACATH, Hawthorn
4 GRD. LAYER			Rubus

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

STAND COMPOSITION: BA: _____

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

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = _____ G = _____

MOISTURE: DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE: _____

COMMUNITY SERIES: CODE: _____

ECOSITE: CODE: _____

VEGETATION TYPE: CODE: _____
 Green Ash Cultural Woodland Cw1-4*

INCLUSION: CODE: _____

COMPLEX: CODE: _____

Notes: Shrubby under growth ~ Cw1

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 11-110
	DATE: 21-Dec-2010
	SURVEYOR(S): M. Straus

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
FRAPPEN					O								
CORACE					O								
RHACATH					O								
Prickly Ash					O								
Stag Sumac					R								
Rubus					A								

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

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

SITE

OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

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

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0=NDNE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS: 0 < 10 R 10-24 M 25-50 N > 50

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:

Reed-canary grass Meadow Marsh M Am 22

INCLUSION CODE:

COMPLEX CODE:

Notes:

feature 44

ELC
 PLANT SPECIES LIST

SITE: Samswip
 POLYGON: 11-12
 DATE: 22-Dec-2010
 SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Cornus					O

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Reed-c. grass					D
Aster					O

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	D	PINSTRD > PRAPENN
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	S-7	4	CUM sp.

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
White Pine Cultural Woodland	CUM 1-6 ⁹
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Feature 45

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>	
	POLYGON: 11-9	
	DATE: 21-Dec-2010	
	SURVEYOR(S): M. Strauss	

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
PRAPENN	0					CUM sp.					
PINSTRD	0					astens					H
						goldenrods					A

605290

606290

607290

608290

609290

4751292

4751292

4750292

4750292

605290

606290

607290

608290

609290

4749292

WOODC

REGIONAL ROAD 20

OLD WINE ROAD

HALDIMAND ROAD 20

AIKEN ROAD

HALD DUNN TOWNLINE ROAD

RAINHAM ROAD

W:\active\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\Map\60960577_FIELDMAP_ProjectLocation_Mapbook_V2Oct13_20101014_DH.mxd - 10/14/2010 @ 3:15:10 PM

October 2010
160960577



Legend

- Project Location
 - Proposed Turbine Location V2 Oct 08
 - 120m Investigation Zone V2 Oct 13
 - Substation Property
 - Proposed Collector Line V2 Sept 30
 - Proposed Access Road V2 Oct 13
 - ROW Installation Zone V2 Oct 13
 - Elexco Acquired Agreements
 - Government Lands
 - UDI Lands
 - Road
 - Railway
 - Abandoned Railway
 - Transmission Line (OBM)
 - Deer Wintering Area
 - Provincially Significant Wetland
 - Non-Provincially Significant Wetland
 - Watercourse (OBM)
 - Waterbody
- Area of Natural and Scientific Interest (ANSI)**
- Life Science, Provincially Significant
 - Earth Science, Provincially Significant
 - Earth Science, Regionally Significant



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources
© Queens Printer Ontario, 2009; © GREP, 2010;
© Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006. LIDAR IMAGERY SOURCE???
4. Produced using the Version 2 site plan provided by Samsung issued on October 13, 2010

Client/Project


SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.

FIELD MAP 13

Title

PROJECT LOCATION MAP

 <p>Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493</p>		<p>Wildlife Habitat Assessment</p>	
<p>Project Number: <u>160960577</u></p>		<p>Project Name: <u>Samsung</u></p>	
<p>Date / Time: <u>28 Oct 2010 @ 9:30am</u></p>		<p>Field Personnel: <u>M. Straus</u></p>	
<p>Weather Conditions:</p>	<p>Temp: <u>8°</u></p>	<p>Wind: <u>6</u></p>	<p>Cloud: <u>80-100%</u></p>
			<p>PPT: <u>none-</u></p>
			<p>PPT in last 24 hrs: <u>none</u></p>

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<p>i.e. AMRO/VO SOSP-OB CEGR-OB WTEP-OB HOLA-OB BCEH-OB ECKI-OB PMEG-OB AMRO-OB</p> <p>HAWO-OB RTHA-OB JUNC-OB EUST-OB AMER-OB TUMI-OB DOWO-OB WENY-OB AMPH-OB MDDO-OB</p>	<p>Deer-Bed, TL, 10B x2 Raccoon-SC</p>			

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : _____

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) **trees present** Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrub logs at pond edge

Feature 47

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : _____ C

Approximate age of stand _____ 60-80 years

28-Oct-2010

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. *no loose bark - 25cm ↑ 12m, n 2/ha.*

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
<i>snags live PW</i>	<i>2m 25m</i>	<i>15cm 25</i>	<i>2 4-5</i>	<i>Small Small</i>

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe *Few paths, firewood cutting*

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
<i>1</i>	<i>606953. 4751265</i>	<i>10-15cm</i>	<i>10m ③</i>	<i>CORNUS, SAREA →</i>	
<i>2</i>	<i>606921. 4751360</i>	<i><5cm</i>	<i>2m ①</i>	<i>none</i>	<i>none</i>
<i>3</i>	<i>606934. 4751479</i>	<i><5cm</i>	<i>8m ②</i>	<i>SAMCANA</i>	<i>none</i>
<i>4</i>	<i>607013. 4751416</i>	<i>15-25cm</i>	<i>20m 4</i>	<i>cornus</i>	<i>no</i>

Feature 47.

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 160960577	POLYGON: ①
	SURVEYOR(S):	DATE:
	START: 1442 END	UTMZ:
		UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	FRAPPEN
2 SUB-CANOPY	3	4	"
3 UNDERSTOREY	4	4	CORRACE > CORSTOL > Hawthorn = RHACATHE
4 GRD. LAYER	5-7	4	Canary Grass

HT CODES: 1 = >25 m 2 = 10<HT: 25 m 3 = 24HT: 10 m 4 = 1<HT: 2 m 5 = 0.5<HT: 1 m 6 = 0.2<HT: 0.5 m 7 = HT<0.2 m
CVR CODES 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION:	BA:
--------------------	-----

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

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

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

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

COMMUNITY CLASSIFICATION:

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

Notes:

Pict 1836 1837 - SWP 2-9
16 = more open grass
SWP 2-9
Pic 1842 = inclusion

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 1
	DATE: 28 Oct 2010
	SURVEYOR(S): M. Strauss

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRAPPEN	O	O	R	R	
ULMIFER	R				
RHACATHE					O
CORSTOL					O
Hawthorn					O
CORRACE					O
Vicia sp.					L

Feature 47

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 160960577	POLYGON: ②
	SURVEYOR(S):	DATE:
	START: 15:00	END: 15:30
	UTMZ:	UTMN:

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

STAND DESCRIPTION:			
LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACESACS > FAGGRAN > QUEPUBS
2 SUB-CANOPY	2	4	FAGGRAN > FRAXINUS sp.
3 UNDERSTOREY	3	4	FAGGRAN
4 GRD. LAYER	59	-	-

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

STAND COMPOSITION:				BA:
SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input checked="" type="checkbox"/> > 50
STANDING SNAGS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input checked="" type="checkbox"/> > 50
DEADFALL / LOGS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input checked="" type="checkbox"/> > 50

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

COMM. AGE:	<input type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input checked="" type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
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SOIL ANALYSIS:	
TEXTURE:	DEPTH TO MOTTLES / GLEY g = G =
MOISTURE:	DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
F-M Sugar Maple - Hardwood Decid. Forest	FOD 6-8
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes: Pic 1838 - Many vernal pools - Largest - see Pic 1839 + 1841

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 2
	DATE: 28-Oct-2010
	SURVEYOR(S): M. STROW

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
QUEPUBS		R				IMPCAPE					R
ACESACS	O	O	R	R		Christmasfern					R
CARQUAT	R	R				ASTMACR					R
QUERUS	R					Beech Drops					R
FRAXINUS	R	R									
FAGGRAN	O	A	A	O							
FRAXINUS		R									
OSTVIRS			R								
PINSTRO	R										
CARQUAT			R								
RUBRALLG				R							
SPIALUSA			R			Trillium					R
CORRAGE			R			Viola sp.					R

Feature 47

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: 3	
	SURVEYOR(S):		DATE:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Red-canopy grass Mineral Meadow Marsh	MAMA-2
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes:

P.c#1840 - MAM + thicket edge

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 3	
	DATE: 28-Oct-2010	
	SURVEYOR(S): m-straw	

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CORRACE					O
COROBLI					R

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Carolina grass					D
Goldenrod					R

Feature 47

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 160960577	POLYGON: 4		
	SURVEYOR(S):	DATE:	UTME: 607000	
	START: 15:45	END: 16:00	UTMZ: 17	UTMN: 4751424

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ALB TREE
2 SUB-CANOPY	3	0	
3 UNDERSTOREY	4	4	CORRACE
4 GRD. LAYER	57	4	IRISSP

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<.05m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

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

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Swamp Maple Mineral Deciduous Swamp	CODE: SW03-3
INCLUSION	CODE:
COMPLEX	CODE:

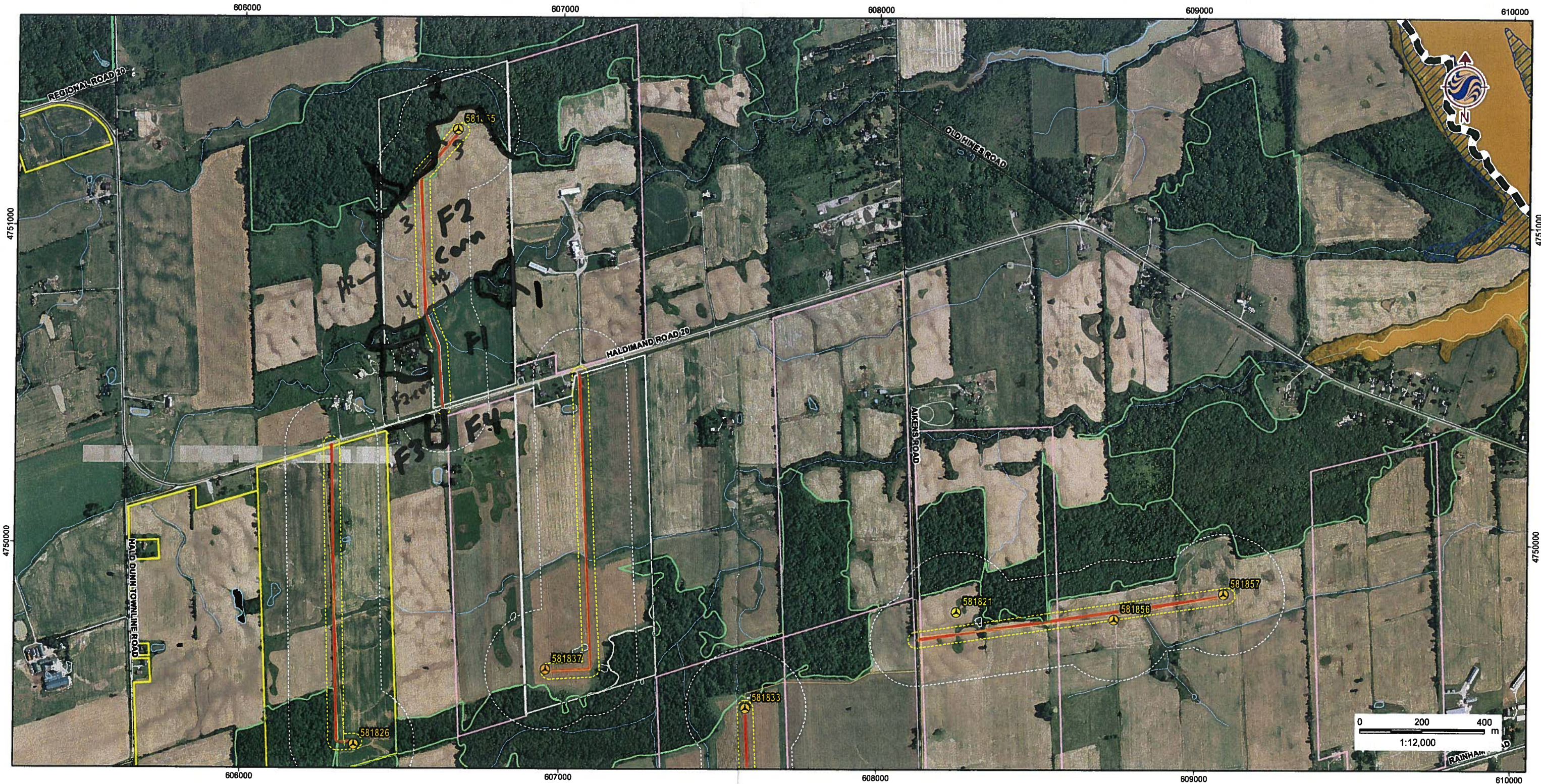
Notes: Pic 18/11 - standing H₂O

ELC PLANT SPECIES LIST	SITE: SURASUNG
	POLYGON: 4
	DATE: 26 Oct - 2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ALB TREE	0	0	0	R		Wood Fern sp				R	
CORRACE				0	0						
RUB. IDEA				0							
SAM CANYS			R								
						IRISSP.				0	

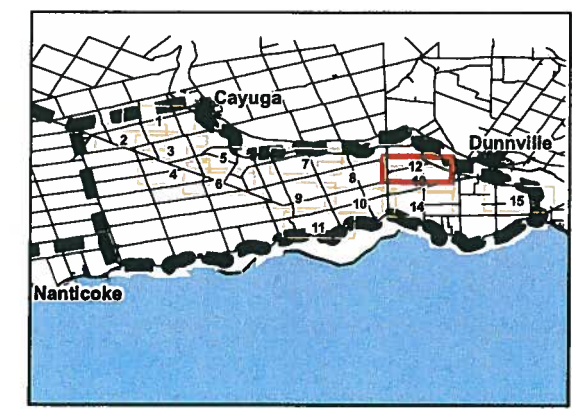
W:\archive\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\FldMap60960577_FIELDMAP_ProjectLocation_Mapbook_20100921_PV.mxd - 9/22/2010 @ 12:15:18 PM



September 2010
160960577



Legend	
	Project Location
	Proposed Turbine Location
	Proposed Access Road
	Proposed Collector Line
	ROW Installation Zone
	120m Investigation Zone
	Elexco Aquired Agreements
	Government Lands
	UDI Lands
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 12

Title
PROJECT LOCATION MAP

No feature

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 17

Approximate age of stand 30 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

6 snags - 10m tall / 10-15cm DBH

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge



Stantec

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

Wildlife Habitat Assessment

Project Number

160960577

Project Name:

GREP

Date / Time:

Sept 28, 2010 7:30-10:30

Field Personnel:

A. Taylor

Weather Conditions:

Temp:

16°C

Wind:

2

Cloud:

100%

PPT:

Rain

PPT in last

24 hrs:

Rain

Location (i.e. turbine #s/description)

5 81865

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows) Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO				

Feature 47

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 2

Approximate age of stand 80 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 30-40 snags spread throughout

↳ 10-45cm DBH / 10-20m high

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?
3 observed	20-25	20-50	15-20	2 small 1 medium.

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Trails

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 4

Approximate age of stand 30 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 3 snags - 10m high / 20cm DBH

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

No feature 7

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: GRBP	POLYGON: 1
	SURVEYOR(S): ART	DATE: Sept 28, 2010
	START: _____	END: _____
	UTMZ: _____	UTME: _____

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	23	2	ULMAMWR = Hawthorn > RHACATY
2 SUB-CANOPY	4	3	CORRALG >> USTRIPA
3 UNDERSTOREY	5	4	reed canopy & goldcrest / lark
4 GRD. LAYER			

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

STAND COMPOSITION: BA:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Cultural woodland	CODE: EOWL-1
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes:

6 snags - 10m 70-75 DBH - creek through middle

ELC PLANT SPECIES LIST	SITE: GRBP
	POLYGON: 7
	DATE: Sept 28, 2010
	SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
apple					
ULMAMWR					
CORRALG					
USTRIPA					
RHACATY					
red maple					
SALFRAG					
ULMAMWR					
ACEJSAH					
Hawthorn					

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Hawthorn					
can golden					
colorado					
NB oster					
Goldcrest					
G. goldcrest					
W. cardinal					
reed canopy					

No feature

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: GREP	POLYGON: F1	
	SURVEYOR(S): ART	DATE: Sept 28 2010	UTME: /
	START: END	UTMZ: /	UTMR: /

ELC PLANT SPECIES LIST	SITE: GREP
	POLYGON: F1
	DATE: Sept 28, 2010
	SURVEYOR(S): ART

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	54		alfalfa >> grasses
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

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

Notes:

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
alfalfa												
timothy												
bluegrass												
white clover												
red clover												

No feature

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: GRP	POLYGON: H1	
	SURVEYOR(S): ART	DATE: Sept 28, 2010	UTM:
	START: END	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	1	RHACATA > CORRAC
2 SUB-CANOPY	5	4	ced cany > forbs
3 UNDERSTOREY			
4 GRD. LAYER			

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Aedge Row</i>	CODE: <i>H1</i>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: GRP
	POLYGON: H2
	DATE: Sept 28, 2010
	SURVEYOR(S): ART

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
<i>we can</i>													
<i>reed cany</i>													
<i>2 m. thick</i>													
<i>Ca golden</i>													
<i>Gr re-spread</i>													
<i>Cultro can</i>													
<i>NB can</i>													
<i>wheat</i>													
<i>6 m dock</i>													
<i>Can thillo</i>													
<i>thilly</i>													
<i>bull thistle</i>													
<i>blue weed</i>													
<i>CORRAC</i>													
<i>RHACATA</i>													
<i>2 primorok</i>													
<i>red cap</i>													

Feature 47

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: CRBP	POLYGON: 3
	SURVEYOR(S): ART	DATE: Sept 28, 2010
	START: GNB	UTM2: /
		UTM1: /

ELC PLANT SPECIES LIST	SITE: CRBP
	POLYGON: 3
	DATE: Sept 28, 2010
	SURVEYOR(S): ART

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

HT CODES: 1 => 25 m 2 = 10<HT. 25 m 3 = 2<HT. 10 m 4 = 1<HT. 2 m 5 = 0.5<HT. 1 m 6 = 0.2<HT. 0.5 m 7 = HT < 0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 80%

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Reed Cany Meadow Marsh	CODE: MAM 2.2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
Reed Cany												
Jewelweed												
Bl. V. V.												
Bigger Fish												
Red Aster												

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GR EP POLYGON: P2

SURVEYOR(S): ART DATE: Sept 20, 2010 UTM E:

START: END: UTM Z: UTM N:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	6	4	<u>Grass 7 clear</u>
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

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

STAND COMPOSITION: BA:

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Hay CODE: Hay

INCLUSION CODE:

COMPLEX CODE:

Notes:

No feature

ELC PLANT SPECIES LIST

SITE: GR EP POLYGON: P2

DATE: Sept 20, 2010 SURVEYOR(S): ART

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

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
<u>Un clear</u>													
<u>Red clay</u>													
<u>w. carpet</u>													
<u>short leaf</u>													
<u>thinly</u>													
<u>land</u>													

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GRBP
POLYGON: F3
SURVEYOR(S): ART
DATE: Sept 28, 2010
START: GMB
UTME: ~~UTME~~
UTMZ: ~~UTMZ~~
UTMAY: ~~UTMAY~~

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

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

Notes:

ELC
PLANT SPECIES LIST

SITE: GRBP
POLYGON: F3 No feature
DATE: Sept 28, 2010
SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
Red clover												
W. carnif												
Bird's foot trefoil												
Timothy												
Chickory												
W. clover												

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>CRBP</i>	POLYGON: <i>F4</i>	
	SURVEYOR(S): <i>ART</i>	DATE: <i>Sept 28, 2010</i>	UTME
	START: _____ END: _____	UTMZ	UTMN

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: <i>Soybean</i>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: <i>GREP</i>
	POLYGON: <i>F4</i>
	DATE: <i>Sept 28, 2010</i>
	SURVEYOR(S): <i>ART</i>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	



W:\active\60960577\Drawing\GIS\MXD\NaturalHeritageAssessment\60960577_DRAFT_ELCs\5_WindFarm_201010214_PW.mxd - 12/15/2010 @ 11:25:22 AM

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6*- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6*- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3*- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5*- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6*- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11*- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*- Green Ash Mineral Cultural Woodland
 - CUW1-5*- Maple-Ash Cultural Woodland
 - CUW1-6*- Green Ash Cultural Woodland
 - CUW1-7*- Red maple Mineral Cultural Woodland
 - CUP3-12*- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.


Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 13

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



 Stantec	Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493	Wildlife Habitat Assessment
	Project Number: <u>160960577</u>	

Date / Time: <u>22-Dec-2010</u>	Field Personnel: <u>Melissa Straus</u>
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Weather Conditions:	Temp: <u>-5° - -1°</u>	Wind: <u>0</u>	Cloud: <u>50%</u>	PPT: <u>none</u>	PPT in last 24 hrs: <u>none</u>
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> BWA SNBU HOSP				

Driving survey
8:00 AM - 4:00 PM

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : _____

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrub logs at pond edge

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Gray Dogwood Cultural Thicket	CODE: CUT1-4
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Pic 1916 - 1b = Cornus dominant
(w R.C. grass - low level)
Pic 1916 g.c.

No-feature

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 13-10
	DATE: 21-Dec-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
Poplar	R					Cum sp.						
FRAPPEN.						H. sp.						
Red Cedar						Goldenrods						
Hawthorn												
Gray Dogwood			D									
						Red Canary grass				D in lb.		

Feature 48

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA:

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Fresh-moist Red Oak Shagbark Hickory	CODE: F019-L*
INCLUSION Dec. Forest	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 13-2
	DATE: 21-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
CAROVAT	R											
PINSTRO	O											
FRAPENN	O											
QUERUBR	O											
CORRACE				O								

4/2/10

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

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

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

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

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
White Pine Coniferous Plantation	CP3-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

10-15 years old - btw 2 rows

No feature

ELC PLANT SPECIES LIST	SITE: Samsung.	
	POLYGON: 13-3	
	DATE: 21-Dec-2010	
	SURVEYOR(S): M. Strain	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
PINSTRO	D				

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

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

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

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

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

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

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

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

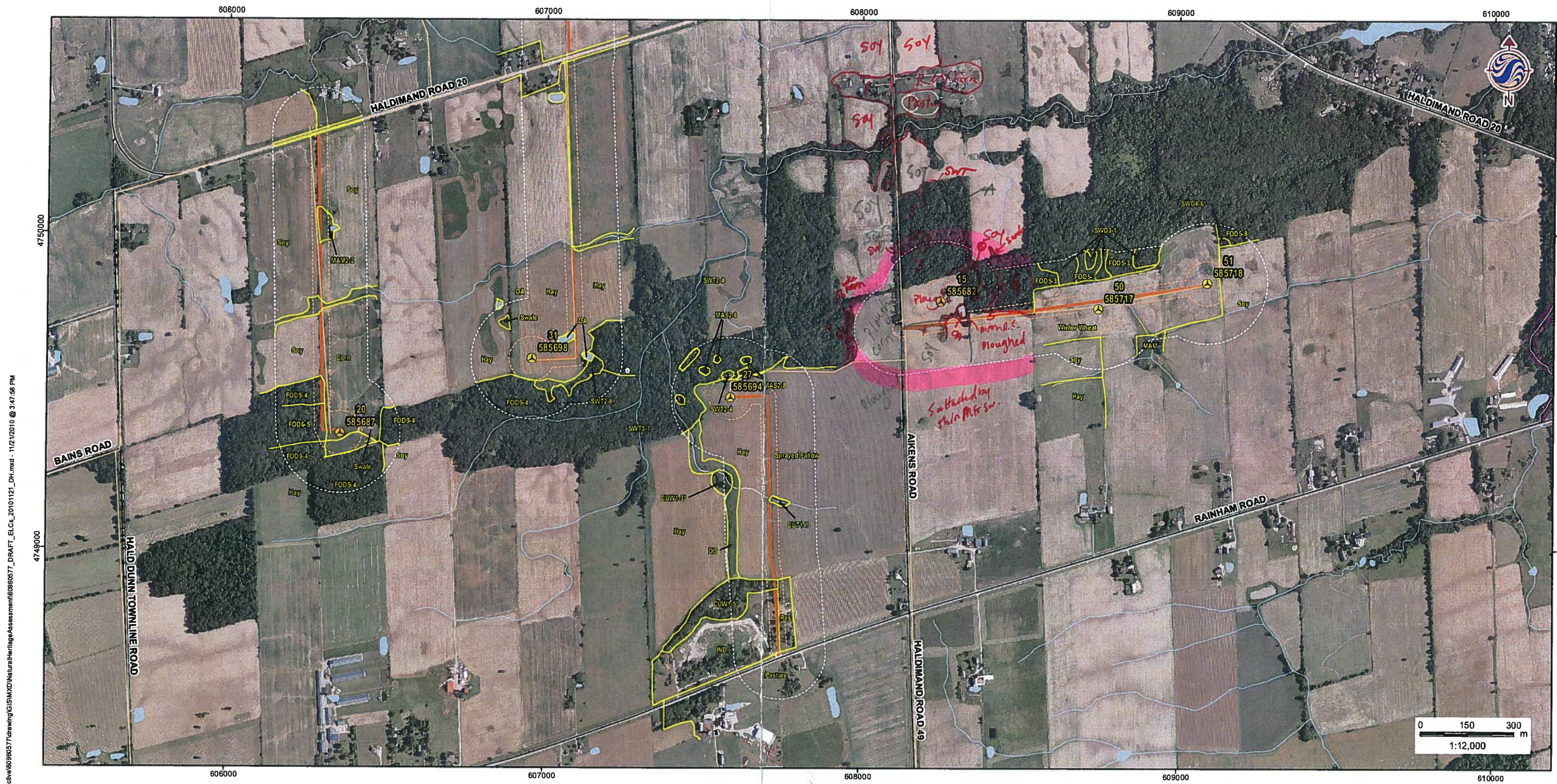
COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		



W:\active\60996577\drawing\GIS\MXD\NaturalHeritage\Assessment\60996577_DRAFT_ELCs_20101121_DH.mxd - 11/21/2010 @ 3:47:58 PM

November 2010
160960577



- Legend**
- 120m Investigation Zone (V3)
 - Proposed Turbine Location (V3)
 - Access Road Centre Line (V3)
 - Proposed Collector Line (V2 Sept 30)
 - ROW Installation Zone (V3)
 - Substation Property
 - Road
 - Transmission Line (OBM)
 - ELC Communities
 - Provincially Significant Wetland
 - Non-Provincially Significant Wetland
 - Watercourse (OBM)
 - Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp
- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh

- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Norway Maple Mineral Cultural Woodland
 - CUW1-6- White Elm Cultural Woodland
 - CUW1-7- Red Maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation




Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N)
2. Data Sources: Ontario Ministry of Natural Resources
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE????
4. Produced using the Version 3 site plan provided by Samsung issued on October 18, 2010

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
DRAFT TILE 14

Title
**ELC VEGETATION
COMMUNITIES**

 Stantec		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		Wildlife Habitat Assessment	
Project Number <u>160960577</u>		Project Name: <u>Samsung Wind+Solar</u>			
Date / Time: <u>0-Dec-2010 10:30-17:00</u>		Field Personnel: <u>Melissa Strauss</u>			
Weather Conditions:	Temp: <u>-2°C</u>	Wind: <u>4</u>	Cloud: <u>50%</u>	PPT: <u>1.15 Snow</u>	PPT in last 24 hrs: <u>Snow</u>

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

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> BOCH/OB GCKI/OB Treesparrow/OB RBWO/OB AmCR/OB DOWO/VO	Eastern Cottontail-OB Deer-TK Raccoon-TK			

RB
 1/02

Feature 49

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Turbines 585682 (A)

Approximate age of stand 60-80 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

① 10 loose bark, 20cm DBH, 7-8m / 3 @ 35cm 6-8m no loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Snag - ①	20m	30	8	small
②	18m	35-40	8-18	small-med
③ LIVE	45	45	15m-18m	small-med-large
Snag ④	10m	50	8m	hollow no bark
⑤ x 2	1-3m	25-30	1-2	small

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe some old logging

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrub logs at pond edge
1	608159. 4750048	10 cm	10m	no	logs ✓ veg - no
2	608207. 4750009	5cm	25m	no	logs in veg

Date: _____

Feature 49+51

Wind.

FIG CONTINENTAL DESIGNATION CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTM:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ULMAMEL
2 SUB-CANOPY	3	4	ULMAMEL & MYRIL
3 UNDERSTOREY	4	4	CORRACE & RHACATH
4 GRD. LAYER	5-7	4	Canopy grass

HT CODES: 1=>25m 2=10-4HT:25m 3=2-4HT:10m 4=1-4HT:2m 5=0.5-4HT:1m 6=0.2-4HT:0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:					BA:
SIZE CLASS ANALYSIS:	M < 10	O 10-24	R 25-50	M > 50	
STANDING SNAGS:	M < 10	R 10-24	M 25-50	M > 50	
DEADFALL / LOGS:	M < 10	R 10-24	R 25-50	M > 50	
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT					
COMM. AGE:	PIONEER	YOUNG	X MID-AGE	MATURE	OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Fresh-moist white Elm Lowland Dec. For	FOD7-1 ✓
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pic 1881-882 - bottomland Elm or caw stream feature

SITE:	Sampling
POLYGON:	1
DATE:	2-Dec-2010
SURVEYOR(S):	M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	Code	Code
ULMAMEL		
ULMAMEL R		
Red Canopy Grass		O
Goldenrod sp.		R
Apple	R	
Vitis sp.		O
CORRACE		O
RHACATH		O

Feature 49

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ALB SACS > FAG GRAN > TILAMER
2 SUB-CANOPY	2	4	FAG GRAN > ALB SACS
3 UNDERSTOREY	3	4	FAG GRAN > OST VIRG < ALB SACS [> CAR OVALE (inclusions)
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10 - 24	O 25 - 50	R > 50
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STANDING SNAGS:	N < 10	O 10 - 24	O 25 - 50	N > 50
-----------------	--------	-----------	-----------	--------

DEADFALL / LOGS:	O < 10	O 10 - 24	O 25 - 50	R > 50
------------------	--------	-----------	-----------	--------

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:
 TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:
 COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: CODE:
 Dry fresh Sugar Maple - Beech Dec Forest FODS-2 ✓
 INCLUSION Silky Dogwood Mineral Thicket Sw CODE: SWT 2-8 ✓
 COMPLEX Inclusion Willow Mineral Dec. Swamp CODE: SW124-1 ✓

Notes: Dec 1854 - SWT - Silky Dogwood. 1857 - FOD
 1855 - Swamp - Kentucky Redstart, very - less dense.
 1856 - willow Swamp - Rolling, Fairly moist

ELC PLANT SPECIES LIST	SITE: <u>Samburg</u>	
	POLYGON: <u>3</u>	
	DATE: <u>2-Dec-2010</u>	
	SURVEYOR(S): <u>M. Strans</u>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FAG GRAN	0	0	0	-	
QUEALBA	R				
PINSTRO	R				edge
ALB SACS	0	0	0	-	
CAR OVALE	R				
ACERUBR	R				
QUERUBR	R				
TILAMER	L	O			
OST VIRG			O		
CAR CARO			R		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Beech drop s.					O
Red Coniferous					R - localized

Feature 49

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	3	ULM PAPER = 1
2 SUB-CANOPY	2	2	ULM PAPER = ALB FREE
3 UNDERSTOREY	3	2	CORRACE
4 GRD. LAYER	5-7	4	Red Canary Grass

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-0.5 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	N	< 10	R	10 - 24	N	25 - 50	N	> 50
DEADFALL / LOGS:	N	< 10	R	10 - 24	R	25 - 50	N	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: CODE:
 White Elm Mineral Deciduous Swamp SWD4-2 ✓
 INCLUSION CODE:
 COMPLEX CODE:

Notes: - Open marm w Eu
 - Easwamp + Mfr along creek.

R. 11861
 Fairly open
 50% - 75%
 cover.

ELC PLANT SPECIES LIST	SITE: Samscup	
	POLYGON: 5	
	DATE: 2-Dec-2010	
	SURVEYOR(S): M. Straus	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ULM PAPER	0	0			
ALB FREE	0	0			
CORRACE					
GRACE	0				

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Red Canary				A	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTM E
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL, UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> SOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; ABOUT EQUAL TO)
1 CANOPY	1	4	ALCESALS? FAGUS & CAROVAT
2 SUB-CANOPY	2	4	
3 UNDERSTOREY	3	4	OSTVIRG & CAROVAT
4 GRD. LAYER			

HT CODES: 1 = >25 m 2 = 10<HT: 25 m 3 = 2<HT: 10 m 4 = 1<HT: 2 m 5 = 0.5<HT: 1 m 6 = 0.2<HT: 0.5 m 7 = HT<0.2 m
 CVR CODES 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION:					BA:			
SIZE CLASS ANALYSIS:	A	< 10	3	10 - 24	0	25 - 50	R	> 50
STANDING SNAGS:	N	< 10	R	10 - 24	N	25 - 50	✓	> 50
DEADFALL / LOGS:	D	< 10	0	10 - 24	0	25 - 50	N	> 50
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT								
COMM. AGE:		PIONEER	YOUNG	MID-AGE	✓	MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Fresh-moist Sugar Maple-Hardwood	FODo-S ^h sw
INCLUSION	CODE:
Decid. Forest	
COMPLEX	CODE:

Notes: FOD9-4 in some parts
Maple Sugar + other hardwoods

Feature 49

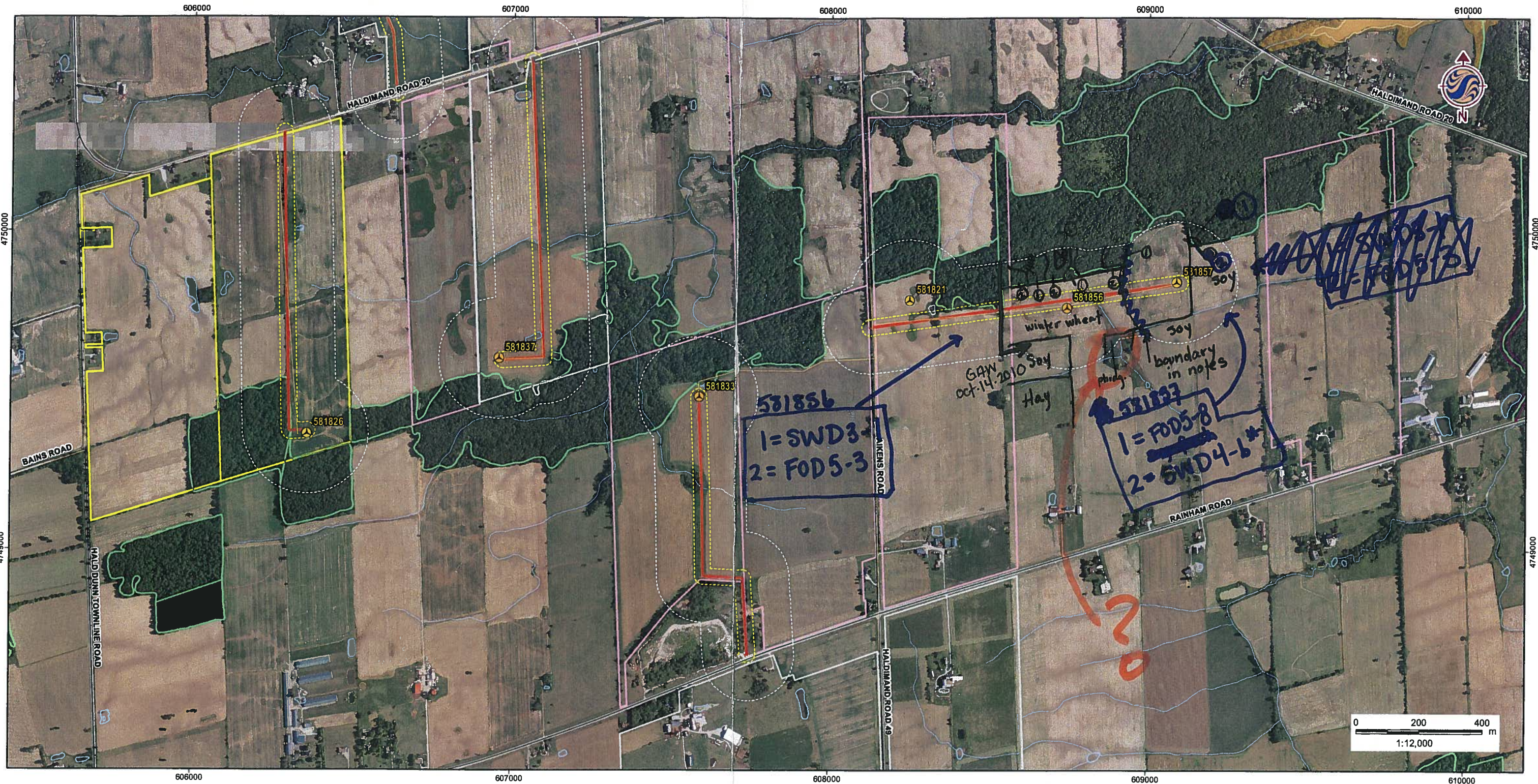
ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 6	
	DATE: 2-Dec-2010	
	SURVEYOR(S): M. Stran	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CAROVAT	0				
ALCESALS	0				
EMELGAN	0				
QUERUAL	R				
TILANER	R				
OSTVIRG			0		
CARCARU				R	

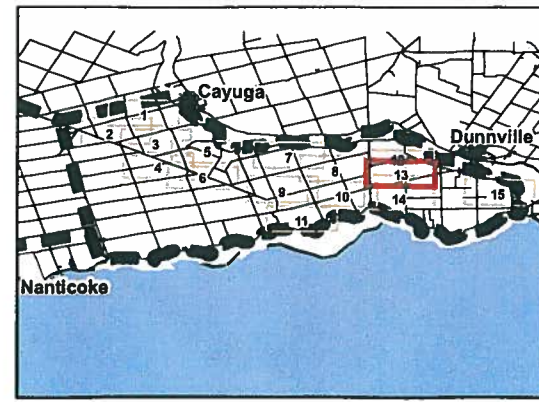
SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CAROVAT					
ALCESALS					
EMELGAN					
QUERUAL					
TILANER					
OSTVIRG					
CARCARU					
Care of					D

W:\active\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\FldMap\60960577_FIELDMAP_ProjectLocation_Mapbook_20100821_PW.mxd - 9/22/2010 @ 12:15:19 PM



Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



**ORIGINAL
Don't Throw
out**

- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 13

Title
PROJECT LOCATION MAP

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: 0	
	SURVEYOR(S): GAW	DATE: Oct 14, 2010	UTME:
	START:	END:	UTMZ:
	UTMN:		

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input checked="" type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input checked="" type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	4	Common reed = reed canary
2 SUB-CANOPY	5	4	"
3 UNDERSTOREY	6-7	4	"
4 GRD. LAYER			

HT CODES: 1=>25 m 2=10<HT<25 m 3=2<HT<10 m 4=1<HT<2 m 5=0.5<HT<1 m 8=0.2<HT<0.5 m 7=HT<0.2 m
CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
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STANDING SNAGS:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
-----------------	-------------------------------	----------------------------------	----------------------------------	-------------------------------

DEADFALL / LOGS:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
------------------	-------------------------------	----------------------------------	----------------------------------	-------------------------------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
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SOIL ANALYSIS:	
TEXTURE:	DEPTH TO MOTTLES / GLEY g = G =
MOISTURE:	DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS: Marsh	CODE: MA
COMMUNITY SERIES: Meadow Marsh	CODE: MAM
ECOSITE: Mineral Meadow Marsh	CODE: MAM2
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Feature 50
	POLYGON: Turbine 581856
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
Common reed	A	A	A										
Reed canary	A	A	A										
ULMAMER	R												
CORSTOL		O											

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<.25m 3=2<HT<.10m 4=1<HT<.2m 5=0.5<HT<.1m 6=0.2<HT<.0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:	BA:
--------------------	-----

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
----------------------	------	---------	---------	------

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
-----------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
------------------	------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
------------	----------	-------	---------	--------	------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
----------	-------------------------	-----	----

MOISTURE:	DEPTH OF ORGANICS:	(cm)
-----------	--------------------	------

HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)
------------------------	-------------------	------

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

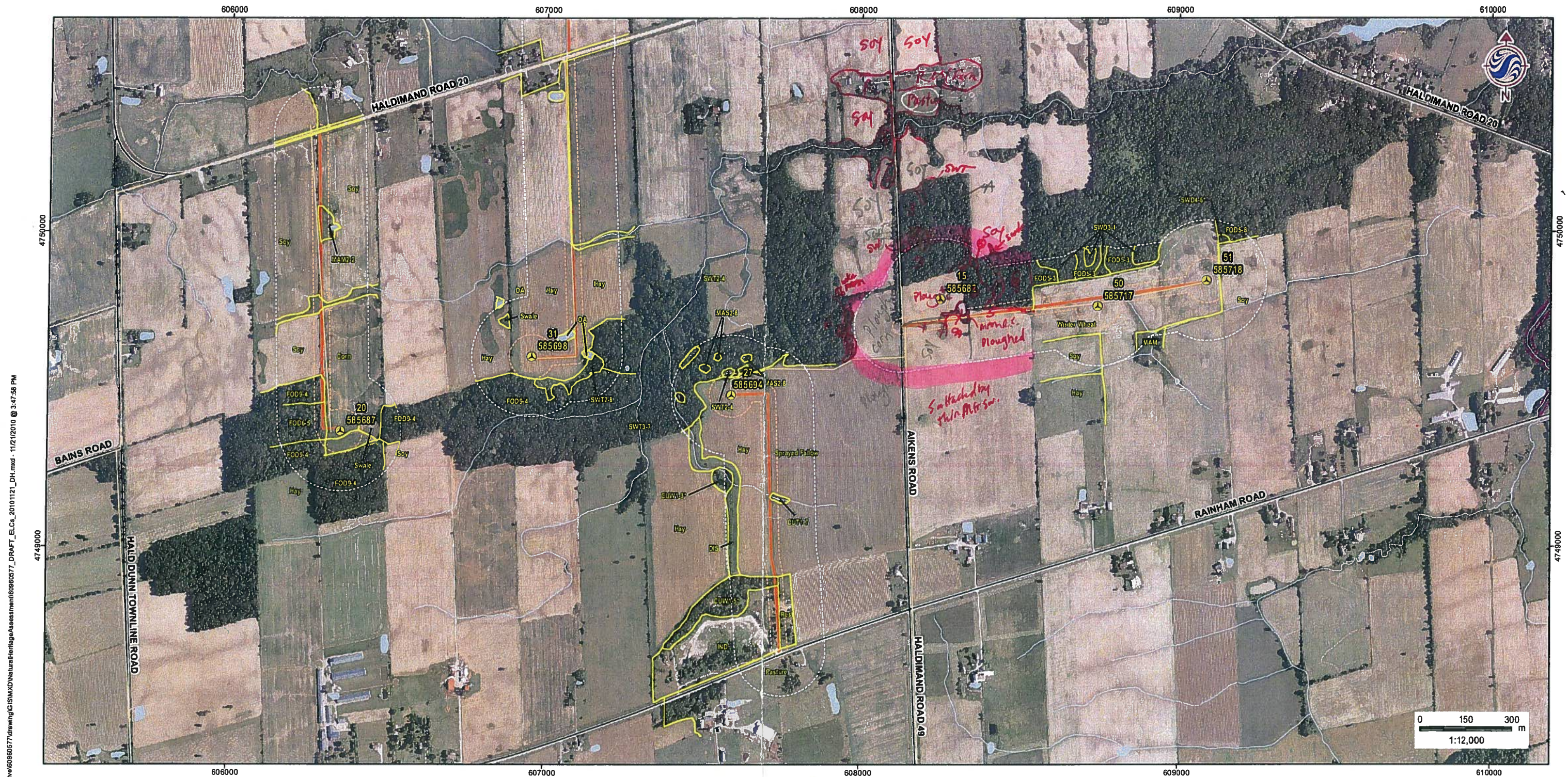
Notes:

ELC PLANT SPECIES LIST	SITE:	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	



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November 2010
160960577

Legend

- 120m Investigation Zone (V3)
- Proposed Turbine Location (V3)
- Access Road Centre Line (V3)
- Proposed Collector Line (V2 Sept 30)
- ROW Installation Zone (V3)
- Substation Property
- Road
- Transmission Line (OBM)
- ELC Communities
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6*- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6*- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3*- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6*- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWD4-2- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-13*- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp
- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11*- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh

- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*- Green Ash Mineral Cultural Woodland
 - CUW1-5*- Norway Maple Mineral Cultural Woodland
 - CUW1-6*- White Elm Cultural Woodland
 - CUW1-7*- Red Maple Mineral Cultural Woodland
 - CUP3-12*- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*- White Spruce Coniferous Plantation

RBWD



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources
© Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 3 site plan provided by Samsung issued on October 18, 2010

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
DRAFT TILE 14

Title
**ELC VEGETATION
COMMUNITIES**

Feature 49+51

Wind.

	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

	SITE: Samsung	
	POLYGON: 1	
	DATE: 2-Dec-2010	
	SURVEYOR(S): M. Straus	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLATFORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE RIVERINE <input type="checkbox"/> BOTTOMLAND TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ULMAMEL
2 SUB-CANOPY	3	4	ULMAMEL 7 APPLE
3 UNDERSTOREY	4	4	CORRACE 5 RHACATH
4 GRD. LAYER	5-7	4	CANOPY 2 1/2

HT CODES: 1=>25m 2=10-41;25m 3=2-41;10m 4=1-41;2m 5=0.5-41;1m 6=0.2-41;0.5m 7=HT<0.2m
 CVR CODES: N=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: M < 10 O 10-24 R 25-50 N > 50

STANDING SNAGS: M < 10 R 10-24 N 25-50 N > 50

DEADFALL / LOGS: M < 10 R 10-24 L 25-50 N > 50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
 COMM. AGE: PIONEER YOUNG X MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: CODE:
 Fresh-moist white Elm Lowland Dec Fr FOD7-1 ✓
 INCLUSION CODE:
 COMPLEX CODE:

Notes: pic 1851-82 - bottomland Elm or caw Stream feature

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	Code	Code
ULMAMEL D		
ULMAMEL R		
Red Canary Grass		O
Goldenrod sp.		R
Apple		R
Vitis sp.		O
CORRACE		O
RHACATH		O

ELC
COMMUNITY DESCRIPTION CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTM: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	NATURAL / CULTURAL	PLANT COMMUNITY	COMMONNESS
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> SLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

SITE

OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	7	3	ACESACS
2 SUB-CANOPY	2		
3 UNDERSTOREY	3	4	Hawthorn
4 GRD. LAYER	5-7		Seedlings - Hawthorn?

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-1 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:

N	< 10	0	10 - 24	R	25 - 50	N	> 50
---	------	---	---------	---	---------	---	------

STANDING SNAGS:

N	< 10	N	10 - 24	R	25 - 50	N	> 50
---	------	---	---------	---	---------	---	------

DEADFALL / LOGS:

N	< 10	R	10 - 24	R	25 - 50	N	> 50
---	------	---	---------	---	---------	---	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = _____ G = _____

MOISTURE: DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: _____ CODE: _____

Dry fresh Sugar Maple Dec. Forest Type FODS-1

INCLUSION: _____ CODE: _____

COMPLEX: _____ CODE: _____

Notes:

Young forest - Hawthorn undergrowth
 1/2/20

Feature 21

ELC
R/VNT
SERIES
LTP

SITE: Samsung

POLYGON: 28

DATE: 2 Dec 2010

SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4
ACESACS	0	0	0	0
PANSACO	R			
TILAMER	R			
Hawthorn				A

(Feature 51)

Feature 51

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEORK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	2	HP FREE
2 SUB-CANOPY			
3 UNDERSTOREY	4	2	CORRACE
4 GRD. LAYER			

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2<HT: 10 m 4 = 1<HT: 2 m 5 = 0.5<HT: 1 m 6 = 0.2<HT: 0.5 m 7 = HT<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR : 10% 2 = 10 < CVR : 25% 3 = 25 < CVR : 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
----------------------	------	---------	---------	------

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	<input checked="" type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
------------	---	--------------------------------	----------------------------------	---------------------------------	--

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: <i>MAM</i>
INCLUSION	CODE:
COMPLEX	CODE:

Notes: *Unk. dead Forbs
Pic # 1862*

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>
	POLYGON: <i>5b</i>
	DATE: <i>2-Dec-2010</i>
	SURVEYOR(S): <i>M. Struus</i>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.												
	1	2	3	4			1	2	3	4													
<i>HP FREE R</i>																							

Feature 51

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAPPEN 7 COR RACE
2 SUB-CANOPY	2	4	
3 UNDERSTOREY	3	4	COR RACE
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<.25m 3=2<HT<.10m 4=1<HT<.2m 5=0.5<HT<.1m 6=0.2<HT<.0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR<.10% 2=10<CVR<.25% 3=25<CVR<.60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 A 10-24 R 25-50 N > 50

STANDING SNAGS: N < 10 R 10-24 N 25-50 N > 50

DEADFALL / LOGS: < 10 10-24 25-50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT
 COMM. AGE: PIONEER YOUNG N MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: CODE:
 Green Ash Mineral Decid. Swamp SWD2-2
 INCLUSION CODE:
 COMPLEX CODE:

Notes:

Pic 1863.

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 7	
	DATE: 7-Dec-2010	
	SURVEYOR(S): M. Strauss	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
PRE FREE					O
FRAPPEN					O
COR RACE					O
LUBALLE					R

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Red Canopy					O

Feature 51



W:\active\160960577\drawing\GIS\MXD\NaturalHeritageAssessment\FinalMap\160960577_FIELDMAP_ProjectLocation_Mapbook_20100921_PW.mxd - 9/27/2010 @ 5:35:56 PM

605431 606431 607431 608431 609431 4750308 4749308 4750308 4748308
September 2010 160960577



Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



- Notes**
- Coordinate System: UTM NAD 83 - Zone 17 (N).
 - Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 - Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 14

Title
PROJECT LOCATION MAP



Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Wildlife Habitat Assessment

Project Number: 160960577 Project Name: Samsung
 Date / Time: 3-Oct-2010 Field Personnel: Melissa Straus

Weather Conditions:	Temp: <u>7-10°C</u>	Wind: <u>4-5</u>	Cloud: <u>100%</u>	PPT: <u>light-heavy rain</u> <u>5-10mm</u>	PPT in last 24 hrs: <u>none</u>
---------------------	---------------------	------------------	--------------------	---	---------------------------------

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO SAGR-OB SOSP-OB POWD-VO CAGO-OB RWBL-VO NOLA-OB AMRO-VO TLNU-OB	Deer-TK Coyote-SC Gray Squirrel-OB			

COYE-VO
WOTH-HO
GIKI-OB

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): A - Feature 51

Approximate age of stand 50

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand 51: QUEPUB mostly - scattered

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

~3 trees/ha 3@ 30cm DBH, 2-3m tall, no loose bark; 1 w loose bark Ea 15m tall DBH ~25cm

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	5-15m	25-35cm	5-10	Small

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

50

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Some old logging, few small trails

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

5-Oct-2010

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): (B) Feature 51

Approximate age of stand 50 years

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. ~6/ha mostly broken top, mostly without loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
		15-35cm	2m-15m	Small

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe old logging, minor trails

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
1	<u>607200 4749384</u>	10-20cm	15m	no	Dogwood

Pic #1584

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : _____

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) **trees present** Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs. logs at pond edge

Feature 51

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: 2		
	SURVEYOR(S): ms	DATE: 5 Oct - 2010	UTME:	
	START: 1030	END: 1100	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input checked="" type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	1	Willow sp.
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	4-7	4	Grass >> Goldenrod > P.S. Aster

HT CODES: 1 = >25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	R < 10	N 10 - 24	N 25 - 50	N > 50
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STANDING SNAGS:	N < 10	N 10 - 24	N 25 - 50	N > 50
DEADFALL / LOGS:	N < 10	N 10 - 24	N 25 - 50	N > 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Marsh CODE: MA
COMMUNITY SERIES: Meadow Marsh CODE: MAM
ECOSITE: Mineral Meadow Marsh CODE: MAM2
VEGETATION TYPE: Swale
Red canary Grass Mineral Meadow Marsh CODE: MAM2-2
INCLUSION CODE:
COMPLEX CODE:

Notes: PIC1575. - Swale

1574

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 2
	DATE: 5-Oct-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
SALDISG	R				✓
Red Canary Grass				D	
P. Stem Aster				O	
Flat top W Aster			R		
Killrush			R		✓
Goldenrod sp			O		

Feature 52

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung		POLYGON: 1	
	SURVEYOR(S): M.S.		DATE: 5-Oct-2010	UTME:
	START: 10:00	END: 10:30	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input checked="" type="checkbox"/> OPEN <input checked="" type="checkbox"/> SHRUB <input type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	1	Salix sp.
2 SUB-CANOPY	2-3	2	CORSTOL > RUBIDEA = Stag Sumac
3 UNDERSTOREY			
4 GRD. LAYER	4-7	4	Purple stem aster & Reed Canary Grass * Goldenrod sp.

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-1m 7 = HT < 0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:					BA:
SIZE CLASS ANALYSIS:					
	0 < 10	N 10 - 24	N 25 - 50	N > 50	
STANDING SNAGS:	N < 10	N 10 - 24	N 25 - 50	N > 50	
DEADFALL / LOGS:	N < 10	N 10 - 24	N 25 - 50	N > 50	
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT					
COMM. AGE:	<input checked="" type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH

SOIL ANALYSIS:	
TEXTURE:	DEPTH TO MOTTLES / GLEY g = G =
MOISTURE:	DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS: Marsh	CODE: MA
COMMUNITY SERIES: meadow marsh	CODE: MAM
ECOSITE: Mineral Meadow Marsh	CODE: MAM 2
VEGETATION TYPE: Reed-canary Grass Mineral Meadow Marsh	CODE: MAM 2-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Multiple Deer bed locations.

Transitions from HR to SWT to cum in 85m x 40wide.

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: #1	
	DATE: 5-Oct-2010	
	SURVEYOR(S): M. Straws	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

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NOFA

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
PURSTEM	R				
Teasel				O	
AST Purplestem				A	
Wild Carrot				A	
B. Foot Trefo				O	
Reed Canary Grass				A	
Flat top white Aster				R	
Goldenrod sp					
Grass Riverbank				O	
RUBIDEA				O	
Staghorn Sumac				R	
B. Aster sp.	R				
CORSTOL	O				
B					
Goldenrod sp				A	

Feature 51

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung		POLYGON: 3	
	SURVEYOR(S): MS		DATE: 5-OCT-2010	
	START: 11:00	END: 12:00	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUELUWR > CAROVAT > FRAMER
2 SUB-CANOPY	2	4	ACESACS < CAROVAT
3 UNDERSTOREY	3-4	4	ULMAMER, OPRAGRAN, ACESACS
4 GRD. LAYER	5-7	3	ACESACS > FRAMER

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: < 10 10 - 24 25 - 50 > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:
TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:
COMMUNITY CLASS: Forest CODE: FO
COMMUNITY SERIES: Deciduous Forest CODE: FOD
ECOSITE: F-M Oak-Maple-Hickory Dec CODE: FOD9
VEGETATION TYPE: Fresh-moist Smagbark Hickory Dec Forest CODE: FOD9-6
INCLUSION CODE:
COMPLEX CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 3	
	DATE: 5-OCT-2010	
	SURVEYOR(S): M. Straw	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ACEFREE	R	R	-		
CAROVAT	O	O	-	R	
QUELUWR	O	-	O	R	
TILAME	R	R	R	R	
ACESACS	O	O	O	O	
FRAMER	O	K	R	O	
QUEMACR	-	-	-	-	
ACERUBR	R	R	R	R	
ULMAMER	-	-	O	-	
OSTVIRG	-	-	O	O	
PAGGRAN	R	R	O	R	
CARCARP	R	R	R	R	
FRAPENW	R	O	R	R	
FRANIGR	R	R	-	-	
FRQUERN					
CARSAROL	-	-	R		
E. Buchan	-	-	R		
Poison Ivy	-	-	R		
RUBALE	-	-	R	-	
FRAPEN	-	-	O		
Hawthorn	-	-	R	✓	
Prickly Ash	-	-	R	✓	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Sensitive Fern				R	
Maiden Hair				R	
Christmas Fern				R	
Buttercup				R	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	
	START:		UTMZ:	UTMN:
	END:			

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY		
2	SUB-CANOPY		
3	UNDERSTOREY		
4	GRD. LAYER		

HT CODES: 1=>25 m 2=10<HT<25 m 3=2<HT<10 m 4=1<HT<2 m 5=0.5<HT<1 m 6=0.2<HT<0.5 m 7=HT<0.2 m
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

Feature S1

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: 3 Inclusion	
	SURVEYOR(S): MS	DATE: 5-01-2010	UTME
	START: 11:00	END: 12:00	UTMZ
			UTMN

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> STRACKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	2	RHACATH > CAROL > CAROVAT
2 SUB-CANOPY			
3 UNDERSTOREY	4	4	Silky Downwood
4 GRD. LAYER	5-7	4	Scrub T.M. Nbt

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-0.5m 7 = HT < 0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10% < CVR < 25% 3 = 25% < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	R 10-24	N 25-50	N > 50
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STANDING SNAGS:	N < 10	N 10-24	N 25-50	N > 50
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DEADFALL / LOGS:	N < 10	N 10-24	N 25-50	N > 50
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ABUNDANCE CODES: N = NONE .. R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	Swamp	CODE:	SW
COMMUNITY SERIES:	Swamp Thicket	CODE:	SWT
ECOSITE:	Mineral Swamp Thicket	CODE:	SWT2
VEGETATION TYPE:	Silky Downwood Mineral Swamp Thicket	CODE:	SWT2-8
INCLUSION	(Within Habitat #3)	CODE:	
COMPLEX		CODE:	

Notes: PIZ #1576

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 3 Inclusion
	DATE: 5-01-2010
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CAROVAT	R	L			
RHURAD					O
OMP-CAROL					R
Silky Downwood					D
RHACATH					A

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Striped Nettle					O
Spotted T.M. Nbt					A
Ice Ply Wood					R
White Plat Ater					O
Frch Nightshade					R

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Samsung
SURVEYOR(S): MS
DATE: 5-OCT-2010
POLYGON: 4
UTME:
UTMZ:
UTMN:

START: 11:00
END: 13:00

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACESAEC >> CAROUAT < QUERUBR
2 SUB-CANOPY	2	4	ACESAEC > CAROUAT
3 UNDERSTOREY	3-4	4	ACESAEC > FAGGRAN
4 GRD. LAYER	5-7	4	ASTMACC > UINDOSP

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0= NONE 1= 0% < CVR : 10% 2= 10 < CVR : 25% 3= 25 < CVR : 60% 4= CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 O 10-24 O 25-50 R > 50

STANDING SNAGS: N < 10 O 10-24 O 25-50 N > 50

DEADFALL / LOGS: N < 10 O 10-24 O 25-50 N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G= (cm)
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Fresh moist - dominant CODE: FO
COMMUNITY SERIES: Deciduous Forest CODE: FOD
ECOSITE: Fresh-moist Sugar maple Dec CODE: FOD6
VEGETATION TYPE: Sugar Maple - Others (decid) CODE: FOD6-3
F-M Sugar maple - Hardwood (decid)

INCLUSION CODE:
COMPLEX CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: Samsung
POLYGON: 4
DATE: 5-oct-2010
SURVEYOR(S): MS

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESAEC	P	O	A	O		Christmas Fer				R	
TILAMER	R	O	R	R		IMP Spotted				R	
FRAPRMR	R	R	R	R		Sting Nettle				R	
LILAMER	-	R	R	-		ASTMACC				O	✓
CAROUAT	R	O	R	-		Beach Drops				R	
QUERUBR	R	O	R	-							
OSTVIRG	-	O	R								
ACERUBR	R	R	R	R							
FRAPRMR											
FRAPRMR		R									
KURPURE		O									
Bison Ly		R									
SAMCANA		R									
Hawthorn		R		✓		Vidua sp				O	
VIBmaple		R				Bu Heron sp				R	
						Goldenrover sp				R	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF	COVER	<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS	<input type="checkbox"/> OPEN	<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> SHRUB	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> TREED		<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
<input type="checkbox"/> BEDROCK					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25 m 2 = 10<HT. 25 m 3 = 2<HT. 10 m 4 = 1<HT. 2 m 5 = 0.5<HT. 1 m 6 = 0.2<HT. 0.5 m 7 = HT<0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	

ELC SITE: Samsung POLYGON: 6
 SURVEYOR(S): MS DATE: 5-OCT-2010
 START: END UTMZ UTMN

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	1	CORCARD > ALPINE / Salix sp.
2 SUB-CANOPY			
3 UNDERSTOREY	3-4	4	Silky Dogwood > RHACATH
4 GRD. LAYER	5-7	4	SPALBA > Reed Grass > Impatiens

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES: 0= NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: N < 10 R 10-24 N 25-50 N > 50

STANDING SNAGS: N < 10 O 10-24 N 25-50 N > 50

DEADFALL / LOGS: N < 10 R 10-24 N 25-50 N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: X PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE: SW
 COMMUNITY SERIES: CODE: SWT
 ECOSITE: CODE: SWT2
 VEGETATION TYPE: CODE:
 Silky Dogwood / Mineral Thicket Swamp SWT 2-8
 INCLUSION CODE:
 COMPLEX CODE:

Notes: P.C. 1579-1581
 Pond - + shrubby area + open
 + SWT
 P2, P2-1, P2-2, P2-3

Feature 51

ELC SITE: Samsung
 POLYGON: 6
 DATE: 5-OCT-2010
 SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CORCARD	R				
ALPINE	R				
WILDMER	R				
FRAPPEN	R				
RHACATH				R	
Salix sp	R				
Silky Dogwood				O-A	
SPALBA				O	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Spotted T.M. Nat					O
Red Canary					O
Sensitive Fern					R
Iris sp.					R
White Flt Aster					R
Shinnette					R
P.S. Aster					O
Goldenrod sp.					

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Samsung
POLYGON: 7

SURVEYOR(S): MS DATE: 5-Oct-2010

START: END: 15:30

UTME: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACEBALS > PINSTRO > PRAMER
2 SUB-CANOPY	2	4	ACEBALS & PRAPENN
3 UNDERSTOREY	3-4	4	PRAGLAN & OSTVIRG
4 GRD. LAYER	3-7	4	PRAMER > ACEBALS > PRWERO

HT CODES: 1= >25m 2= 10-25m 3= 2-10m 4= 1-2m 5= 0.5-1m 6= 0.2-0.5m 7= HT < 0.2m
CVR CODES: 0= NONE 1= 0% < CVR, 10% 2= 10% < CVR, 25% 3= 25% < CVR, 60% 4= CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	O 10-24	O 25-50	R > 50
STANDING SNAGS:	N < 10	O 10-24	O 25-50	N > 50
DEADFALL / LOGS:	N < 10	O 10-24	O 25-50	N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO

COMMUNITY SERIES: Mixed Forest CODE: FOM

ECOSITE: Dry-Forest White Pine-Maple-Oak CODE: FOM2

VEGETATION TYPE: Upland Mh. P. D-F White Pine-Sugar Maple Mixed Forest CODE: FOM2-2

INCLUSION CODE:

COMPLEX CODE:

Notes: Pine > 25% cover; but maple still dominant.

Feature 5)

ELC
PLANT SPECIES LIST

SITE: Samsung
POLYGON: 7

DATE: 5-Oct-2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
PINSTRO	0					Beech Drops					R
ALBALS	D	O	O	O							
ALRWISK	R	R	O	O							
PRAMER	O	R	R	R							
PRAPENN	O	R	R	O							
PRAGLAN		O	O	R							
QUICWISK	R	R	R	R							
PRWERO		R	R								
OSTVIRG		O	O								
PRWERO											
CARQUAT				R							
PRBOCCI				R							

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		

Feature 51

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: P2nd	
	SURVEYOR(S): ms	DATE: 5-Oct-2010	UTME
	START: 13:00	END: 18:00	UTMZ:
			UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL COVER <input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input checked="" type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	4-7	4	Reed canary grass >> Goldenrod

HT CODES: 1 = > 25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-10 m 5 = 0.5-1 m 6 = 0.2-1 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	N < 10	N 10-24	N 25-50	N > 50
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STANDING SNAGS:	N < 10	N 10-24	N 25-50	N > 50
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DEADFALL / LOGS:	N < 10	N 10-24	N 25-50	N > 50
------------------	--------	---------	---------	--------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	<input checked="" type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
------------	---	--------------------------------	----------------------------------	---------------------------------	-------------------------------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: P2 P2nd(s)	CODE: OAO
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes:

P1 - 15m diameter - Veg buffer - Pic# 1578-1577
 80m long - slope: No macrophyte or shrub cover

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: (P1) (P2) (P3) (P4) (P5)
	DATE: 5-Oct-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R=RARE O=OCCASIONAL A=ABUNDANT D=DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Reed Canary Grass				A	
Goldenrod				O	

P2 - Pic 1582 P4 - 1585
 P3 - Pic 1583
 P5 - Pic 1579

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:		
	SURVEYOR(S):		DATE:		UTME:
	START:	END:	UTMZ:		UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25 m 2=10<HT<25 m 3=2<HT<10 m 4=1<HT<2 m 5=0.5<HT<1 m 6=0.2<HT<0.5 m 7=HT<0.2 m
 CVR CODES: 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
----------------------	------	---------	---------	------

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
-----------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
------------------	------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
------------	---------	-------	---------	--------	------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	



W:\active\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\fieldmaps\60960577_FIELDMAP_ProjectLocation_Mapbook_20100821_PW.mxd - 9/27/2010 @ 5:35:56 PM

September 2010
160960577



Legend

- | | | | |
|--|----------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elexco Acquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 2

Title
PROJECT LOCATION MAP



Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Wildlife Habitat Assessment

Project Number

160960577

Project Name:

Samsung

Date / Time:

29-Sept-2010

Field Personnel:

Melissa Straus

Weather Conditions:	Temp: 13°	Wind: 1	Cloud: 40%	PPT: AM Fog	PPT in last 24 hrs: Heavy rain
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO HOLA/OB SASP/VO KILL/OB RBWO-VO BLJA-VO HAWO-VO OOCB-VO	COFE-VO ETHOM-VO RTHA-VO ADPO-VO			Pic 1556 - Giant Dragonfly

29-Sept-2010

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): B - Feature 5

Approximate age of stand 25 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 1%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) Not in 1

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Eg, loose bark: 2m T, 30cm dbh / 20cm T, 3m; no bark, 105 per/ha

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
also snag →	2m-15m- 18m	30cm- 40cm	1-15 15m	med large

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Cattle grazing, heavy. No understorey in area in Pink

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : _____

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) **trees present** Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs logs at pond edge

Feature 5

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: B1	
	SURVEYOR(S): MS	DATE: 29 Sept 2010	UTME:
	START:	END:	UTMZ:
			UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> SOG <input type="checkbox"/> BARRON <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER: <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	ACEFREE < FRAPENN > QUEMACR
2 SUB-CANOPY	3	3	ULMAME
3 UNDERSTOREY	3	3	CARCARO < OSTVIRG
4 GRD. LAYER	5-7	4	Grassy & Forst

HT CODES: 1=>25m 2=10-41.25m 3=2-41.10m 4=1-41.2m 5=0.5-41.1m 6=0.2-41.03m 7=HT<0.2m
CVR CODES: 0=NONE 1=0% < CVR : 10% 2=10 < CVR : 25% 3=25 < CVR : 50% 4= CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	R < 10	A 10-24	R 25-50	N > 50
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STANDING SNAGS:	N < 10	R 10-24	R 25-50	N > 50
-----------------	--------	---------	---------	--------

DEADFALL / LOGS:	N < 10	R 10-24	N 25-50	N > 50
------------------	--------	---------	---------	--------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	Swamp	CODE: SW
COMMUNITY SERIES:	Deciduous Swamp	CODE: SWD
ECOSITE:	Ash mineral Deciduous Swamp	CODE: SWD2
VEGETATION TYPE:	Green Ash Mineral Dec. Swamp	CODE: SWD2-2
INCLUSION		CODE:
COMPLEX		CODE:

Notes: Heavily grazed - but grassy understory
Pic 1567

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: B-1
	DATE: 29-Sept-2010
	SURVEYOR(S): MS

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACEBUBR	R					Flat topped					
ULMAME		O	O	O		White Aster				O	
CARCARO	R					Sensitive Fern				R	
ACEFREE	O	R				Boneset				O	- Eupatorium perfoliatum
FRAPENN	O	O	O			LYCUNI				R	
QUERUBR	R										
QUEMACR	O	R									
QUEBICO	R										
BARCARD		R									
OSTVIRG			O	O							
						Viola sp.				O	

ELC WILDLIFE	SITE: _____	
	POLYGON: _____	
	DATE: _____	
	SURVEYOR(S): _____	
	START TIME: _____	END TIME: _____

TEMP (°C): _____	CLOUD (10th): _____	WIND: _____	PRECIPITATION: _____
CONDITIONS: _____			

POTENTIAL WILDLIFE HABITAT:

<input type="checkbox"/> VERNAL POOLS	<input type="checkbox"/> SNAGS
<input type="checkbox"/> HIBERNACULA	<input type="checkbox"/> FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#
B	LABL	OB							
B	Fury	OB							
M	Deer	TK							
B	CAGO	OB							

Field

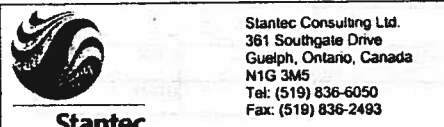
FAUNAL TYPE CODES (TY):
 B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):
BREEDING BIRD - POSSIBLE:
 SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:
 T = TERRITORY D = DISPLAY P = PAIR
 A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:
 DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG
 NE = EGGS NY = YOUNG FB = FOOD/FAECAL SACK
 AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
 OB = OBSERVED VO = VOCALIZATION CA = CARCASS
 DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS OR YOUNG
 TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT
 SI = OTHER SIGNS (specify)



Photography Log

Project Number _____ Project Name: _____

Date / Time: _____ Field Personnel: _____

Weather Conditions: Temp: _____ Wind: _____ Cloud: _____ PPT: _____ PPT in last 24 hrs: _____

Photo #:	Time:	Photo Description and Comments

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM <input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	SUBSTRATE <input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	TOPOGRAPHIC FEATURE <input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	HISTORY <input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	PLANT FORM <input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	COMMUNITY <input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 => 25 m 2 = 10 < HT < 25 m 3 = 2 < HT < 10 m 4 = 1 < HT < 2 m 5 = 0.5 < HT < 1 m 6 = 0.2 < HT < 0.5 m 7 = HT < 0.2 m
CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION:	BA:
---------------------------	------------

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
-----------------------------	------	---------	---------	------

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
------------------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
-------------------------	------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

Feature 5

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Samsung
POLYGON: B3

SURVEYOR(S): MS
DATE: 29-Sept-2010
UTME:

START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACEFREE > ACERUB > CAROUAT
2 SUB-CANOPY	2	4	ACEFREE > CAROUAT
3 UNDERSTOREY	3-4	4	ULMAMER
4 GRD. LAYER	5-7	3	RUBRUBE

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:

< 10	0	10-24	0	25-50	R	> 50
------	---	-------	---	-------	---	------

STANDING SNAGS: N < 10 0 10-24 R 25-50 R > 50

DEADFALL / LOGS: 0 < 10 0 10-24 R 25-50 R > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G = (cm)

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW

COMMUNITY SERIES: Deciduous Swamp CODE: SWD

ECOSITE: Maple Mineral Dec. Swamp CODE: SWD3

VEGETATION TYPE: Swamp Maple Mineral Deciduous Swamp CODE: SWD3-3

INCLUSION CODE:

COMPLEX CODE:

Notes: From property boundary (a)

ELC
PLANT SPECIES LIST

SITE: Samsung
POLYGON: B3

DATE: 29-Sept-2010
SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
ACEFREE	D	D	R									
ULMAMER	-	O	O	-		Calluna						
CAROUAT	R	O	R	R		see below for into forest						
ACERUB	O	O	R	-								
RUBRUBE												
RUBRUBE					O	Sedge sp					O	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT.25m 3=2<HT.10m 4=1<HT.2m 5=0.5<HT.1m 6=0.2<HT.0.5m 7=HT<0.2m
 CVR CODES 0= NONE 1= 0% < CVR , 10% 2= 10 < CVR , 25% 3= 25 < CVR , 50% 4= CVR > 50%

STAND COMPOSITION: BA:

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SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

ELC SITE: Samsung POLYGON: B4
 SURVEYOR(S): MS DATE: 29-Sept-2010
 START: END UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL, UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACEFREE > Sharp Hickory > QUEMACE
2 SUB-CANOPY	2	4	ACERUB > Sharp Hickory
3 UNDERSTOREY	3-4	4	OSTVIRG
4 GRD. LAYER	5-7	3	VIDA sp.

HT CODES: 1=>25m 2=10<HT.25m 3=2<HT.10m 4=1<HT.2m 5=0.5<HT.1m 6=0.2<HT.0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR, 10% 2=10<CVR, 25% 3=25<CVR, 60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	R < 10	A 10-24	O 25-50	N > 50
STANDING SNAGS:	N < 10	R 10-24	R 25-50	N > 50
DEADFALL / LOGS:	R < 10	O 10-24	R 25-50	N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW
 COMMUNITY SERIES: Dec. Swamp CODE: SWD
 ECOSITE: Maple Mineral Dec. Swamp CODE: SWD3
 VEGETATION TYPE: Swamp Maple Mineral Dec. Swamp CODE: SWD3-3
 INCLUSION: Dec. Swamp CODE:
 COMPLEX: CODE:

Notes: (6)

Feature 5

ELC SITE: Samsung POLYGON: B4
 DATE: 29-Sept-2010 SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACEFREE	O	R	-	-	-	Flat topped White Aster					R
QUEBICOL	R	R	-	-	-	Gross sp					O
SHARP HICKORY	O	O	R	-	-	Sedge sp					O
ALCERUB	O	O	R	-	-						
QUEMACE	R	R	-	-	-						
OSTVIRG	-	O	O	-	-						
FAGGRAN	-	R	R	-	-						
BITA HICKORY	-	R	-	-	-						
TI											
Hogpeanut				R		Viburnum sp					O

Feature 5

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Samsung

POLYGON: BS

SURVEYOR(S): MS

DATE: 29-Sept-2010

UTME:

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL, UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL COVER <input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			Pond ~ 10m radius
2 SUB-CANOPY			Depth ~ 0.5m
3 UNDERSTOREY			One use it. AGO + KULL using
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 9<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m

CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: ~ grass BA:

SIZE CLASS ANALYSIS:

< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

DEADFALL / LOGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:

PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Pond (cattle) CODE: OA

INCLUSION CODE:

COMPLEX CODE:

Notes:

pic / 565.

ELC PLANT SPECIES LIST

SITE: Samsung

POLYGON: BS

DATE: 29-Sept-2010

SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.						
	1	2	3	4			1	2	3	4							
no bank veg.						Gross on bank						No edge or submergual veg.					



W:\active\60960577\drawing\GIS\MXD\Natural\HabitatAssessment\field\Map\60960577_FIELDMAP_ProjectLocation_Mapbook_20100921_PW.mxd - 9/27/2010 @ 5:35:56 PM

September 2010
160960577



Legend	
	Project Location
	Proposed Turbine Location
	Proposed Access Road
	Proposed Collector Line
	ROW Installation Zone
	120m Investigation Zone
	Elenco Aquired Agreements
	Government Lands
	UDI Lands
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant

*4:30 AM
MSR Oak w*



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 1

Title
PROJECT LOCATION MAP



Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Wildlife Habitat Assessment

Project Number
160960577

Project Name:
Samsung

Date / Time:
29-Sept-2010

Field Personnel:
Melissa Straus

Weather Conditions:	Temp: <u>13°</u>	Wind: <u>1</u>	Cloud: <u>40%</u>	PPT: <u>AM Fog</u>	PPT in last 24 hrs: <u>Heavy rain</u>
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>By field</i> i.e. AMRO/VO HOLA/OB SASP/VO KILL/OB RBWO-VO BLJA-VO HAWO-VO RBGP-VO COYE-VO GHOM-VO RTHA-VO AMRO-VO				Pic 1556 - Giant Orbweaver

Feature 7

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): (A) for turbines 581841; 52,48.

Approximate age of stand ~ 40 years

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 1%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) Throughout -

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

- Ⓐ - 30cm DBH, loose bark, ↑ 22m
- Ⓑ - 35cm DBH, loose bark, ↑ 20m
- Ⓒ - 45cm, ↑ 25m No
- Ⓓ - 4-18m, DBH=20cm No
- Ⓔ - 1m - ↑ 90m; 30cm DBH

OVERALL
20-30cm DBH
4-20m tall
some loose bark
15m ↑, 30cm dbh
no loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

snag → Ⓒ
snag →
snag →

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Soft maple	4m	25cm	2-4m	Small, large
SB Hickory	22m	35cm	1m	large/hollow
FAGGRAN	15m	35cm	8m	large
Be	8m	25cm	1.5m-8	Small-medium
Be	15m	30cm	10-15m	Med.

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
11	11, 100 340	30cm	3m	No	

Feature 7

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Samsung</u>		POLYGON: # <u>1</u>	
	SURVEYOR(S): <u>MS</u>		DATE: <u>29-Sept-2010</u>	UTM:
	START: <u>09:00</u>	END: <u>10:00</u>	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	1	ACEFREE = ACERUBR = QUFMACR
2 SUB-CANOPY	4	3	Silky dogwood > ULMAMER > ACEFREE; SPIALBA
3 UNDERSTOREY	5	4	Aster sp = goldenrod > Rubus
4 GRD. LAYER	6-7	4	Sedge sp. > grass sp. >> Sensitive Fern

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-2m 6 = 0.2-1m 7 = 0.1-0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION:

BA: _____

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
	0	N	N	N

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
	M	N	N	N

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
	M	N	M	N

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	<u>Swamp</u>	CODE: <u>sw</u>
COMMUNITY SERIES:	<u>Swamp Thicket</u>	CODE: <u>swT</u>
ECOSITE:		CODE: <u>swT2</u>
VEGETATION TYPE:	<u>Silky Dogwood Mineral Thicket Swamp</u>	CODE: <u>swT2-8</u>
INCLUSION		CODE:
COMPLEX		CODE:

Notes: 1p - Had Hawthorn
Pic 1555

ELC PLANT SPECIES LIST	SITE: <u>Samsung</u>	
	POLYGON: # <u>1</u>	
	DATE: <u>29-Sept-2010</u>	
	SURVEYOR(S): <u>MS</u>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ACERUBR	R	R	-	-	
FRAMER	-	R	-	-	
QUERUBR	R	R	-	-	
ULMAMER	-	R	-	-	
QUEMACR	R	R	-	-	
QUESWAMP	-	R	-	-	
ACEFREE	R	R	O	-	
Hawthorn	-	R	-	-	
RUBPUBE	-	R	-	-	
River hake	-	R	-	-	
RUBIDEA	-	R	-	-	
SPIALBA	-	O	-	-	
Silky Dogwood	-	A	-	-	
FRAVIRG	-	-	O	A	
Teasel				R	
Purple stem Aster				O	
Water Parsnip				R	
Sensitive Fern				O	
Spotted touch me not				R	
Flat topped Aster				A	
Aster (old)					✓
Crucif. sp.				A	
Sedge sp.				A	
Goldenrod sp.				A	

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Samsung
 POLYGON: #2

SURVEYOR(S): ms
 DATE: 29 Sept 2010
 UTMZ: UTMN:

START: 9:00
 END: 12:00

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARCH SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACERUBR >> QUERUBR
2 SUB-CANOPY	2	4	ACERUBR > TILAMER
3 UNDERSTOREY	3-4	4	ACERUBR > OSTVIRG > Blue Beech
4 GRD. LAYER	16-7	3	ASTLATE > OLSON LUM

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 50% 4= CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10 - 24	O 25 - 50	R > 50
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STANDING SNAGS:	N < 10	O 10 - 24	R 25 - 50	R > 50
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DEADFALL / LOGS:	N < 10	R 10 - 24	O 25 - 50	R > 50
------------------	--------	-----------	-----------	--------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW
 COMMUNITY SERIES: Deciduous Swamp CODE: SWD
 ECOSITE: Maple Mineral / Dec. Sw. CODE: SWD3
 VEGETATION TYPE: Red Maple Mineral Dec. Swamp CODE: SWD3-1

INCLUSION CODE:
 COMPLEX CODE:

Notes: Still swamp - but not as much swampy
 Pic 1559 ground veg.

Feature 7

ELC
 PLANT SPECIES LIST

SITE: Samsung
 POLYGON: #2
 DATE: 29 Sept 2010
 SURVEYOR(S): ms

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACERUBR	D	D	-	-		Large leaf Aster				O	
ALMAMER	-	O	-	-		Hog peanut				R	
TILAMER	R	R	-	-		White Aster				R	
QUERUBR	R	R	-	-		(Flat top)					
CAROUAT	R	-	-	-							
OSTVIRG	-	O	O	-							
ACESACS	R	-	-	-							
FRAPENN	R	R	R	-							
PAGSRAN	O	R	-	-							
PRUVIRG	-	-	R	-							
Banberry			R								
Poison Ivy			-	R							
Hawthorn			-	R							
Blue beech			-	O							
Spice bush			-	R							
						Buttercup				O	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25 m 2 = 10<HT<.25 m 3 = 2<HT<.10 m 4 = 1<HT<.2 m 5 = 0.5<HT<.1 m 6 = 0.2<HT<.0.5 m 7 = HT<.0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:

< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

DEADFALL / LOGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:

PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g = _____	G = _____
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		

Feature 7

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: 5		
	SURVEYOR(S): MS	DATE: 29-Sept-2010	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> PRAIRIE <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	1	ULM AMER
2 SUB-CANOPY	3-4	3	Silky Dogwood > Willow sp.
3 UNDERSTOREY			
4 GRD. LAYER	5-7	4	Reed Canary Grass

HT CODES: 1=>25m 2=10-4HT:25m 3=2-4HT:10m 4=1-4HT:2m 5=0.5-4HT:1m 6=0.2-4HT:0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0% < CVR : 10% 2=10 < CVR : 25% 3=25 < CVR : 50% 4=CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	Swamp	CODE: SW
COMMUNITY SERIES:	Thicket Swamp	CODE: SWT
ECOSITE:	Mineral Thicket Swamp	CODE: SWT2
VEGETATION TYPE:	Silky Dogwood Mineral Thicket Swamp	CODE: SWT-2-8
INCLUSION		CODE:
COMPLEX		CODE:

Notes:

Completely dug up for Ag drainage
Difficult to assess shrub coverage

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 5
	DATE: 29-Sept-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ULM AMER	R				
ACE TREE	R				
Red Canary Grass				O	
Shingis Herb				R-O	
Sensitive Fern				R	
White Aster				O	
Swamp Milkweed				R	
Iris				R	
Silky Dogwood		O			
Willow sp.		O			

ELC WILDLIFE	SITE:	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	
	START TIME:	END TIME:

TEMP (°C):	CLOUD (10th):	WIND:	PRECIPITATION:
CONDITIONS:			

POTENTIAL WILDLIFE HABITAT:

VERNAL POOLS	SNAGS
HIBERNACULA	FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#


FAUNAL TYPE CODES (TY):
 B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):
 BREEDING BIRD - POSSIBLE:
 SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:
 T = TERRITORY D = DISPLAY P = PAIR
 A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:
 DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG
 NE = EGGS NY = YOUNG FS = FOOD/FAECAL SACK
 AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
 OB = OBSERVED VO = VOCALIZATION CA = CARCASS
 DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS OR YOUNG
 TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT
 SI = OTHER SIGNS (specify)


Stantec

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 N1G 3M5
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 Fax: (519) 836-2493

Photography Log

Project Number _____ Project Name: _____
 Date / Time: _____ Field Personnel: _____

Weather Conditions:	Temp:	Wind:	Cloud:	PPT:	PPT in last 24 hrs:

Photo #:	Time:	Photo Description and Comments

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Samsung</i>		POLYGON: <i>6</i>	
	SURVEYOR(S): <i>MS</i>		DATE: <i>29-sept-2010</i>	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
			COVER		
			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACERUBR > ACEFRIE > CARQUAT
2 SUB-CANOPY	2	4	ACEFRIE
3 UNDERSTOREY	3-4	4	OSTVIRG > ACEBZUBR
4 GRD. LAYER	5-7	3	ASTMHEC > RHURADI

HT CODES: 1 => 25m 2 = 10<HT:25m 3 = 2<HT:10m 4 = 1<HT:2m 5 = 0.5<HT:1m 6 = 0.2<HT:0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: < 10 10 - 24 25 - 50 > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	<i>Swamp</i>	CODE: <i>Sw</i>
COMMUNITY SERIES:	<i>Dec. Swamp</i>	CODE: <i>SW0</i>
ECOSITE:	<i>made Mineral Dec. Swamp</i>	CODE: <i>SWD3</i>
VEGETATION TYPE:	<i>Red made Mineral Dec Swamp</i>	CODE: <i>SWD3-1</i>
INCLUSION		CODE:
COMPLEX		CODE:

Notes:

Pi 1562

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>	
	POLYGON: <i>6-</i>	
	DATE: <i>29-sept-2010</i>	
	SURVEYOR(S): <i>M. Straus</i>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ALERUBR	D	D	-	-		ASTMHEC	-	-	-	O	
CARQUAT	O	R	-	-		Cardinal Flower	-	-	-	R	
QUEFLBA	O	R	-	-							
TILAMER	R	R	-	-							
POPGRAN	R	-	-	-							
OSTVIRG	-	O	O	-							
ACEFRIE	O	O	-	-							
QUEBICO	R	R	-	-							
RHURADI	-	-	-	-	R						
RUBALLE	-	-	-	-	R						
CARCARO	-	-	R	-		Buttercupsp				O	



W:\archive\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\60960577_DRAFT_ELCs\5_VegMap_20101214_PW.mxd - 12/15/2010 @ 11:17:08 AM

December 2010
160960577

- Legend**
- Proposed Turbine Location
 - 120m Zone of Investigation
 - ROW Installation Zone
 - ELC Communities
 - Access Road
 - Overhead Collector Line
 - Underground Collector Line
 - Substation Property
 - Road
 - Transmission Line (OBM)
 - Provincially Significant Wetland
 - Non-Provincially Significant Wetland
 - Watercourse (OBM)
 - Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osler Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

- Coordinate System: UTM NAD 83 - Zone 17 (N)
- Data Sources: Ontario Ministry of Natural Resources
- Queens Printer Ontario, 2009; Samsung, 2010.
- Image Source: Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
- Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 3

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



Feature 7

EIG	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHY	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LYD. <input type="checkbox"/> GRASSWOOD <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUEALBA, CAROUAT, FRAPETIN, ACESALS
2 SUB-CANOPY	2	4	FRAPETIN, FRAPETIN
3 UNDERSTOREY	3	4	FRAPETIN
4 GRD. LAYER			

HT CODES: 1=>25m 2=10-41:25m 3=2-41:10m 4=1-41:2m 5=0.5-41:1m 6=0.2-41:0.5m 7=HT<0.2m
 CVR CODES: 0= NONE 1= 0% < CVR ≤ 10% 2= 10 < CVR ≤ 25% 3= 25 < CVR ≤ 50% 4= CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0 < 10	0 10 - 24	0 25 - 50	R > 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: CODE:
 Fresh-moist Sugar Maple-Hardwood F006-5
 INCLUSION: Deciduous Forest CODE:
 COMPLEX CODE:

Notes: From edge - mic reach

SITE SERIES	SITE: Samsung	
	POLYGON: 3-1	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Strauss	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4
PINKSTED	0	-	-	-
QUEALBA	0	-	-	-
CAROUAT	00	-	-	-
FRAPETIN	00	-	-	-
FRAPETIN	00	-	-	-
FRAPETIN	00	-	-	-

feature #7

ELC
COMMUNITY
DESCRIPTION
CLASSIFICATION

SITE: _____ POLYGON: _____
 SURVEYOR(S): _____ DATE: _____ UTM: _____
 START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRAT	FEATURE	NATURAL	PLANKTON	LAKE
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> TYPICAL <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAPENN > ACEFRGE
2 SUB-CANOPY	2	4	
3 UNDERSTOREY	3		
4 GRD. LAYER	5-7	4	Diodcarum grass (2b)

HT CODES: 1 = > 25 m 2 = 10-24 m 3 = 2-10 m 4 = 1-10 m 5 = 0.5-1 m 6 = 0.2-1 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

STANDING SNAGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

DEADFALL / LOGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G = _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: Green Ash Mineral Deciduous CODE: SND2-2

INCLUSION: Swamp CODE: _____

COMPLEX CODE: _____

Notes:

2b - 2nd sp. is QUERNER instead of ACEFRGE
 + has some MAMA-2 bits. 23
 ~ 50% cover in some parts

ELC
EVENT
REGIES
LIST

SITE: Samsung
 POLYGON: 3-2
 DATE: 22-Dec-2010
 SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Code
FRAPENN	1	4	A
ACEFRGE	2	4	O
DIODCARUM	5-7	4	D
RESACS	12		2b
FRAGRAN	R		1
Poplar	R		1



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588487 589487 590487 591487 592487
 4751865 4752865
 September 2010 160960577



Legend			
	Project Location		Transmission Line (OBM)
	Proposed Turbine Location		Deer Wintering Area
	Proposed Access Road		Provincially Significant Wetland
	Proposed Collector Line		Non-Provincially Significant Wetland
	ROW Installation Zone		Watercourse (OBM)
	120m Investigation Zone		Waterbody
	Elexco Acquired Agreements	Area of Natural and Scientific Interest (ANSI)	
	Government Lands		Life Science, Provincially Significant
	UDI Lands		Earth Science, Provincially Significant
	Road		Earth Science, Regionally Significant
	Railway		
	Abandoned Railway		



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 3

Title
PROJECT LOCATION MAP

Feature 7.

	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	
	START: 16:15	END: 16:30	UTMZ:	UTMN:

POLYGON DESCRIPTION

<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> SOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
--	---	--	---	--	---

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUEPUBR
2 SUB-CANOPY	2	4	QUEPUBR
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-0.5 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	G =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	Forest	CODE: FO-
COMMUNITY SERIES:	Deciduous Forest	CODE: FOD
ECOSITE:		CODE:
VEGETATION TYPE:		CODE: FOD
INCLUSION		CODE:
COMPLEX		CODE:

Notes:

Plot 1655
From road - edge only visible

	SITE: Samsung
	POLYGON: 8
	DATE: 12-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

DATE/TIME	H	HT	CVR	SPECIES	ABUNDANCE
12-Dec-2010				QUEPUBR	D
				ACESACS	R



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 Cayuga Quarry

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6*- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6*- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3*- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5*- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-8*- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osler Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11*- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*- Green Ash Mineral Cultural Woodland
 - CUW1-5*- Maple-Ash Cultural Woodland
 - CUW1-6*- Green Ash Cultural Woodland
 - CUW1-7*- Red maple Mineral Cultural Woodland
 - CUP3-12*- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE ???**
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 1

Title
**ELC VEGETATION
 COMMUNITIES**

DRAFT



ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

ELC PLANT SPECIES LIST	SITE: Samsung		
	POLYGON: 1-1 0		
	DATE: 22-Dec-2010		
	SURVEYOR(S): M. Strauss		

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	1 3	Maple, Oak, <i>Frederickia</i>
2	SUB-CANOPY	3	
3	UNDERSTOREY	4 4	CORRACE
4	GRD. LAYER		

HT CODES: 1=>25 m 2=10<HT<.25 m 3=2<HT<.10 m 4=1<HT<.2 m 5=0.5<HT<.1 m 6=0.2<HT<.0.5 m 7=HT<0.2 m
CVR CODES: 0=NONE 1=0% < CVR, 10% 2=10 < CVR, 25% 3=25 < CVR, 60% 4=CVR > 60%

STAND COMPOSITION:		BA:
SIZE CLASS ANALYSIS:	A < 10	O 10 - 24
STANDING SNAGS:	< 10	10-24
DEADFALL / LOGS:	< 10	10-24
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT		
COMM. AGE:	PIONEER	X YOUNG
	MID-AGE	X MATURE
		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Deciduous Forest	CODE: FD1
INCLUSION	CODE:
COMPLEX	CODE:

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
<i>Acacia</i> sp.		O											
<i>Quercus</i> sp.		O											
CALCARIAT		R											
<i>Salix</i> sp.		R											

Notes: - Has pockets of thickets along a limestone bedrock out cropping - Assessed from a distance - Sparse insects - more dense in others

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTM E: _____

START: _____ END: _____ UTM Z: _____ UTM N: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	FLAPENIN
2 SUB-CANOPY	3	3	
3 UNDERSTOREY	4	4	Cornus sp.
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT:25m 3=2<HT:10m 4=1<HT:2m 5=0.5<HT:1m 6=0.2<HT:0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR, 10% 2=10<CVR, 25% 3=25<CVR, 60% 4=CVR>60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

STANDING SNAGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

DEADFALL / LOGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE : PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G= _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: Deciduous swamp CODE: SWD

INCLUSION: _____ CODE: _____

COMPLEX: _____ CODE: _____

Notes: Thicket bits - quickly
 Assessed from busy road

No feature
 (near 8)

ELC
 PLANT SPECIES LIST

SITE: Samsung
 POLYGON: 1-2
 DATE: 22-Dec-2010
 SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FLAPENIN	0	0	-								
Cornus sp.				0							

No feature (like 8)

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:		
	SURVEYOR(S):		DATE:		
	START:	END:	UTMZ:	UTMN:	
POLYGON DESCRIPTION					
SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BAREEN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 1-3
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	3	3	Hawthorn, RHACATH
3 UNDERSTOREY	4	4	CORRACE
4 GRD. LAYER	5-7		

HT CODES: 1 = >25m 2 = 10<HT<.25m 3 = 2<HT<.10m 4 = 1<HT<.2m 5 = 0.5<HT<.1m 6 = 0.2<HT<.05m 7 = HT<0.2m
 CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 80% 4 = CVR > 80%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS: **A** < 10 **R** 10 - 24 **N** 25 - 50 **N** > 50

STANDING SNAGS: **A** < 10 **R** 10 - 24 **N** 25 - 50 **N** > 50

DEADFALL / LOGS: **A** < 10 **R** 10 - 24 **N** 25 - 50 **N** > 50
 ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Cultural Thicket</i>	CODE: <i>CU</i>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Assessed from edge of busy road

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<i>CORRACE</i>					0
<i>RHACATH</i>					0
<i>Hawthorn</i>					0

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25 m 2=10<HT:25 m 3=2<HT:10 m 4=1<HT:2 m 5=0.5<HT:1 m 6=0.2<HT-0.5 m 7=HT<0.2 m
CVR CODES 0= NONE 1=0% < CVR , 10% 2=10 < CVR , 25% 3=25 < CVR . 60% 4=CVR > 60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :	PIIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
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MOISTURE:	DEPTH OF ORGANICS:	(cm)
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HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)
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COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
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COMMUNITY SERIES:	CODE:
-------------------	-------

ECOSITE:	CODE:
----------	-------

VEGETATION TYPE:	CODE:
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INCLUSION	CODE:
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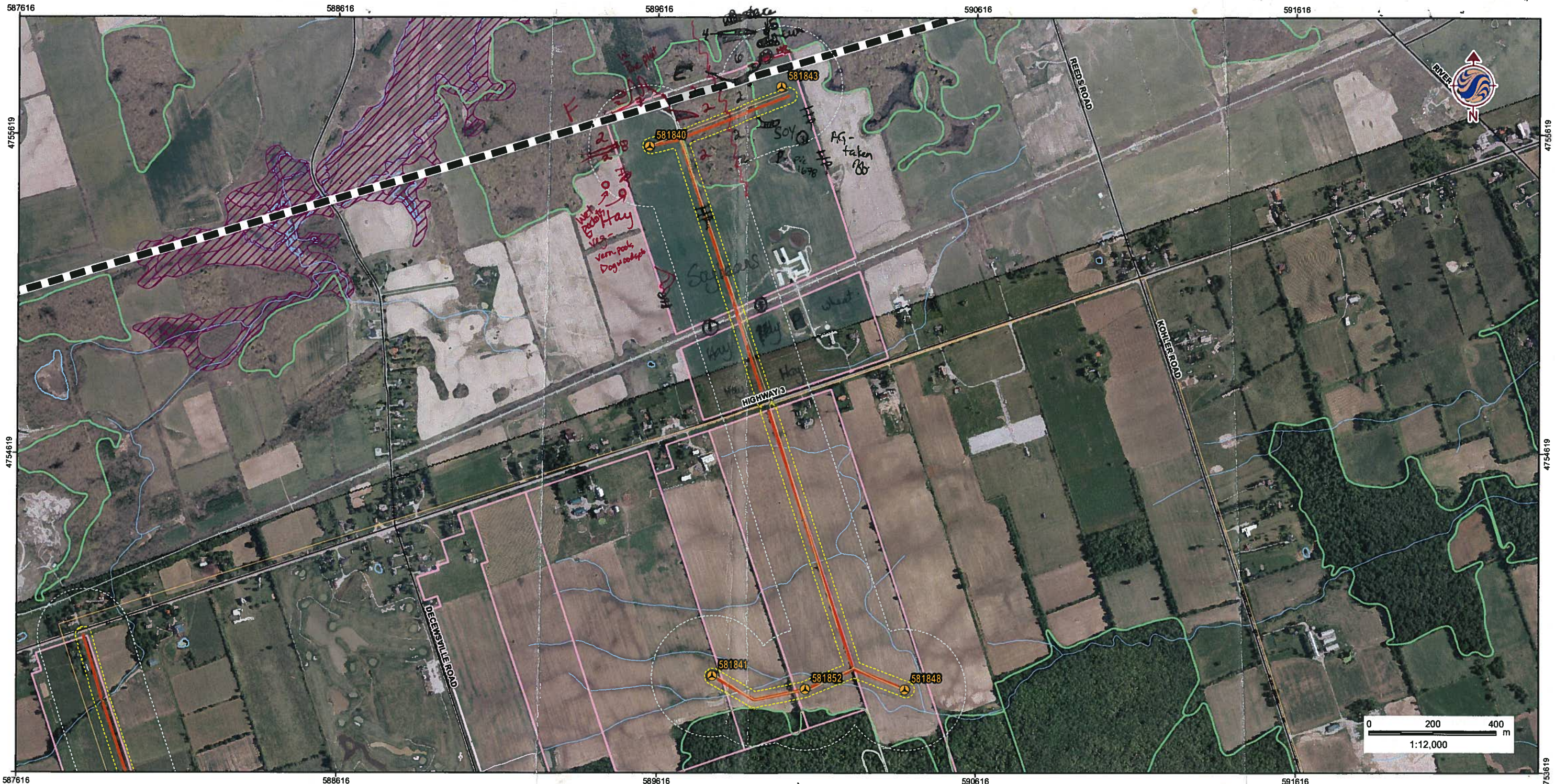
COMPLEX	CODE:
---------	-------

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		



W:\active\60960577\drawing\GIS\XD\NaturalHeritageAssessment\field\maps\60960577_FIELDMAP_ProjectLocation_Mapbook_20100921_PW.mxd - 9/27/2010 @ 5:35:56 PM

September 2010
160960577



Legend			
	Project Location		Transmission Line (OBM)
	Proposed Turbine Location		Deer Wintering Area
	Proposed Access Road		Provincially Significant Wetland
	Proposed Collector Line		Non-Provincially Significant Wetland
	ROW Installation Zone		Watercourse (OBM)
	120m Investigation Zone		Waterbody
	Elenco Acquired Agreements	Area of Natural and Scientific Interest (ANSI)	
	Government Lands		Life Science, Provincially Significant
	UDI Lands		Earth Science, Provincially Significant
	Road		Earth Science, Regionally Significant
	Railway		
	Abandoned Railway		




- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 1

Title
PROJECT LOCATION MAP

 Stantec		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		Wildlife Habitat Assessment	
Project Number 160960577		Project Name: Samsung			
Date / Time: 14-Oct-2010 @ 11:55 AM		Field Personnel: M. ...			
Weather Conditions:	Temp: 10°	Wind: 3	Cloud: 100%	PPT: wet rain- none	PPT in last 24 hrs: 5.10mm

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> AMRO/VO HOUS/OB SCAT/OB SCAT/OB SCAT/OB SCAT/OB SCAT/OB			

Feature 8

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): E

Approximate age of stand 80 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand <5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) Scattered throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

*Very few in 2 = more in 2 of present
Overlooked ~ 4/ha.*

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Snag 1 3 trees (alive)	10m 25m	50cm 3 40-50cm	8m 0m.	Large Hollow

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe light trails, fire wood cutting

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
1	589991, 4755587	none @ present	8m	no	Few shr.
* 2	see inclusion in 6				
3H	see #4	0.5m?		no	Buttonbush
5	589746, 4755691	< 5cm	4m	no	none
- 6	589793, 4755655	"	"	"	"

14-Oct-2010

Feature 8

14-Oct-2010

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): F

Approximate age of stand 50 years - only assessed from edge

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 2/ha - 20-30cm DBH

15-20m P

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
1	see polygon #8	none present	10m x ?	dogwood	no

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 160960577
 POLYGON: (1)

SURVEYOR(S)
 DATE
 START: END
 UTMZ
 UTMN

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	3	1	Ulmamer
3 UNDERSTOREY	4	4	CORNUS > RHACATH = Hawthorn
4 GRD. LAYER	5-7	4	Goldenrod > ASTLATE

HT CODES: 1=>25m 2=10<HT 25m 3=2<HT 10m 4=1<HT 2m 5=0.5<HT 1m 6=0.2<HT 0.5m 7=HT<0.2m
 CVR CODES: 0= NONE 1= 0% < CVR 10% 2= 10 < CVR 25% 3= 25 < CVR 50% 4= CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 10 - 24 N 25 - 50 N > 50

STANDING SNAGS: N < 10 10 - 24 N 25 - 50 N > 50

DEADFALL / LOGS: N < 10 10 - 24 N 25 - 50 N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: X PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Cultural CODE: Cu

COMMUNITY SERIES: Cultural Thicket CODE: CUT

ECOSITE: Mineral Cultural Thicket CODE: CUT1

VEGETATION TYPE: A
 Gray Dogwood Cultural Thicket CUT 1-4

INCLUSION CODE:

COMPLEX CODE:

Notes: Abandoned Railway -
 Ric 1677

No Feature

ELC
 PLANT SPECIES LIST

SITE: Samsung
 POLYGON: 1
 DATE: 14-Oct-2010
 SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Red Cedar		R			
Ulmamer		R			
FRUWIRS		R			
Sider sp		R			
Staghorn Sumac		R			
RUBALLE		R			
FRAYERS				O	
Hawthorn				O	
Gray Dogwood				A	
CORSTO				R	
RHACATH				O	
RUBIDEA				O	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Red Cedar				O	
Teasal.				O	
P.S. Aster				O	
ASTLATE				O	
B.F. Trefoil				O	
Red Canopy Grass				O	
Endarter Nightshade				R	
TYPAUSLI				R	
Calorosp				O	
Goldenrodsp				A	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 160960577	POLYGON: ②
	SURVEYOR(S):	DATE:
	START:	END:
	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACESACS >>> QUERUBR > CARCARO
2 SUB-CANOPY	2	4	ACESACS >>> PRUSERO
3 UNDERSTOREY	3-4	4	ACESACS >>> PRUSERO > CARCARO
4 GRD. LAYER	5-7	3	ACESACS >>> Running Strawberry

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2-HT, 10 m 4 = 1-HT, 2 m 5 = 0.5-HT, 1 m 6 = 0.2-HT, 0.5 m 7 = HT < 0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION:				BA:
SIZE CLASS ANALYSIS:	0 < 10	A 10-24	A 25-50	R > 50
STANDING SNAGS:	M < 10	O 10-24	R 25-50	R > 50
DEADFALL / LOGS:	R < 10	R 10-24	R 25-50	R > 50
ABUNDANCE CODES:	N = NONE R = RARE O = OCCASIONAL A = ABUNDANT			
COMM. AGE:	PIONEER	YOUNG	MID-AGE	X MATURE
				OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: Dry-Fresh Sugar Maple Dec. Forest	CODE: FODS
VEGETATION TYPE: D-F Sugar Maple Deciduous Forest	CODE: FODS-1
INCLUSION: Butt	CODE: SW2-4
COMPLEX: Buttonbush Mineral	CODE: SW2-4

Notes: Pic 1679 Thicket Swamp
- Veru Hillu-

Feature 8

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 2
	DATE: 14-Oct-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESACS	D	O	O	O		Sensitive Fern				R	
PRUSERO	R	R	O	O		String No HG				R	
QUERUBA	O					Redbarkony				R	
FRAPENN	R										
QUERUBR	R			R							
FRAAMER	R	R	O	O							
FRAGRAN	R	O	O	R							
ACERUBR	R										
CAROUAT	R	O	R	R							
OSTVIRG			O								
PINSTR	R										
? Shrub Redberry		R			✓						
VRUSPUSZ			R								
RAURPDS			R								
Smooth Redberry			R								
CARCARO		O									
Prickly Gooseberry			R								
Ribes sp. (nodes)			R								
maple L. Viburnum			R								
Running Straw Bush			O								
RHURADI			R								
						Buttercup sp				A	
						Viola sp				O	

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 1609000577
POLYGON: (3)

SURVEYOR(S):
DATE:
UTME:

START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	20	2	ACER USR
3 UNDERSTOREY	3-4	4	Butt bush Redberr
4 GRD. LAYER	5-7	3-4	Sedges (inside) PURB (around)

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 5-10 m 4 = 1-5 m 5 = 0.5-1 m 6 = 0.2-0.5 m 7 = HT < 0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:

BA:

SIZE CLASS ANALYSIS: A < 10 R 10-24 M 25-50 N > 50

STANDING SNAGS: M < 10 R 10-24 M 25-50 N > 50

DEADFALL / LOGS: M < 10 R 10-24 M 25-50 N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: 7 PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW

COMMUNITY SERIES: Thicket Swamp CODE: SWT

ECOSITE: mineral Thicket Swamp CODE: SWT2

VEGETATION TYPE: Butt bush mineral Thicket Swamp CODE: SWT24

INCLUSION CODE:

COMPLEX CODE:

Notes: Pic 1684 + 1686

ELC
PLANT SPECIES LIST

SITE: Samsung
POLYGON: 3
DATE: 14-Oct-2010
SURVEYOR(S): M. Straus

Feature 8

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ACER USR		O	O	R	8
PRASER D.			R		
ACER REG		O			
Red Berry		O			✓
SPALBA		O			
River bank Grass		O			
Butt bush		D			✓
GREEN DRAGON		O			
RHAETH		O			
PUBIDEA		O			

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Butt bush					O
S. Touch M. Nut					R
Sedges sp					O
ASCATE					K

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 160960577 POLYGON: (4)

SURVEYOR(S): DATE: UTM_E

START: END UTM_Z UTM_N

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input checked="" type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	3	2	ACEFREE
3 UNDERSTOREY	4	3	Butterbush > SPALBA
4 GRD. LAYER	6-7	4	Single Nettle

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-1m 7 = HT < 0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10% < CVR < 25% 3 = 25% < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	R 10 - 24	N 25 - 50	N > 50
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STANDING SNAGS:	N < 10	N 10 - 24	N 25 - 50	N > 50
-----------------	--------	-----------	-----------	--------

DEADFALL / LOGS:	N < 10	N 10 - 24	N 25 - 50	N > 50
------------------	--------	-----------	-----------	--------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW

COMMUNITY SERIES: Thicket Swamp CODE: SWT

ECOSITE: Mineral Thicket Swamp CODE: SWTZ

VEGETATION TYPE: Butterbush Mineral Thicket Swamp CODE: SWZ-4

INCLUSION CODE:

COMPLEX CODE:

Notes: 1684 - water in Butterbush edges

ELC
PLANT SPECIES LIST

SITE: Samsung

POLYGON: 4

DATE: 14-Oct-2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ACEFREE		R			
VITRUPA					O
SPALBA					O
Selin sp					R
Butterbush					D

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Water Hemlock					O
Single Nettle					O
Sp. 4, 7, M. Not					R

ELC

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 1609160577	POLYGON: 5		
	SURVEYOR(S):	DATE:	UTME:	
	START:	END:	UTMZ:	UTMN:
	POLYGON DESCRIPTION			

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
SITE		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE	COVER	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

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	1	Hawthorn
4 GRD. LAYER	5-7	4	Goldenrod > Pstis

HT CODES: 1=>25m 2=10-HT 25m 3=2-HT 10m 4=1-HT 2m 5=0.5-HT 1m 6=0.2-HT 0.5m 7=HT<0.2m
CVR CODES: 0= NONE 1= 0% < CVR - 10% 2= 10 < CVR - 25% 3= 25 < CVR - 60% 4= CVR > 60%

STAND COMPOSITION:				BA:	
SIZE CLASS ANALYSIS:		R < 10	N 10-24	N 25-50	N > 50
STANDING SNAGS:		N < 10	N 10-24	N 25-50	N > 50
DEADFALL / LOGS:		N < 10	N 10-24	N 25-50	N > 50
ABUNDANCE CODES:		N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT			
COMM. AGE:	X PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	Cultural	CODE:	cu
COMMUNITY SERIES:	Cultural Meadow	CODE:	cum
ECOSITE:	Minimal Cultural Meadow	CODE:	cum1
VEGETATION TYPE:	cum	CODE:	
INCLUSION		CODE:	
COMPLEX		CODE:	

Notes: Pic# 1682

feature 8

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 5
	DATE: 14-Oct-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Salix sp				R	
Hawthorn				R	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Tenax					O
P.S Aster					O
ARTE					O
Goldenrod sp.					A

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 160960577
POLYGON: 7

SURVEYOR(S):
DATE:
START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	2	2	POPTILEM
3 UNDERSTOREY	4	4	Gray Dogwood
4 GRD. LAYER	5	4	Red Top WTA Grass

HT CODES: 1 = >25m 2 = 10-25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:

BA:

SIZE CLASS ANALYSIS: FA < 10 R 10-24 M 25-50 N > 50

STANDING SNAGS: N < 10 M 10-24 N 25-50 N > 50

DEADFALL / LOGS: N < 10 M 10-24 N 25-50 N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: 7 PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Cultural CODE: CUT

COMMUNITY SERIES: Cultural Thicket CODE: CUT

ECOSITE: Mineral Cultural Thicket CODE: CUT1

VEGETATION TYPE: Gray Dogwood Cultural Thicket CODE: CUT1-4

INCLUSION CODE:

COMPLEX CODE:

Notes:

Pic168X

Feature 8

ELC
PLANT SPECIES LIST

SITE: Samsung
POLYGON: 7
DATE: 14-Oct-2010
SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
CAROLAT	R					Red Canary Grass				O	
POPTRE	O					Teasel				R	
RUBSDEA										O	
Shrubrubbery										R	✓
Gray Dogwood										D	



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 4750730
 4749730

September 2010
160960577



Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elexco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |




Notes

- Coordinate System: UTM NAD 83 - Zone 17 (N).
- Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
- Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 4

Title
PROJECT LOCATION MAP

 Stantec		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		Wildlife Habitat Assessment	
Project Number: <u>1609/20577</u>		Project Name: <u>Samsung</u>			
Date / Time: <u>12-Oct-2010 11:45 AM</u>		Field Personnel: <u>Melissa Strain</u>			
Weather Conditions:	Temp: <u>10°C</u>	Wind: <u>6</u>	Cloud: <u>30%</u>	PPT: <u>none</u>	PPT in last 24 hrs: <u>Heavy Rain</u>

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> 01-01-03 01-02-03 01-03-03 01-04-03 01-05-03 01-06-03 01-07-03 01-08-03 01-09-03 01-10-03 01-11-03 01-12-03	Deer - TK Raccoon - TK	Gopher - OB		

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): C - Feature 10

Approximate age of stand 50

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

n 5/ha
1 @ 3m ↑ DBH = 25cm
2 @ < 10cm; ↑ 2m
1 @ 1.5m ↑; 25cm DBH

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
1	25m	45	3m	small
2	25m	30cm	5m	Small

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

RWSL

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	Lowland win. forest NE edge	none @ present	~ 10m x 25m	Yes - Dogwood.	

Feature 15

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): B

Approximate age of stand 50 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 1%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

loose bark. All E in Inclusion dead. ~ Blues, 25-35cm DBH, 10-15m tall all

Localized throughout ~ 3/ha.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
snag	10m	25cm	1-10	hollow - small
3m		15cm	3	small
be snag	4m	40cm	0-4	hollow

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Paths, ATVing through inclusion

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	Through #4.	extensive	no water now.		

Feature 10

FIG	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSYSTEM	TOPOGRAPHY	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> FLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					
<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	1	PINSTRO < ULMAMER
2 SUB-CANOPY	2	2	ULMAMER > FRAP
3 UNDERSTOREY	3-4	3	Silky Dogwood > Salix > Hawthorn
4 GRD. LAYER	5-7	4	Red & Canary Grass > Sedge sp

HT CODES: 1 = > 25 m 2 = 10-24.9 m 3 = 2-9.9 m 4 = 1-9.9 m 5 = 0.5-9.9 m 6 = 0.3-9.9 m 7 = 0.1-0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION:							BA:	
SIZE CLASS ANALYSIS:								
	A	< 10	O	10 - 24	N	25 - 50	N	> 50
STANDING SNAGS:								
	N	< 10	O	10 - 24	N	25 - 50	N	> 50
DEADFALL / LOGS:								
	R	< 10	R	10 - 24	N	25 - 50	N	> 50
ABUNDANCE CODES:								
N = NONE R = RARE O = OCCASIONAL A = ABUNDANT								
COMM. AGE:								
	PIONEER	X	YOUNG	MID-AGE	MATURE	OLD GROWTH		

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Thicket swamp & hedgerow + more open woody area	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pic 1656 + 1657

SITE: Samsung
POLYGON: 9
DATE: 12-Oct-2010
SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	Code	Code	Code	Code
ULMAMER	R	O		
PINSTRO	K			
FRAPENN		R		
QUEMACR		R		
Sensitive Fern				R
Red Canary Grass				O-A
Spotted T. Milklets				O
Tuesel				R
Nannyberry				R
Silky Dogwood				O
RUBIDIA				O
Salix sp.				O
Hawthorn				O
RHACATHE				O
Sedge sp				O-A
Goldenrod sp				O
In's sp.				R

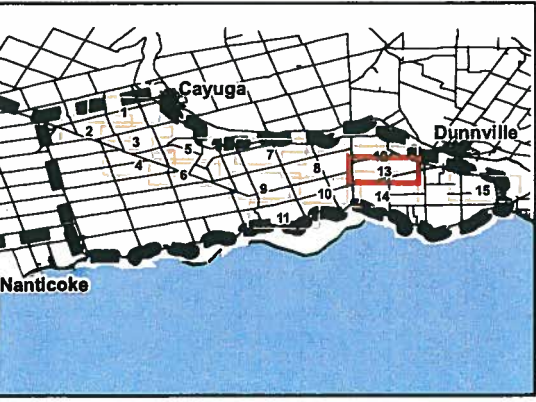


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Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elexco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 13

Title
PROJECT LOCATION MAP

Feature 51

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): 4

Approximate age of stand 80 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. approx 20 snags - 20-40cm DBH / 15-20cm high
Overall rare; possibly logged out

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?
	<u>20m</u>	<u>40cm</u>	<u>15m</u>	<u>1 small oward</u>

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe - logging for firewood, logging trail, channelized watercourse

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
<u>See polygons 5, 6, 7 and 8.</u>					

Feature 62

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 2

Approximate age of stand < 10 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?
	11m	35m	5-7m	5 small cavities all in same tree.

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GRKP POLYGON: 2

SURVEYOR(S): ART DATE: Sept 28, 2010 UTME:

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input checked="" type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	KRADMIOR > TRADMIOR = CHADMIOR
2 SUB-CANOPY	3	3	SALICAT > TRADMIOR = RHAACATH
3 UNDERSTOREY	4	3	CORRACE = RHAACATH
4 GRD. LAYER	3	3	Calderob / Aster > reed cane

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-0.5m 7 = HT < 0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	R 10-24	O 25-50	> 50
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STANDING SNAGS:	O < 10	N 10-24	M 25-50	> 50
-----------------	--------	---------	---------	------

DEADFALL / LOGS:	O < 10	N 10-24	M 25-50	> 50
------------------	--------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Cultural Woodland 1-3* CODE: CUW

INCLUSION: CODE:

COMPLEX: CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: GRKP POLYGON: 2

DATE: Sept 28, 2010 SURVEYOR(S): ART

feature 62

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
KRADMIOR						tail gibbon					
reed cane						bedrock					
RHAACATH						calico cifer					
Red rasp.						strawberry					
CORRACE						reed cane					
Apple											
UTRISPA											
LABTART											
ACEBIA											
ULMAMIR											
U crop											

Feature 51

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP POLYGON: 5

SURVEYOR(S): ART DATE: Sept 28, 2010

START: END UTMZ: UTM:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input checked="" type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input checked="" type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	1	ULM Am BR = ACER UBR
2 SUB-CANOPY	4	2-3	Holly > CORSTOL
3 UNDERSTOREY	5	3	rice cut grass = blue flag
4 GRD. LAYER			

HT CODES: 1= >25m 2= 10<HT<25m 3= 2<HT<10m 4= 1<HT<2m 5= 0.5<HT<1m 6= 0.2<HT<0.5m 7= HT<0.2m
 CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 50% 4= CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	R 10 - 24	25 - 50	> 50
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STANDING SNAGS:	R < 10	N 10 - 24	25 - 50	> 50
DEADFALL / LOGS:	R < 10	N 10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: SWTB-7

INCLUSION CODE:

COMPLEX CODE:

Notes:

GRIP
SPPK

- water 20 - 50cm deep.

ELC PLANT SPECIES LIST

SITE: GREP POLYGON: 5

DATE: Sept 28, 2010

SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
W. water berry					X	duck weed					
CORSTOL						son-tue-for					
ACER UBR						blue flag					
ULM Am BR						calx. ash					
						rice cut grass					
						v. mist					
						besse, tree					
						v. heehant					
						wood grass					
						ps willowherb					

Feature 51

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>CRFP</u>	POLYGON: <u>6</u>
	SURVEYOR(S): <u>ART</u>	DATE: <u>Sept 28, 2010</u>
	START: <u>END</u>	UTMZ: _____
	UTMN: _____	UTMN: _____

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input checked="" type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE	COVER				
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> OPEN <input checked="" type="checkbox"/> SHRUB <input type="checkbox"/> TREED				

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	4	Butterbush
2 SUB-CANOPY	56	1	Tuber
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 => 25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-0.5m 7 = HT < 0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:	<u>2</u> < 10	<u>1</u> 10 - 24	<u>1</u> 25 - 50	<u>1</u> > 50
STANDING SNAGS:	<u>1</u> < 10	<u>1</u> 10 - 24	<u>1</u> 25 - 50	<u>1</u> > 50
DEADFALL / LOGS:	<u>2</u> < 10	<u>1</u> 10 - 24	<u>1</u> 25 - 50	<u>1</u> > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g = _____	G = _____
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Butterbush Thicket Swamp</u>	CODE: <u>SWT2-4</u>
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes: -vernal pool - 5m of water (after storm)

ELC PLANT SPECIES LIST	SITE: <u>CRFP</u>
	POLYGON: <u>6</u>
	DATE: <u>Sept 28, 2010</u>
	SURVEYOR(S): <u>ART</u>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
<u>CRSTOL</u>						<u>novel</u>					
<u>6 w/ter bush</u>						<u>also</u>					
<u>RHACATH</u>						<u>clon</u>					
<u>WTRTRR</u>											

feature 51

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP
 SURVEYOR(S): ART
 DATE: Sept 28, 2010
 POLYGON: 7
 START: END:
 UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input checked="" type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	1	SP. ALBA
2 SUB-CANOPY	4	2	slump rose
3 UNDERSTOREY	5	3	cut grass
4 GRD. LAYER			cut grass > wetland > other stuff

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:

0	< 10	10 - 24	25 - 50	> 50
---	------	---------	---------	------

STANDING SNAGS:

R	< 10	10 - 24	25 - 50	> 50
---	------	---------	---------	------

DEADFALL / LOGS:

R	< 10	10 - 24	25 - 50	> 50
---	------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: CODE:
Rice Cut-grass shallow marsh MAIS2-8
 INCLUSION CODE:
 COMPLEX CODE:

Notes: - vernal pool 10-50cm - SPB - AMTB

ELC
 PLANT SPECIES LIST

SITE: GREP
 POLYGON: 7
 DATE: Sept 28, 2010
 SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
<u>Wh eldroy</u>						<u>joint weed</u>					
<u>SP. ALBA</u>						<u>clew weed</u>					
<u>ALB. RUBR.</u>						<u>grass or fish</u>					
<u>CAREX</u>						<u>rice cut grass</u>					
<u>SW. TOE</u>						<u>grass or fish</u>					
						<u>rice cut grass</u>					
						<u>reed grass</u>					
						<u>beet weed</u>					
						<u>night shed</u>					
						<u>W. P. S. M. T.</u>					

Feature 51

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: GRFP	POLYGON: 8	
	SURVEYOR(S): ART	DATE: Sept 28, 2010	UTME:
	START: END	UTMZ:	UTMN:

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	1	ALCERODR
2 SUB-CANOPY	4	2	Holly > SPIALBA = CORRACE
3 UNDERSTOREY	5	4	rice cut > Jewelweed
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT.25m 3=2<HT.10m 4=1<HT.2m 5=0.5<HT.1m 6=0.2<HT.0.5m 7=HT<0.2m
CVR CODES: 0= NONE 1= 0% < CVR, 10% 2= 10 < CVR, 25% 3= 25 < CVR, 50% 4= CVR > 50%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	0 < 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	R < 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	R < 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Rice Cut - grass shallow marsh	CODE: MARR-8
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Vernal pool - 10m deep
SPECIES GRFP

ELC PLANT SPECIES LIST	SITE: GRFP
	POLYGON: 8
	DATE: Sept 28, 2010
	SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Holly						Jewelweed					
in elderwood						Rice cut grass					
CORRACE						ps wild betb					
SPIALBA						leaf thorn					
ALCERODR											
CORRACE											

No feature

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: CRFP
 SURVEYOR(S): ART
 DATE: Sept 28, 2010
 POLYGON: FU
 UTME
 UTMZ
 UTMN

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

SITE

OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	6	4	Alfalfa & gravel
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT.25m 3=2<HT.10m 4=1<HT.2m 5=0.5<HT.1m 6=0.2<HT.0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR. 10% 2=10<CVR. 25% 3=25<CVR. 60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: *Hay* CODE: *Flay*

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC
 PLANT SPECIES LIST

SITE: CRFP
 POLYGON: FU
 DATE: Sept 28, 2010
 SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Alfalfa											
W. Carrot											
Y. m. thly											
Coastal (Meadow)											
W. Carrot											

ELC SITE: GREP POLYGON: F3
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): ART DATE: Sept 28, 2010 UTME: _____
 START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input checked="" type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	1	PINUS QLV
2 SUB-CANOPY	6	4	grasses > forbs
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25 m 2=10<HT<25 m 3=2<HT<10 m 4=1<HT<2 m 5=0.5<HT<1 m 6=0.2<HT<0.5 m 7=HT<0.2 m
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

STANDING SNAGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

DEADFALL / LOGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

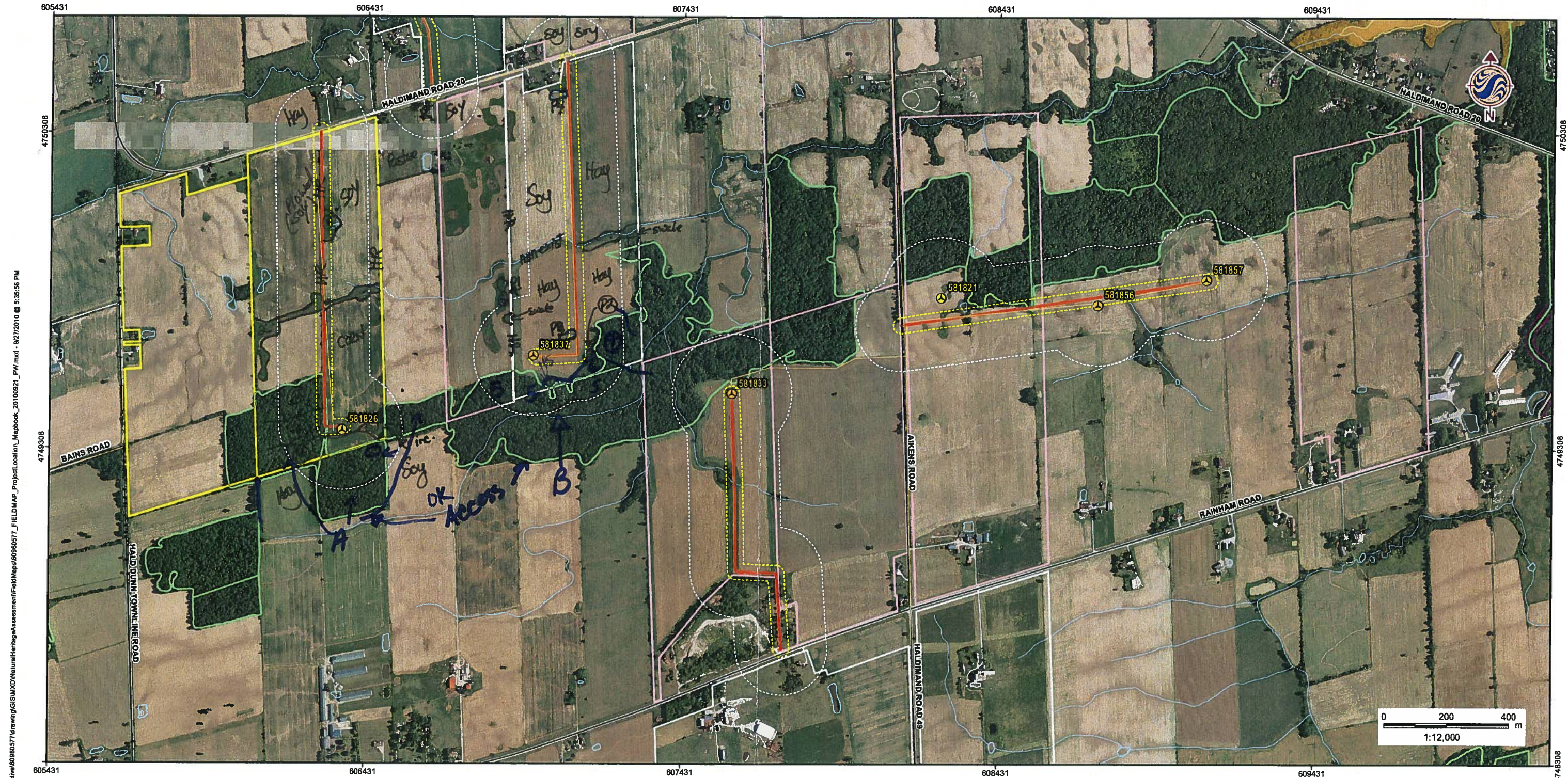
COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: pasture CODE: Pasture
 INCLUSION / - CODE:
 COMPLEX CODE:

Notes: - cluster of scott's pine

ELC SITE: GREP POLYGON: F3 *No feature*
 PLANT SPECIES LIST DATE: Sept 28, 2010
 SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.			
	1	2	3	4			1	2	3	4				
<u>PINUS QLV</u>														
						<u>wh clover</u>								
						<u>timothy</u>								
						<u>birds foot trefoil</u>								
						<u>w. carrot</u>								
						<u>chicory</u>								
						<u>str. brine</u>								



W:\drive\16086577\drawing\GIS\XDNaturalHeritageAssessment\FeldMaps\60960577_FIELDMAP_ProjectLocation_Mapbook_20100921_L_PK.mxd - 9/27/2010 @ 5:35:56 PM

September 2010
160960577



Legend

- | | | | |
|--|----------------------------|--|--|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elexco Acquired Agreements | | Area of Natural and Scientific Interest (ANSI) |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 14

Title
PROJECT LOCATION MAP

Feature 52

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Samsung</u>	POLYGON: <u>1</u>	
	SURVEYOR(S):	DATE: <u>5-Oct-2010</u>	UTME:
	START: <u>10.00</u> END: <u>10.30</u>		UTMZ:
			UTMN:

POLYGON DESCRIPTION					
SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input checked="" type="checkbox"/> OPEN <input checked="" type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:			SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)	
LAYER	HT	CVR		
1 CANOPY	3	1	Salsp. sp.	
2 SUB-CANOPY	2.5	2	CORSTAL > KURILEA = STAG Sumac	
3 UNDERSTOREY				
4 GRD. LAYER	0.7	4	C. sp. stem factor < Road Canopy 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%

STAND COMPOSITION:					BA:
SIZE CLASS ANALYSIS:					
	< 10	10 - 24	25 - 50	> 50	
STANDING SNAGS:					
	< 10	10 - 24	25 - 50	> 50	
DEADFALL / LOGS:					
	< 10	10 - 24	25 - 50	> 50	
ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT					
COMM. AGE:	<input checked="" type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH

SOIL ANALYSIS:	
TEXTURE:	DEPTH TO MOTTLES / GLEY g = G =
MOISTURE:	DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS: <u>Marsh</u>	CODE: <u>MA</u>
COMMUNITY SERIES: <u>Meadow Marsh</u>	CODE: <u>MAM</u>
ECOSITE: <u>Marsh in Meadow Marsh</u>	CODE: <u>MAM2</u>
VEGETATION TYPE: <u>Seed-carpet Grass mineral Meadow Marsh</u>	CODE: <u>MAM2.2</u>
INCLUSION:	CODE:
COMPLEX:	CODE:

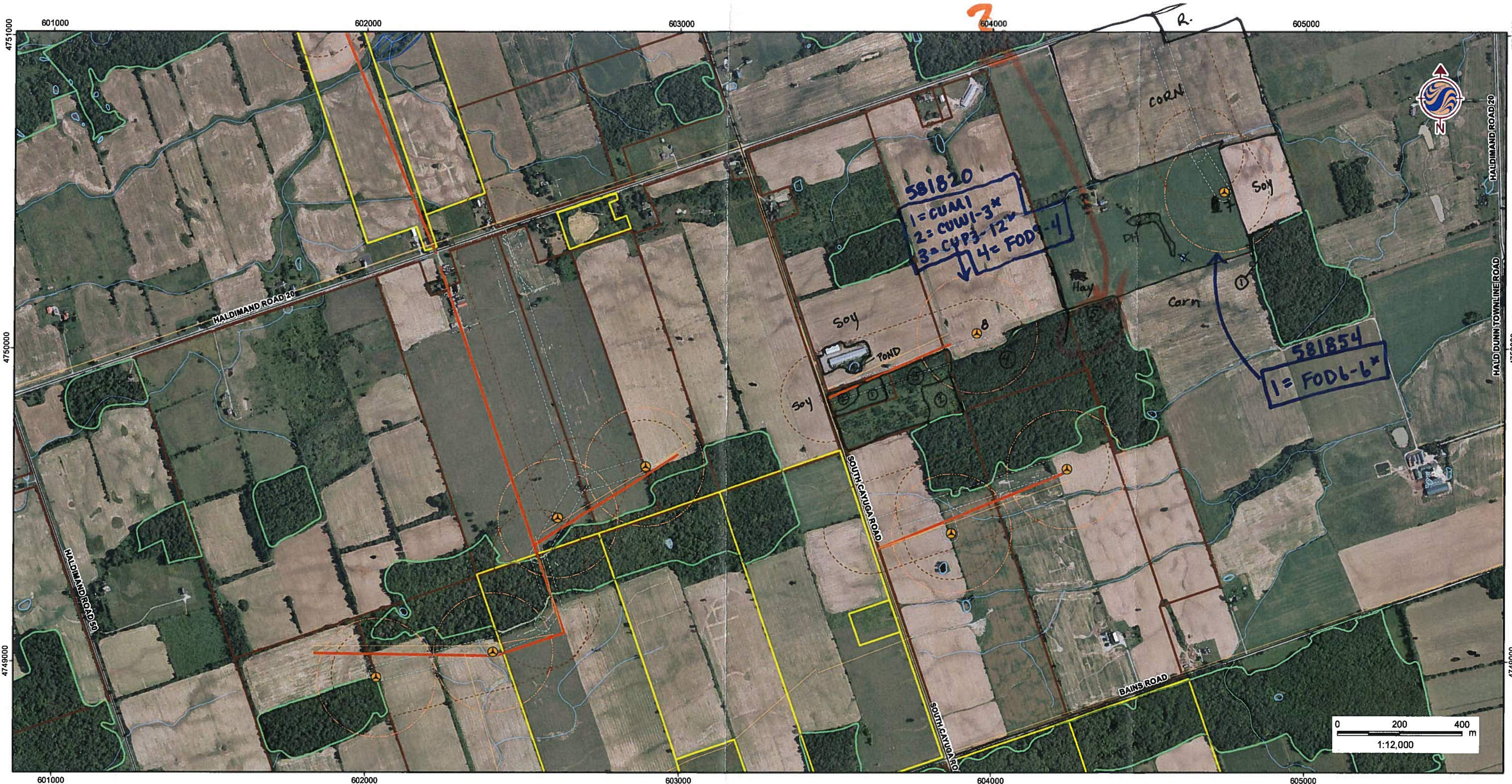
Notes: Multiple Deer bed locations
 Transitions from NE to SW to curv in 85m x 40 wide.

ELC PLANT SPECIES LIST	SITE: <u>Samsung</u>	
	POLYGON: <u>#1</u>	
	DATE: <u>5-Oct 2010</u>	
	SURVEYOR(S): <u>M. Strain</u>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<u>PARTEM</u>					
<u>Teasel</u>					
<u>Asst. Parakeet</u>					
<u>Wild Carrot</u>					
<u>B. Foot Tree</u>					
<u>Road Canopy</u>					
<u>Goldmode</u>					
<u>Grass Riverbank</u>					O
<u>KUB IDEA</u>					O
<u>Staghorn Sumac</u>					R
<u>Grass sp</u>					R
<u>CORSTAL</u>					O

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Legend	
	Project Location
	Proposed Turbine Location
	Proposed Collector Line
	Proposed Access Road
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	MEI
	Elexco Aquired Agreements
	ROW Study Area
	Crane Pad Study Area
	ROW Installation Zone
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant



Original:
Don't Throw
out


- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006.

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 8

Title
PROJECT LOCATION MAP

September 2010
160960577

		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		Wildlife Habitat Assessment <i>Feature 53</i> <i>Turbine 7 + Access Road</i> <i>581854</i>	
Project Number <i>161010646</i>		Project Name: <i>Samsung</i>			
Date / Time: <i>Sept. 22, 2010</i>		Field Personnel: <i>GAW</i>			
Weather Conditions:	Temp: <i>20°</i>	Wind: <i>1</i>	Cloud: <i>100%</i>	PPT: <i>∅</i>	PPT in last 24 hrs: <i>RAIN</i>

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> <i>BLJA</i>	<i>deer</i>	<i>AMTO</i>	<i>Sulphur yellow</i>	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) just^{looked} in edge (120m)

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Bat Mat Roost? No

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
 SURVEYOR(S): GAW
 DATE: Sept. 22, 2010
 POLYGON: ①

START: END
 UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA = Shagbark ≥ QUERUBR
2 SUB-CANOPY	3	4	" " "
3 UNDERSTOREY	4-5	4	" " = PRUVIVI
4 GRD. LAYER	6-7	4	CIRLEVT, RHURANE, SODINAP

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0= NONE 1=0% < CVR, 10% 2=10 < CVR, 25% 3=25 < CVR, 50% 4=CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 A 10-24 A 25-50 R > 50

STANDING SNAGS: R < 10 R 10-24 R 25-50 > 50

DEADFALL / LOGS: A < 10 A 10-24 O 25-50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO
 COMMUNITY SERIES: Deciduous Forest CODE: FOD
 ECOSITE: F-M Sugar Maple Dec. Forest CODE: FOD1
 VEGETATION TYPE: Fresh-moist Sugar Maple-Hickory Dec. Forest CODE: FOD6-6*

INCLUSION CODE:
 COMPLEX CODE:

Notes:

ELC
 PLANT SPECIES LIST

SITE: Turbine 7 + Access Road
 POLYGON: Feature 53
 DATE:
 SURVEYOR(S):

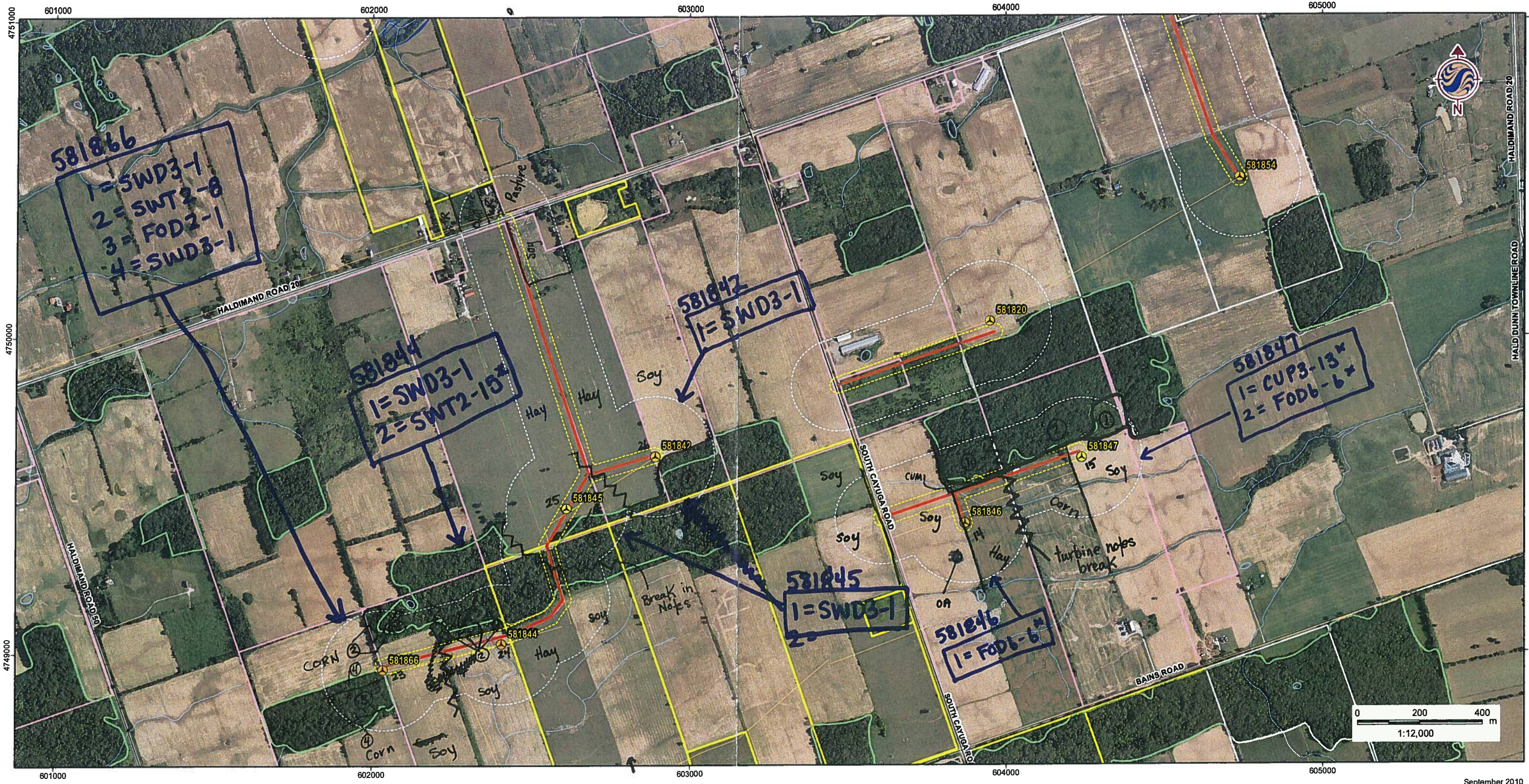
581854

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

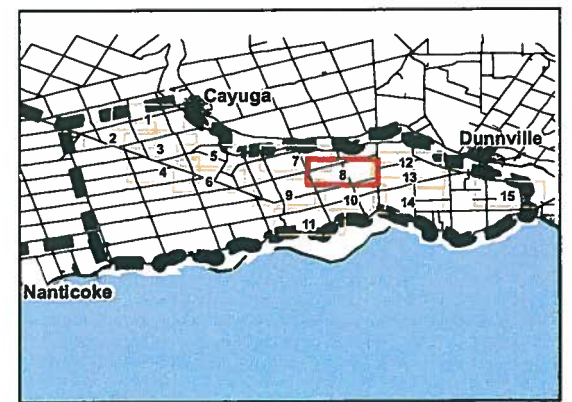
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAAMER	0	0	0	0		CIRLEVT				0	
ACESASA	A	A	A	0		EUOBOV				0	
QUERUBR	0	0	0			RHURANE				0	
Shagbark	A	A	A	0		GEVAPPEL				0	
FAGGRAN	R	0	0			FRAVESC				0	
OSTYIRG		0	0			GERMACU				0	
TILAMER	0	0				SOLCANA				0	
PRUVIVI			0	0							
CORFORA			0								
RHACATH			0								
Crataegus			0								
VITRIPA			0								

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Legend	
	Project Location
	Proposed Turbine Location
	Proposed Access Road
	Proposed Collector Line
	ROW Installation Zone
	120m Investigation Zone
	Elenco Aquired Agreements
	Government Lands
	UDI Lands
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant



Original:
Don't Throw
Out


- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 8

Title
PROJECT LOCATION MAP

September 2010
160960577

		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		Wildlife Habitat Assessment <i>Feature 54</i> <i>Turbine 8 + Access Road</i> <i>581820</i>	
Project Number: <i>161010646</i>		Project Name: <i>Samsung</i>			
Date / Time: <i>Sept. 22, 2010</i>		Field Personnel: <i>GAW</i>			
Weather Conditions:	Temp: <i>20°</i>	Wind: <i>1</i>	Cloud: <i>100%</i>	PPT: <i>∅</i>	PPT in last 24 hrs: <i>RAIN</i>

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> <i>AMGO</i> <i>BLJA</i> <i>RTHA</i> <i>WITU</i>	<i>deer</i>	<i>AMTO</i>		

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 10%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Several, most 20-30cm DBH, some loose bark.

Trees with cavities present? No Rare Occasional Abundant none seen

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Bat Mat Roost? No

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe ATV trail, logging (selective)

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
~10-15	throughout	none	1m - 10m	yes - graminoid	yes

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: ①	
	SURVEYOR(S): GAW	DATE: Sept. 22. 2010	UTME:
	START:	END:	UTMZ:
			UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:		BA:	
SIZE CLASS ANALYSIS:	<input type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50
STANDING SNAGS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50
DEADFALL / LOGS:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT			
COMM. AGE:	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE
			<input type="checkbox"/> MATURE
			<input type="checkbox"/> OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: edges/cum
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Turbine 8 + Access Road
	POLYGON: Feature 54
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
EUTGRAM						grasses					
Woolgrass						ASC/SRI					
VICUNIF						HYPPERF					
RUMCKIS						ROSMULTI					
RUBALLE											
ROSMULTI											
CORFO·RA											
PLAMAJO											
Ragweed											
Green foxtail											
barnyard gr											
red clover											
b. medic											
lady thumb											
SOLCANA											
alsike clover											
ASTNOVA											
DAUCARO											
SOLALTI											
VICCRAC											
TAROFFI											
b.f. trefoil											
feasle											
C. burdock											
VITRIPA											
RUBIDAE											
chicory											

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646 POLYGON: ③

SURVEYOR(S): GAW DATE: Sept. 22, 2010 UTM:

START: END UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input checked="" type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input checked="" type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	4	PINSTRO ≧ PICGLAU
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	6-7	4	Meadow Species

HT CODES: 1 = >25 m 2 = 10-HT: 25 m 3 = 2-HT: 10 m 4 = 1-HT: 2 m 5 = 0.5-HT: 1 m 6 = 0.2-HT: 0.5 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> D < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
STANDING SNAGS:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
DEADFALL / LOGS:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Cultural	CODE: CV
COMMUNITY SERIES: Cultural Plantation	CODE: CUP
ECOSITE: Coniferous Plantation	CODE: CUP3
VEGETATION TYPE: White Pine - White Spruce Con. Plant.	CODE: CUP3-12*
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

581820

ELC
 PLANT SPECIES LIST

SITE: Turbine + Access Rd

POLYGON: Feature 54

DATE:

SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
PICGLAU	A	A				Ragweed					O
PINSTRO	A	A				SOLCANA					A
RUBALLE			O			ASTNOVA					A
ROSMULT			O			SOLALTI					A
PARINSE			O			EUTGRAM					A
FRAAMER	O	O				DAUCARO					A
						teasle					O
						RUBIDAE					O
						Grasses					O
						BROINER					O
						ASTLATE					O

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: (4)	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	Shagbark > ACESASA > QUERUBR
2 SUB-CANOPY	3	4	ACESASA > Shagbark
3 UNDERSTOREY	4-5	4	" > FRAPENN = PRUVINI
4 GRD. LAYER	6-7	4	EUOBOV, RHURANE Saplings

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-0.5m 7 = HT < 0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 50% 4 = CVR > 50%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	A < 10	A 10 - 24	A 25 - 50	R > 50
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STANDING SNAGS:	R < 10	R 10 - 24	R 25 - 50	> 50
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DEADFALL / LOGS:	A < 10	A 10 - 24	0 25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	<input type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input checked="" type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: F.M Oak-Maple-Hickory Dec. Forest	CODE: FOD9
VEGETATION TYPE: Fresh-moist Shagbark Hickory Dec. Forest	CODE: FOD9-4
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Shagbark	D	A	O		
ACESASA	A	A	A	A	
FRAPENN	O	O	A	O	
QUERUBR	O	O	R	R	
FAGGRAN	R	R	O		
Blue beech			O		
QUEALBA	R				
OSTVIRG		O			
TILAMER	O	O	O	O	
PRUSERO		O	O		
ACERUBR	O	O	O		
PRUVINI			O		
LONIDIOL			O		
blackberry			O		
RUBIDAE			O		
RIBCYNO			O		
CORFORA			O		
witch hazel			O		
RHACATH			O		
Cataceus sp			O		
VITRIPA			O		
ULMAMER	R	R			

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ELYHYST				R	
CIRLEUT				O	
SOLDULC				O	
GERMACU				A	
AGRGRYP				O	
SOLCAES				O	
Hairy Sol Seal				O	
hog peanut				R	
bristly buttercup				R	
AAITRTR				R	
IMPCAPE				R	
CIRLEUT				O	
EUOBOV				O	
RHURANE				A	
GEVAPPEL				O	
l.l. aster				O	
VEROFFI				O	
GLYSTRI				O	
FRAVESC				O	
SOLCANA				O	
IMPCAPE				O	

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
 POLYGON: 5
 SURVEYOR(S): GAW
 DATE: Sept. 22, 2010
 START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA = Shagbark > QUERCUS
2 SUB-CANOPY	3	4	" " "
3 UNDERSTOREY	4-5	4	" " = PRUVIVI
4 GRD. LAYER	6-7	4	CIRLEUT, RHURA-NE Saplings

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0<HT<0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	A 25-50	R > 50
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STANDING SNAGS:	R < 10	R 10-24	R 25-50	> 50
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DEADFALL / LOGS:	A < 10	A 10-24	O 25-50	> 50
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ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO
 COMMUNITY SERIES: Deciduous Forest CODE: FOD
 ECOSITE: F-M Sugar Maple Dec. Forest CODE: FOD6
 VEGETATION TYPE: Fresh-moist Sugar Maple-Hickory Dec. Forest CODE: FOD6-6*
 INCLUSION CODE:
 COMPLEX CODE:

Notes:

581820

ELC
PLANT SPECIES LIST

SITE: Turbine 8 + Access Rd
 POLYGON: Feature 54
 DATE:
 SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRAAMER	0	0	0	0	
ACESASA	A	A	A	0	
Shagbark	A	A	A	0	
FAGGRAN	R	0	0		
QUERUBR	0	0	0		
Blue beech			0		
QUEALBA	R				
OSTVIRG		0	0		
TILAMER	0	0	0		
FRAPENN	R	R			
PROSERO	R				
ACERUBR	R				
PRUVIVI			0	0	
LONDIOI				0	
Blackberry			0		
RUBIDAE			0		
RIBCYNO			0		
CORFORA			0		
Witchhazel			0		
Crataegus sp			0		
RHACATH			0		
VITRIPA			0		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
hrg peanut				0	
SOLCAES				0	
h.sol.seal				0	
CIRLEUT				A	
EOUOBOV				0	
RHURA-NE				A	
GERROBE				0	
GEVAPPEL				0	
FRAVESC				0	
GERMACU				0	
OXASTKI				0	
SOLCANA				0	
ASTNOVA				0	
Viola sp				0	
ASTLATE				0	
HYPPERF				0	
GLYSTRI				0	
AGRGRYP				0	
IMPCAPE				0	
l.l. aster				0	
VEROFFI				0	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY		
2	SUB-CANOPY		
3	UNDERSTOREY		
4	GRD. LAYER		

HT CODES: 1 = >25 m 2 = 10<HT.25 m 3 = 2<HT.10 m 4 = 1<HT.2 m 5 = 0.5<HT.1 m 6 = 0.2<HT.0.5 m 7 = HT<0.2 m
 CVR CODES 0= NONE 1= 0% < CVR . 10% 2= 10 < CVR . 25% 3= 25 < CVR . 60% 4= CVR > 60%

STAND COMPOSITION:					BA:
SIZE CLASS ANALYSIS:					
	< 10	10 - 24	25 - 50	> 50	
STANDING SNAGS:					
	< 10	10 - 24	25 - 50	> 50	
DEADFALL / LOGS:					
	< 10	10 - 24	25 - 50	> 50	
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT					
COMM. AGE :	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		



Stantec

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Fax: (519) 836-2493

**Wildlife Habitat
Assessment**

Feature 54
Turbine 18 + Access Rd
581847

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 24, 2010

Field Personnel: GAW

Weather Conditions:	Temp: <u>24°</u>	Wind: <u>5</u>	Cloud: <u>50%</u>	PPT: <u>∅</u>	PPT in last 24 hrs: <u>∅</u>
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO BLJA	whf. f. deer	AMTO	sulphur yellow	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand <5% of stand

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) mostly @ edges

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Few, 10-25cm DBH, some w loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	15-20m	20-30cm	10-15 m	10-20cm

Bat Mat Roost? No.

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Very old logging roads.

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
~10	away from edge east-centre	dry	variable	yes.	yes

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646		POLYGON: ①	
	SURVEYOR(S): GAW	DATE: Sep. 24, 2010	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input checked="" type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input checked="" type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	4	PICGLAU
2 SUB-CANOPY	4	4	" > CORFO.RA = FRAPENN
3 UNDERSTOREY	5-7	4	CUMI SP
4 GRD. LAYER			

HT CODES: 1=>25 m 2=10<HT.25 m 3=2<HT.10 m 4=1<HT.2 m 5=0.5<HT.1 m 6=0.2<HT.0.5 m 7=HT<0.2 m
CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION:				BA:
SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10-24	<input type="checkbox"/> 25-50	<input type="checkbox"/> > 50
STANDING SNAGS:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10-24	<input type="checkbox"/> 25-50	<input type="checkbox"/> > 50
DEADFALL / LOGS:	<input type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10-24	<input type="checkbox"/> 25-50	<input type="checkbox"/> > 50
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT				
COMM. AGE :	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Cultural	CODE: CU
COMMUNITY SERIES: Cultural Plantation	CODE: CUP
ECOSITE: Coniferous Plantation	CODE: CUP3
VEGETATION TYPE: wht spruce Coniferous Plantation	CODE: CUP3-13*
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

581847

ELC PLANT SPECIES LIST	SITE: Turbine 15 + Access Road	
	POLYGON: Feature 54	
	DATE:	
	SURVEYOR(S):	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
PICGLAU	D	D	R			CUMI sp						
FRAPENN	R	O	O									
RHACATH		O	O									
Crataegus sp		O	O									
Willow sp		R										
CORFO.RA	O	O										

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: (2)	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA = Shaabark > QUERUBR
2 SUB-CANOPY	3	4	" > bluebeech
3 UNDERSTOREY	4-5	4	" "
4 GRD. LAYER	6-7	4	Ash seedlings, RHURANE

HT CODES: 1 = >25m 2 = 10<HT: 25m 3 = 2<HT: 10m 4 = 1<HT: 2m 5 = 0.5<HT: 1m 6 = 0.2<HT: 0.5m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	O 25-50	R > 50
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STANDING SNAGS:	O < 10	O 10-24	R 25-50	> 50
------------------------	--------	---------	---------	------

DEADFALL / LOGS:	A < 10	O 10-24	> 50
-------------------------	--------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: F-M Sugar Maple Deciduous Forest	CODE: FODb
VEGETATION TYPE: Dec. Fresh-moist Sugar Maple - Hickory Forest	CODE: FODb-6*
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL	SPECIES CODE	LAYER				COLL
	1	2	3	4			1	2	3	4	
QUEMACR	0				Edges	bottlebrush gr				0	
TILAMER	R	0	0	0		PARINSE				0	
Shaabark	A	A	0			RHURANE				A	
FRAPENN	0	0	0	A		false s. seal				0	
ACESASA	A	A	0	0		ASTLATE				0	
ACERUBR		0	0			bladder-sedge				R	X
OSTVIRG		0	0			FRAVESC				0	
bluebeech		A	A			Viola sp.				0	
QUERUBR	A	0	0			GEUAPPE				0	
FAGGRAN	R	0	0			PZEAIBA				0	
PRUSERO			0	0		GERMACU				0	
VLAMAMER		R	R		edges	CIRLEUT				0	
						SOLCAES				0	
						GLYSTRI				0	
blackberry			0			RANHISP				R	
PROVIVI			0			St. nettle				0	
ROSMULTI			R			ONOSENS				0	
RHACATH			0			hog peanut				0	
RUBALLE			0			EUOBOV				0	
SAMCANA			R			climb p. ivy				0	
RIBCYN0			0			hairy s. seal				0	
VITRIPA			0			AGRGRYP				0	
						GEUCANA					
						IMCAPE					
						GERROBE					



Stantec

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70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

**Wildlife Habitat
Assessment**

Feature 54
Turbine 14 + Access Rd
581846

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 24. 2010

Field Personnel: GAW

Weather Conditions:	Temp: 24°	Wind: 5	Cloud: 50%	PPT: ∅	PPT in last 24 hrs: ∅
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO BLJA	deer trail/beds in soy		cabbage wht sulphur yellow	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): Only one

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 2% of stand,

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) Mostly @ edges

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Few. DBH 10-15 cm, some w loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	10-15m	15-25cm	5-10m	5-10cm

Bat Mat Roost? No

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe old logging road

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
Few	east-centre	dry	2-5m	yes	yes

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646 POLYGON: ①

SURVEYOR(S): GAW DATE: Sept. 24, 2010

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA = Shagbark > QUERUBR
2 SUB-CANOPY	3	4	" > blue beech
3 UNDERSTOREY	4-5	4	" "
4 GRD. LAYER	6-7	4	Ash seedlings

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-1 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	O 25-50	R > 50
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STANDING SNAGS:	O < 10	O 10-24	R 25-50	> 50
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DEADFALL / LOGS:	A < 10	O 10-24	> 25-50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO

COMMUNITY SERIES: Deciduous Forest CODE: FOD

ECOSITE: FM Sugar Maple Decid. Forest CODE: FOD6

VEGETATION TYPE: Dec. Fresh-moist Sugar Maple-Hickory Forest CODE: FOD6-b*

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC PLANT SPECIES LIST

SITE: Turbine 14 + Access Road 581846

POLYGON: Feature 54

DATE:

SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
QUEMACR	O				Edges	bottlebrush gr				R	
TILAMER	R	O	O	O		PARINSE				O	
Shagbark	A	A	O			RHURANE				O	
FRAPENN	G	O	O	A		false s. seal				O	
ACESASA	A	A	G	O		ASTLATE				O	
ACERUBR		O	O			FRAVESC				O	
OSTVIRG		O	O			Viola sp				O	
blue beech		A	A			GEUPPE				O	
QUERUBR	A	O	O			PREALBA				O	
FAGGRAN	R	O	O			GERMACU				O	
PRUSERO			O	O		CIRLEUT				O	
ULMAMER	R	R			edges	SOLCAES				O	
						GLYSTRI				O	
						RANHISP				R	
blackberry						St. Nettle				O	
PRUVIVI						ONOSENS				O	
ROSMULT						hog peanut				O	
RHACATH						EUOBOV				O	
RUBALLE						climb. p. ivy				O	
SAMCANA						hairy s. seal				O	
BIBICNO						AGRGRYP				O	
VITRIPA						GEUCANA				O	
Craetegus sp						IMPCAPE				O	
						BERROBE				O	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:		
	SURVEYOR(S):		DATE:	UTME:	
	START:	END:	UTMZ:		UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY		
2	SUB-CANOPY		
3	UNDERSTOREY		
4	GRD. LAYER		

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:				BA:			
SIZE CLASS ANALYSIS:				< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:				< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:				< 10	10 - 24	25 - 50	> 50
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT							
COMM. AGE:		PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH	

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

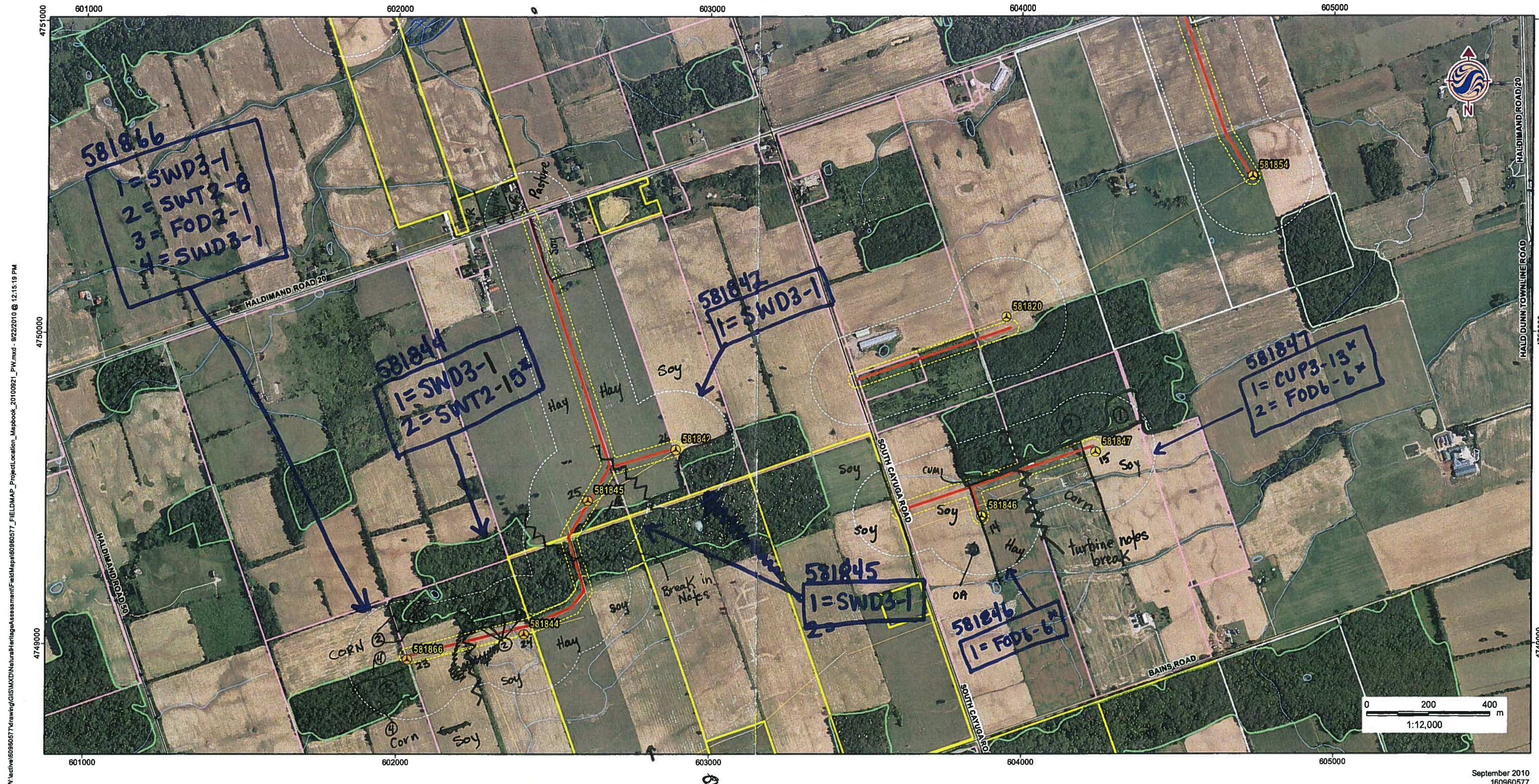
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

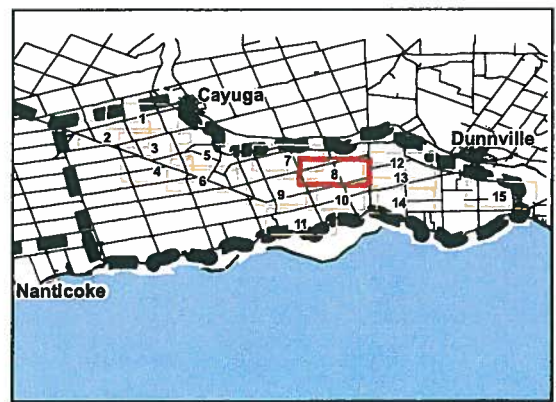
SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		



W:\active\60960577\drawing\GIS\MAXXD\Natural\SiteAssessment\FinalMap\60960577_FIELDMAP_ProjectLocation_Mapbook_20100921_PW.mxd - 9/22/2010 @ 12:15:19 PM



Legend	
	Project Location
	Proposed Turbine Location
	Proposed Access Road
	Proposed Collector Line
	ROW Installation Zone
	120m Investigation Zone
	Elenco Aquired Agreements
	Government Lands
	UDI Lands
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant



Original:
 Don't Throw
 Out


Notes

- Coordinate System: UTM NAD 83 - Zone 17 (N).
- Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
- Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
 SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 8

Title
PROJECT LOCATION MAP

		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		Wildlife Habitat Assessment <i>Feature 55</i> <i>Turbine 23</i>	
Project Number <i>161010646</i>		Project Name: <i>Samsung</i> <i>581866</i>			
Date / Time: <i>Sept. 30. 2010</i>		Field Personnel: <i>GAW</i>			
Weather Conditions:	Temp: <i>20°</i>	Wind: <i>1-2</i>	Cloud: <i>100%</i>	PPT: <i>∅</i>	PPT in last 24 hrs: <i>Fog</i>

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> <i>RWBB</i> <i>DOWO</i> <i>AMCR</i>	<i>GRSQ</i> <i>Deer</i> <i>east cottontail</i>	<i>NLFR</i>		

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : eastern (Feature 55)

Approximate age of stand young to mature trees

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) oaks throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Some very large, concentrated @ west end. two > 50cm DBH, some w loose bark. Above SWT vegetation.

} project location moved; now > 120m.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	5-20m	10cm - >50	4-18m	Small & medium

BAT MAT Roost? Maybe

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe regenerating

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	SWT	dry	variable	yes	yes

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646 POLYGON: ①

SURVEYOR(S): GAW DATE: Sept. 30, 2010

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACERUBR > QUERCUS = FRAPENN
2 SUB-CANOPY	3	4	FRAPENN > blue beech
3 UNDERSTOREY	4-5	4	blue beech > FRAPENN
4 GRD. LAYER	6-7	4	moss, RHURANE, FRAVESC

HT CODES: 1 => 25 m 2 = 10<HT. 25 m 3 = 2<HT. 10 m 4 = 1<HT. 2 m 5 = 0.5<HT. 1 m 6 = 0.2<HT. 0.5 m 7 = HT<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	O 25-50	/ > 50
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STANDING SNAGS:	O < 10	R 10-24	R 25-50	/ > 50
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DEADFALL / LOGS:	A < 10	O 10-24	R 25-50	/ > 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW

COMMUNITY SERIES: Deciduous Swamp CODE: SWD

ECOSITE: Maple Mineral Deciduous Swamp CODE: SWD3

VEGETATION TYPE: Red Maple Mineral Deciduous Swamp CODE: SWD3-1

INCLUSION CODE:

COMPLEX CODE:

Notes: Front (N) edge is younger regen

ELC PLANT SPECIES LIST

SITE: Turbine 26 + Access Rd 581842

POLYGON: Feature 55

DATE:

SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACERUBR	D	A	O			RHURANE				A	
FRAPENN	O	O	O	O		VEROFFI				O	
ULMAMER	R	O				Carex sp.				O	
QUERUBR	A					FRAVESC				A	
Shagbark	O	O				GEVAPPE				O	
TILAMER	O	O				AGRGRYP				O	
QUEALBA	O					OXASTRI				O	
Swamp wht oak	O					ONOSENS				O	
FAGGRAN			R			EUBOBOV				O	
OSTVIRG		R				wild basil				O	
FRANIGR	O	O	O	O		PREALBA				O	
QUEMACR	O					Viola sp.				O	
blue beech	O	D	A			CIRLEUT				O	
RHACATH			O			GERMACU				O	
com barberry			R			GEUCANA				O	
PRUVINI			O			mosses				A	
RUBIDAE			O			climb. p. ivy				O	
LONDIOL			O			ASTLATE				O	
RIBAMER				X		SOLDULC				O	
						hog peanut				O	
						SMITHISP				O	
						Skullcap				O	
						false s. seal				O	
						Grass sp.				O	
						PARINSE				O	
						GLYSTRI				O	



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**Wildlife Habitat
Assessment**

Feature 55
Turbine 24

Project Number	161010646	Project Name:	Samsung
Date / Time:	Sept. 30. 2010	Field Personnel:	GAW

581844

Weather Conditions:	Temp: 20°	Wind: 1-2	Cloud: 100%	PPT: ∅	PPT in last 24 hrs: Fog
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMR/VO AMCR DOWO	GRSQ	AMTO SPPE		

→ drainage ditch through woods

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : only one

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) oaks throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. fairly abundant, most 15-25cm DBH with loose bark

BAT MAT ROOST? No.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	4-10m	15-30cm	3-7m	small + medium

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe past logging

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	throughout. SWT within woods could be beech habitat	shallow "	→ 2x10m	yes- shrubs	yes

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
POLYGON: ①

SURVEYOR(S): GAW
DATE: Sept. 30, 2010
UTME:

START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	1	ACERUBR > QUEMACR
2 SUB-CANOPY	3	4	" > FRAPENN
3 UNDERSTOREY	4.5	4	" " > Cornus = blue beech
4 GRD. LAYER	6.7	4	RHURA-NE, RUBIDAE, FRAVESC

HT CODES: 1 = >25m 2 = 10<HT: 25m 3 = 2<HT: 10m 4 = 1<HT: 2m 5 = 0.5<HT: 1m 6 = 0.2<HT: 0.5m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR - 10% 2 = 10 < CVR - 25% 3 = 25 < CVR - 60% 4 = CVR > 60%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	0	R	0	0
DEADFALL / LOGS:	A	0	0	0

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW
 COMMUNITY SERIES: Deciduous Swamp CODE: SWD
 ECOSITE: Maple Mineral Deciduous Swamp CODE: SWD3
 VEGETATION TYPE: Red Maple Mineral Deciduous Swamp CODE: SWD3-1
 INCLUSION CODE:
 COMPLEX CODE:

Notes: younger regen

ELC
PLANT SPECIES LIST

SITE: Turbine 2/3
POLYGON: Feature 55
DATE:
SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACERUBR	D	A	A			RHURA-NE				A	
QUEMACR	A	O				FRAVESC				A	
FRAPENN	O	O	O	O		Carex sp.				O	
ULMAMER		O	O			ASTLATE				O	
blue beech		O	O			VEROFF1				O	
Shagbark	R	O				IRIVERS				R	
ACEFREE	O	O				ONOSENS				O	
FAGGRAN		R	O			St. nettle				O	
						SOLDULC				O	
						CARINTV				O	
silky dogwd			A								
RHACATH		O									
Crataegus sp		O									
RUBIDAE				O							
SPIALBA		O	O								
PRUVIVI		O									

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ②	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input checked="" type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	2	ACERUBR > ULMAMER
2 SUB-CANOPY	4	4	Cornus
3 UNDERSTOREY	5	4	"
4 GRD. LAYER	6-7	4	grasses, SOLRUGO, EUTGRAM

HT CODES: 1 => 25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR . 10% 2 = 10 < CVR . 25% 3 = 25 < CVR . 50% 4 = CVR > 50%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
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STANDING SNAGS:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
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DEADFALL / LOGS:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
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ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
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SOIL ANALYSIS:		
TEXTURE:	DEPTH TO MOTTLES / GLEY g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)	

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS: Swamp	CODE: SW
COMMUNITY SERIES: Thicket Swamp	CODE: SWT
ECOSITE: Mineral Thicket Swamp	CODE: SWT2
VEGETATION TYPE: Silky Dogwood Mineral Thicket Swamp	CODE: SWT2-8
INCLUSION: Forb-graminoid Min M. Marsh	CODE:
<input checked="" type="checkbox"/> COMPLEX	CODE: MAM2-11*

Notes: occasional large oaks in super-canopy

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Silky dogwood		D	D			Grass sp				A	
ILEVERT		O	O			Carex sp				O	
ULMAMER	O	O				GLYSTRI				O	
FRAPENN	O	O				SOLDULC				O	
ACERUBR		A	A			EUTGRAM				A	
CORSTOL			A	A		SOLRUGO				A	
SPIALBA			O			P.st. aster				O	
ROSMULT			O								
ROSPALU			O								
GUEMACR	O	O									
RHACATH			O								



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**Wildlife Habitat
Assessment**

Feature 55
Turbine 23/

581866

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 30. 2010

Field Personnel: GAW

Weather Conditions:	Temp: 20°	Wind: 1-2	Cloud: 100%	PPT: ∅	PPT in last 24 hrs: Fog
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO RWBB DOWO AMCR	GRSQ Deer east. cottontail	NLFR		

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): eastern (Feature 55)

Approximate age of stand young w mature trees

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) oaks throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Some very large, concentrated @ west end. two > 50cm DBH, some w loose bark. Above SWT vegetation.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	5-20m	10cm - >50	4-18m	Small & medium

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe regenerating

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	SWT	dry	variable	yes	yes

BAT MAT
Roost? Maybe

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
POLYGON: ①

SURVEYOR(S): GAW
DATE: Sept. 30, 2010
UTME
START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input checked="" type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACERUBR ≥ FRAXINUS ≥ QUERCUS
2 SUB-CANOPY	3	4	FRAXINUS > blue beech
3 UNDERSTOREY	4-5	4	blue beech > FRAXINUS
4 GRD. LAYER	6-7	4	moss RHURA·NE FRAVESC

HT CODES: 1=>25m 2=10<HT. 25m 3=2<HT. 10m 4=1<HT. 2m 5=0.5<HT. 1m 6=0.2<HT. 0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR. 10% 2=10<CVR. 25% 3=25<CVR. 60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 A 10 - 24 O 25 - 50 R > 50

STANDING SNAGS: O < 10 R 10 - 24 R 25 - 50 / > 50

DEADFALL / LOGS: A < 10 O 10 - 24 R 25 - 50 / > 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW
COMMUNITY SERIES: Deciduous Swamp CODE: SWD
ECOSITE: Maple Mineral Deciduous Swamp CODE: SWD3
VEGETATION TYPE: Red Maple Mineral Deciduous Swamp CODE: SWD3-1
INCLUSION CODE:
COMPLEX CODE:

Notes: Drainage ditch through SWD running E-W

ELC
PLANT SPECIES LIST

SITE: Turbine 2/4 Feature 55
POLYGON:
DATE:
SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
POPTREM	R					DRY MARG					0
FAGGRAN	O	O			never adobs	lady fern					0
DLMAMER	O	O	O			St. nettle					0
QUERUBR	A	O				l.l. aster					0
FRAPENN	O	O	O	O		IMPCA·PE					0
ACERUBR	D	A	A			VITRIPA					0
Shagbark	O	O				RHURA·NE					A
TILAMER	O	O				FRAVESC					A
QUEALBA	O					GEUCANA					0
Swamp wh. oak	O					EUO·BOV					0
FAGGRAN		O				ON·SENS					0
OSTVIRG		O	O			OXASTRI					0
FRANIGR	O	O	O	O		PREALBA					0
blue beech		A	D	O		Viola sp					A
RIBCYN		O				CIRLEUT					0
PRUSERO		R				GERMACV					0
RUBIDAE		O				moss					A
silky dogwood		O				climb. p. ivy					0
ROSPALU		O				ASTLATE					0
SPIALBA		O				hog. plant					0
QUEMACR	O					GLYSTRI					0

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ②	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN <input type="checkbox"/> ACIDIC BEDRK <input type="checkbox"/> BASIC BEDRK <input type="checkbox"/> CARB. BEDRK	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input checked="" type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACERUBR = ILEVERT
2 SUB-CANOPY	4-5	4	Cornus
3 UNDERSTOREY	6	4	"
4 GRD. LAYER	7	4	grass sedge, EUTGRAM, SOLRUGO

HT CODES: 1 = >25 m 2 = 10<HT. 25 m 3 = 2<HT. 10 m 4 = 1<HT. 2 m 5 = 0.5<HT. 1 m 6 = 0.2<HT. 0.5 m 7 = HT<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION:		BA:
SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> < 10 <input type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input type="checkbox"/> > 50	
STANDING SNAGS:	<input type="checkbox"/> < 10 <input type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input type="checkbox"/> > 50	
DEADFALL / LOGS:	<input type="checkbox"/> < 10 <input type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input type="checkbox"/> > 50	
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT		
COMM. AGE:	<input type="checkbox"/> PIONEER <input checked="" type="checkbox"/> YOUNG <input type="checkbox"/> MID-AGE <input type="checkbox"/> MATURE <input type="checkbox"/> OLD GROWTH	

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp	CODE: SW
COMMUNITY SERIES: Thicket Swamp	CODE: SWT
ECOSITE: Mineral Thicket Swamp	CODE: SWT2
VEGETATION TYPE: Red Maple Mineral Thicket Swamp	CODE: SWT2-15*
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
SILKY dogwood		D	A			grass				O	
ILEVERT		O	O			Carex sp.				A	
ULMAMER	O	O				GLYSTRI				O	
FRAPERAN	O	O				SOLDULC				O	
ACERUBR	A	A				Carriion flwr				R	
CORSTOL		A	A			EUTGRAM				A	
ROSMULT			O			SOLRUGO				A	
ROSPALU			O			P.st. aster				A	
QUEMACR	O	O									
RHACATH		O	O								
SPIALBA			O								



Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

**Wildlife Habitat
Assessment**

Feature 55
Turbine 25
581845

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 30. 2010

Field Personnel: GAW

**Weather
Conditions:**

Temp: 18°

Wind: 1-2

Cloud: 100%

PPT: Ø

PPT in last
24 hrs:
Fog

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO AMCR KILL DOWO	SKUNK	AMTO SPPE		

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand <5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) oaks throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. few, 15-25cm DBH, some w loose bark

BAT MAT ROOST = No

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	4m - 20m	15-25cm	3m - 10m	Small + medium

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Very old trail, old logging evidence

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	see A - dug pool also throughout SWD	>50cm Dry	5m x 5m extensive	yes	yes

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
POLYGON: ①

SURVEYOR(S): GAW
DATE: Sept. 30, 2010
UTME:

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACERUBR >> FRAXINUS >> QUERCUS
2 SUB-CANOPY	3	4	FRAXINUS > blue beech
3 UNDERSTOREY	4-5	4	blue beech > FRAXINUS
4 GRD. LAYER	6-7	4	moss, RHURA-NE, FRAVESC

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 A 10-24 O 25-50 R > 50

STANDING SNAGS: O < 10 R 10-24 R 25-50 / > 50

DEADFALL / LOGS: A < 10 O 10-24 R 25-50 / > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW

COMMUNITY SERIES: Deciduous Swamp CODE: SWD

ECOSITE: Maple Mineral Deciduous Swamp CODE: SWD3

VEGETATION TYPE: Red Maple Mineral Deciduous Swamp CODE: SWD3-1

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC
PLANT SPECIES LIST

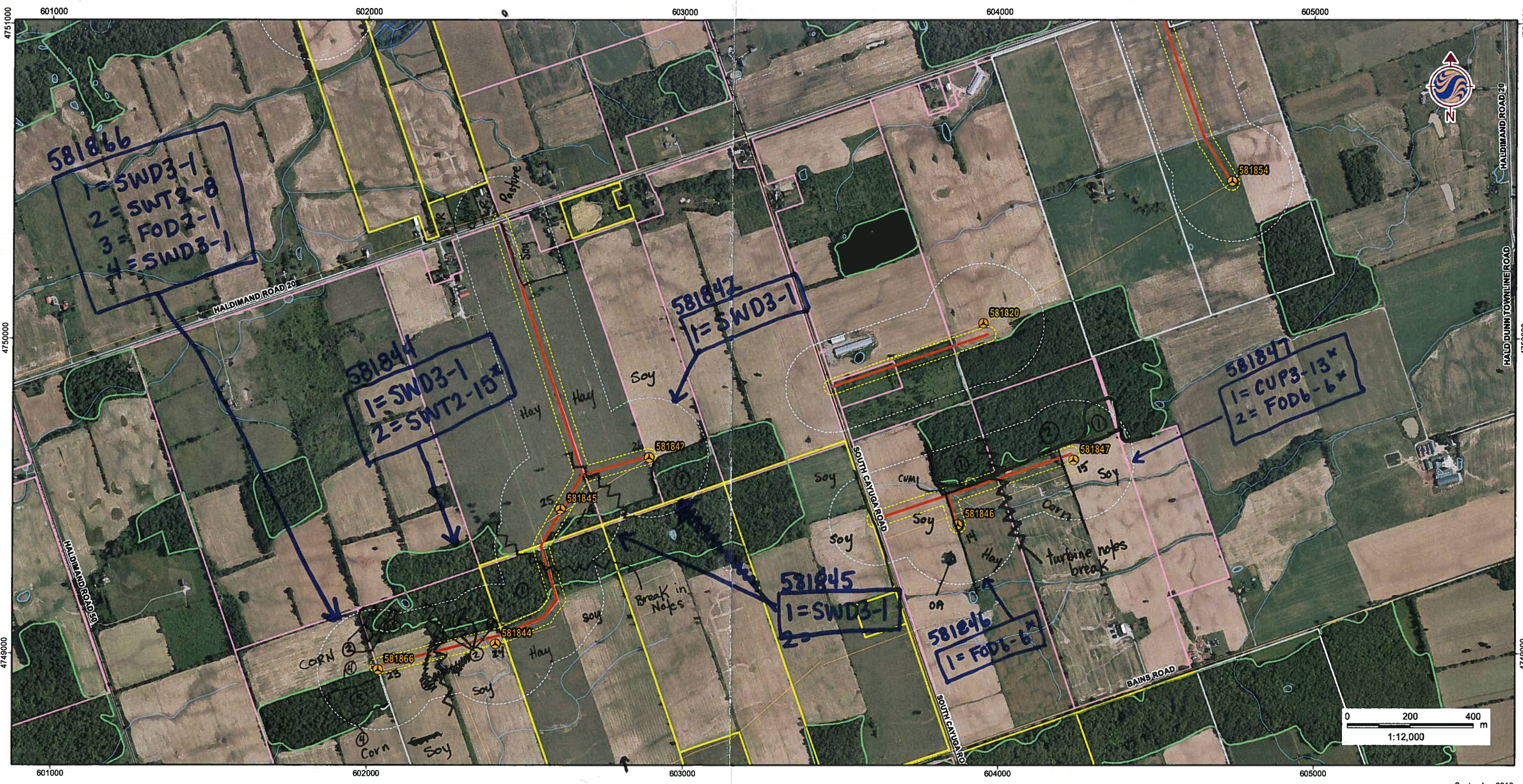
SITE: Turbine 25 + Access Rd
POLYGON: Feature 55
DATE:
SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACERUBR	D	A	O			1.1. aster				O	
FRAPENN	O	O	O	O		VITRIPA				O	
ULMAMER	R	O				DRYCAR				O	
QUERUBR	A					IMPCAPE				O	
Shagbark	O	O				LIGVULG				O	X
TILAMER	O	O				foamflower				O	
QUEALBA	O					RHU'RA-NE				A	
Swamp w/ oak	O					FRAVESC				A	
FAGGRAN			R			GEUCANA				O	
OSTVIRG		O	O			EUOBOV				G	
FRANIGR	O	O	O	O		ONOSENS				O	
blue beech		A	A			OXASTRI				O	
PRUSERO				R		wild basi /				O	
SAMCANA				R		PREALBA				O	
RUBALLE			O		X	Viola sp				O	
Silky dogwood			O			CIRLEUT				O	
SPIALBA			O			GERMACU				O	
ROSPALU			O			mosses				A	
QUEMACR	O					climb p. ivy				O	
						ASTLATE				O	
						hog peanut				O	
						skullcap				O	
						false s. seal				O	
						GLYSTR1				O	
						PARINSE				O	

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Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



Original:
Don't Throw
Out


Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 8

Title
PROJECT LOCATION MAP

 Stantec		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493	Wildlife Habitat Assessment Feature 5b			
Project Number: 161010646		Project Name: Turbine #3 ⁵⁸¹⁸⁶⁶				
Date / Time: Sept. 30. 2010		Field Personnel: GAW				
Weather Conditions:	Temp: 20°	Wind: 1-2	Cloud: 100%	PPT: ∅	PPT in last 24 hrs: Fog	

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, OP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO AMCR	GR. SQ Deer E. cottontail	/	/	/

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): Feature 5b

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand <10% of stand

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Several large beech + other smaller snags (10-14cm DBH). Some w loose bark. Beech were mostly short (broken off).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	4-20m	10-40cm	3-10m	small + medium

Bat Mat Roost? Possible

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe drainage ditch

Seeps/ springs present? Yes No

If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No

If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs/logs at pond edge
	SWD	dry, likely shallow	variable	yes	yes
	FOD	"	"	"	"

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
 POLYGON: ③

SURVEYOR(S): GAW
 DATE: Sept. 30, 2010
 UTME:
 START: END
 UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACERUBR = FAGGRAN > Quercus
2 SUB-CANOPY	3	4	FAGGRAN > ACERUBR
3 UNDERSTOREY	4-5	4	" > blue beech = ACERUBR
4 GRD. LAYER	6-7	4	l.l. aster, SOLCAES, seedlings

HT CODES: 1 = > 25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0-0.5 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	A 25-50	R > 50
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STANDING SNAGS:	R < 10	O 10-24	R 25-50	> 50
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DEADFALL / LOGS:	A < 10	O 10-24	R 25-50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	<input checked="" type="checkbox"/> MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO
 COMMUNITY SERIES: Deciduous Forest CODE: FOD
 ECOSITE: D-F Oak-Maple-Hickory Dec. Forest CODE: FOD2
 VEGETATION TYPE: Dry-fresh Oak-Red Maple Deciduous Forest CODE: FOD2-1
 INCLUSION Red maple-beech CODE: FOD
 COMPLEX CODE:

Notes: Vernal pools - shallow

581866

ELC
 PLANT SPECIES LIST

SITE: Turbine 2/3
 POLYGON: Feature 5B
 DATE:
 SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
POPTREM		R				l.l. aster				A	
FAGGRAN	A	A	A	O		SOLCAES				O	
ACERUBR	A	A	A	O		barren straw				O	
QUERUBR	O	O				beech drops				O	
OSTVIRG		O	O			Viola sp.				A	
FRAPENN		O	A			DRY CART				O	
blue beech			A			true sol. seal				O	
TILAMER						GEUCANA				O	
ACESASA	R	O				TRIEREC				O	
PRUSERO		O	O			Sweet cecily				O	
						OXASTRI				O	
						FRAVESC				O	
						RHURANE				O	
SAMCANA		R				GLYSTRI				O	
PRUVIVI		O				foam flower				O	
RHACATH		O				blnt. lob. hepatica				O	
RIBCYNO		R				EUCOBOV				O	
ROSPALU		R				MAICANA				O	
CORFORA		O				hog peanut				O	
						PREALBA				O	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: (4)	
	SURVEYOR(S):		DATE:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL, UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACERUBR > QUERCUS > FRAPENN
2 SUB-CANOPY	3	4	FRAPENN > blue beech
3 UNDERSTOREY	4-5	4	blue beech > FRAPENN
4 GRD. LAYER	6-7	4	RHURA.NE, FRAVESC

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-0.5 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 50% 4 = CVR > 50%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	A < 10	A 10-24	O 25-50	> 50
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STANDING SNAGS:	O < 10	R 10-24	R 25-50	> 50
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DEADFALL / LOGS:	A < 10	O 10-24	R 25-50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIIONEER	YOUNG	MID-AGE	<input checked="" type="checkbox"/> MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp	CODE: SW
COMMUNITY SERIES: Deciduous Swamp	CODE: SWD
ECOSITE: Maple Mineral Deciduous Swamp	CODE: SWD2
VEGETATION TYPE: Red Maple Mineral Deciduous Swamp	CODE: SWD3-1
INCLUSION	CODE:
COMPLEX	CODE:

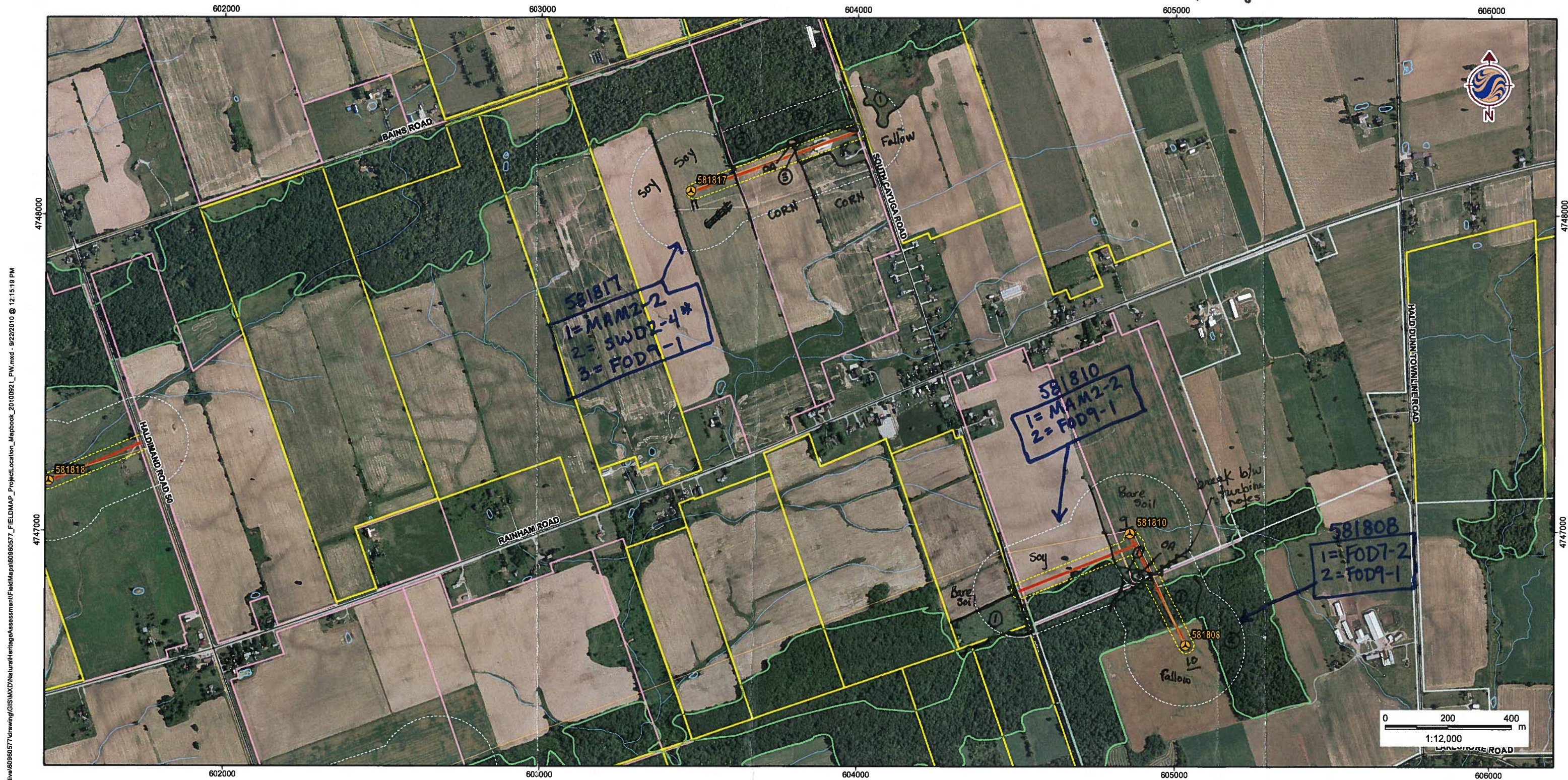
Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACERUBR	D	A	O			RHURA.NE				A	
FRAPENN	O	O	O	O		VEROFFI				O	
ULMAMER	R	O				CAREX sp				O	
QUERUBR	A					FRAVESC				A	
Shagbark	O	O				OXASTRI				O	
TILAMER	O	O	O			ONOSENS				O	
QUEALBA	O					EUOBOV				O	
Swamp wht.oak	O					PREALBA				O	
FAGGRAN			R			Viola sp				O	
OSTVIRG		R	O			CIRLEUT				O	
FRANIGR	O	O	O	O		GERMACU				O	
						moss				O	
						climb. p. ivy				O	
blue beech		O	D	O		SOLDULC				O	
RHACATH			O			GLYSTR1				O	
PRUVIVI			O			PARINSE				O	
RUBIDAE			O			GEUCANA				O	
LONDIOI				O							

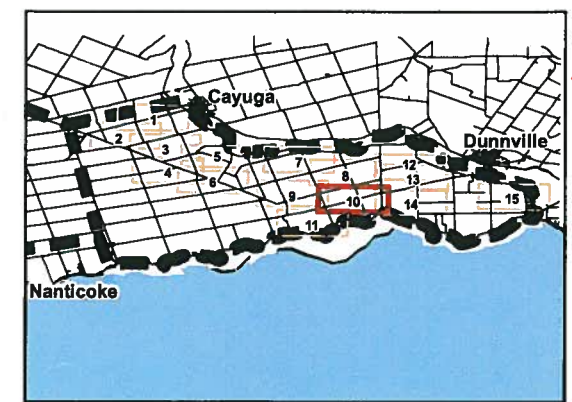


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September 2010
160960577

Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elexco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



*Original:
Don't Throw
out*

- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 10

Title
PROJECT LOCATION MAP





Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Feature 58

**Wildlife Habitat
Assessment**

581817

Turbine X + Access Road

Project Number <u>161010646</u>	Project Name: <u>Samsung</u>
Date / Time: <u>Sept. 23. 2010</u>	Field Personnel: <u>GAW</u>

Weather Conditions:	Temp: <u>19°</u>	Wind: <u>1-2</u>	Cloud: <u>50%</u>	PPT: <u>Ø</u>	PPT in last 24 hrs: <u>RAIN</u>
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMROVO</i> BLJA MODO	Deer Raccoon	WOFK	Sulphur yellow	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (Indicate on map): Only one

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) mostly of edge

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Several, 15-20m, ~20cm DBH, loose bark on some.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Bat Mat Roost? No

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe ATV trails

Seep/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	mostly in SWD	Dry	extensive	yes	yes

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: ①
	SURVEYOR(S): GAW	DATE: Sept. 23, 2010
	START:	END:
	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input checked="" type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	4	reed cary >> Solidago
2 SUB-CANOPY	5-7	4	" "
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
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STANDING SNAGS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
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DEADFALL / LOGS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT
COMM. AGE : <input type="checkbox"/> PIONEER <input checked="" type="checkbox"/> YOUNG <input type="checkbox"/> MID-AGE <input type="checkbox"/> MATURE <input type="checkbox"/> OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Marsh	CODE: MA
COMMUNITY SERIES: Meadow Marsh	CODE: MAM
ECOSITE: Mineral Meadow Marsh	CODE: MAM2
VEGETATION TYPE: Reed Canary Grass Min. Meadow Marsh	CODE: MAM2-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

581817

ELC PLANT SPECIES LIST	SITE: Turbine 11 + Access Rd
	POLYGON: Feature 58
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
Reed Canary	D	D										
SOLCANA	0											
SOLRUGO	0											
P. looestrife	R											
EUTGRAM	0											
ASTLATE	0											
ASTNOVA	0											
willowherb		0										
CORSTOL	R											
LYCUNIF		0										
Polygonum		0										
Teasle		0										
EUPPERF		0										

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: 2	
	SURVEYOR(S):		DATE:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENN > ACERUBR >> ACEFREE
2 SUB-CANOPY	3	4	" "
3 UNDERSTOREY	4-5	4	" " = blue beech = PRUVIN1
4 GRD. LAYER	6-7	4	IMPCAPE, sedges, nettles

HT CODES: 1 => 25m 2 = 10<HT-25m 3 = 2<HT-10m 4 = 1<HT-2m 5 = 0.5<HT-1m 6 = 0.2<HT-0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10% < CVR < 25% 3 = 25% < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	A < 10	A 10-24	O 25-50	> 50
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STANDING SNAGS:	O < 10	O 10-24	> 25-50	> 50
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DEADFALL / LOGS:	A < 10	A 10-24	R 25-50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	<input checked="" type="checkbox"/> MATURE	OLD GROWTH
-------------------	---------	-------	---------	--	------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp	CODE: SW
COMMUNITY SERIES: Deciduous Swamp	CODE: SWD
ECOSITE: Mineral Deciduous Swamp	CODE: SWD2
VEGETATION TYPE: Green Ash - Red Maple Min. Dec. Swamp	CODE: SWD2-4*
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pt. 14 marks West extent

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAPENN	D	A	A	A		ALLPET1				O	
ACERUBR	A	A	O			turk's lily				R	
TILAMER	O	O				PARINSE				A	
ACESASA	O	O				IMPCAPE				A	
ULMAMER	O					Viola sp.				O	
blue beech			A			GEUCANA				O	
ACEFREE	O	O				hag-beanuf				O	
Swamp wt. Oak	R	O				GERMACU				A	
						Foam flower				O	
						EUOGBOU				O	
						false sol. seal				O	
						St. nettle				A	
						FRAVESC				O	
						herb. carion flwr				R	
RIBCYN0			O			ARITR.TR				R	
LONTATA			R			willow herb				O	
RUBALLE			A			OLASTRI				O	
PRUVIN1			A			RHURANE				A	
						SOLRUGO				O	
						STRAMPL				O	X
						DRYCART				O	
						l. aster				O	
						SIUSUAV				O	
						turtle head				R	
						LYCUNI				O	
						SOLDULC				O	
						ASTLATE					
GLYSTRI											
SOLCAES											
IRIVERS											

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: 2
	SURVEYOR(S): GAW	DATE: Sept. 22, 2010
	START: END	UTM: UTMN:
	START: END	UTM: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	4	Reed canary >>> Vervain
2 SUB-CANOPY	5-7	4	"
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES: 0= NONE 1= 0% < CVR, 10% 2= 10 < CVR, 25% 3= 25 < CVR, 60% 4= CVR > 60%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
ABUNDANCE CODES:	N = NONE R = RARE O = OCCASIONAL A = ABUNDANT			
COMM. AGE:	PIONEER	<input checked="" type="checkbox"/> YOUNG	MID-AGE	MATURE
				OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Marsh	CODE: MA
COMMUNITY SERIES: Meadow Marsh	CODE: MAM
ECOSITE: Mineral Meadow Marsh	CODE: MAM2
VEGETATION TYPE: Reed Canary Grass Mineral Mead. Marsh	CODE: MAM2-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

581818

ELC PLANT SPECIES LIST	SITE: Turbine + Access Rd
	POLYGON: Feature 58
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
reed canary	D	D											
blue vervain	O												
Canada thistle	O												
EUTGRAM	O												
willowherb	O												

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646		POLYGON: 3	
	SURVEYOR(S):		DATE: Sept. 23, 2010	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	QUERUBR > ACESASA > Shagbark
2 SUB-CANOPY	3	4	" " > FRAPENN
3 UNDERSTOREY	4-5	4	ACESASA = FAGGRAN = blue beech
4 GRD. LAYER	6-7	4	PARINSE, GERBICK, RHURANE

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	O 25-50	/ > 50
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STANDING SNAGS:	/ < 10	O 10-24	R 25-50	/ > 50
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DEADFALL / LOGS:	A < 10	A 10-24	O 25-50	/ > 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO

COMMUNITY SERIES: Deciduous Forest CODE: FOD

ECOSITE: Fresh-moist Oak-maple-Hickory Dec. Forest CODE: FOD9

VEGETATION TYPE: CODE: FOD9-1

F-M Oak-Sugar Maple Dec. Forest

INCLUSION CODE:

COMPLEX CODE:

Notes: much young undergrowth

ELC PLANT SPECIES LIST	SITE: Feature 58	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
QUEALBA	O	O				PARINSE				A	
QUEMACR	O	O				GERROBE				O	
QUERUBR	A	O	O			l.l. aster				O	
ACESASA	A	A	O			false s. seal				O	
TILAMER	O					SOLCAES				O	
Shagbark	A					GERMACU				A	
FAGGRAN	O	O	A			RHURANE				A	
blue beech		A				DRYCAR				O	
						X-mas fern				R	
						FRAVESC				O	
PRUVINI			A			GLYSTR1				O	
RHACATH			O			foam flower				O	
Crataegus sp			O			AGRGRYP				O	
Jap. barberry			O			GEVAPPE				O	
RUBIDAE			O								
RUBALLE			O								

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE	COVER	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
SITE		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
<input type="checkbox"/> BEDROCK		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 => 25m 2 = 10<HT<.25m 3 = 2<HT<.10m 4 = 1<HT<.2m 5 = 0.5<HT<.1m 6 = 0.2<HT<.0.5m 7 = HT<.0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :	PIioneer	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
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MOISTURE:	DEPTH OF ORGANICS:	(cm)
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HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)
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COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
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COMMUNITY SERIES:	CODE:
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ECOSITE:	CODE:
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VEGETATION TYPE:	CODE:
-------------------------	-------

INCLUSION	CODE:
------------------	-------

COMPLEX	CODE:
----------------	-------

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	



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Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

Forest Communities (FO)

FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 FOD- Deciduous Forest
 FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 FOD3-1- Dry-fresh Poplar Deciduous Forest
 FOD4-1- Dry-fresh Beech Deciduous Forest
 FOD4-2- Dry-fresh White Ash Deciduous Forest
 FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 FOD5-4- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

Swamp Communities (SW)

SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 SWD2-2- Green Ash Mineral Deciduous Swamp
 SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 SWD3-1- Red Maple Mineral Deciduous Swamp
 SWD3-2- Silver Maple Mineral Deciduous Swamp
 SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 SWD4-1- Willow Mineral Deciduous Swamp
 SWD4-2- White Elm Mineral Deciduous Swamp
 SWD3-3- Swamp Maple Mineral Deciduous Swamp
 SWD4-6- Green Ash – Swamp Maple Mineral Deciduous Swamp
 SWT- Thicket Swamp
 SWT2-4- Buttonbush Mineral Thicket Swamp
 SWT2-5- Red Osler Dogwood Mineral Thicket Swamp
 SWT2-8- Silky Dogwood Mineral Thicket Swamp
 SWT2-9- Gray Dogwood Mineral Thicket Swamp
 SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 SWT2-15- Red Maple Mineral Thicket Swamp
 SWT3-7- Winterberry Organic Thicket Swamp

Marsh Communities (MA)

MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 MAM2-10- Forb Mineral Meadow Marsh
 MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 MAS2-1- Cattail Mineral Shallow Marsh
 MAS2-8- Rice Cut-grass Mineral Shallow Marsh

Cultural Communities (CU)

CUM1- Mineral Cultural Meadow
 CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 CUW1-3- Ash – Sumac Mineral Cultural Woodland
 CUW1-4- Green Ash Mineral Cultural Woodland
 CUW1-5- Maple-Ash Cultural Woodland
 CUW1-6- Green Ash Cultural Woodland
 CUW1-7- Red maple Mineral Cultural Woodland
 CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 CUP3-13- White Spruce Coniferous Plantation

D- Disturbed
 R- Residential



Notes

- Coordinate System: UTM NAD 83 - Zone 17 (N).
- Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
- Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
- Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 11

Title
**ELC VEGETATION
 COMMUNITIES**

DRAFT



December 2010
160960577

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____
 SURVEYOR(S): _____ DATE: _____ UTMZ: _____ UTMN: _____
 START: _____ END: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUERUBR > FRAPENNO
2 SUB-CANOPY	2	4	ACESACS < FRAPENNO
3 UNDERSTOREY	3	4	FRAGRAN
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT.25m 3 = 2<HT.10m 4 = 1<HT.2m 5 = 0.5<HT.1m 6 = 0.2<HT.0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION:

BA: _____

SIZE CLASS ANALYSIS: A < 10 B 10 - 24 C 25 - 50 M > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G = _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: Dry-fresh Sugar maple - Oak Dec. Forst CODE: FOD5-3

INCLUSION: _____ CODE: _____

COMPLEX: _____ CODE: _____

Notes: 1b - no more or

Feature 58

ELC
PLANT SPECIES LIST

SITE: Samsung
 POLYGON: 11-1
 DATE: 21-Dec-2010
 SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
QUERUBR													
FRAPENNO													
QUERUS					R								
ACESACS					R								
Cornus					O								

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CAROLINAT > FRAPENN
2 SUB-CANOPY	2	4	" " > QUERALBA
3 UNDERSTOREY	3	4	FAGGRAN
4 GRD. LAYER			

HT CODES: 1 => 25m 2 = 10<HT 25m 3 = 2<HT, 10m 4 = 1<HT, 2m 5 = 0.5<HT, 1m 6 = 0.2<HT, 0.5m 7 = HT < 0.2m
CVR CODES 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 < 10 0 10-24 0 25-50 N > 50

STANDING SNAGS: N < 10 R 10-24 N 25-50 N > 50

DEADFALL / LOGS: N < 10 R 10-24 25-50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
ECOSITE: CODE:
VEGETATION TYPE: CODE:
Shagbark Hickory Dec. Forest. FOD9-1
INCLUSION CODE:
COMPLEX CODE:

Notes: Roadside.

- 2b - more Ag + Dw = Feature 46

Feature 58

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 11-2	
	DATE: 21-Dec-2010	
	SURVEYOR(S): M. Straus	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
CAROLINAT	P											
QUERALBA	O											
FRAPENN.	R	R			O in b							
FAGGRAN.	R	O	O									
QUERALBA	O				b							

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:	POLYGON:		
	SURVEYOR(S):	DATE:	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMMOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	Bolar > PLAPPENN
2 SUB-CANOPY	3		
3 UNDERSTOREY	4	2	CORSTEL
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<.25m 3=2<HT<.10m 4=1<HT<.2m 5=0.5<HT<.1m 6=0.2<HT<.0.5m 7=HT<0.2m
 CVR CODES: 0= NONE 1=0%<CVR<.10% 2=10<CVR<.25% 3=25<CVR<.60% 4=CVR>60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS: N < 10 A 10 - 24 M 25 - 50 N > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE : PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: Dry-fresh Bolar Dec Forest CODE: FOD3-1
 INCLUSION CODE:
 COMPLEX CODE:

Notes:

Feature 58

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 11-3
	DATE: 21-Dec-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Bolar					D	Asters					
PLAPPENN					O	Goldenrods					

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE	COVER	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THicket
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	FRAPPENN, QUEBICO, ULMAMEX
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	57	4	Dead Forbs - mam sp.

HT CODES: 1 = >25m 2 = 10-4HT, 25m 3 = 2-4HT, 10m 4 = 1-4HT, 2m 5 = 0.5-4HT, 1m 6 = 0.2-4HT, 0.5m 7 = HT < 0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10% < CVR, 25% 3 = 25% < CVR, 50% 4 = CVR > 50%

STAND COMPOSITION:

SIZE CLASS ANALYSIS: 0 < 10 0 10 - 24 0 25 - 50 N > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE . R = RARE 0 = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G = _____

MOISTURE: DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE: _____

COMMUNITY SERIES: CODE: _____

ECOSITE: CODE: _____

VEGETATION TYPE: Green Ash Mineral Dec Swamp SW2-2 CODE: _____

INCLUSION: CODE: _____

COMPLEX: CODE: _____

Notes: Groundcover unknown mam w creek hard to see most hard to see cover w out leaves

Feature 58

ELC PLANT SPECIES LIST

SITE: Samsung

POLYGON: 11-4

DATE: 21-Dec-2010

SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE 0 = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ULMAMEX	R				
FRAPPENN	0				
QUEBICO	0				

Feature 58

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARE. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUERUBA > ACESACS > QUERUBA
2 SUB-CANOPY	2	4	ACESACS > FAGGRAN
3 UNDERSTOREY	3	4	FAGGRAN > OSTVIGS
4 GRD. LAYER			

HT CODES: 1=>25 m 2=10<HT.25 m 3=2<HT.10 m 4=1<HT.2 m 5=0.5<HT.1 m 6=0.2<HT.0.5 m 7=HT<0.2 m
 CVR CODES 0= NONE 1= 0% < CVR, 10% 2= 10 < CVR, 25% 3= 25 < CVR, 60% 4= CVR > 60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS: ① < 10 0 10 - 24 0 25 - 50 N > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE X MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G= _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: P-F Sugar maple - Oak Dec. Forest CODE: F005-3

INCLUSION _____ CODE: _____

COMPLEX _____ CODE: _____

Notes:

ELC
PLANT SPECIES LIST

SITE: Samsung
 POLYGON: 11-5
 DATE: 21-Dec-2010
 SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ACESACS	0	0			
FAGGRAN	2	0			
QUERUBA	0				
QUERUBA	0				

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACER FR
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0 < 10	0 10 - 24	0 25 - 50	R > 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Swamp Made Mineral Dec. Swamp	SWD3.3
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 11-b.
	DATE: 21-Dec-2010
	SURVEYOR(S): M Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACER FR					D	Sedge					O
QUERCUS R											
FALGRAW				O							

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

ELC PLANT SPECIES LIST	SITE: <i>Samsung.</i>	
	POLYGON: <i>11-7</i>	
	DATE: <i>21-Dec-2010</i>	
	SURVEYOR(S): <i>M. Straus</i>	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	<i>QUERALBA</i> > <i>ACER</i>
2 SUB-CANOPY	2	4	<i>TALINIAN</i> > <i>QUERALBA</i> > <i>FRAXINUS</i> > <i>ACER</i>
3 UNDERSTOREY	3	4	<i>FRAXINUS</i>
4 GRD. LAYER			

HT CODES: 1=>25 m 2=10<HT<25 m 3=2<HT<10 m 4=1<HT<2 m 5=0.5<HT<1 m 6=0.2<HT<0.5 m 7=HT<0.2 m
CVR CODES 0=NONE 1=0% < CVR, 10% 2=10 < CVR, 25% 3=25 < CVR, 60% 4=CVR > 60%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	0 < 10	0 10 - 24	0 25 - 50	R > 50
STANDING SNAGS:	N < 10	R 10 - 24	M 25 - 50	M > 50
DEADFALL / LOGS:	N < 10	0 10 - 24	0 25 - 50	N > 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE : PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Fresh moist Sugar maple-Hardwood</i>	CODE: <i>FOD6-5</i>
INCLUSION <i>Dec. Forest</i>	CODE:
COMPLEX	CODE:

Notes:
Edge assessment - white Oak appeared most dominant; Not swampy though....

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
<i>QUERALBA</i>	0	0	-									
<i>FRAXINUS</i>	0	0	0	0								
<i>QUERUS</i>	0											
<i>ALNUS</i>	N											
<i>LILYPALMUS</i>	0	0										
<i>FRAXINUS</i>	0	0										

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECILOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY	4	2	CORNACE > Hawthorn.
4 GRD. LAYER	ST 4	4	Aster, Goldenrods.

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1<HT. 2m 5 = 0.5<HT. 1m 6 = 0.2<HT. 0.5m 7 = HT<0.2m
CVR CODES 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION:	BA:
SIZE CLASS ANALYSIS: A < 10 R 10-24 M 25-50 N > 50	
STANDING SNAGS: < 10 10-24 25-50 > 50	
DEADFALL / LOGS: < 10 10-24 25-50 > 50	
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT	
COMM. AGE: <input checked="" type="checkbox"/> PIONEER <input type="checkbox"/> YOUNG <input type="checkbox"/> MID-AGE <input type="checkbox"/> MATURE <input type="checkbox"/> OLD GROWTH	

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
	cum1
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

to wet area of Phragmites
bees kept here ✓ Pic 1917

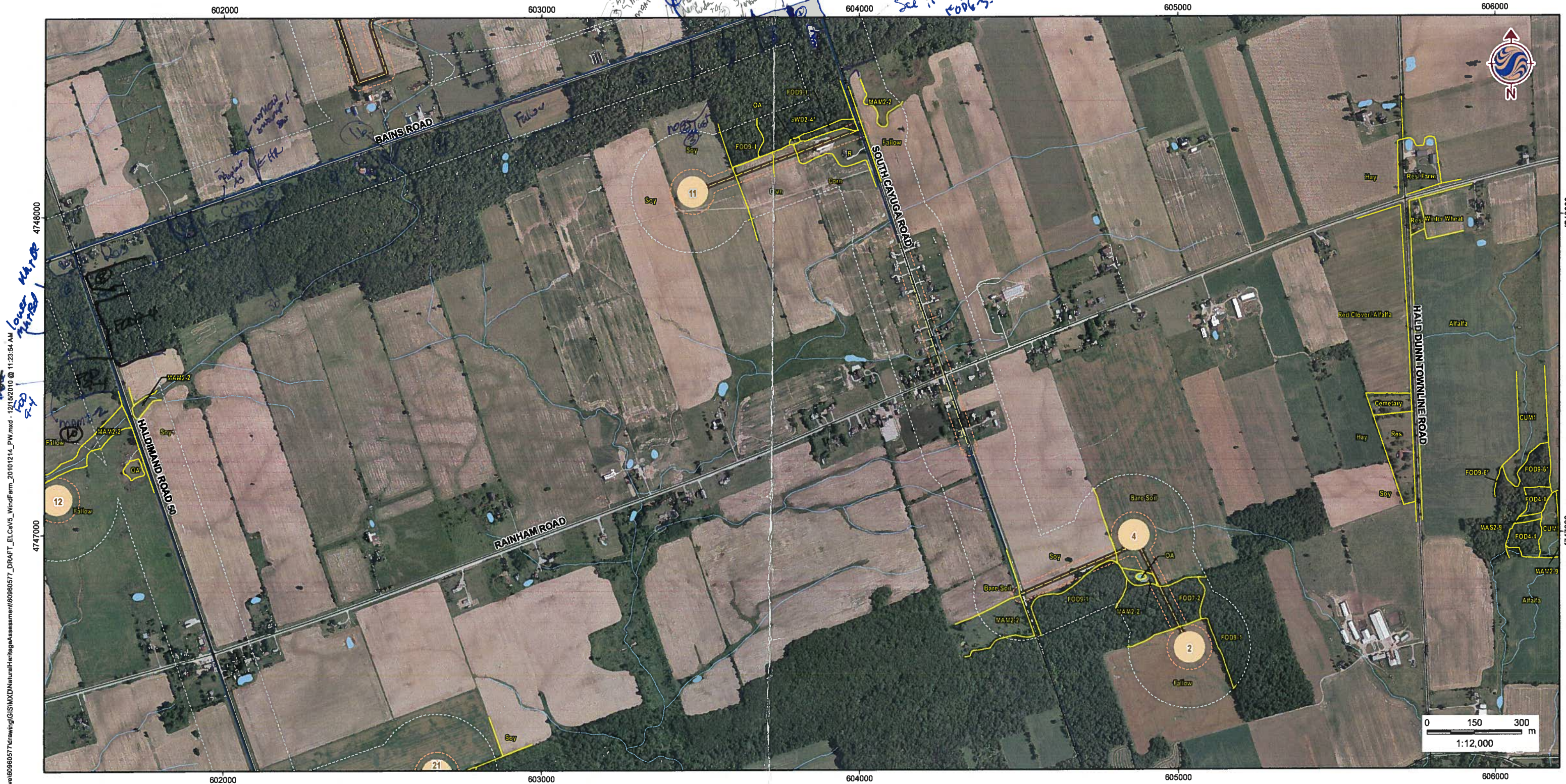
No feature

ELC PLANT SPECIES LIST	SITE: <i>Simsburg</i>	
	POLYGON: <i>11-8</i>	
	DATE: <i>21-Dec-2010</i>	
	SURVEYOR(S): <i>M. Straus</i>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<i>Howthorn</i>					<i>R</i>
<i>Goldenrod</i>					<i>O</i>

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<i>Phragmites</i>					<i>D</i>
<i>Talset</i>					<i>O</i>
<i>Cum sp.</i>					
<i>Aster</i>					<i>D</i>
<i>Goldenrods</i>					<i>D</i>



W:\archive\60960577\drawing\GIS\MXN\NaturalHeritageAssessment\60960577_DRAFT_ELC\N5_WindFarm_20101214_PW.mxd - 12/15/2010 @ 11:23:54 AM
 Lower M.A.P. 100 P.4
 4747000
 4748000

602000 603000 604000 605000 606000
 4747000 4748000
 1:12,000
 December 2010
 160960577

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine - Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak - Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak - Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak - Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple - Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple - Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple - White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple - Oak - Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple - Hickory - Beech Deciduous Forest
 - FOD6-1- Dry-fresh-moist Sugar Maple - Lowland Ash Deciduous Forest
 - FOD6-5- Dry-fresh-moist Sugar Maple - Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple - Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak - Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak - Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash - Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash - Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple - Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash - Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow - Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry - Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb - Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn - Sweet Cherry Cultural thicket
 - CUW1-3- Ash - Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine - White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N)
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
TILE 12 **DRAFT**

Title
ELC VEGETATION COMMUNITIES



Feature 58

ELC COMMUNITY DESCRIPTION (CLASSIFICATION)	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED <input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

SITE

OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENN = PRE-FRGE. / ACEFRUBR
2 SUB-CANOPY			WIMAMER
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-0.5m 7 = HT < 0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	R 25-50	N > 50
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STANDING SNAGS:	< 10	10-24	25-50	> 50
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DEADFALL / LOGS:	< 10	10-24	25-50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	<input checked="" type="checkbox"/> MID-AGE	MATURE	OLD GROWTH
------------	---------	-------	---	--------	------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
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MOISTURE:	DEPTH OF ORGANICS:	(cm)
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HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)
------------------------	-------------------	------

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Green Ash - Red maple Mixed Dec. Swamp	CODE: SW02-4*
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

165 - SW02-2
 Savanah Disturbed

ELC EVENT SERIES ID#	SITE: Samsung	
	POLYGON: 12-1	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Straus	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

STAND	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FRAPENN	R	O	A																	
ACEFRUBR	O																			
FRAPENN	O																			
WIMAMER	O																			

Feature 58

ELC GUIDANCE DESCRIPTION CLASSIFICATION	SITE:	POLYGON:	
	SURVEYOR(S):	DATE:	UTME:
	START:	END:	UTMZ:
	UTMN:		

SITE:	<i>Sumpung</i>
POLYGON:	<i>12-2</i>
DATE:	<i>22-Dec-2010</i>
SURVEYOR(S):	<i>M. Straus</i>

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC	HISTORY	BILANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> HILL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1		<i>ACESACs & FRAPENN</i>
2 SUB-CANOPY	2		
3 UNDERSTOREY	3	4	
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<0.6m 7=HT<0.2m
CVR CODES: 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 50% 4= CVR > 50%

STAND COMPOSITION:					BA:					
SIZE CLASS ANALYSIS:	<i>A</i>	< 10	<i>R</i>	10 - 24	<i>R</i>	25 - 50	<i>R</i>	> 50		
STANDING SNAGS:		< 10		10 - 24		25 - 50		> 50		
DEADFALL / LOGS:		< 10		10 - 24		25 - 50		> 50		
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT										
COMM. AGE:		PIONEER		YOUNG		MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
<i>Fresh-moist Sugar Maple Hardwood</i>	<i>FOD 63</i>
INCLUSION	CODE:
<i>Decid. Forest</i>	
COMPLEX	CODE:

Notes:

from road: Agwood in Pz under + some th. Not Swamp

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4
<i>ACESACs</i>	<i>0</i>			
<i>FRAPENN</i>	<i>AA</i>			
<i>FRAGUAN</i>		<i>0</i>		

EIC
 COUNTY OF
 ILLINOIS

SITE: _____ POLYGON: _____
 SURVEYOR(S): _____ DATE: _____ UTME: _____
 START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHY	BIOTIC	SOIL
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> PEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

SITE:
 OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUERCUS > CAROLIN. > FRAXIN.
2 SUB-CANOPY	2	4	
3 UNDERSTOREY	3	4	ACOSDES > FRAXIN.
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: _____ BA: _____

SIZE CLASS ANALYSIS: A < 10 R 10-24 R 25-50 R > 50

STANDING SNAGS: < 10 10-24 25-50 > 50

DEADFALL / LOGS: < 10 10-24 25-50 > 50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT
 COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G = _____
 MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____
 COMMUNITY SERIES: _____ CODE: _____
 ECOSITE: _____ CODE: _____
 VEGETATION TYPE: Fresh-moist Red Oak - Shagbark CODE: F009-6*
 INCLUSION Hickory Lec. Forst. CODE: _____
 COMPLEX CODE: _____

Notes:

Same understory as 12-2 - Super young + dense
 regeneration
 b = less dense under

EIC
 COUNTY OF
 ILLINOIS

SITE: Samsburg
 POLYGON: 12-3
 DATE: 27-Dec-2010
 SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CAROLIN.	00																			
FRAXIN.	00																			
ACOSDES	00																			
FRAXIN.	00																			

Feature 58

	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FORM	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					
<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CAROVAT > QUERALBA > FRAPPEN > FAGGILAN
2 SUB-CANOPY	2	4	CAROVAT, FRAPPEN
3 UNDERSTOREY	3	3-4	FAGGILAN
4 GRD. LAYER			

HT CODES: 1=>25m 2=10-HT<25m 3=3-HT<10m 4=1-HT<2m 5=0.5-HT<1m 6=0.2-HT<0.5m 7=HT<0.2m
 CVR CODES: 0=NONE 1=0% < CVR < 10% 2=10 < CVR < 25% 3=25 < CVR < 50% 4=CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Fresh-moist Shagbark Hickory Dec. Forest	FOD9-4
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

	SITE: Samsung
	POLYGON: 12-4
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CAROVAT	0																			
QUERALBA	0																			
FRAPPEN	0																			
FAGGILAN	R	O	O																	

ELC
COMMUNITY DESCRIPTION CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	FEATURE	ORIGIN	COMPLEX	
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LV. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

SITE

OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	1	Poplar, Acer
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	5-7	4	Asters, goldenrods

HT CODES: 1 = > 25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-0.5 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G = _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Mineral Cultural Meadow</i>	CODE: <i>Cum1</i>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

NO feature

ELC
PANTY

SITE: *Samsung*

POLYGON: *12-5*

DATE: *22-Dec-2010*

SURVEYOR(S): *M. Straus*

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Code
<i>Poplar</i>	2	1	R
<i>Acer</i>	2	1	R
<i>Asters</i>	5-7	4	A
<i>Goldenrods</i>	5-7	4	A
<i>grasses</i>			O

Feature 58

EIG CONTINENTAL DESCRIPTION CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

SITE:	Samsung
	POLYGON: 12-6
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> SOG <input type="checkbox"/> BARRIE <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACESACS > QUERUBL > CAROAT & FRAGGRAN & TILANR
2 SUB-CANOPY	2	4	
3 UNDERSTOREY	3	4	FRAGGRAN
4 GRD. LAYER			

Species	HT	CVR	Abundance
ACESACS	00	+	
FRAGGRAN	00	+	
TILANR	R00	+	
CAROAT	00	+	
CALCARO			

HT CODES: 1=>25m 2=10-41:25m 3=2-41:10m 4=1-41:2m 5=0.5-41:1m 6=0.2-41:0.6m 7=HT<0.2m
 CVR CODES: 0=NONE 1=0% < CVR < 10% 2=10 < CVR < 25% 3=25 < CVR < 50% 4=CVR > 50%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	A < 10	O 10 - 24	O 25 - 50	R > 50
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STANDING SNAGS:	N < 10	R 10 - 24	R 25 - 50	N > 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE - R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIIONEER	YOUNG	MID-AGE	<input checked="" type="checkbox"/> MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Fresh-moist Sugar Maple-Hardwood	F0D6-S
INCLUSION: Deciduous Forest	CODE:
COMPLEX:	CODE:

Notes: Upland bits - Mhr bc, lowland Mhr bd, + areas more
 Shashark oak. Overall = F0D6-S. - 2 wet lower pockets

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____
 SURVEYOR(S): _____ DATE: _____ UTM E: _____
 START: _____ END: _____ UTM Z: _____ UTM N: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			TYPH I

HT CODES: 1 = >25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 < 10 11 10 - 24 11 25 - 50 11 > 50
 STANDING SNAGS: 1 < 10 10 - 24 25 - 50 > 50
 DEADFALL / LOGS: 1 < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT
 COMM. AGE: 7 PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G = _____
 MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____
 COMMUNITY SERIES: _____ CODE: _____
 ECOSITE: _____ CODE: _____
 VEGETATION TYPE: Cattail Mineral Shallow Marsh MAS2-1 CODE: _____
 INCLUSION: _____ CODE: _____
 COMPLEX: _____ CODE: _____

Notes: Cattail Marsh.

ELC
 PLANT SPECIES LIST

SITE: Samsung
 POLYGON: 12-7
 DATE: 22-Dec-2010
 SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
						TYPHA -					D
						-narrow					
						leaved.					

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
			COVER		
SITE			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	23	FRAPENN
2 SUB-CANOPY	3	4	
3 UNDERSTOREY	4	3	COMUS
4 GRD. LAYER			

HT CODES: 1 => 25 m 2 = 10<HT: 25 m 3 = 2<HT: 10 m 4 = 1<HT: 2 m 5 = 0.5<HT: 1 m 6 = 0.2<HT: 0.5 m 7 = HT<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	A < 10	L 10 - 24	N 25 - 50	M > 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	<input checked="" type="checkbox"/> PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
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MOISTURE:	DEPTH OF ORGANICS:	(cm)
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HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)
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COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Green Ash Mineral/Cultural</i>	CODE: <i>RUN1-4*</i>
INCLUSION <i>woodland</i>	CODE:
COMPLEX	CODE:

Notes:

On bank as leads into MAS

Feature 58

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>	
	POLYGON: <i>12-8</i>	
	DATE: <i>22-Dec-2010</i>	
	SURVEYOR(S): <i>M. Straus</i>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
<i>FRAPENN</i>		0											
<i>COMUS</i>		0											

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____
 SURVEYOR(S): _____ DATE: _____ UTME: _____
 START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25 m 2 = 10<HT<.25 m 3 = 2<HT<.10 m 4 = 1<HT<.2 m 5 = 0.5<HT<.1 m 6 = 0.2<HT<.05 m 7 = HT<0.2 m
 CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION: _____ BA: _____

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
-----------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
-------------	---------	-------	---------	--------	------------

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G= _____
 MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____
 COMMUNITY SERIES: _____ CODE: _____
 ECOSITE: _____ CODE: _____
 VEGETATION TYPE: _____ CODE: _____

INCLUSION _____ CODE: _____
 COMPLEX _____ CODE: _____

Notes:

ELC
PLANT SPECIES LIST

SITE: _____
 POLYGON: _____
 DATE: _____
 SURVEYOR(S): _____

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			



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Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2. Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD. Deciduous Forest
 - FOD2-1. Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2. Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4. Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1. Dry-fresh Poplar Deciduous Forest
 - FOD4-1. Dry-fresh Beech Deciduous Forest
 - FOD4-2. Dry-fresh White Ash Deciduous Forest
 - FOD5-1. Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2. Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3. Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8. Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*. Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*. Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1. Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5. Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6*. Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1. Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2. Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1. Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4. Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6*. Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1. Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2. Green Ash Mineral Deciduous Swamp
 - SWD2-3*. Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*. Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1. Red Maple Mineral Deciduous Swamp
 - SWD3-2. Silver Maple Mineral Deciduous Swamp
 - SWD3-5*. Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1. Willow Mineral Deciduous Swamp
 - SWD4-2. White Elm Mineral Deciduous Swamp
 - SWD3-3. Swamp Maple Mineral Deciduous Swamp
 - SWD4-6*. Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT. Thicket Swamp
 - SWT2-4. Buttonbush Mineral Thicket Swamp
 - SWT2-5. Red Osler Dogwood Mineral Thicket Swamp
 - SWT2-8. Silky Dogwood Mineral Thicket Swamp
 - SWT2-9. Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*. Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*. Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*. Red Maple Mineral Thicket Swamp
 - SWT3-7. Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2. Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10. Forb Mineral Meadow Marsh
 - MAM2-11*. Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1. Cattail Mineral Shallow Marsh
 - MAS2-8. Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1. Mineral Cultural Meadow
 - CUT1-7. European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*. Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*. Green Ash Mineral Cultural Woodland
 - CUW1-5*. Maple-Ash Cultural Woodland
 - CUW1-6*. Green Ash Cultural Woodland
 - CUWT-7*. Red maple Mineral Cultural Woodland
 - CUP3-12*. White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*. White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 8

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	Poplar
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	5-7	4	Asters, goldenrods.

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-1 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	0	< 10	A	10 - 24	N	25 - 50	N	> 50
STANDING SNAGS:	N	< 10	N	10 - 24	N	25 - 50	N	> 50
DEADFALL / LOGS:	N	< 10	N	10 - 24	N	25 - 50	N	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Hybrid Poplar Deciduous Plantation CUP1-4 CODE:

INCLUSION CODE:

COMPLEX CODE:

Notes: Poplar plantation - Coll

Feature 42

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 8-1
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Poplar	D				

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Asters					O
Goldenrods					O

Feature 58

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	5-7	4	Red-canary grass

HT CODES: 1 = >25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m
CVR CODES 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0 < 10	N 10 - 24	N 25 - 50	N > 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
-----------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
------------------	------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Red-canary grass meadow marsh	M1AM2-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Creek runs through this feature
Pic # 1930.

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 8-2	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Straus	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
						Red-canary						
						grass						Δ

Feature 58

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<p>SITE</p> <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<p>COVER</p> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	4	ALESACS > TILAMER > ALEFREE
2	SUB-CANOPY	4	
3	UNDERSTOREY	4	PAGGRAN
4	GRD. LAYER		

HT CODES: 1 => 25 m 2 = 10 < HT < 25 m 3 = 2 < HT < 10 m 4 = 1 < HT < 2 m 5 = 0.5 < HT < 1 m 6 = 0.2 < HT < 0.5 m 7 = HT < 0.2 m

CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:

0	< 10	0	10 - 24	0	25 - 50	R	> 50
---	------	---	---------	---	---------	---	------

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: Fresh-moist Sugar Maple - Hardwood CODE: F006-S.

INCLUSION: Dec. Forest CODE: _____

COMPLEX: _____ CODE: _____

Notes:

ELC
PLANT SPECIES LIST

SITE: Samsung

POLYGON: 8-3

DATE: 20-Dec-2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
ALESACS	0	A										
ALEFREE	R											
TILAMER	O	O										
PAGGRAN	O	O										

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAPENN > CAROUAT > ACESACS
2 SUB-CANOPY	2	4	" "
3 UNDERSTOREY	3	4	FRAGRAN
4 GRD. LAYER	-	-	

HT CODES: 1=>25m 2=10<HT<.25m 3=2<HT<.10m 4=1<HT<.2m 5=0.5<HT<.1m 6=0.2<HT<.0.5m 7=HT<.0.2m
 CVR CODES 0= NONE 1= 0% < CVR , 10% 2= 10 < CVR , 25% 3= 25 < CVR , 50% 4= CVR > 60%

STAND COMPOSITION:					BA:
SIZE CLASS ANALYSIS:					
	< 10	10 - 24	25 - 50	> 50	
STANDING SNAGS:					
	< 10	10 - 24	25 - 50	> 50	
DEADFALL / LOGS:					
	< 10	10 - 24	25 - 50	> 50	
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT					
COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Fresh-moist Shagbark Hickory Dec. Forest	CODE: F0A9-4
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Feature 58

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 8-4 J	
	DATE: 22-Dec-2010	
	SURVEYOR(S): M. Strauss	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.			
	1	2	3	4			1	2	3	4				
CAROUAT	0	0	-											
FRAPENN	0	0	-											
ACESACS	0	0	-											
FRAGRAN			0											



W:\active\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\FieldMap\60960577_FIELDMAP_1_ProjectLocation_20100920_PW.mxd - 9/20/2010 @ 1:17:14 PM

Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | ROW Study Area |
| | Proposed Turbine Location | | Crane Pad Study Area |
| | Proposed Collector Line | | ROW Installation Zone |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Road | | Non-Provincially Significant Wetland |
| | Railway | | Watercourse (OBM) |
| | Abandoned Railway | | Waterbody |
| | Transmission Line (OBM) | Area of Natural and Scientific Interest (ANSI) | |
| | Deer Wintering Area | | Life Science, Provincially Significant |
| | MEI | | Earth Science, Provincially Significant |
| | Elexco Aquired Agreements | | Earth Science, Regionally Significant |



*Original:
Don't Throw
out*

- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 9

Title
PROJECT LOCATION MAP

September 2010
160960577



Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

**Wildlife Habitat
Assessment**

Feature 59
Turbine + Access Road
581818

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 22, 2010

Field Personnel: GAW

Weather Conditions:	Temp: <u>20°</u>	Wind: <u>1</u>	Cloud: <u>100%</u>	PPT: <u>∅</u>	PPT in last 24 hrs: <u>RAIN</u>
----------------------------	------------------	----------------	--------------------	---------------	---------------------------------

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e.</i> AMRO/VO BLJA RTHA	<i>cotton tail</i>		<i>sulphur yellow</i>	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): None Present

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) **trees present** Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No **If yes,**

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No **If yes,**

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

581818

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: ①
	SURVEYOR(S): GAW	DATE: Sept. 22, 2010
	START: _____	END: _____
	UTMZ: _____	UTMN: _____

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 => 25 m 2 = 10<HT. 25 m 3 = 2<HT. 10 m 4 = 1<HT. 2 m 5 = 0.5<HT. 1 m 6 = 0.2<HT. 0.5 m 7 = HT < 0.2 m
 CVR CODES 0 = NONE 1 = 0% < CVR . 10% 2 = 10 < CVR . 25% 3 = 25 < CVR . 50% 4 = CVR > 50%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: fields
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Turbine 6 + Access Road
	POLYGON: Feature 59
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
c. burdock						tall wht clover					
TAROFF1						POTRECT					
PLAMAJO						blue vervain					
ASTLATE						ULMAMER					
Yagweed						SOLDULC					
SOLCANA						Crotogeomys sp					
Can. fleabane						PRUSERO					
DAUCARO						POPTREM					
b. medic						POPDELTA					
b.f. trefoil						HYPPERF					
greenfoxtail											
Yeastle											
chicory.											
VICCRAC											
ASTNOVA											
BROINER											
Canada thistle											
ASCSYRI											
RHACATH											
VITRIPA											
ribgrass											
chicory											
red clover											
Woolly Yarrow											
C. mullein											
Salix sp.											
PHRAUST											

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: <u>2</u>	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input checked="" type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	4	Reed canary >>> vervain
2 SUB-CANOPY	5-7	4	"
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25 m 2 = 10<HT < 25 m 3 = 2<HT < 10 m 4 = 1<HT < 2 m 5 = 0.5<HT < 1 m 6 = 0.2<HT < 0.5 m 7 = HT < 0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: < 10 10 - 24 25 - 50 > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Marsh	CODE: MA
COMMUNITY SERIES: Meadow Marsh	CODE: MAM
ECOSITE: Mineral Meadow Marsh	CODE: MAM2
VEGETATION TYPE: Reed Canary Grass Mineral Mead. Marsh	CODE: MAM2-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
reed canary		D	D										
blue vervain		O											
Canada Thistle		O											
EUTGRAM		O											
willowherb		O											



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December 2010
160960577

- Legend**
- Proposed Turbine Location
 - 120m Zone of Investigation
 - ROW Installation Zone
 - ELC Communities
 - Access Road
 - Overhead Collector Line
 - Underground Collector Line
 - Substation Property
 - Road
 - Transmission Line (OBM)
 - Provincially Significant Wetland
 - Non-Provincially Significant Wetland
 - Watercourse (OBM)
 - Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6*- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6*- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3*- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5*- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6*- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11*- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*- Green Ash Mineral Cultural Woodland
 - CUW1-5*- Maple-Ash Cultural Woodland
 - CUW1-6*- Green Ash Cultural Woodland
 - CUW1-7*- Red maple Mineral Cultural Woodland
 - CUP3-12*- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*- White Spruce Coniferous Plantation
- Disturbance**
- D- Disturbed
 - R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 14

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> PEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENN - PINREST
2 SUB-CANOPY	3	4	FRAPENN
3 UNDERSTOREY	4	3	CORRACE
4 GRD. LAYER	5-7	Y	ASTERS goldenrods

HT CODES: 1 = >25 m 2 = 10<HT<.25 m 3 = 2<HT<10 m 4 = 1<HT<.2 m 5 = 0.5<HT<.1 m 6 = 0.2<HT<.05 m 7 = HT<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10% < CVR, 25% 3 = 25% < CVR, 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 < 10 A 10-24 0 25-50 N > 50

STANDING SNAGS: < 10 10-24 25-50 > 50

DEADFALL / LOGS: < 10 10-24 25-50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
ECOSITE: CODE:
VEGETATION TYPE: CODE:
Red Pine Plantation / Green Ash Swamp CLP3-1 / SWDZ-2
INCLUSION CODE:
COMPLEX CODE:

Notes:

Naturalized plantation w Ag Swamp.

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 14-20	
	DATE: 21-Dec-2010	
	SURVEYOR(S): M. Straus.	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
PINREST	0				
FRAPENN	0	0			
CORRACE			0		
Hawthorn sp.			0		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Cum sp				0	
Aster				0	
Goldenrods				0	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:		
	SURVEYOR(S):		DATE:	UTME:	
	START:	END:	UTMZ:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL- UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	4	QUERMAR
2 SUB-CANOPY	3		
3 UNDERSTOREY	4	4	Cornus
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT-25m 3 = 2<HT-10m 4 = 1<HT-2m 5 = 0.5<HT-1m 6 = 0.2<HT-0.5m 7 = HT<0.2m
 CVR CODES 0 = NONE 1 = 0% < CVR , 10% 2 = 10 < CVR , 25% 3 = 25 < CVR , 60% 4 = CVR > 60%

STAND COMPOSITION:	BA:
---------------------------	------------

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
-----------------------------	------	---------	---------	------

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
------------------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
-------------------------	------	---------	---------	------

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :	<input type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
--------------------	----------------------------------	--------------------------------	----------------------------------	---------------------------------	-------------------------------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
<i>Big Oak Mineral Dec. Swamp</i>	<i>SWD1-2</i>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

*From a distance - Oak species not 100%
 Saw - definitely a white oak thicket*

10/feature

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>
	POLYGON: <i>14-3</i>
	DATE: <i>21-Dec-2010</i>
	SURVEYOR(S): <i>M. Strauss</i>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
<i>QUERMAR</i>		D										
<i>Cornus</i>										D		

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOL. <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY		
2	SUB-CANOPY		
3	UNDERSTOREY		
4	GRD. LAYER		

HT CODES: 1 => 25 m 2 = 10<HT-25 m 3 = 2<HT-10 m 4 = 1<HT-2 m 5 = 0.5<HT-1 m 6 = 0.2<HT-0.5 m 7 = HT<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR . 10% 2 = 10 < CVR . 25% 3 = 25 < CVR . 60% 4 = CVR > 60%

STAND COMPOSITION:

	BA:
--	------------

SIZE CLASS ANALYSIS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

STANDING SNAGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

DEADFALL / LOGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :

<input type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
----------------------------------	--------------------------------	----------------------------------	---------------------------------	-------------------------------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

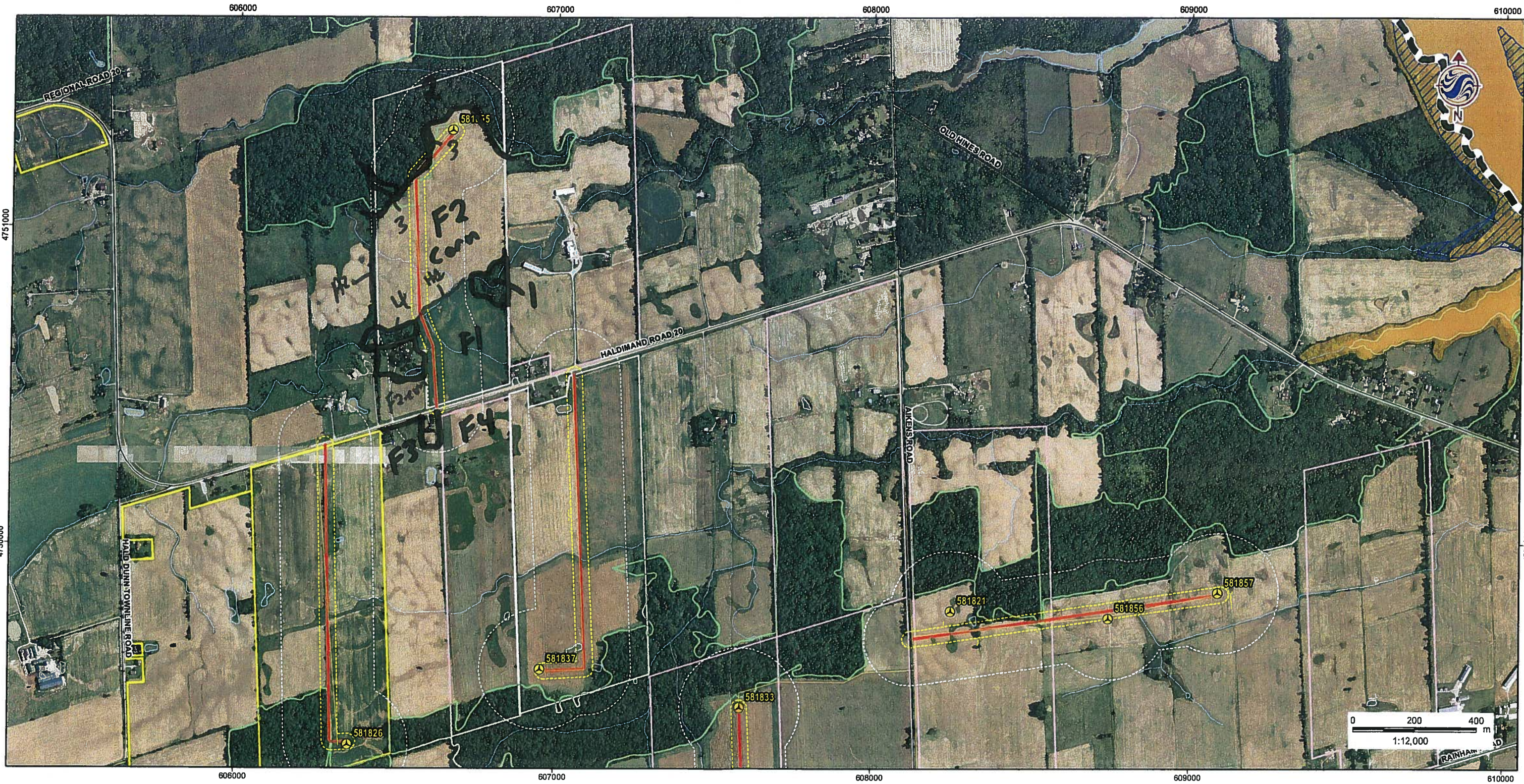
Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

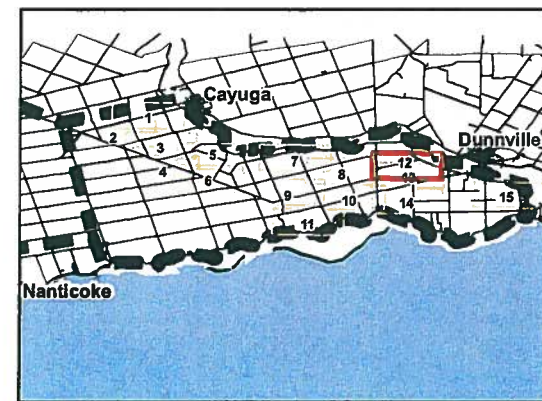
SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		

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Legend

- | | | | |
|--|----------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elexco Acquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project

**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.

FIELD MAP 12

Title

PROJECT LOCATION MAP

September 2010
160960577

Feature 61

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>GR15P</u>	POLYGON: <u>4</u>		
	SURVEYOR(S): <u>ARR</u>	DATE: <u>Sept 28, 2010</u>	UTME	
	START: _____	END: _____	UTMZ: _____	UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input checked="" type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input checked="" type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input checked="" type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	ULMAMEX > FRAMER
2 SUB-CANOPY	3	3	FRAMER > COCRALB > apt. > FRAMER
3 UNDERSTOREY	4.5	5	Golden-b. (A) > (S) > (G)
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT.25m 3=2<HT.10m 4=1<HT.2m 5=0.5<HT.1m 6=0.2<HT.0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0<CVR.10% 2=10<CVR.25% 3=25<CVR.60% 4=CVR>60%

STAND COMPOSITION:	BA:
--------------------	-----

SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input checked="" type="checkbox"/> > 50
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STANDING SNAGS:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
-----------------	-------------------------------	----------------------------------	----------------------------------	-------------------------------

DEADFALL / LOGS:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
------------------	-------------------------------	----------------------------------	----------------------------------	-------------------------------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input checked="" type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
<u>Wh. Elm Cw Woodland</u>	<u>CW16</u>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

3 snag < 10m / 20034

ELC PLANT SPECIES LIST	SITE: <u>GR15P</u>
	POLYGON: <u>4</u>
	DATE: <u>Sept 28, 2010</u>
	SURVEYOR(S): <u>ARR</u>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ULMAMEX						ULMAMEX					
FRAMER						Tall golden					
COCRALB						Grass					
UTRIPA						Red wood					
FRAMER						Woodch					
FRAMER						Red wood					
FRAMER						Sm. broad					
FRAMER						Taxel					

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GRBP
POLYGON: H2

SURVEYOR(S): ART
DATE: Sept 28, 2010
UTME:
START:
UTMZ:
UTMN:
END:
UTMM:
UTMM:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	5	1	ULM AMYLA
2 SUB-CANOPY	3-4	4	pear / apple / OKRABP
3 UNDERSTOREY	5	2	Cedars / AKEP / grasses
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	A	< 10	0	10 - 24	25 - 50	1	> 50
STANDING SNAGS:	0	< 10	15	10 - 24	25 - 50	1	> 50
DEADFALL / LOGS:	0	< 10	12	10 - 24	25 - 50	1	> 50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
ECOSITE: CODE:
VEGETATION TYPE: Hedge row CODE: H2
INCLUSION CODE:
COMPLEX CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: GRBP
POLYGON: H2
DATE: Sept 28, 2010
SURVEYOR(S): ART

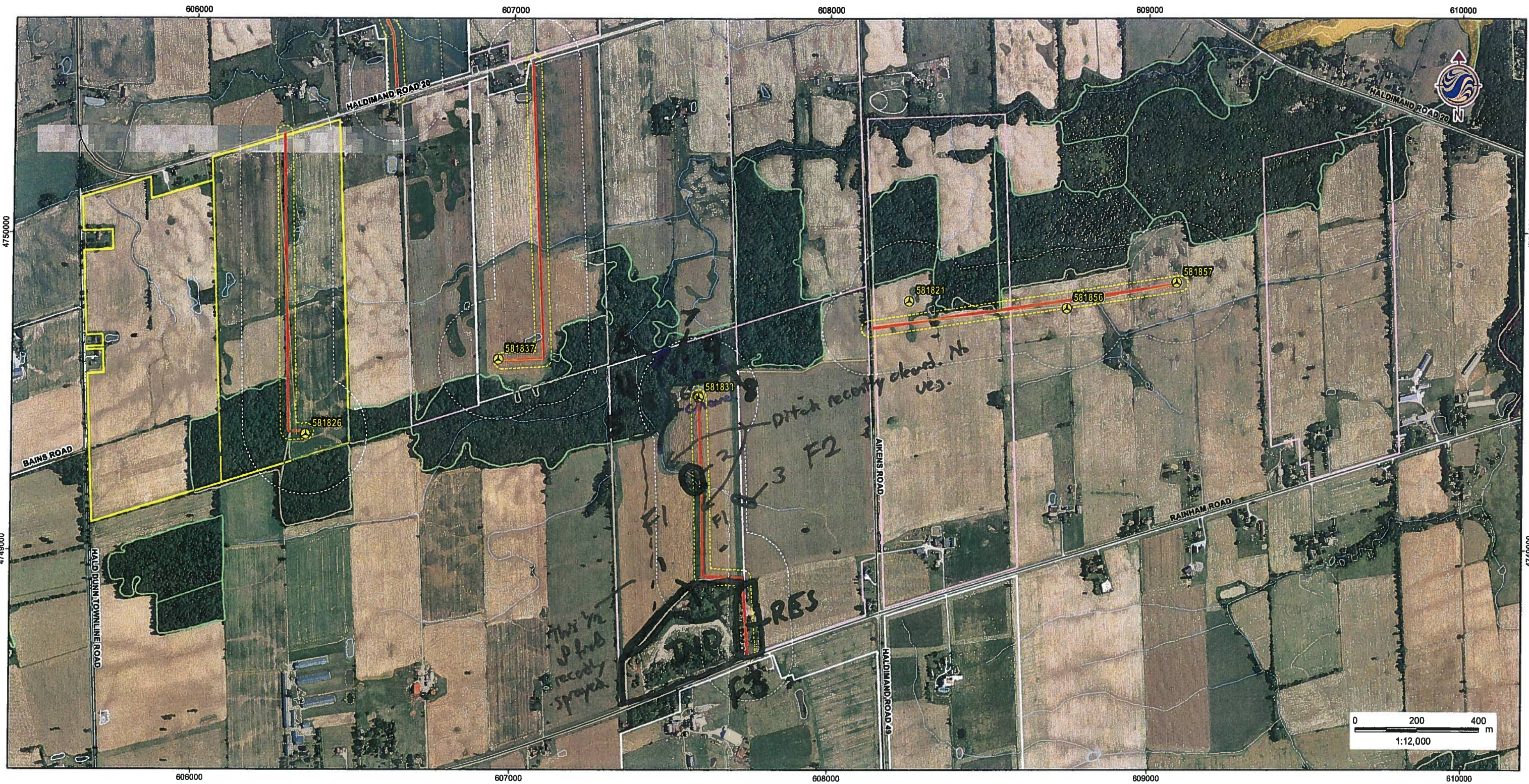
LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
RTACATA						Crab' grass seed					
CDRABP						cal. wood					
PRRABP						Burdock					
Apple						fall globe					
ULM AMYLA						NSA					
RTACATA						wr. crust					
Amylar						reed and					
red rasp											
pear											

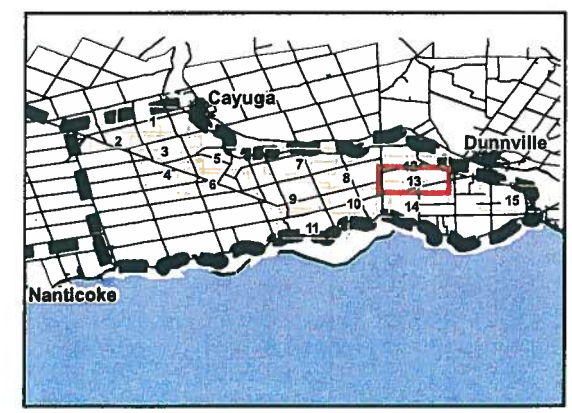
No feature

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Legend

- | | | | |
|--|---------------------------|--|--|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elexco Aquired Agreements | | Area of Natural and Scientific Interest (ANSI) |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 13

Title
PROJECT LOCATION MAP

September 2010
 160960577

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GRKP POLYGON: 2

SURVEYOR(S): ART DATE: Sept 28, 2010 UTME: /

START: END UTMZ: / UTMN: /

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALLVIAL <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input checked="" type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	KRADMLR
2 SUB-CANOPY	3	3	Sweet cherry, KRADMLR, RHACATH
3 UNDERSTOREY	4	3	CORRACE = RHACATH
4 GRD. LAYER	5	3	Goldenrod / Aster / red maple

HT CODES: 1 = >25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m
 CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 R 10 - 24 O 25 - 50 > 50

STANDING SNAGS: D < 10 N 10 - 24 M 25 - 50 > 50

DEADFALL / LOGS: O < 10 N 10 - 24 M 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: Cultural Woodland 1-3* CUW

INCLUSION CODE:

COMPLEX CODE:

Notes:

feature 62

ELC
 PLANT SPECIES LIST

SITE: GRKP POLYGON: 2

DATE: Sept 28, 2010 SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
KRADMLR						tail globe					
Sweet cherry						birdnest					
RHACATH						calico aster					
Red rasp.						strawberry					
CORRACE						red maple					
Apple											
UTRISPA											
LARTART											
ALBTRIA											
UUMMLR											
U crep											

Feature 62

ELC COMMUNITY DESCRIPTION & CLASSIFICATION
 SITE: GRBP
 SURVEYOR(S): ART
 DATE: Sept 28, 2010
 POLYGON: 3
 START: END
 UTM: UTM

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input checked="" type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input checked="" type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	3	<u>RHACATH = Sweet cherry</u>
2 SUB-CANOPY	4	5	<u>Red cherry = g. goldfinch / A. dor</u>
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 => >25 m 2 = 10<-HT. 25 m 3 = 2<-HT. 10 m 4 = 1<-HT. 2 m 5 = 0.5<-HT. 1 m 6 = 0.2<-HT. 0.5 m 7 = HT<0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:				A	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:				R	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:				b	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Cultural thicket</u>	CODE: <u>CUT1-7</u>
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes:
- along drainage swale

ELC PLANT SPECIES LIST
 SITE: GRBP
 POLYGON: 3
 DATE: Sept 28, 2010
 SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<u>RHACATH</u>					
<u>red rasp.</u>					
<u>Sweet cherry</u>					
<u>Hal Lhem</u>					
<u>CDRSTOL</u>					
<u>RASMULT</u>					

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<u>reed grass</u>					
<u>Can. goldfinch</u>					
<u>HL 2 dor</u>					
<u>Burdock</u>					
<u>teasel</u>					
<u>ragweed</u>					
<u>strawberry</u>					
<u>yellow woods</u>					
<u>chickory</u>					
<u>St. John's wort</u>					
<u>Smt. Gronc</u>					
<u>red top.</u>					

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP POLYGON: F2

SURVEYOR(S): ABT DATE: Sept 28, 2010 UTM:

START: END: UTMZ: UTM:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	6	4	Red clover > dandelion
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT-25m 3 = 2<HT-10m 4 = 1<HT-2m 5 = 0.5<HT-1m 6 = 0.2<HT-0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Recently sprayed fallow field CODE: F2

INCLUSION CODE:

COMPLEX CODE:

Notes:

- recently sprayed - dying vegetation

ELC
PLANT SPECIES LIST

SITE: GREP POLYGON: F2

DATE: Sept 28, 2010 SURVEYOR(S): ABT

No feature

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Red clover											
dandelion											
C. velutifol											
f. m. dly											
fox tail											
H. h. h. h. h.											
pr. weeds											
W. h. h. h.											

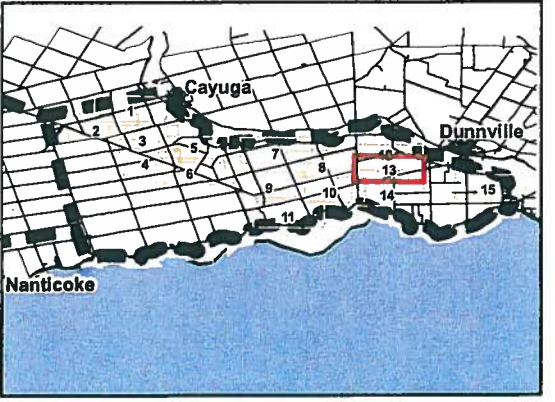


W:\active\60960577\drawings\GIS\MXD\NaturalHeritageAssessment\FieldMap\60960577_FIELDMAP_ProjectLocation_Mapbook_20100921_PW.mxd - 9/22/2010 @ 12:15:19 PM



Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 13

Title
PROJECT LOCATION MAP

September 2010
 160960577

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): 1 - Feature 63

Approximate age of stand 40 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 1 large snag (QUERUBR) 15m high / 60cm DBH ^{no cavity object}

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe - Aggregate activities

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge



Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Wildlife Habitat Assessment

Project Number

160960577

Project Name:

GREP

Date / Time:

Sep 28, 2010 10:45-13:00

Field Personnel:

A. Taylor

Weather Conditions:

Temp:

18°C

Wind:

1

Cloud:

40%

PPT:

✓

PPT in last 24 hrs:

Rain

Location (i.e. turbine #s/description)

581833

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows) Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO MOO AMCR WBNO AMRO AMCR WCSP	WDPR-TK	GRTF GRFR SPPE AMTO		

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP
SURVEYOR(S): ART
DATE: Sept 28, 2010
START: END
POLYGON: 1
UTME:
UTMZ: OTM:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	23	3	ALBNI600 2 other tree sp 4
2 SUB-CANOPY	34	4	RHACATH
3 UNDERSTOREY	5	4	Golden rods > grasses = garlic mustard
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	O 10-24	R 25-50	> 50
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STANDING SNAGS:	O < 10	R 10-24	R 25-50	> 50
DEADFALL / LOGS:	O < 10	R 10-24	R 25-50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
ECOSITE: CODE:
VEGETATION TYPE: CODE:
Norway Maple Cultural Woodland CWMT-5X
INCLUSION CODE:
COMPLEX CODE:

Notes:

- berm wind pit

feature 63

ELC
PLANT SPECIES LIST

SITE: GREP
POLYGON: 1 -
DATE: Sept 28, 2010
SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ALBNI600						1 tall galbard					
Apple						Calico aster					
RHUTYPH						hairy					
COBRALB						v. corn					
RHACATH						birdch					
red m. sp.						road canopy					
UJTRIPA						wh. sweet clover					
Multhorn						nigh' hnd					
TILAMBL						red top					
CAKJOST						Smartweed					
LARTART						garlic mustard					
ROSMULT											
PROSETO											
OLMAMEL											
v. creeper											
UJTRIPA											
ROSTOL											
UJAL											

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GRFP POLYGON: F1

SURVEYOR(S): ART DATE: Sept 28, 2010 UTME:

START: END UTMZ: UTMN

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	6	4	Alfalfa
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT.25m 3=2<HT.10m 4=1<HT.2m 5=0.5<HT.1m 6=0.2<HT.0.5m 7=HT<0.2m
CVR CODES 0= NONE 1=0% < CVR, 10% 2=10 < CVR, 25% 3=25 < CVR, 60% 4= CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
----------------------	------	---------	---------	------

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
-----------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
------------------	------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Hay CODE: Hay

INCLUSION CODE:

COMPLEX CODE:

Notes:

No feature

ELC PLANT SPECIES LIST

SITE: GRFP

POLYGON: F1

DATE: Sept 28, 2010

SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
<u>alfalfa</u>													
<u>rod cher</u>													
<u>timothy</u>													
<u>topsoil</u>													
<u>chickpea</u>													
<u>calico oak</u>													
<u>wh. clover</u>													
<u>badilla</u>													
<u>W. corn</u>													
<u>PS aster</u>													
<u>C. plantain</u>													



W:\active\160960577\drawing\GIS\MXD\NaturalHeritageAssessment\160960577_DRAFT_ELC\Map_20101214_PW.mxd - 12/15/2010 @ 11:25:22 AM

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-2- Willow Mineral Deciduous Swamp
 - SWD4-4- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Forb – Graminoid Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- Disturbance**
- D- Disturbed
 - R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources
3. Queens Printer Ontario, 2009; © Samsung, 2010.
4. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
5. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
TILE 14

Title
ELC VEGETATION COMMUNITIES

DRAFT



ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1.2	4	QUERMAZ > FILAPENN
2 SUB-CANOPY	2	4	FRAPENN = OSTVIRG
3 UNDERSTOREY	3	4	CORUS < OSTVIRG
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0= NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA: (1)

SIZE CLASS ANALYSIS:	1/2 < 10	0 10-24	0 25-50	2 > 50
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STANDING SNAGS:	< 10	10-24	25-50	> 50
-----------------	------	-------	-------	------

DEADFALL / LOGS:	< 10	10-24	25-50	> 50
------------------	------	-------	-------	------

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: Bur Oak Decid + Mineral Swamp SWD1-2

INCLUSION CODE:

COMPLEX CODE:

Notes:

Oaks - mature Bur oak Swamp

ELC
 PLANT SPECIES LIST

feature 64

SITE: Samsung

POLYGON: 14-10

DATE: 21-Dec-2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
FILAPENN	0	0											
CARONAT	2	2											
QUERMAZ	0	0											
OSTVIRG			0										
Hawthorn			0										
CORUS			0										

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

SITE

OPEN WATER
 SHALLOW WATER
 SURFICIAL DEP.
 BEDROCK

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENN PINREST
2 SUB-CANOPY	3	4	FRAPENN
3 UNDERSTOREY	4	3	CORRACE
4 GRD. LAYER	5	7	ASTERS Goldenrocks

HT CODES: 1 = >25 m 2 = 10<HT<25 m 3 = 24<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m
 CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: _____ BA: _____

SIZE CLASS ANALYSIS: 0 < 10 A 10-24 0 25-50 N > 50

STANDING SNAGS: < 10 10-24 25-50 > 50

DEADFALL / LOGS: < 10 10-24 25-50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: _____ CODE: _____

Red Pine Plantation / Green Ash Swamp CLP3-1 / SWD2-2

INCLUSION _____ CODE: _____

COMPLEX _____ CODE: _____

Notes: Naturalized plantation w/ Ag Swamp
 CW = plantation

feature 00

ELC
 PLANT SPECIES LIST

SITE: Samsung

POLYGON: 14-20

DATE: 21-Dec-2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
PINREST	0				
FRAPENN	0	0			
CORRACE					0
Hawthorn sp.					0

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Cum sp					0
Asters					0
Goldenrocks					0



W:\archive\60960577\Drawing\GIS\MXD\NaturalHeritageAssessment\FeldMap\60960577_FIELDMAP_ProjectLocation_Mapbook_20100921_PN.mxd - 9272010 @ 5:35:56 PM



- Legend**
- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |




- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 10

Title
PROJECT LOCATION MAP

September 2010
160960577

 Stantec	Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493	Wildlife Habitat Assessment
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Project Number <u>160960577</u>	Project Name: <u>Samsung</u>
Date / Time: <u>11-Oct-2010</u>	Field Personnel: <u>Melissa Strauss</u>

Weather Conditions:	Temp: <u>12°C</u>	Wind: <u>2</u>	Cloud: <u>100% - 80%</u>	PPT: <u>light-rain</u>	PPT in last 24 hrs: <u>rain</u>
----------------------------	-------------------	----------------	--------------------------	------------------------	---------------------------------

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> COOP-VO BRAD-VO PBLUD-VO WAVE-VO SCHE-VO CULCA-VO WAVE-VO	LEUC-SC BARK			

Feature 66

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): B

11-Oct-2010

Approximate age of stand 50-60

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand <1%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Snag - 50cm DBH, 920m, no bark; 3 15-20cm loose bark 15m, Elm x 2

most stems dead. Occasional through dead. ~ 3/ha

loose, 35cm 4/15

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Snag	20m	40cm	4m	Hollow
	8m	90cm	7m	Small

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Trails

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

RBWD

Feature 66

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : C

Approximate age of stand 60 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

*yes loose bark - Elms, 25-35cm P. 15m. (x3)
Not many - 1/ha? None in plantation*

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
1				

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Debris - old camper

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes, see habitat #9

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

Feature 66

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : D

Approximate age of stand 50 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand <1%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Typically Euc along wet thickets. 25-35 cm DBH, loose bark
15-20m tall
~ 2/ha

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
<u>Didn't see any.</u>				

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

feature 67

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Samsung</i>	POLYGON: <i>1</i>	
	SURVEYOR(S): <i>MS</i>	DATE: <i>11-Oct-2010</i>	UTME:
	START: <i>10:45</i> END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL, UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input checked="" type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input checked="" type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	<i>1</i>	<i>4</i>	<i>PICADULINSTRO</i>
2 SUB-CANOPY	<i>2</i>	<i>4</i>	<i>PICADULINSTRO</i>
3 UNDERSTOREY	<i>3-4</i>	<i>3</i>	<i>?</i>
4 GRD. LAYER	<i>2-7</i>	<i>?</i>	<i>?</i>

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: < 10 10-24 25-50 > 50

STANDING SNAGS: < 10 10-24 25-50 > 50

DEADFALL / LOGS: < 10 10-24 25-50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: *White Pine Coniferous Plantation* CODE: *CUP3-12**
 INCLUSION CODE:
 COMPLEX CODE:

Notes: From roadway. Couldn't assess groundcover just veg @ edge likely not representative

Pic1629

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>
	POLYGON: <i>1</i>
	DATE: <i>11-Oct-2010</i>
	SURVEYOR(S): <i>MS</i>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
<i>PICADULINSTRO</i>	<i>A</i>											
<i>PINSTR</i>	<i>A</i>											
<i>FRAPENN</i>	<i>R</i>											
<i>Wild grape</i>										<i>R</i>		
<i>Shrub</i>										<i>R</i>		

Feature 66

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION
 SITE: Samsung
 SURVEYOR(S): MS
 DATE: 11-Oct-2010
 POLYGON: 4
 UTME:
 UTMZ:
 UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	1	ULM AMER
2 SUB-CANOPY	2	1	RHACATHS
3 UNDERSTOREY	3-4	4	SPIRALIS >
4 GRD. LAYER	5-7	1	

HT CODES: 1 => 25m 2 = 10<HT.25m 3 = 2<HT.10m 4 = 1<HT.2m 5 = 0.5<HT.1m 6 = 0.2<HT.0.5m 7 = HT<0.2m
 CVR CODES 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Meadowsweet Mineral Thicket Swamp SWTA 2-6 CODE:

INCLUSION CODE:

COMPLEX CODE:

Notes: 7ct 1628

ELC
 PLANT SPECIES LIST
 SITE: Samsung
 POLYGON: 4
 DATE: 11-Oct-2010
 SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.			
	1	2	3	4			1	2	3	4				
ULM AMER	R													
RHACATHS			R											
SPIRALIS														
RHACATHS	R													
SILKY DOG				R										
SPIRALIS				D	✓									
BUTTERCUPSP														R

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>Samsung</u>		POLYGON: <u>5</u>	
	SURVEYOR(S): <u>MB</u>		DATE: <u>11-Oct-2010</u>	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER			<input type="checkbox"/> OPEN		
<input type="checkbox"/> SHALLOW WATER			<input type="checkbox"/> SHRUB		
<input type="checkbox"/> SURFICIAL DEP.			<input type="checkbox"/> TREED		
<input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	4	<u>PIC NORWAY</u>
2 SUB-CANOPY			
3 UNDERSTOREY	4	2	<u>CORSTOL</u> → <u>RUBIDEA</u>
4 GRD. LAYER	5-7	4	<u>Goldenrod sp.</u> → <u>P.S. Aster</u>

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-0.5m 7 = HT < 0.2m
CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 R 10-24 N 25-50 N > 50

STANDING SNAGS: < 10 10-24 25-50 > 50

DEADFALL / LOGS: < 10 10-24 25-50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE: CU

COMMUNITY SERIES: Cultural Plantation CODE: CUP

ECOSITE: Plantation CODE: CUP2

VEGETATION TYPE: White Pine Spruce-Pine CODE: CUP3-0
Mixed Plantation

INCLUSION CODE:

COMPLEX CODE:

Notes:

Pic 1630

feature 66

ELC PLANT SPECIES LIST	SITE: <u>Samsung</u>	
	POLYGON: <u>5</u>	
	DATE: <u>11-Oct-2010</u>	
	SURVEYOR(S): <u>M. Strauss</u>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
<u>Norway Spruce</u>	D					<u>CUM sp.</u>						
<u>FRAXINUS</u>	O					<u>Goldenrod sp.</u>					A	
<u>PINUS</u>	P					<u>P.S. Aster</u>					A	
						<u>Flat White Aster</u>					O	
						<u>Keasol</u>					O	
						<u>Sensitive Fern</u>					R	
						<u>Sunspaw</u>					O	
<u>PINUS</u>												
<u>RUBIDEA</u>												
<u>CORSTOL</u>												

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Samsung</i>	POLYGON: <i>6</i>	
	SURVEYOR(S): <i>MB</i>	DATE: <i>11-Oct-2010</i>	UTME:
	START:	END:	UTMZ:
			UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY	<i>4</i>	<i>2</i>	<i>Silky Dogwood</i>
4 GRD. LAYER	<i>3</i>	<i>4</i>	<i>Goldenrod > P.S. Aster Red Clover</i>

HT CODES: 1=>25m 2=10-4HT:25m 3=2-4HT:10m 4=1-4HT:2m 5=0.5-4HT:1m 6=0.2-4HT:0.5m 7=HT<0.2m
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10%<CVR<25% 3=25%<CVR<60% 4=CVR>60%

STAND COMPOSITION:	BA:				
SIZE CLASS ANALYSIS:	M < 10	N 10 - 24	N 25 - 50	M > 50	
STANDING SNAGS:	N < 10	N 10 - 24	N 25 - 50	M > 50	
DEADFALL / LOGS:	N < 10	N 10 - 24	N 25 - 50	M > 50	
ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT					
COMM. AGE:	<input checked="" type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH

SOIL ANALYSIS:		DEPTH TO MOTTLES / GLEY		g =	G =
TEXTURE:					(cm)
MOISTURE:	DEPTH OF ORGANICS:				(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:				(cm)

COMMUNITY CLASSIFICATION:		CODE:
COMMUNITY CLASS:		CODE:
COMMUNITY SERIES:		CODE: <i>Cum</i>
ECOSITE: <i>Mineral Cultural Meadow</i>		CODE:
VEGETATION TYPE: <i>Cum</i>		CODE:
INCLUSION		CODE:
COMPLEX		CODE:

Notes: -> mowed portion for trail 6a: Pic 1638 - more dogwood

Feature 66

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>
	POLYGON: <i>6</i>
	DATE: <i>11-Oct-2010</i>
	SURVEYOR(S): <i>M. S. Haas</i>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<i>Same ground</i>					
<i>80 45 #5</i>					
<i>B.F. Treefoil</i>					O
<i>wild carrot</i>					O
<i>Dandelion</i>					O
<i>Red Clover</i>					O
<i>Timothy</i>					O
<i>ARGENTIA</i>					O ✓
<i>Silky Dog</i>					R

Feature 66

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: 7		
	SURVEYOR(S): MS	DATE: 11-02-2010	UTME:	
	START: END	UTMZ: UTMN:		

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	4	2	Typha

HT CODES: 1 => 25m 2 = 10<HT-25m 3 = 2<HT-10m 4 = 1<HT-2m 5 = 0.5<HT-1m 6 = 0.2<HT-0.5m 7 = HT-0.2m
CVR CODES 0= NONE 1= 0% < CVR, 10% 2= 10 < CVR - 25% 3= 25 < CVR - 60% 4= CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Open Aquatic	CODE: OAO
INCLUSION	CODE:
COMPLEX	CODE:

Notes:
Lagoons x2
Pics 1632-1633

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 7
	DATE: 11-02-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
						TYPHATI						

Feature 66

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Samsung</i>	POLYGON: <i>8</i>	
	SURVEYOR(S): <i>MS</i>	DATE: <i>11 Oct 2010</i>	UTME:
	START:	END:	UTMZ:
			UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			<input type="checkbox"/> COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CARDUAT > QUERCUR > ALESACS
2 SUB-CANOPY	2	4	CARDUAT > ALESACS > FRAGRAN
3 UNDERSTOREY	3-4	4	FRAGRAN > OSTVIRG
4 GRD. LAYER	5-7		FRAGRAN > BUTTERCUP

HT CODES: 1=>25m 2=10<HT.25m 3=2<HT.10m 4=1<HT.2m 5=0.5<HT.1m 6=0.2<HT.0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR.10% 2=10<CVR.25% 3=25<CVR.50% 4=CVR>50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	O 10 - 24	O 25 - 50	R > 50
STANDING SNAGS:	N < 10	N 10 - 24	N 25 - 50	N > 50
DEADFALL / LOGS:	N < 10	R 10 - 24	N 25 - 50	N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>F-M Shagbark Hickory Deciduous Forest</i>	CODE: <i>F09-4</i>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Bic 1634

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>
	POLYGON: <i>8</i>
	DATE: <i>11-Oct-2010</i>
	SURVEYOR(S): <i>McStraus</i>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAGRAN	R	R	O	R		<i>Starflower</i>					R
FRAGRAN	O	O	R	O		<i>Goldenrod sp</i>					O
ALESACS	O	O	R	R		<i>Buttercup sp</i>					O
QUERCUR	O										
ULMAMER	R										
CARDUAT	O	O	R	O							
OSTVIRG			R								
FRAGRAN											D
RUBIDEA											R
Gray Dogwood											R

feature 66

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Samsung</i>	POLYGON:		
	SURVEYOR(S): <i>MS</i>	DATE: <i>11-Oct-2010</i>	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL, UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	1	<i>FRAXEN</i>
2 SUB-CANOPY	3	1	<i>Hawthorn</i>
3 UNDERSTOREY	4	4	<i>Silky Dogwood > CARSTOL</i>
4 GRD. LAYER	4	4	<i>Impatiens > RUBIDEA</i>

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES 0 = NONE 1 = 0% < CVR, 10% 2 = 10% < CVR, 25% 3 = 25% < CVR, 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	R 10 - 24	N 25 - 50	A > 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Silky Dogwood Mineral Thicket Swamp</i>	CODE: <i>SWT 2-8</i>
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes:

1635

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>
	POLYGON: <i>9</i>
	DATE: <i>11-Oct-2010</i>
	SURVEYOR(S): <i>M. Strauss</i>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
<i>FRAXEN</i>	R											
<i>Sensitive Fern</i>											R	
<i>S.T. me Nots</i>											O	
<i>White Aster</i>											R	
<i>River Grape</i>												R
<i>Hawthorn</i>		R	R									
<i>Silky Dogwood</i>											D	
<i>Impatiens</i>											O	
<i>CARSTOL</i>												R

Feature 66

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: 10	
	SURVEYOR(S): MS	DATE: 11-Oct-2010	UTM:
	START: END	UTMZ:	UTMN:

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 10
	DATE: 11-Oct-2010
	SURVEYOR(S): M. Strauss

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:			SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)	
LAYER	HT	CVR		
1 CANOPY	2	4	PINSTRO	
2 SUB-CANOPY				
3 UNDERSTOREY				
4 GRD. LAYER	5-7	2	RUBSIDEA	

HT CODES: 1=>25m 2=10<HT.25m 3=2<HT.10m 4=1<HT.2m 5=0.5<HT.1m 6=0.2<HT.0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR, 10% 2=10<CVR, 25% 3=25<CVR, 60% 4=CVR>60%

STAND COMPOSITION:	BA:
SIZE CLASS ANALYSIS:	n < 10 A 10-24 R 25-50 N > 50
STANDING SNAGS:	< 10 10-24 25-50 > 50
DEADFALL / LOGS:	< 10 10-24 25-50 > 50
ABUNDANCE CODES:	N = NONE R = RARE O = OCCASIONAL A = ABUNDANT
COMM. AGE:	PIONEER YOUNG 7 MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:	
TEXTURE:	DEPTH TO MOTTLES / GLEY g = G =
MOISTURE:	DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:	CODE:
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Whiteline Conifer Plantation	CODE: cup3-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

9.1.1434

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
PINSTRO		7										
FRAPENH		2										
Wild Grape					2							
RUBSIDEA					0							

Feature 6b

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung		POLYGON: 13
	SURVEYOR(S): Mr.		DATE:
	START: _____		END: _____
	UTMZ:	UTMN:	

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY	3	2	CORSTAL SPIALBA
4 GRD. LAYER	4.7	4	Typha < grasses < sedges

HT CODES: 1 => 25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-10 m 5 = 0.5-1 m 6 = 0.2-1 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
STANDING SNAGS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
DEADFALL / LOGS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY: g = _____ G = _____

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE: _____

COMMUNITY SERIES: CODE: _____

ECOSITE: CODE: _____

VEGETATION TYPE: Forb meadow meadow marsh CODE: MAMZ-10

INCLUSION: 0 CODE: _____

COMPLEX: CODE: _____

Notes: P.C.# 1641

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 13
	DATE: 11-Oct-2010
	SURVEYOR(S): Mr. Strales

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
SpiralBA					
CORSTAL					
Salix sp					
Forbs					
Grasses					
Sedges					

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
TyPLATI					(5)
Forbs					A
Grasses					A
Sedges					A



W:\active\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\60960577_DRAFT_ELCv5_WhitecapLane_20101214_PW.mxd - 12/15/2010 @ 11:17:08 AM

December 2010
160960577

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N)
2. Data Sources: Ontario Ministry of Natural Resources
© Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 10

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	12.4	4	ERAPENN
2 SUB-CANOPY	3	4	
3 UNDERSTOREY	4	4	R.O. Dogwood
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	O 10 - 24	R 25 - 50	N > 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Green Ash Mineral Deacidus	CODE: SWD2-2
INCLUSION Swamp	CODE:
COMPLEX	CODE:

Notes:

Feature 66

ELC PLANT SPECIES LIST	SITE: <i>Sambur</i>
	POLYGON: <i>10-1</i>
	DATE: <i>22-Dec-2010</i>
	SURVEYOR(S): <i>M. Straus</i>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
<i>ERAPENN</i>	O												
<i>Salix</i>	R												
<i>Haw</i>													
<i>COESTOL</i>					O								

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY	4	2	COBSTOL
4 GRD. LAYER	5.7	9	grasses, sedges

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-1m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 80%

STAND COMPOSITION:				BA:
SIZE CLASS ANALYSIS:	0 < 10	12 10 - 24	12 25 - 50	12 > 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
ABUNDANCE CODES:	N = NONE R = RARE O = OCCASIONAL A = ABUNDANT			
COMM. AGE:	PIONEER	<input checked="" type="checkbox"/> YOUNG	MID-AGE	MATURE
				OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Mineral Meadow Marsh</i>	CODE: <i>MAM2</i>
INCLUSION	CODE:
COMPLEX	CODE:

Notes: *Fsbs dead this time of year pic 1924*

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>	
	POLYGON: <i>10-2</i>	
	DATE: <i>22 Dec 2010</i>	
	SURVEYOR(S): <i>M Strauss</i>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<i>COBSTOL</i>					0

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<i>Typha</i>					00
<i>grasses</i>					D
<i>sedges</i>					D

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE, <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1-2	2	FILAPENN
2 SUB-CANOPY			
3 UNDERSTOREY	4	4	COROBUE Hawthorn
4 GRD. LAYER	5-7	4	goldenrods, asters

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m

CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
-----------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
------------------	------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH
------------	---------	-------	---------	--------	------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Silky Dogwood Mineral Thicket	SWT2-8
INCLUSION: Swamp	CODE:
COMPLEX:	CODE:

Notes: Cultural Influences

Feature lab

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 10-40
	DATE: 22-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FILAPENN	O					goldenrods				A	
						asters				A	
COROBUE				D							
RHACATH				R	edge						
Hawthorn				O							

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE RIVERINE. <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CARLOVAT > FRAPENN, QUERUBR
2 SUB-CANOPY	2	4	
3 UNDERSTOREY	3	4	
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION: _____ BA: _____

SIZE CLASS ANALYSIS: < 10 10 - 24 25 - 50 > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N= NONE R= RARE O= OCCASIONAL A= ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:
 TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G= _____
 MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:
 COMMUNITY CLASS: _____ CODE: _____
 COMMUNITY SERIES: _____ CODE: _____
 ECOSITE: _____ CODE: _____
 VEGETATION TYPE: Fresh-moist Shagbark Hickory F009-4 CODE: _____
 INCLUSION: Deciduous Forest CODE: _____
 COMPLEX CODE: _____

Notes:

Feature 166

ELC

SITE: Samsung

POLYGON: 10-5

DATE: 22-Dec-2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CARLOVAT	A	O			
FRAPENN	O	O			
QUERUBR	O				
ALFPREE	R				

SPECIES CODE	LAYER				COLL.
	1	2	3	4	



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September 2010
160960577



Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elexco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 10

Title
PROJECT LOCATION MAP

Feature 67

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): A - only assess from road

Approximate age of stand 20 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge



Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Wildlife Habitat Assessment

Project Number
160960577

Project Name:
Samsung

Date / Time:
11-Oct-2010

Field Personnel:
Melissa Straus

Weather Conditions:	Temp: 12°C	Wind: 2	Cloud: 100% - 80%	PPT: light - none	PPT in last 24 hrs: rain
----------------------------	---------------	------------	----------------------	----------------------	-----------------------------

storm @ 4:45 PM

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO SOBP-VO BWJA-OB BAWB-VO BETH-OB RBWO-VO GCKI-VO AMCA-VO NOFL-VO GRHE-OH-OB GRCA-VO OAFD-OB KILL-VO AmWO-OB	DEN-SC,TK -OB in log			

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Samsung POLYGON: 11

SURVEYOR(S): MS. DATE: 11-Oct-2010 UTME:

START: END UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CARDUAT
2 SUB-CANOPY	2	4	CARDUAT > ACERUB
3 UNDERSTOREY	3-4	4	ACERUB > OSTVIRG
4 GRD. LAYER	5-9	3	PRVIRG > PRIMONY

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=3<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 O 10-24 O 25-50 R > 50

STANDING SNAGS: N < 10 R 10-24 R 25-50 N > 50

DEADFALL / LOGS: N < 10 R 10-24 N 25-50 N > 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG X MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
ECOSITE: CODE:
VEGETATION TYPE: CODE:
F-M Shrubland Hickory Deciduous Forest F009-4
INCLUSION CODE:
COMPLEX CODE:

Notes:

Pic 1639

Feature 67

ELC
PLANT SPECIES LIST

SITE: Samsung POLYGON: 11

DATE: 11-Oct-2010 SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

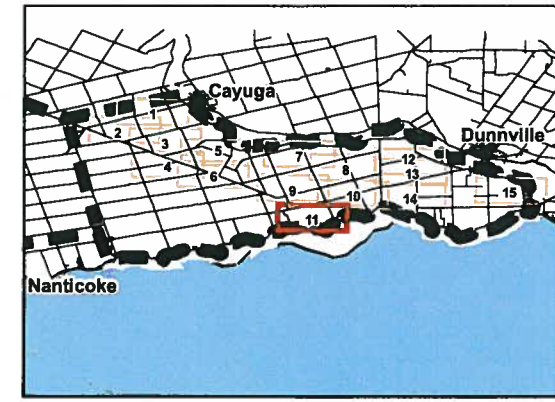
SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
CARDUAT	D	D				Primony					O
ACERUB	R	R	O	R		White Aster					R
ALESACS	R	O	O	O		Toothwort					R
OSTVIRG	-	O	O			(two-leaved)					
BRUSERO				R							
FRAPENN	R										
ULMAMEL				R							
FAGSRAU		R	R								
QUERUBR	R	R	R	-							
TILAMEL	R										
PRVIRG				R							
RUBIDEA		R	R								
RHACRTH		O	O								
CARCARO		R									
FEAVIRG				O		Buttercup sp					O

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	Project Location		Transmission Line (OBM)
	Proposed Turbine Location		Deer Wintering Area
	Proposed Access Road		Provincially Significant Wetland
	Proposed Collector Line		Non-Provincially Significant Wetland
	ROW Installation Zone		Watercourse (OBM)
	120m Investigation Zone		Waterbody
	Elenco Aquired Agreements	Area of Natural and Scientific Interest (ANSI)	
	Government Lands		Life Science, Provincially Significant
	UDI Lands		Earth Science, Provincially Significant
	Road		Earth Science, Regionally Significant
	Railway		
	Abandoned Railway		



Original:
Don't Throw
Out

- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 11

Title
PROJECT LOCATION MAP

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
POLYGON: ①

SURVEYOR(S): GAW
DATE: Sept. 29. 2010
UTME:
START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENN = Quercus > Shagbark = ACER
2 SUB-CANOPY	3	4	" > ACERUBR = Shagbark
3 UNDERSTOREY	4-5	4	" >> blue beech
4 GRD. LAYER	6-7	4	IMCAPE, Carex, nettle

HT CODES: 1=>25m 2=10<HT. 25m 3=2<HT. 10m 4=1<HT. 2m 5=0.5<HT. 1m 6=0.2<HT. 0.5m 7=HT<0.2m
CVR CODES 0= NONE 1= 0% < CVR, 10% 2= 10 < CVR, 25% 3= 25 < CVR, 60% 4= CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A	< 10	A	10 - 24		25 - 50		> 50
STANDING SNAGS:	0	< 10	0	10 - 24		25 - 50		> 50
DEADFALL / LOGS:	A	< 10	A	10 - 24		25 - 50		> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW

COMMUNITY SERIES: Deciduous Swamp CODE: SWD

ECOSITE: Mineral Deciduous Swamp CODE: SWD2

VEGETATION TYPE: Ash-Hardwood Mineral Dec. Swamp CODE: SWD2-3*

INCLUSION CODE:

COMPLEX CODE:

Notes:

581811

ELC
PLANT SPECIES LIST

SITE: Turbine 18 + Access Road
POLYGON: Feature b8
DATE:
SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAPENN	A	A	A	A		Carion flwr				R	
QUERUBR	A	O				X-mas fern				O	
TILAMER	O	O	O			GERMACV				O	
Shagbark	A	A	O			SOLRUGO				A	
ACERUBR	A	A	A	O		SOLCAES				O	
ACESASA	A	O	O	O		Carex sp				A	
blue beech				A		GEUCANA				O	
Swamp wht oak	O	O				RHURANE				O	
QUEMACR	O	O				GLYSTRI				A	
						PARINSE				O	
						OXASTRI				O	
PRUVIVI				O		Viola sp				O	
RIBCYNO				O		DRYCART				O	
SAMCANA				O		IMCAPE				O	
						ONOSENS				O	
						St. nettle				O	
						BIDFRON				O	
						EUOBOV				O	
						RUBPUBE				O	
						l.l. aster				O	
						mitrewort				O	
						SOLDULC				O	
						AGRGIGA				O	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: 3	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input checked="" type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	4	FRAPENN
2 SUB-CANOPY	4	4	" > CORNUS
3 UNDERSTOREY	5	4	CORNUS, Solidago, asters
4 GRD. LAYER	6-7	4	Solidago, asters

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION:				BA:
SIZE CLASS ANALYSIS:				
	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
STANDING SNAGS:				
	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
DEADFALL / LOGS:				
	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT				
COMM. AGE:				OLD GROWTH
	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE

SOIL ANALYSIS:	
TEXTURE:	DEPTH TO MOTTLES / GLEY g = G=
MOISTURE:	DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS: Cultural	CODE: CU
COMMUNITY SERIES: Cultural Woodland	CODE: CUW
ECOSITE: Mineral Cultural Woodland	CODE: CUW1
VEGETATION TYPE: Green Ash Mineral Cultural Woodland	CODE: CUW1-4*
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Turbine 18 + Access Rd	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
CORFORA		A	A			CUW1 sp					
CORSTOL		A	A			SOLRUGO					
FRAPENN	D	A	A			EUTGRAM					
ROSMULT		O	O								
Rose					X						
Salix sp.		O	O								
RHACATH		O	O								
Crataegus sp.		O	O								

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION:
 SITE: 161010646
 SURVEYOR(S): GAW
 DATE: Sept. 29, 2010
 POLYGON: (2)
 START: END
 UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1/2		SASA > QUE UBR = bark
2 SUB-CANOPY	3	4	> FRAPENN = "
3 UNDERSTOREY	4-5	4	" > " = FAGGRAN = blue bee h
4 GRD. LAYER	6-7	4	Saplings GERBICK, SOLCAES, l. aster

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-0.5m 7 = HT < 0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10% < CVR < 25% 3 = 25% < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10 - 24	A 25 - 50	O > 50
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STANDING SNAGS:	O < 10	O 10 - 24	O 25 - 50	R > 50
-----------------	--------	-----------	-----------	--------

DEADFALL / LOGS:	A < 10	O 10 - 24	O 25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIIONEER	YOUNG	MID-AGE	<input checked="" type="checkbox"/> MATURE	OLD GROWTH
------------	----------	-------	---------	--	------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
----------	-------------------------	-----	-----

MOISTURE:	DEPTH OF ORGANICS:	(cm)
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HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)
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COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
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COMMUNITY SERIES: Deciduous Forest	CODE: FOD
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ECOSITE: Dry-fresh Sugar Maple Dec. Forest	CODE: FOD5
--	------------

VEGETATION TYPE: Dry-fresh Sugar Maple-oak Dec. Forest	CODE: FOD5-3
--	--------------

INCLUSION	CODE:
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COMPLEX	CODE:
---------	-------

Notes:

ELC
 PLANT SPECIES LIST
 SITE: Turbine 18 + Access Rd
 POLYGON: Feature 68
 DATE:
 SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ACESASA	A	A	A	A	
QUERUBR	A	O	O	O	
FRAPENN	O	O	O	A	
FAGGRAN	O	A	A	O	
TILAMER	O	O	O		
ULMAMER	R	O	O		
blue beech			A		
RUBIDAE			O		
SAMCANA			R		
RUBALLE			O		
PRUVIVI			O		
RHACAT+			O		
Crataegosp			O		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
PARINSE				O	
CIRLEUT				O	
SOLCAES				A	
EUOBOV				O	
DRYCAR				O	
GEUAPPE				O	
l.l. aster				A	
RHVRA NE				O	
framflower				O	
OXASTRI				O	
GERMACU				A	
GEUCANA				O	
GLYSTRI				O	
hog peanut				O	
AGRGRYP				O	
Viola sp				O	
PREALBA				O	



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Wildlife Habitat Assessment

Feature 68
TURBINE 18 + ACCESS Rd
581811

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 29. 2010

Field Personnel: GAW

Weather Conditions:

Temp: 23°

Wind: 3

Cloud: 100%

PPT: light rain

PPT in last 24 hrs: ∅

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO AMCR	Raccoon Deer	WOF R		

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand in FOD portion + edges
 Location in stand (i.e. throughout, in west side only, in FOD2-6 only etc..) ↗

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Mostly in FOD, ~10, some very large (>50cm DBH), loose bark present.
 + tall

Trees with cavities present? No Rare Occasional Abundant

If present:

Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
10-20m	15->40cm	5m - 15m	5-20cm

Bat Mat Roost? Possible

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e. logging, roads, paths, ATV use, trails) Yes No

If yes, describe ATV trails

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	SWD	dry/mud	extensive	yes	yes

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
POLYGON: ①

SURVEYOR(S): GAW
DATE: Sept. 23, 2010
UTME

START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENN >> QUERCUS
2 SUB-CANOPY	3	4	" >> ACERUBR
3 UNDERSTOREY	4-5	4	" >> blue beech
4 GRD. LAYER	6-7	4	IMCAPE, Carex, nettle, ferns

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	A 25-50	/ > 50
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STANDING SNAGS:	0 < 10	0 10-24	R 25-50	/ > 50
-----------------	--------	---------	---------	--------

DEADFALL / LOGS:	A < 10	A 10-24	/ 25-50	/ > 50
------------------	--------	---------	---------	--------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW

COMMUNITY SERIES: Deciduous Swamp CODE: SWD

ECOSITE: Mineral Deciduous Swamp CODE: SWD2

VEGETATION TYPE: Green Ash Mineral Deciduous Swamp CODE: SWD2-2

INCLUSION CODE:

COMPLEX CODE:

Notes: pt. 15 = East extent of wetland
16 = where SW meets FOD (SW to the South)
17 = back to SW moving from FOD (E to W) swamp @ west

ELC
PLANT SPECIES LIST

SITE: Turbine 12 + Access Road
POLYGON: Feature 68
DATE:
SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAPENN	D	D	A	A		SOLRUGO				O	
Swamp W. oak	O	O	O			Carex sp					A
TILAMER	O	O	O			RUBIDAE					O
Shagbark	O	O				ASTLATE					O
ACERUBR	R	A	A	O		GEUCANA					O
ACEFREE	R	O	O			DRYMARG					O
OVERUBR	R					ARGGIGA					O
ACESASA		O				GLYSTR1					O
						RHVRA·NE					A
						CIRLEUT					O
						SOLDULC					O
						ONOSENS					O
						IMCAPE					O
						st. nettle					A
SANMARI				O		OXASTRI					O
EUCOBV				O		PARINSE					O
hog-peanut				O		GEUAPPE					O
* Grapefern				R		Viola sp.					O
PRUVIVI						ARITR·TR					R
RIBBYNO		O				DRYCART					O
RHACATH		O				IRIVERS					O
Crataegus sp		R				false sol. seal					O
SAMCANA		O				FRAVESC					O
RIBHIRT		R				foam flower					O
X-mas fern				R		Turtlehead					O
barren straw.				O		RUBPUBE					O
GERMACU				O		L.I. aster					O
Wooly cecily				R							

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ②	
	SURVEYOR(S):		DATE:	
	START:		END:	
	UTMZ:		UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEORK. <input type="checkbox"/> BASIC BEORK. <input type="checkbox"/> CARB. BEORK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA > Shagbark > QUERUBR = FRAPENN
2 SUB-CANOPY	3	4	" > FRAPENN = Shagbark
3 UNDERSTOREY	4-5	4	" > " = FAGGRAN = b. beech
4 GRD. LAYER	6-7	4	Sapling, Solidago, GERBICK

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-0.5 m 7 = HT < 0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	A < 10	A 10-24	A 25-50	/ > 50
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STANDING SNAGS:	0 < 10	0 10-24	R 25-50	/ > 50
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DEADFALL / LOGS:	A < 10	0 10-24	/ 25-50	/ > 50
-------------------------	--------	---------	---------	--------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	<input type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input checked="" type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
-------------------	----------------------------------	--------------------------------	----------------------------------	--	-------------------------------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: Fresh-moist Sugar Maple Dec. Forest	CODE: FOD6
VEGETATION TYPE: Fresh-moist Maple-Hickory Dec. Forest	CODE: FOD6-6*
INCLUSION	CODE:
COMPLEX	CODE:

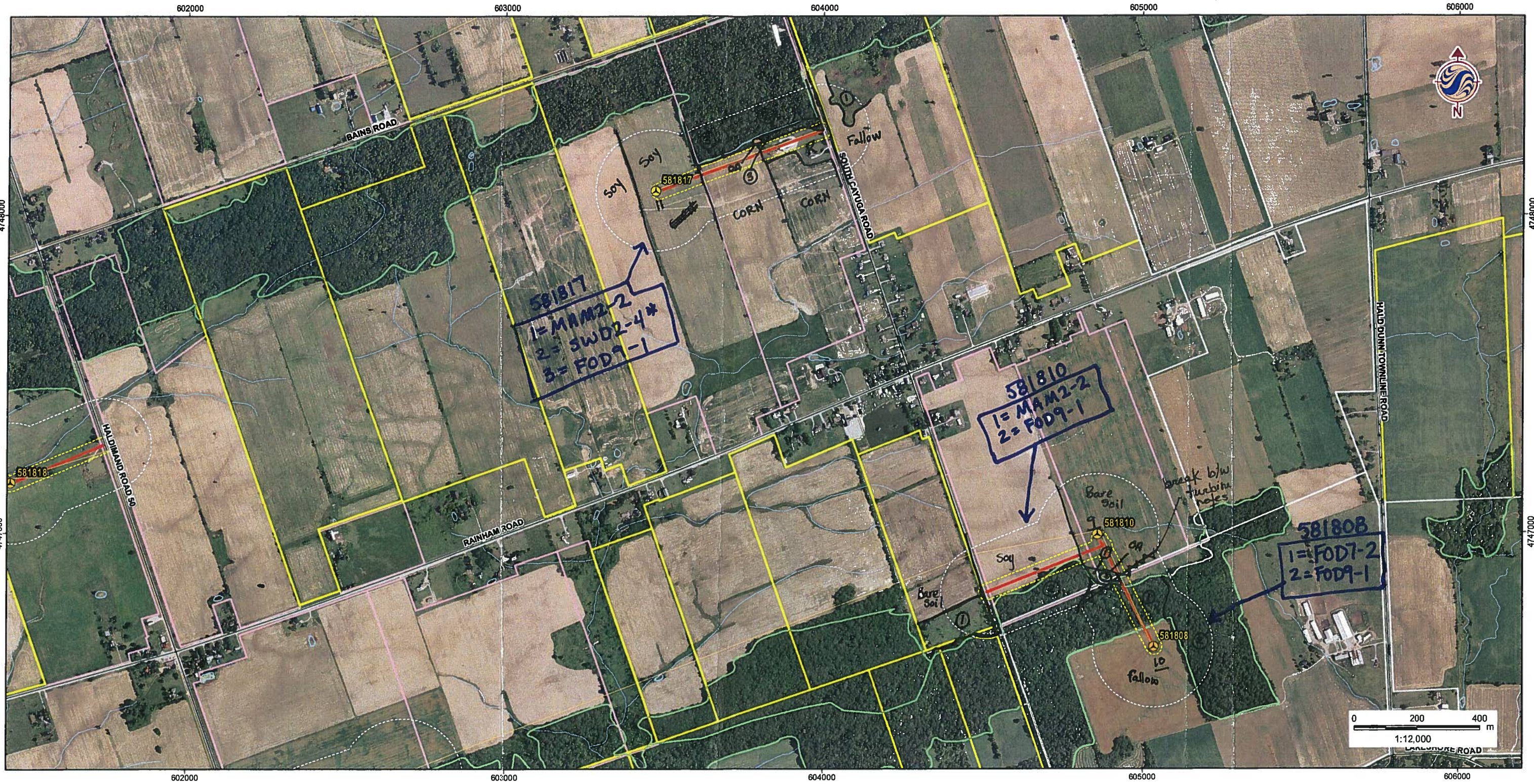
Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESASA	D	A	A	A		SANMARI				O	
Shagbark	A	A	O	O		CIRLEUT				O	
QUERUBR	A	A	R			GERMACU				O	
FRAPENN	A	A	A	A		Carex sp.				O	
TILAMER	A	O	O			Viola sp				O	
FAGGRAN		O	O			GLYSTR1				O	
Blue Beech			A			EVOOBOV				O	
ULMAMER		R				SOLCANA				O	
						SOLRUGO				O	
						SOLCAES				O	
PRUVINI			A			GEUAPPE				O	
RUBIDAE			O			false. S. seal				O	
J. barberry			R			DRYCART				O	
SAMCANA			R			l. l. aster				O	
RIBCYNO			O			foam flower				O	
RHACATH			O			RHURANE				O	
Craegus sp			O			OxASTRI				O	
VITRIPA			O			FRAVESC				O	
PARINSE			O			PREALBA				O	
						hog peanut				O	
						Viola sp				O	
						AGRGRYP				O	

W:\active\160960577\drawing\GIS\MXD\Natural\Heritage\Assessment\FieldMap\60960577_FIELDMAP_ProjectLocation_Mapbook_20100921_PW.mxd - 9/22/2010 @ 12:15:19 PM

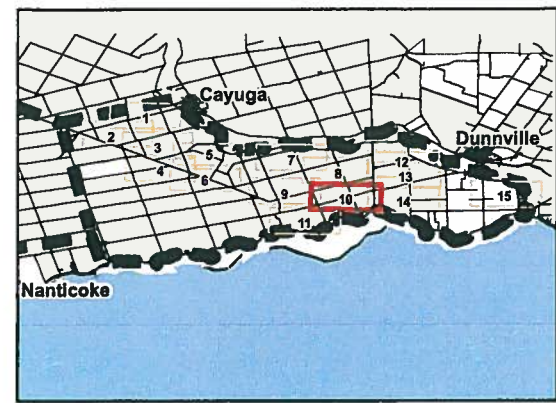


September 2010
160960577



Legend

- | | | | |
|--|----------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elexco Acquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



*original:
Don't Throw
out*

- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 10

Title
PROJECT LOCATION MAP



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Tel: (519) 836-6050
Fax: (519) 836-2493

**Wildlife Habitat
Assessment**

Feature 68
Turbine 12 + Access Road

Project Number	161010646	Project Name:	Samsung
Date / Time:	Sept. 23. 2010	Field Personnel:	GAW

Weather Conditions:	Temp: 20°	Wind: 2	Cloud: 25%	PPT: ∅	PPT in last 24 hrs: RAIN
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO BLJA DOWO	Gr. squirrel	WOFR		

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 10%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) Mostly in FOD, not SWD

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. < 5% of stand, 10-20cm DBH, some with loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	5-15m	10-30cm	2-10m	10-25cm

Bat Mat Roost? No.

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe one old junk pile, old roads.

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	SWD, scattered in FOD	Dry	Variable	yes	yes

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646 POLYGON: ①

SURVEYOR(S): GAW DATE: Sept. 23, 2010

START: END UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input checked="" type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	COVER	

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	4	4	reed canary >> Solidago
2 SUB-CANOPY	5-7	4	" "
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<.25m 3=2<HT<.10m 4=1<HT<.2m 5=0.5<HT<.1m 6=0.2<HT<.0.5m 7=HT<0.2m
CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	R < 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	R < 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	0 < 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	<input checked="" type="checkbox"/> YOUNG	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Marsh	CODE: MA
COMMUNITY SERIES: Meadow Marsh	CODE: MAM
ECOSITE: Mineral Meadow Marsh	CODE: MAM2
VEGETATION TYPE: Reed Canary Grass Min. Meadow Marsh	CODE: MAM2-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: Turbine 9 + Access Road 581810

POLYGON: Feature 68

DATE:

SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
reed canary	D	D										
p.loosestrife	R											
SOLCANA	O											
EUTGRAM	O											
AST LATE		R										
ASTNOVA		R										
willowherb		O										
CORSTOL	R											
RHACATH	R											
LYCUNIF		O										
Polygonum sp.		O										
TYPANGU	R											
EUPPERT	R											
Carex		R										
SOLRUGO	O											

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ②	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA = QUERUBR > Shagbark > FRAPENN
2 SUB-CANOPY	3	4	" > Shagbark > FRAPENN
3 UNDERSTOREY	4-5	4	" = PRUVIVI
4 GRD. LAYER	6-7	4	SOLCAES, leek, GERBICK, RHURA.NE

HT CODES: 1=>25 m 2=10<HT. 25 m 3=2<HT. 10 m 4=1<HT. 2 m 5=0.5<HT. 1 m 6=0.2<HT. 0.5 m 7=HT<0.2 m
CVR CODES: 0= NONE 1= 0% < CVR . 10% 2= 10 < CVR . 25% 3= 25 < CVR . 60% 4= CVR > 60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	A	< 10	A	10 - 24	O	25 - 50	R	> 50
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STANDING SNAGS:	O	< 10	O	10 - 24	R	25 - 50	/	> 50
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DEADFALL / LOGS:	A	< 10	O	10 - 24	R	25 - 50	/	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	<input type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input checked="" type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: F-M oak - Maple - Hickory Dec. Forest	CODE: FOD9
VEGETATION TYPE: Fresh-moist oak - Sugar Maple Dec. Forest	CODE: FOD9-1
INCLUSION	CODE:
COMPLEX	CODE:

ELC PLANT SPECIES LIST	SITE:	
	POLYGON:	
	DATE:	
	SURVEYOR(S):	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
QUERUBR	A	A	O			SOLRUGO				R	
ACESASA	A	A	A	O		l.i. aster				O	
QUEMACR	R					false sol. seal				O	
TILAMER	O	O	O			PREALBA				O	
FRAPENN	O	O	O	O		SOLCAES				A	
Shagbark	A	O	O	O		wild leek				A	
OSTVIRG		O				GERMACU				A	
PRUSERO	R					EVOOBOV				A	
FAGGRAN	O	O	O	O		RHURA.NE				A	
blue beech			O	O		LONCANA				O	
PRUVIVI			A			DRYCART				O	
LONTA.TA			O			ONOSENS				O	
RHACATH			O			FRAVESC				O	
Jap. barberry			O			LYCVNIF				O	
RUBIDAE			O			St. nettle				O	
LIGVULG			R			SANMARR				O	
ROSMULT			O			GLYSTRI				O	
SAMCANA			R			mitewort				O	
						GEVAPPE				O	
						AGRGRYP				O	
						Viola sp.				O	
						IMCAPE				O	
						SOLDULC				O	
						BIDFRO				O	
						GEVCANA				O	
						HYPPERF				O	

Notes:



Stantec

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Fax: (519) 836-2493

**Wildlife Habitat
Assessment**

Feature 68 581810
Turbine 9 + Access Road

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 23. 2010

Field Personnel: GAW

Weather Conditions:	Temp: 19°	Wind: 2	Cloud: 100%	PPT: ∅	PPT in last 24 hrs: RAIN
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Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO BLJA CAGO NOFL	GRSQ	NLFR		

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand ~10%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Several, 20-40cm DBH, some w loose bark

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	15-20m	20-30	10-15m	10-15cm

Bat Mat Roost? No.

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe one log road.

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
Numerous	Throughout	Dry	1x1 - 10x10m	Yes	Yes

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
POLYGON: ①

SURVEYOR(S): GAW
DATE: Sept. 23. 2010
UTME:

START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAPENN
2 SUB-CANOPY	2	4	" > ACER >> TILAMER > Shagbark
3 UNDERSTOREY	3-4	4	" "
4 GRD. LAYER	5-7	4	shrubs, saplings GERBICK CIRLEUT

HT CODES: 1=>25m 2=16<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	O 25-50	> 50
STANDING SNAGS:	O < 10	O 10-24	> 25-50	> 50
DEADFALL / LOGS:	A < 10	O 10-24	R 25-50	> 50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO

COMMUNITY SERIES: Deciduous Forest CODE: FOD

ECOSITE: F-M lowland Decid. Forest CODE: FOD7

VEGETATION TYPE: Fresh-moist Ash Lowland Dec. Forest CODE: FOD7-2

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: Turbine 10 + Access Rd
POLYGON: Feature 68
DATE:
SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESASA	O	A	A	O		CIRLEUT				A	
FRAPENN	D	A	A	O		VITRIPA				O	
QUERUBR	O	O	O			bellwort				O	
Shagbark	O	O	O	O		GERMACV				A	
ACERUBR	O	O	O			Carex sp				O	
TILAMER	O	O	O			Viola sp				O	
blue beech			O	O		GLYSTR1				O	
FAGGRAN	R	R	O			LONCANA				O	
ULMAMER	R	R				EVOOBOV				O	
						SOLCAES				O	
						GEVAPPE				O	
						AGRGRYP				O	
						false sol.seal				O	
						DRYCART				O	
						l.l. aster				O	
RHACATH		R				ONOSENS				O	
RIBCNO			O			STRAMPL				R	x
PRUVIVI			A			x-mas fern				R	
						SOLFLEX				R	
						foam flower				R	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ②	
	SURVEYOR(S)		DATE	
	START:	END	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK <input type="checkbox"/> BASIC BEDRK <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2 4	ACESASA = QUERUBR > Shagbark > FRAPENN
2	SUB-CANOPY	3 4	" > Shagbark > FRAPENN
3	UNDERSTOREY	4-5 4	" > PRUVIVI
4	GRD. LAYER	6-7 4	leek, GERBICK, RHURA-NE, SOLCAES

HT CODES: 1 => 25m 2 = 10<HT. 25m 3 = 2<HT. 10m 4 = 1<HT. 2m 5 = 0.5<HT. 1m 6 = 0.2<HT. 0.5m 7 = HT<0.2m
 CVR CODES 0 = NONE 1 = 0% < CVR . 10% 2 = 10 < CVR . 25% 3 = 25 < CVR . 50% 4 = CVR > 50%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	A < 10	A 10 - 24	O 25 - 50	R > 50
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STANDING SNAGS:	O < 10	O 10 - 24	R 25 - 50	> 50
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DEADFALL / LOGS:	A < 10	O 10 - 24	R 25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIIONEER	YOUNG	MID-AGE	<input checked="" type="checkbox"/> MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: FM oak-maple-hickory Dec. Forest	CODE: FOD9
VEGETATION TYPE: Fresh-moist Oak-Sugar Maple Dec. Forest	CODE: FOD9-1
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE:
	POLYGON:
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
QUERUBR						LONCANA				O	
ACESASA						DRYCART				O	
QUEMACR						ONSENS				O	
TILAMER						FRAVESC				O	
FRAPENN						LYCUNIF				O	
Shagbark						St. Nettle				O	
OSTVIRG						Snake root				O	
PRUSERO						GLYSTR1				O	
FAGGRAN						Mitrewort				O	
blue beech						GEVAPPE				O	
						AGRGRYP				O	
						Viola sp				O	
PRUVIVI						IMPCAPE				O	
LONTA.TA						SOLDULC				O	
RHACATH						BIDFRON				O	
Jap. barberry						GEUCANA				O	
RUBIDAE						HYPPERF				O	
LIGVULG						SOLRUGO				R	
ROSMULT						l.l. aster				O	
SAMCANA						false s. seal				O	
						PREALBA				R	
						SOLCAES				A	
						wild leek				O	
						GERMACV				A	
						EUOBOV				A	
						RHURA-NE				A	



Stantec

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**Wildlife Habitat
Assessment**

Feature 68
Turbine 10 + Access Rd
581808

Project Number 161010646 Project Name: Samsung

Date / Time: Sept. 23. 2010 Field Personnel: GAW

Weather Conditions:	Temp: <u>19°</u>	Wind: <u>2</u>	Cloud: <u>100%</u>	PPT: <u>∅</u>	PPT in last 24 hrs: <u>RAIN</u>
----------------------------	------------------	----------------	--------------------	---------------	---------------------------------

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO BLJA PIWO	deer Coyote			

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : Only One

Approximate age of stand Mature

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Several with loose bark, DBH 20-30cm.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
	10-20m	20-30cm	10-15m	10-25cm

Bat Mat Roost? No

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe ATV trails

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

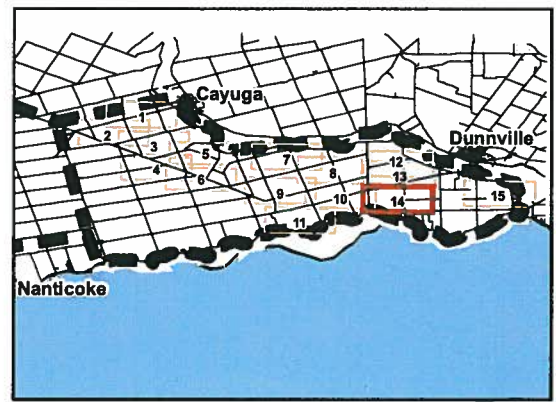
Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
extensive	mostly in Ash-maple EcD	Dry	variable	yes	yes

W:\active\160960577\drawing\GIS\MXD\NaturalHeritageAssessment\FieldMap\160960577_FIELDMAP_ProjectLocation_Mapbook_20100921_PW.mxd - 9/22/2010 @ 12:15:19 PM



Legend	
	Project Location
	Proposed Turbine Location
	Proposed Access Road
	Proposed Collector Line
	ROW Installation Zone
	120m Investigation Zone
	Elexco Aquired Agreements
	Government Lands
	UDI Lands
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 14

Title
PROJECT LOCATION MAP

September 2010
 160960577



Stantec

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Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Wildlife Habitat Assessment

Project Number
160960577

Project Name:
GRBP

Date / Time:
Sept 30, 2010 11:00-16:30

Field Personnel:
ART

Weather Conditions:

Temp:
17°C

Wind:
0

Cloud:
90

PPT:
/

PPT in last 24 hrs:
/

Location (i.e. turbine #s/description) 581809, 581807, 581861

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows) Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> BLJA WBNU OVEN BCH DOWO	Red squirrel Bl squirrel	GREY GRTF SPPB		

Feature 69

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): 3

Approximate age of stand 40 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

Feature 69

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): 1

Approximate age of stand 80 yrs.

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5% - all over 25m

Location in stand (i.e. throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?
	15-20m	20-30cm	10-15m	2 small 1 large

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e. logging, roads, paths, ATV use, trails) Yes No

If yes, describe trails

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
see #3 SWD	17T 606688 4747079	pools up to 5cm	30x30	ferns, grass, juncos	abundant CORRALIE and dead fall

Feature 69

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 4

Approximate age of stand 80 yrs

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 1 snag (FRAXINUS) 15m high, 15cm DBH

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?
	15-25 m	15-50 cm	5-10 m	2-5m // 1-10m

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

Feature 69

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 5

Approximate age of stand 60-80 yrs

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 5% - mostly PLEASANT

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) throughout

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 4 snags; 10-15m high / 20-40 DBH

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?
	10-20 m	20-40cm	4-12m	- 4 small

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 6

Approximate age of stand 50 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. - 1 snag = 3 trunk - each 15cm DBH reaching 15m tall

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

Feature 69

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 8

Approximate age of stand 10 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe ATV trail

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

Woodland Assessment- complete 1 assessment for each woodland

Feature 69

Woodlot # (indicate on map): - Where road crosses - Tile 15

Approximate age of stand Woodlot Mature

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. none fitting but root characteristics.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe CR ATV maintained trails

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

PHOTOS
Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrub logs at pond edge
1886	Roadway - looking S	15 in Clem	1887 - Clem - west side - no obs. channel		
1886/1889	Cum East side (open)	more wet - edges + veg	Road 24m wide	NO emergent	2x logs
1892-1893	Picob unshaded watercourse along edge				
1897-1898	Cue not East side 1) Rd	- flows into stream	1895-1896 - West side of Rd	Feature Cue (B)	

Ditched on west side of road

1900-1901 - East side 1-100m 2- no 100m. Yes SWD2-2 right to edge on east but slight border of 1/4m - could take out. Just 10m into stream. 1902 - 100m but DP. Mined SWD (1) on both east + west side (not 90 as for (N))

Feature 70

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 9

Approximate age of stand 50 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No
If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant
If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP
SURVEYOR(S): ART
DATE: Sept 30, 2010
POLYGON: 1
UTM:
UTMZ:
UTMM:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input checked="" type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> UCHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	CAROUAT = FRAMMER = GULRUBR > ALGUMA
2 SUB-CANOPY	3	3	TILAMER > CAROPRO
3 UNDERSTOREY	4-5	3	Goldens / others > red chip
4 GRD. LAYER	6	3	grasses > Ran b.

HT CODES: 1 = >25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = NY<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<u>A</u> < 10	<u>A</u> 10-24	<u>A</u> 25-50	<u>R</u> > 50
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STANDING SNAGS:	<u>0</u> < 10	<u>0</u> 10-24	<u>R</u> 25-50	<u>N</u> > 50
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DEADFALL / LOGS:	<u>0</u> < 10	<u>0</u> 10-24	<u>0</u> 25-50	<u>N</u> > 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Shagbark Hickory Deciduous Forest CODE: EOD9-4

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: GREP
POLYGON: 1 - Feature 69
DATE: Sept 30, 2010
SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CAROUAT					
FRAMMER					
ULMAMER					
GULRUBR					
ALGUMA					
TILAMER					
RHACATH					
CORRALIS					
FACGRAN					
red ray					
blackberry					
USTRIPP					
CARCAO					
ROSA					
RHWRAOI					
ACP SACC					
FRAPPEN					
blue berry					
red currant					
sata grass					
g. mustard					
Gottlebush grass					
wood nettle					
Blueberry					
s. 5th m. wood					
Aeol gall					
green brw					

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
LL aster					
BG goldens					
B lettuce					
jewel weed					
Bismus sp					
F sol. ven seed					
mint wort					
wh. avert					
Viola sp.					
strawberry					
wide patch - x					
clea weed					
wood nettle					
colica a ste					
in marginal wood stn					
yellow viola					
w. geranium					
Cuck					
Com. goldens					
nightshade					
Bessier tech					
w. bean					
many stamens					
P. nightshade					
typ. sawy					
tbl polygon					
w. lech					

PF resp.
m. honey suckle

sleepy cotton, Page of

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREY
 SURVEYOR(S): ARI
 DATE: Sept 30, 2010
 START: END:
 POLYGON: 2
 UTMZ: UTM:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> VALLEYLAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID <input checked="" type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input checked="" type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input checked="" type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		COVER <input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	5	4	Tearthumb & Firecut & Jewel weed
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Forb meadow marsh CODE: MAM2-10

INCLUSION: CODE:

COMPLEX: CODE:

Notes:

ELC
 PLANT SPECIES LIST

SITE: GREY
 POLYGON: 2 - Feature 69
 DATE: Sept 30, 2010
 SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
fire cut											
tear thumb											
jewel weed											
NB aster											
bl. veronica											
calico aster											
poly ground										x	
1 willow herb											
lw nettle											

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: CRBP
SURVEYOR(S): ART DATE: Sept 30, 2010 UTMZ: 18
START: END: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	28	3	ACESTACC > FRAPENN > CAROUAT
2 SUB-CANOPY	4	3	CORRACE > Holly = CARCARO = TILAMER
3 UNDERSTOREY	5	3	grass > yellow wood > other forbs
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: D < 10 O 10 - 24 R 25 - 50 N > 50

STANDING SNAGS: 6 < 10 N 10 - 24 N 25 - 50 N > 50

DEADFALL / LOGS: 0 < 10 0 10 - 24 A 25 - 50 N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG X MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Swamp maple Deciduous Swamp CODE: SWD3-3

INCLUSION: CODE:

COMPLEX: CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: CRBP
POLYGON: 3 - Feature 69
DATE: Sept 30, 2010
SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESTACC						Devil wood					
TILAMER						wood fern					
Holly						grass sp.					
CORRACE						Starflower fern					
CARCARO						calico aster					
yellow berry						PG goldenrod					
ACEROB											
red cap.											
FRAPENN											
CAROUAT											

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GRBP
 SURVEYOR(S): ART
 DATE: Sept 30, 2010
 POLYGON: 4
 UTMZ: /
 UTMN: /

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1-24	4	FRAPENNS ACESILL = CAROUAT = ULNAMER
2 SUB-CANOPY	3-4	3	CARCARO > TILAMER
3 UNDERSTOREY	5	3	wood nettle, yellow c. o. st. o.
4 GRD. LAYER	6	3	grasses

HT CODES: 1 = >25m 2 = 10<HT. 25m 3 = 2<HT. 10m 4 = 1<HT. 2m 5 = 0.5<HT. 1m 6 = 0.2<HT. 0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR . 10% 2 = 10 < CVR . 25% 3 = 25 < CVR . 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	P 10 - 24	M 25 - 50	R > 50
STANDING SNAGS:	D < 10	R 10 - 24	N 25 - 50	M > 50
DEADFALL / LOGS:	U < 10	O 10 - 24	R 25 - 50	N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: / DEPTH TO MOTTLES / GLEY g = / G = /
 MOISTURE: / DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: Red Ash Deciduous Swamp SWD2-2
 CODE:
 INCLUSION CODE:
 COMPLEX CODE:

Notes:

ELC
 PLANT SPECIES LIST

SITE: GREY
 POLYGON: 4 - Feature 69
 DATE: Sept 30 2010
 SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESILL						Redbay					
TILAMER						W. nettle					
FRAPENN						Running Stickney					
ULNAMER						W. garcin					
CARCARO						Calico etc					
CAROUAT						Can. goldenrod					
yellow bark						grass spec					
black bay						W. ovens					
RHOPODI						Small weed					
RAACAT19						begon. tick					
red r. sp						bracken sp					
FRAGGRAN						Sedge sp					x
						marginal wood fern					
						Satin grass					
						char. fern					
						rac cent					
						enchar. w. h. b. b.					
						Sp. John's wort					

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: CRKP POLYGON: 5

SURVEYOR(S): ART DATE: Sept 30, 2010 UTM E: 18

START: END UTM Z: 18 UTM N: 18

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	3	<u>ACOSPJA > FRAPPEN > TIL AMEX</u>
2 SUB-CANOPY	2	4	<u>ACOSPJA > FAGGRAN > TIL AMEX</u>
3 UNDERSTOREY	3.4	4	<u>FAGGRAN > FRAPPEN</u>
4 GRD. LAYER	5.6	3	<u>CLARK > P.M.</u>

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-0.5m 7 = HT < 0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	O 25-50	R > 50
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STANDING SNAGS:	O < 10	R 10-24	R 25-50	M > 50
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DEADFALL / LOGS:	O < 10	D 10-24	D 25-50	M > 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Sug & maple - lowland Ash Deciduous Forest CODE: F0D6-1

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC

SITE: CRKP

POLYGON: 5 - Feature 69

DATE: Sept 30 2010

SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
<u>ACOSPJA</u>						<u>Yarler</u>					
<u>FAGGRAN</u>						<u>P. solanaceae</u>					
<u>FRAPPEN</u>						<u>PF rasp</u>					
<u>red rasp</u>						<u>cherry</u>					
<u>blackberry</u>						<u>mansuet Wood Fern</u>					
<u>TIL AMEX</u>						<u>Til. ov.</u>					
<u>ROSHULT</u>						<u>W. gelatin</u>					
<u>CARCARO</u>						<u>Sensitive Fern</u>					
<u>dog berry</u>						<u>BG addend</u>					
<u>CAROUAT</u>						<u>tall pop, yew</u>					
<u>RAURADI</u>						<u>agrostis</u>					
<u>FRAPPEN</u>						<u>golden grass</u>					
						<u>Bonus sp</u>					<u>X</u>
						<u>Calico Aster</u>					
						<u>herb robert</u>					

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREY POLYGON: 10

SURVEYOR(S): ART DATE: Sept 30, 2010 UTME: /

START: / END: / UTMZ: / UTMN: /

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> ALVAR <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ALBIFLORA > PRANMUL > OVERWAT
2 SUB-CANOPY	3	2	CAREAR > FAGGRAN
3 UNDERSTOREY	4	4	Blackberry > goldenrod > jewelweed
4 GRD. LAYER	5-6	2	forb > grass

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10 - 24	O 25 - 50	N > 50
STANDING SNAGS:	O < 10	R 10 - 24	N 25 - 50	N > 50
DEADFALL / LOGS:	O < 10	O 10 - 24	N 25 - 50	N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: Sugar maple - Ash pe & rdway Forest FODS-8

INCLUSION: CODE:

COMPLEX: CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: GREY POLYGON: 6 - Feature 69

DATE: Sept 30, 2010 SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ALBIFLORA						Can golden					
PRANMUL						W. leek					
OVERWAT						Goldenrod					
Blackberry						P. nightshade					
red curr.						Wooded for					
QUE PUESS						Jewelweed					
CAREAR						CL aster					
FAGGRAN						J. solanaceal					
GLIM PRANM						Bromus sp					X
Pranmul						R. goldenrod					
POPT RPRM						wh. acers					
RHURADI						sensitive for					
Red currant											

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: **GREP**
SURVEYOR(S): **ART**
DATE: **Sept 30, 2010**
POLYGON: **7**
UTME: **UTMB**
UTMZ: **UTMB**

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL COVER <input type="checkbox"/> OPEN <input checked="" type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input checked="" type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	2	ACB SACC = FRAPENN
2 SUB-CANOPY	4	3	CORSTOL = CORRACE
3 UNDERSTOREY	5-6	4	Golden rods / ASTOR > grasses / sedges
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS: **D** < 10 | **R** 10-24 | | 25-50 | | > 50

STANDING SNAGS: **R** < 10 | **N** 10-24 | | 25-50 | | > 50

DEADFALL / LOGS: **R** < 10 | **N** 10-24 | | 25-50 | | > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG | MID-AGE | MATURE | OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: **SW T2-S**

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: **GREP**
POLYGON: **7 - Feature 69**
DATE: **Sept 30, 2010**
SURVEYOR(S): **ART**

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
CORRACE						FT golden					
FRAPENN						Tea tree					
FRAPENN						NE aster					
ACBRUB						Bl. corn					
ULMAMB						grey w. tub					
SPALSA						Calico w/b					
ACB SACC						road canopy					
CORSTOL						early golden					
RHACATH						Can. golden					
						Wool grass					
						field wood					
						Soft rush					
						Hay sedge					
						Curled dock					
						W. carrot					
						bone set					
						red top					
						fox sedge					

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GKEP
 SURVEYOR(S): ART
 DATE: Sept 30, 2010
 START: END:
 POLYGON: 8
 UTMZ: UTM:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	4	<u>FRAAMBR > ACBJASA = ACBRUBR</u>
2 SUB-CANOPY	4	1	<u>COBRACE</u>
3 UNDERSTOREY	5	3	<u>Goldenrod / Aster > red rasp</u>
4 GRD. LAYER	6	4	<u>grasses > forbs</u>

HT CODES: 1 = >25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0<HT<0.5 m 7 = HT<0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<u>NA</u> < 10	<u>1</u> 10-24	<u>1</u> 25-50	<u>1</u> > 50
STANDING SNAGS:	<u>NA</u> < 10	<u>1</u> 10-24	<u>1</u> 25-50	<u>1</u> > 50
DEADFALL / LOGS:	<u>NA</u> < 10	<u>1</u> 10-24	<u>1</u> 25-50	<u>1</u> > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: White Ash Deciduous Forest CODE: F0P42

INCLUSION CODE:

COMPLEX CODE:

Notes:

- very young

ELC
 PLANT SPECIES LIST

SITE: GKEP
 POLYGON: 8 - Feature 69
 DATE: Sept 30, 2010
 SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
<u>ACBJASA</u>						<u>Sol. rugosa</u>					
<u>FRAAMBR</u>						<u>Can. goldenrod</u>					
<u>ACBRUBR</u>						<u>houl all</u>					
<u>fly honey suck</u>						<u>red top</u>					
<u>COBRACE</u>						<u>NIS Aster</u>					
<u>RHACATH</u>						<u>Colic. aster</u>					
<u>red rasp</u>						<u>W. carrot</u>					
<u>QUIBRUBR</u>						<u>yellow aca</u>					
						<u>Agromony</u>					
						<u>Vin. anemone</u>					
						<u>W. geranium</u>					
						<u>Strawberry</u>					
						<u>St. John's Wort</u>					
						<u>yellow</u>					

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: CREP
SURVEYOR(S): ART
DATE: Sept 30, 2010
POLYGON: H1
UTME
UTMZ
UTMN

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	43	1	Hawthorn > RHACATH
2 SUB-CANOPY	5	4	Goldenrods / ASTOR > grasses
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	R	< 10	10-24	25-50	> 50
STANDING SNAGS:	R	< 10	10-24	25-50	> 50
DEADFALL / LOGS:	R	< 10	10-24	25-50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Aedgerow.. CODE: H

INCLUSION CODE:

COMPLEX CODE:

Notes:

-1 snag 10m high / 15 cm DBH

ELC
PLANT SPECIES LIST

SITE: GREP
POLYGON: A1 - No feature
DATE: Sept 30, 2010
SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Hawthorn						Can. goldenrod					
RHACATH						Ill. goldenrod					
RAUTYPH						FT goldenrod					
FRAMESB						rug. reed					
red resp.						calico aster					
RUVTIG						reed cany					
ULMAMB						w. cany					
						timothy					
						Groundch					
						G. roughed					
						c. milkweed					
						G. foxtail					
						lobelia, thava					
						teasel					

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREY
 SURVEYOR(S): ART
 DATE: Sept 30, 2010
 POLYGON: H2
 START: _____ END: _____
 UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDPK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> GREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	Equd representation of each tree sp
2 SUB-CANOPY	3-4	2	Hawthorn
3 UNDERSTOREY	3	4	Goldenroble / ARA > grasses
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0 < 10	A 10-24	0 25-50	A > 50
STANDING SNAGS:	0 < 10	N 10-24	N 25-50	N > 50
DEADFALL / LOGS:	0 < 10	N 10-24	N 25-50	N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG 2 MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Hedgerow CODE: A

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC
 PLANT SPECIES LIST

SITE: GREY
 POLYGON: H2 - No feature
 DATE: Sept 30, 2010
 SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
GLIMPHER						Can goldard					
DULRUSS						NF Liker					
FRABMBA						RT goldend					
TLLAMER						leaf					
CAROUAT						Cyl. ca. alb					
PROSETO						W. card					
Rantlorn						ty-oth					
RHACATH						fox-tail					
RHBTYPTA						C. regnees					
Pear						bull thistle					
LABTARA											

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: **GREY** POLYGON: **K**

SURVEYOR(S): **ART** DATE: **Sept 30, 2010**

START: END UTME: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> HILLSLAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LV. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	S6	3	Timothy > Dxtal > Forb
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=0<HT<2.5m 2=10<HT<25m 3=20<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES: 0= NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: **Fullow** CODE: **Fullow**

INCLUSION CODE:

COMPLEX CODE:

Notes: - recent fullow - maybe 1-2 yrs - was a wheat field - straw & wheat stubble
 - recently strayed - veg dying

ELC

SITE: **GREY**

POLYGON: **F1 - No feature**

DATE: **Sept 30, 2010**

SURVEYOR(S): **ART**

PLANT SPECIES LIST

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Forb tall					
C. plantan					
C. velvetleaf					
rag weed					
Callicoaster					
Red clover					
Timothy					
Low ground					
Alto P.					
with grass					

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: *GREP*
SURVEYOR(S): *ART*
DATE: *Sept 30, 2010*
POLYGON: *F2*
START: _____ END: _____
UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	6	4	<i>Alfalfa & 7 grasses</i>
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<.05m 7=HT<0.2m
CVR CODES: 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:				
DEADFALL / LOGS:				

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = _____ G= _____

MOISTURE: DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: *Hay* CODE: *Hay*

INCLUSION _____ CODE: _____

COMPLEX _____ CODE: _____

Notes:

ELC
PLANT SPECIES LIST

SITE: *GREP*
POLYGON: *F2 - no feature*
DATE: *Sept 30, 2010*
SURVEYOR(S): *ART*

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
<i>Alfalfa</i>											
<i>Timothy</i>											
<i>Dandelion</i>											
<i>lady's thumb</i>											
<i>wh. clover</i>											
<i>res clover</i>											

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609374

4748032

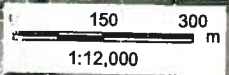
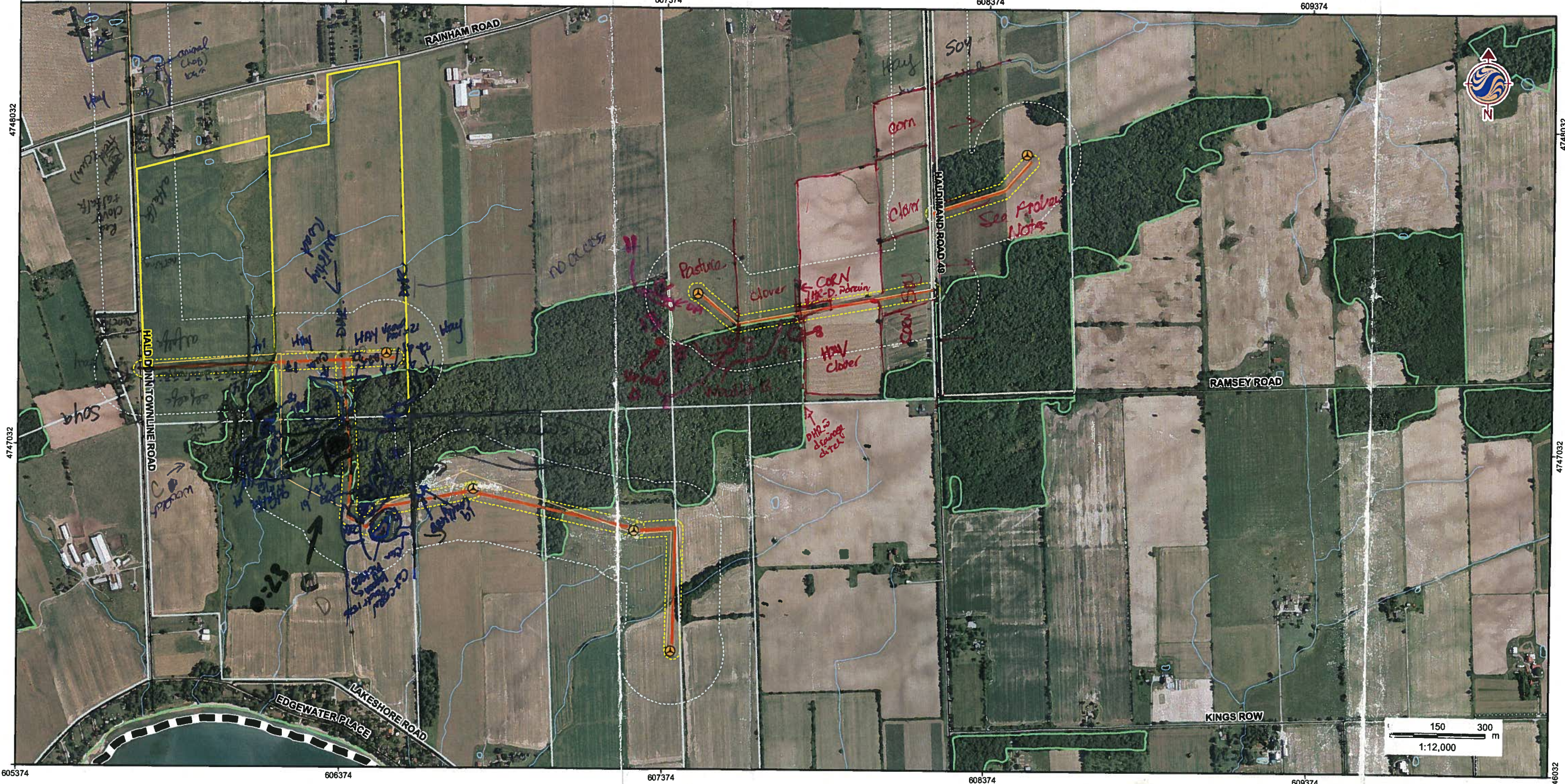
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W:\active\60960577\Drawing\GIS\MXD\NaturalHeritageAssessment\Fields\Map\Map\60960577_FIELDMAP_V2Oct13_20101014_DH.mxd - 10/14/2010 @ 3:15:10 PM



Legend

- Project Location
- Proposed Turbine Location V2 Oct 08
- 120m Investigation Zone V2 Oct 13
- Substation Property
- Proposed Collector Line V2 Sept 30
- Proposed Access Road V2 Oct 13
- ROW Installation Zone V2 Oct 13
- Elenco Aquired Agreements
- Government Lands
- UDI Lands
- Road
- Railway
- Abandoned Railway
- Transmission Line (OBM)
- Deer Wintering Area
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody
- Area of Natural and Scientific Interest (ANSI)**
- Life Science, Provincially Significant
- Earth Science, Provincially Significant
- Earth Science, Regionally Significant

23422



Notes

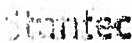
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources
© QuattroGIS Printer Ontario, 2009; © GREP, 2010;
© Stantec, 2010.
3. Imagery Source: © First Base Solutions, 2010 - Imagery
Date: Spring 2006. **LIDAR IMAGERY SOURCE???**
4. Product using the Version 2 site plan provided by Samsung
issued on October 13, 2010

Client/Product
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 15

Title
PROJECT LOCATION MAP

October 2010
160960577

 Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		Wildlife Habitat Assessment			
Project Number <u>1600960577</u>		Project Name: <u>Samsung</u>			
Date / Time: <u>25-Oct-2010</u>		Field Personnel: <u>Melissa Strauss</u>			
Weather Conditions:	Temp: <u>15°</u>	Wind: <u>5</u>	Cloud: <u>100%</u>	PPT: <u>none -</u>	PPT in last 24 hrs: <u>Rain</u>

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO WBNV-VO 2WBL-OB WISP-OB NOCA-OB MOCO-OB WITI-OB WIFE-OB PIFE-VO (1/10)	WOTDEER-OB Badger Gopher-OB	EFFE-VO LEFR-OB		

2010-OB
 2010-OB
 2010-OB

Feature 69

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): B

25-Oct-2000 Approximate age of stand 70-80

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand Quercus scattered throughout

Location in stand (i.e. throughout, in west side only, in FOD2-6 only etc..) 5% FOD

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Few - no loose bark, 5m⁺, 15-20cm DBH

n/a

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Snags	3m	15cm	2	Small
live tree	20	25	2	Small.
Mh.	25cm	30cm	1m	hollow

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e. logging, roads, paths, ATV use, trails) Yes No

If yes, describe logging - depending which part of woodlot

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of st logs at pond e
Multiple	at edge of	< 10cm	2-5m	no	no
1	"D" on map	10-15cm	.8m	no	no
2	"E" on map	< 5cm	5m	no.	no

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : _____

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of snags at pond edge

Feature 69

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): B3C

25-Oct-2010

Approximate age of stand 80 years

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e. throughout, in west side only, in FOD2-6 only etc..) _____

<10cm; 1.5m ↑, no loose bark; 15cm DBH ↑ 2.5m no bark; ↑ 25m; 50cm loose bark

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Quite a few be, see below ~ 10/ha

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Be snag	22m	30cm	5m	small
"	4m	"	4m	small
2 Besnags like be	7-8m 25m	15-20cm 50-60cm	7-8 2m	med-small large
Be snag	2	50	0m	hollow

no loose bark

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e. logging, roads, paths, ATV use, trails) Yes No

If yes, describe Formal trail system - maintained

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrub logs at pond edge

Feature 69

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): D

28 Oct 2010
+ 28 Oct 2010

Approximate age of stand 40-60 years

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand 10%

Location in stand (i.e. throughout, in west side only, in FOD2-6 only etc..) Red Oaks in FOD upland (Ply #22)

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. ~ 3-5/ha no loose bark see cavities below

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
snags	2m ↑ 10m	20-30cm	2-8m	small
live ML	20m ↑	80-100cm	0	hollow

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e. logging, roads, paths, ATV use, trails) Yes No

If yes, describe ATV maintained trails

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs/logs at pond edge
1-?	Scattered throughout for # in 10x10m habitat	< 5cm	2m - 20m (Ply #19)	No	No

Swamp

Feature 69

:LC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

VEGETATION DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
TERRESTRIAL	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
WATER	<input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.		<input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

ID DESCRIPTION:

AYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
CANOPY	1	4	QUEBRUBR > CAROVAT = FRAPPENN
IB-CANOPY	2	4	FAGGRAN > ACESACS
DERSTOREY	3	4	FAGGRAN > OSTVIRG
RD. LAYER	5	4	ASTMAER > RUBROEA

DES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
ODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

ID COMPOSITION:

CLASS ANALYSIS:	A < 10	O 10 - 24	O 25 - 50	K > 50
AGING SNAGS:	N < 10	R 10 - 24	R 25 - 50	N > 50
FALL / LOGS:	O < 10	O 10 - 24	O 25 - 50	N > 50

DANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

M. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

ANALYSIS:

DEPTH TO MOTTLES / GLEY	g =	G =
DEPTH OF ORGANICS:	(cm)	
DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
SITE:	CODE:
STATION TYPE:	CODE:
- M Red Oak - Shagbark Hickory Do. Elm F00936	
INCLUSION	CODE:
COMPLEX	CODE:

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 8
	DATE: 25-Oct-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER			
	1	2	3	4			1	2	3	4
CAROVAT	0					ASTMAER				0
QUEBRUBR	0					Christmas Fern				0
FRAPPENN	0					Wood Nettle				R
ACESACS	0					FRAV				
QUEBRUBR	R									
FAGGRAN			A							
FRAMMER	0									
OSTVIRG			0							
RUBROEA			0							
FICADICL			0							

Pic 1770

Feature 69

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 160960577
 POLYGON: 9

SURVEYOR(S):
 DATE:
 UTME:

START: END
 UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACEFREE > FRAPENN
2 SUB-CANOPY	2	4	FRAPENN > ACEFREE > TLLAMER
3 UNDERSTOREY	3	4	CARRARD
4 GRD. LAYER	5-7	4	Ferns, Aster, grasses.

HT CODES: 1 = >25m 2 = 10<HT<.25m 3 = 2<HT<.10m 4 = 1<HT<.2m 5 = 0.5<HT<.1m 6 = 0.2<HT<.0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION:

BA:

SIZE CLASS ANALYSIS:	R < 10	O 10 - 24	O 25 - 50	R > 50
STANDING SNAGS:	R < 10	R 10 - 24	R 25 - 50	N > 50
DEADFALL / LOGS:	O < 10	R 10 - 24	R 25 - 50	N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE: SW

COMMUNITY SERIES: CODE: SWD

ECOSITE: CODE: SWD

VEGETATION TYPE: CODE: SWD3-3

Swamp Maple Mineral Maple Swamp

INCLUSION CODE:

COMPLEX CODE:

Notes: 1771-1772

ELC
 PLANT SPECIES LIST

SITE: Samsung
 POLYGON: 9

DATE: 25-Oct-200
 SURVEYOR(S): M. Struss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
DIANET	O	O	R	R	
FRAPENN	O	O	R	R	
TLLAMER	-	O	-	-	
CARRARD	O				
FRANIGR			R		
SARICIA			R		
CARRARD			R		
Wild Gooseberry			R		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Impatiens				R	
Sensitive Fern				R	
Woodnettle				O	
Aster sp.				O	
Buttercup sp.				O	

Feature 69

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAPPENN > CARLOVAT ? > QUISRUER
2 SUB-CANOPY	2	4	FRAPPENN = CARLOVAT
3 UNDERSTOREY	3	4	ACBSACS > OSTVIRGA
4 GRD. LAYER	5-7		ASTMACR = AGRGRYP > Nettie

HT CODES: 1=>25m 2=10<HT.25m 3=2<HT.10m 4=1<HT.2m 5=0.5<HT.1m 6=0.2<HT.0.5m 7=HT<0.2m
CVR CODES 0= NONE 1=0% < CVR, 10% 2=10 < CVR, 25% 3=25 < CVR, 60% 4=CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: R < 10 O 10-24 N 25-50 N > 50

STANDING SNAGS: N < 10 R 10-24 N 25-50 N > 50

DEADFALL / LOGS: N < 10 N 10-24 N 25-50 N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG X MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE: FO

COMMUNITY SERIES: CODE: FOD

ECOSITE: CODE: FOD9

VEGETATION TYPE: CODE: FOD9-4

FM Shag bark Hickory Deciduous Forest

INCLUSION CODE:

COMPLEX CODE:

Notes: Pk #1773
Aggrts. more wet

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 10	
	DATE: 25-Oct-2010	
	SURVEYOR(S): M. Straus	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CARLOVAT	0	0			
QUISRUER	R				
FRAPPENN	O	R	R		
ALERUBR	R	O	O	O	
QUISRUER	R	R	R	R	
TILAMOL		R			
ACBSACS		R	O		
PUBIDEA				R	

Feature 69

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 160946577	POLYGON: 12		
	SURVEYOR(S):	DATE:	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		COVER			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENN > CATLOVAT
2 SUB-CANOPY	3	4	
3 UNDERSTOREY	4	3	RITACATH
4 GRD. LAYER	5-7	3	Rubus

HT CODES: 1 => >25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m
 CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0 < 10	A 10-24	R 25-50	N > 50
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STANDING SNAGS:	N < 10	N 10-24	N 25-50	N > 50
-----------------	--------	---------	---------	--------

DEADFALL / LOGS:	0 < 10	R 10-24	N 25-50	N > 50
------------------	--------	---------	---------	--------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: SWD-22
INCLUSION	CODE: <
COMPLEX	CODE:

Notes: From edge - no access.
 Ag - lowland.

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 12
	DATE: 25-Oct-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRAPENN	O	O	R	R	
CATLOVAT	O	O	R	R	
RUBUS sp.				O	
RITACATH			R		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Wood Nuth				R	

Feature 69

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: 13	
	SURVEYOR(S):		DATE:	UTME:
	START:	END: 10:30	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACESACS > ALERUBR > FRAMER
2 SUB-CANOPY	2	4	ACESACS > ALERUBR > FRAGGRAN
3 UNDERSTOREY	3	4	FRAGGRAN & OSTVIRG
4 GRD. LAYER	5-7	3	Seedlings ALERUBR & OSTVIRG

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0% < CVR < 10% 2=10 < CVR < 25% 3=25 < CVR < 60% 4=CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 0 10-24 0 25-50 N > 50

STANDING SNAGS: N < 10 L 10-24 L 25-50 N > 50

DEADFALL / LOGS: R < 10 0 10-24 0 25-50 N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE X MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE: F0
COMMUNITY SERIES: CODE: F00
ECOSITE: CODE: F005
VEGETATION TYPE: CODE: F005.9
D-F Sugar Maple - Red Maple Dec. Forest
INCLUSION CODE:
COMPLEX CODE:

Notes: Pic 1776

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 13	
	DATE: 25-Oct-2010	
	SURVEYOR(S): M. Strauss	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESACS	0	0	0	0		ASTMAEK				0	
ALERUBR	0	0	0	0		Runn. Straw Bush					R
FRAMER	0	R	R	R		Round. Hepatica					R
FRAGGRAN	0	0	0	0							
TRAMER	R	R	R	R							
OSTVIRG				0							
RUBINEA				0							

Feature 69

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: 15

SURVEYOR(S): _____ DATE: _____ TIME: _____

START: 17:30 END _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUERUBR > FRAPENN > CAROUAT = FAGGRAN
2 SUB-CANOPY	2	4	FRAPENN = FAGGRAN
3 UNDERSTOREY	3	4	FAGGRAN > OSTVIRG > FAGGRAN
4 GRD. LAYER	10-15	4	ASTMACR

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 50% 4= CVR > 50%

STAND COMPOSITION: _____ BA: _____

SIZE CLASS ANALYSIS: < 10 10-24 25-50 > 50

STANDING SNAGS: < 10 10-24 25-50 > 50

DEADFALL / LOGS: < 10 10-24 25-50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G= _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: F-M Oak-Maple Thicket Dec. Forest CODE: FOD9

VEGETATION TYPE: F-M Red Oak-Shagbark Hickory Dec. Forest CODE: FOD9-6*

INCLUSION _____ CODE: _____

COMPLEX _____ CODE: _____

Notes: Pic 1778 Coloured in = PINSTRO planted edge of woodlot. (in 15)

ELC PLANT SPECIES LIST

SITE: Surnsburg

POLYGON: 15

DATE: 25-Oct-2010 / 28-Oct-2010

SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
QUERUBR	0				
FRAPENN	0	0			
CAROUAT	0	0			
ALBACS	0	R	0	0	
TILAMER			R	R	
FAGGRAN	R	0	0	0	
FRAAMER	R				
QUEALBA	R				
OSTVIRG			0		
CAROUAT				R	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ASTMACR					0

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 160960577 POLYGON: 16

SURVEYOR(S): DATE: UTMZ: UTMN:

START: 17:35 END: 18:00

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input checked="" type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ALB SACS
2 SUB-CANOPY	2	4	ALB SACS
3 UNDERSTOREY	3	4	FAM BILBA PLAGGRAN = OSTVIRG
4 GRD. LAYER	6-7	4	ALB SACS > Rubus

HT CODES: 1 = >25 m 2 = 10<HT: 25 m 3 = 2<HT: 10 m 4 = 1<HT: 2 m 5 = 0.5<HT: 1 m 6 = 0.2<HT: 0.5 m 7 = HT<0.2 m
CVR CODES 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION:

BA:

SIZE CLASS ANALYSIS: A < 10 O 10-24 O 25-50 R > 50

STANDING SNAGS: N < 10 R 10-24 N 25-50 M > 50

DEADFALL / LOGS: N < 10 R 10-24 R 25-50 M > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:

F-M Sugarmaple-Hardwood Dec Forest F006-S

INCLUSION CODE:

COMPLEX CODE:

Notes: Pic # 1739.

Lowland Mh-along Stream

Feature 69

ELC
PLANT SPECIES LIST

SITE: Samsung

POLYGON: 16

DATE: 25-Oct-2010

SURVEYOR(S): McStrains

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ALB SACS	O					IMPURITE					O
FRAGGRAN	-R										
FRAPPEN	-R										
FRAMMER	R										
OSTVIRG		O									
RTURADI				R							
Rosa sp.				R							
FRVIRG				O							
RUBIDEA				O		Canada Plum					
						Pichne 1780					R/R
						+1781					
						Plum?					

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: 17

SURVEYOR(S): _____ DATE: _____ UTMZ: _____ UTMN: _____

START: _____ END: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY	4	1	
4 GRD. LAYER	57	7	IMPERATA, Eragrostis

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: _____ BA: _____

SIZE CLASS ANALYSIS:	0 < 10	R 10 - 24	N 25 - 50	N > 50
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STANDING SNAGS:	0 < 10	N 10 - 24	N 25 - 50	N > 50
-----------------	--------	-----------	-----------	--------

DEADFALL / LOGS:	N < 10	R 10 - 24	N 25 - 50	N > 50
------------------	--------	-----------	-----------	--------

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: Y PIONEER | YOUNG | MID-AGE | MATURE | OLD GROWTH

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G = _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: Jewelweed mineral Meadow Marsh CODE: MAM 2-9

INCLUSION: _____ CODE: _____

COMPLEX: _____ CODE: _____

Notes: Pic 1822

Feature 19

ELC
PLANT SPECIES LIST

SITE: Samsung

POLYGON: 17

DATE: 28-Oct-2010

SURVEYOR(S): _____

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<u>Scaevola</u>			R		
<u>RUBIDIA</u>			O		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<u>IMPERATA</u>				A	
<u>Water Pansy</u>				R	
<u>Caro</u>				A	
<u>Wood Fern</u>				R	

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: **18**

SURVEYOR(S): _____ DATE: _____ UTM: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ALESACS < PAEGILAN
2 SUB-CANOPY	2	4	"
3 UNDERSTOREY	3	4	PAEGILAN
4 GRD. LAYER	57		

HT CODES: 1 = >25m 2 = 10<HT: 25m 3 = 2<HT: 10m 4 = 1<HT: 2m 5 = 0.5<HT: 1m 6 = 0.2<HT: 0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION: _____ BA: _____

SIZE CLASS ANALYSIS: **A** < 10 **A** 10-24 **A** 25-50 **R** > 50

STANDING SNAGS: **N** < 10 **A** 10-24 **O** 25-50 **R** > 50

DEADFALL / LOGS: **O** < 10 **A** 10-24 **O** 25-50 **R** > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: _____ PIONEER _____ YOUNG _____ MID-AGE _____ MATURE _____ OLD GROWTH _____

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G= _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE _____ DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: **D-F Beach Dec. Forest** CODE: **POD4-1**

INCLUSION _____ CODE: _____

COMPLEX _____ CODE: _____

Notes: Coloured in = Pw planted HR. Pic # 1823

Feature 69

ELC
 PLANT SPECIES LIST

SITE: **Samsung**

POLYGON: **18**

DATE: **28-Oct-2010**

SURVEYOR(S): **M. Strauss**

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ALESACS	O	R	R	R	
PAEGILAN	O	O	A	O	
PLANTATION	R	R	R	R	
ASTMACR				O	
Beach Drops				R	
IMPURPE				R	
ARCARD				R	
SORABLE				R	
Rosa sp.				R	

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 160960577 POLYGON: 19

SURVEYOR(S): DATE: UTMZ: UTMN:

START: END UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input checked="" type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	1	FRAPENN
2 SUB-CANOPY	2	1	"
3 UNDERSTOREY	3	2	" > TILAMER
4 GRD. LAYER	57	4	EMKAPB > Nettles

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	0 < 10	0 10 - 24	R 25 - 50	A > 50
STANDING SNAGS:	N < 10	R 10 - 24	R 25 - 50	N > 50
DEADFALL / LOGS:	R < 10	0 10 - 24	R 25 - 50	N > 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE: SW

COMMUNITY SERIES: CODE: SWD

ECOSITE: CODE:

VEGETATION TYPE: CODE: MAMA-9

Jewelweed Mineral Meadow Marsh

INCLUSION CODE:

COMPLEX CODE:

Notes: Pic #1827

Feature 69

ELC
 PLANT SPECIES LIST

SITE: Sumsup

POLYGON: 19

DATE: 28-01-2010

SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRAPENN	0				
CARDVAT	R				
TILAMER			R		
ROSESP				R	
CARCARO			R		
SPICANA			R		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
EMKAPB				A	
Bittersweet Nightshade				R	
Road Canary				R	
String Nettle				O	
Wool Nettle				O	
TYPTASP				R	

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 160960577
POLYGON: 20

SURVEYOR(S):
DATE:
START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE, <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACESACS > TILAMER > FAGGRAN
2 SUB-CANOPY	2	4	"
3 UNDERSTOREY	3	1	FAGGRAN
4 GRD. LAYER	3	3	ASTMACL

HT CODES: 1=>25m 2=10<HT:25m 3=2<HT:10m 4=1<HT:2m 5=0.5<HT:1m 6=0.2<HT:0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR:10% 2=10<CVR:25% 3=25<CVR:60% 4=CVR>60%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	0 < 10	0 10 - 24	0 25 - 50	N > 50
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STANDING SNAGS:	N < 10	R 10 - 24	R 25 - 50	N > 50
DEADFALL / LOGS:	0 < 10	0 10 - 24	0 25 - 50	R > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	X MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
EM Sugar Maple-Hardwood Dec. Forest F006-5	
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Pict 1828

Mhr Be-lowland
+ Rd

Stream meandering through.

Feature 69

ELC
PLANT SPECIES LIST

SITE: Samsung
POLYGON: 20
DATE: 28 Oct 2000
SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
TILAMER	O	O	R	R	
ACESACS	O	O	O	O	
FAGGRAN	O	O	O	O	
CAROVAT	R	R	R	R	
ASTMACL					O
Sp. Woodfern					O
Wood Nettle					R
IMP. CAPRE					R
Kosa sp					R
River grape					R
RUBIDEP					R

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 160960577 POLYGON: 20

SURVEYOR(S): DATE: UTMZ: UTMN:

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FLAPENN
2 SUB-CANOPY	2		"
3 UNDERSTOREY	3		"
4 GRD. LAYER	4-5	4	CUM sp + IMPCAPE (a)

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES: 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 50% 4= CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 < 10 0 10-24 2 25-50 1 > 50

STANDING SNAGS: N < 10 B 10-24 R 25-50 M > 50

DEADFALL / LOGS: R < 10 D 10-24 R 25-50 N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER X YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:
Green Ash Mineral Deciduous Swamp SWDA-2

INCLUSION: CODE:

COMPLEX: CODE:

Notes: 21b = 1831 21 = 1834

Feature 69

ELC PLANT SPECIES LIST

SITE: Samsung

POLYGON: 21

DATE: 28-01-2010

SURVEYOR(S): M. Strahl

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FLAPENN	D	D	D	D	
CAROLAT	R	R			
ACETFLB	R				
Reber sp				R	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Same GR as 19					
IMPCAPE					
21b + CUM sp					

ELC SITE: 160960577 POLYGON: 22

COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): DATE: UTME:

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUELURB > ACESAB > FRAGLAN
2 SUB-CANOPY	2	4	FRAGLAN > ACESAB > FRAXINER
3 UNDERSTOREY	3	4	" >
4 GRD. LAYER	3	3	ASTMACR

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR, 10% 2=10<CVR, 25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: 0 < 10 0 10-24 0 25-50 0 > 50

STANDING SNAGS: 0 < 10 0 10-24 0 25-50 0 > 50

DEADFALL / LOGS: 0 < 10 0 10-24 0 25-50 0 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: D-F Sugar Maple Dec. Forest CODE: F005

VEGETATION TYPE: D-F Sugar Maple - Oak Dec. Forest CODE: F005-3

INCLUSION CODE:

COMPLEX CODE:

Notes: upland Pic 1829

Feature 69

ELC SITE: Sunbury

PLANT SPECIES LIST POLYGON: 22

DATE: 26 Oct 2010

SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACESAB	R	O	O	O		Xmas Fern				R	
QUELURB	O	R	R	R		ASTMACR				D	
FRAGLAN	R	O	O	O							
FRAXINER	R	O	R	E							
FRAXINER	R	R									
FRAXINER											

Feature 69

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: 23	
	SURVEYOR(S):		DATE:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL. UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE	COVER	<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREED		<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CAROVAT > FLAPENN
2 SUB-CANOPY	2	4	FLAPENN > TILKMER
3 UNDERSTOREY	3	4	FLAPENN = TILKMER
4 GRD. LAYER	5-7		Poa sp.

HT CODES: 1 = >25m 2 = 10-25m 3 = 2-10m 4 = 1-2m 5 = 0.5-1m 6 = 0.2-0.5m 7 = HT < 0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: < 10 10-24 25-50 > 50

STANDING SNAGS: < 10 10-24 25-50 > 50

DEADFALL / LOGS: < 10 10-24 25-50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: F009-4
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes:

Pit 1835.

ELC PLANT SPECIES LIST	SITE: Sandling	
	POLYGON: 23	
	DATE: 28 Oct 2010	
	SURVEYOR(S): M. Strauss	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CAROVAT	D	D	O	O	
FLAPENN	O	O	O	O	
TILKMER	R	O	R	R	
RUBROEA					
CALCARO		R			
Poa sp.				O	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
IMPORTE				O	

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 160960577
POLYGON: 24

SURVEYOR(S):
DATE:
START: END
UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOC <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	3	1	FRAPENN
3 UNDERSTOREY	4	2	Hawthorn = RHACATT
4 GRD. LAYER	5-7	4	RUBIDBA, Goldenrod

HT CODES: 1=>25m 2=10-25m 3=2-10m 4=1-10m 5=0.5-1m 6=0.2-0.5m 7=HT<0.2m
CVR CODES 0= NONE 1=0% < CVR, 10% 2=10 < CVR, 25% 3=25 < CVR, 60% 4= CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0 < 10	N 10 - 24	N 25 - 50	N > 50
----------------------	--------	-----------	-----------	--------

STANDING SNAGS:	N < 10	N 10 - 24	N 25 - 50	N > 50
-----------------	--------	-----------	-----------	--------

DEADFALL / LOGS:	N < 10	N 10 - 24	N 25 - 50	N > 50
------------------	--------	-----------	-----------	--------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: Mineral Cultural Meadow CODE: CMT1
 VEGETATION TYPE: CODE: CMT1
 INCLUSION CODE:
 COMPLEX CODE:

Notes: Pic 1832 + 1833 Recd

Feature 69

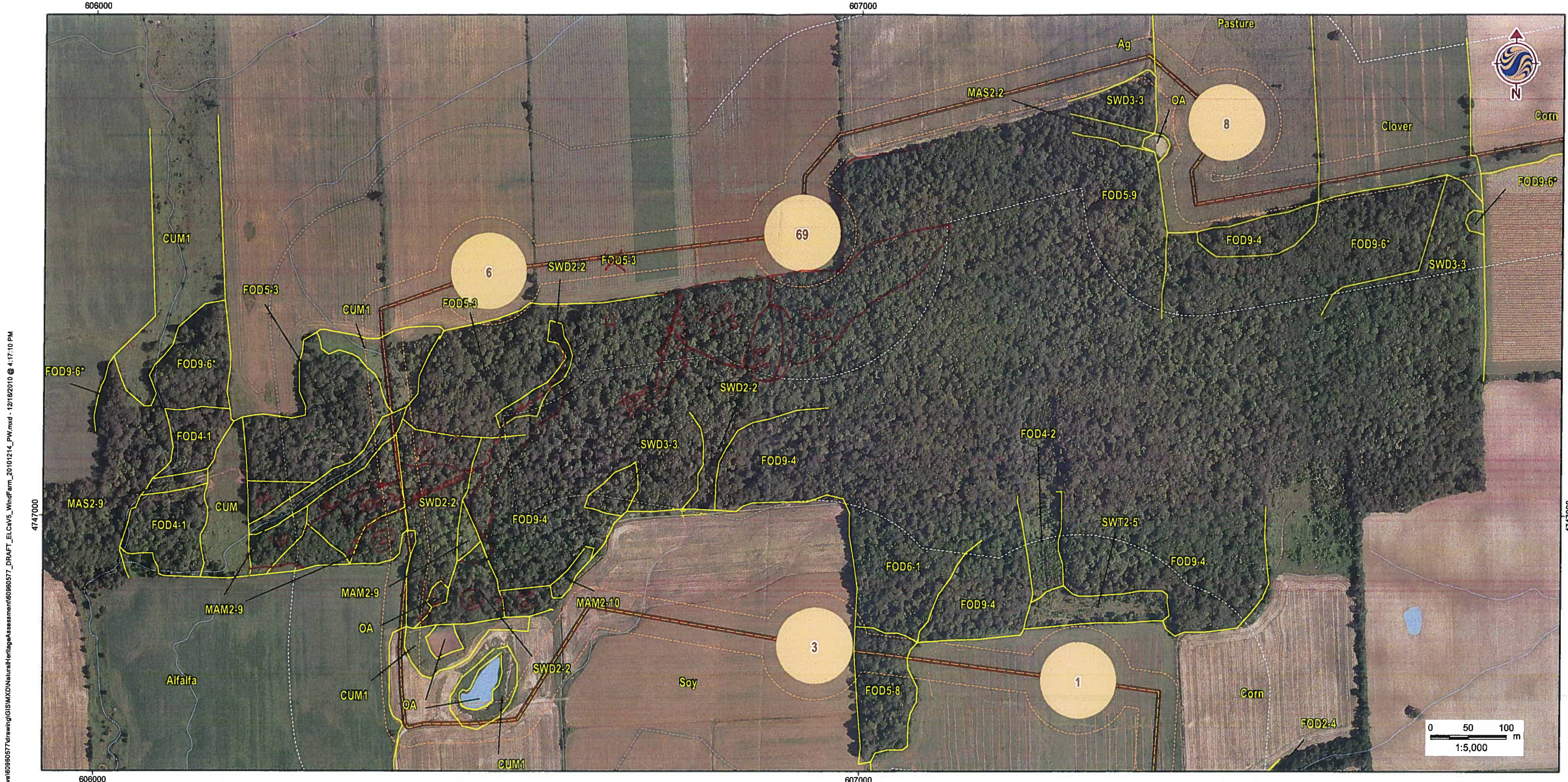
ELC
PLANT SPECIES LIST

SITE: Samsung
POLYGON: 24
DATE: 28 Oct 2010
SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRAPENN		R			
RUBIDBA				O	
Hawthorn			O		
RHACATT			O		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
CUMSP					



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December 2010
160960577

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6*- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6*- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3*- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5*- Swamp Maple - Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6*- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11*- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*- Green Ash Mineral Cultural Woodland
 - CUW1-5*- Maple-Ash Cultural Woodland
 - CUW1-6*- Green Ash Cultural Woodland
 - CUW1-7*- Red maple Mineral Cultural Woodland
 - CUP3-12*- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*- White Spruce Coniferous Plantation
- D- Disturbed**
Res- Residential



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N)
 2. Data Sources: Ontario Ministry of Natural Resources
© Queens Printer Ontario, 2009; © Samsung, 2010.
 3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**
 4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

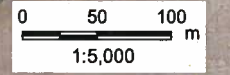
Figure No. _____

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



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Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
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 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
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 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6*- Fresh-moist Sugar Maple – Hickory Deciduous Forest
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 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6*- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

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 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3*- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5*- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6*- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11*- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*- Green Ash Mineral Cultural Woodland
 - CUW1-5*- Maple-Ash Cultural Woodland
 - CUW1-6*- Green Ash Cultural Woodland
 - CUW1-7*- Red maple Mineral Cultural Woodland
 - CUP3-12*- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*- White Spruce Coniferous Plantation
- Disturbance**
- D- Disturbed
 - Res- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N)
2. Data Sources: Ontario Ministry of Natural Resources
© Queens Printer Ontario, 2009; © Samsung, 2010
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No. _____

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



Feature 69

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAXINUS (white) > CAROLINAT > QUERCUS
2 SUB-CANOPY	2	4	TILAMER < FLAPENN < FABRICAN
3 UNDERSTOREY			CARCARO
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION:	BA:
---------------------------	------------

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
------------------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
-------------------------	------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	<input type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input checked="" type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
-----------------	-------------------------	-----	-----

MOISTURE:	DEPTH OF ORGANICS:	(cm)
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HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)
-------------------------------	-------------------	------

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
-------------------------	-------

COMMUNITY SERIES:	CODE:
--------------------------	-------

ECOSITE:	CODE:
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VEGETATION TYPE:	CODE:
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Fresh-moist Shagbark Hickory Dec. Forest FOD9-4.

INCLUSION	CODE:
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COMPLEX	CODE:
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Notes:

FOD6-1? Not a lot of Mh though.

Pic 1890

15 - loss of young - Pic 1890 = FOD9-4 variable dominance
16 - more Mh - Pic 1890 = FOD9-4 overall

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: ①	
	DATE: 17-Dec-2010	
	SURVEYOR(S): MFS	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
TILAMER	0	0										
FABRICAN				R								
ACESAS												
FRAPENN	R	O										
FLAPENN	R											
QUERCUS	O											
CAROLINAT	O	O										
CARCARO										O		
QUERCUS										D		

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	QUELUBR > FRAPENN
2 SUB-CANOPY	1		
3 UNDERSTOREY	3	4	Hawthorn > FRAPENN
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	O 10 - 24	N 25 - 50	M > 50
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STANDING SNAGS:	N < 10	K 10 - 24	N 25 - 50	M > 50
-----------------	--------	-----------	-----------	--------

DEADFALL / LOGS:	O < 10	N 10 - 24	N 25 - 50	M > 50
------------------	--------	-----------	-----------	--------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: CODE:
 Dry-fresh Red Oak Decid Forest FOD1-1
 INCLUSION CODE:
 COMPLEX CODE:

Notes: - Edge-young Ag with Hawthorns, large Or, culturally influenced FOD.
Pic# 1892

Feature 69

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 2 J	
	DATE: 17-Dec-2010	
	SURVEYOR(S): M. Straus	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
FRAPENN		O	O									
QUELUBR		D										
CARONAT		R										
Hawthorn												D

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE, <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	14	4	ACESACS > QUELUBR, FRAGGRAN
2 SUB-CANOPY	24	4	FRAGGRAN > ALBSACS
3 UNDERSTOREY	3	4	CRICCARO < FRAGGRAN
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	O 10 - 24	25 - 50	M > 50
----------------------	--------	-----------	---------	--------

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
-----------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
------------------	------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Dry-fresh Sugar Maple - Beach Dec. 1701	FODS-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Includ more Ag in map, -NOT SWD 2-2. along edge field.
 Pic # 1909A

Feature 69

ELC PLANT SPECIES LIST	SITE: Samburg	
	POLYGON: 3	
	DATE: 17 Dec 2010	
	SURVEYOR(S): M. Storer	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
ACESACS	O				-							
FRAGGRAN	A				-							
QUELUBR	R				-							
CRICCARO						O						

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; ≈ ABOUT EQUAL TO)
1 CANOPY			ALB SACS, FRAPENN
2 SUB-CANOPY			TILAMER < FRAPENN
3 UNDERSTOREY			FRAGLIGN > CARLEAD
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: < 10 10 - 24 25 - 50 > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
ECOSITE: CODE:
VEGETATION TYPE: CODE: Fresh moist Sugar Maple lowland Ash P0D6-1
INCLUSION CODE:
COMPLEX CODE:

Notes:

Pitch 1908-1909 Skill over 6-1? mix marsh Uncertain Mh component

Feature 69

ELC PLANT SPECIES LIST	SITE: Seemsburg	
	POLYGON: 7	
	DATE: 17-Dec-2010	
	SURVEYOR(S): MISTHAUS	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRAPENN	0	0			
TILAMER	0	0			
ALB SACS	0				
FRAGLIGN	0	0			
QUERUBER					R
UMMAMER	0				-
FRAPENN					R
BETALE					-RR-
CARLEAD			0		

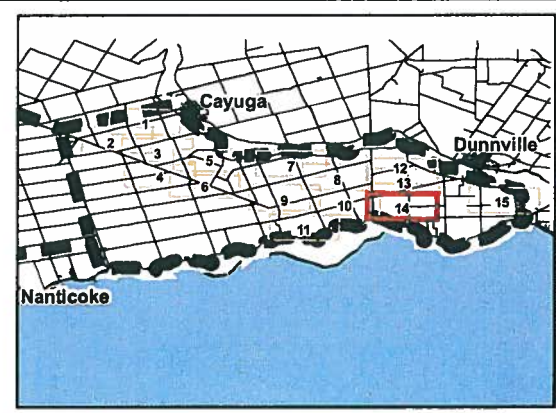
SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Beck drops					R
Carex pedunc.					R

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Legend

- | | | | |
|--|---------------------------|--|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | | Area of Natural and Scientific Interest (ANSI) |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 14

Title
PROJECT LOCATION MAP

Feature 70

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 9

Approximate age of stand 50 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP
SURVEYOR(S): ART
DATE: Sept 30, 2010
POLYGON: 9
UTMZ: 18N
UTME: 1000000

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	<u>QUB KUBA > FRAMA MGR</u>
2 SUB-CANOPY	3-4	3	<u>Prunella > RHACATH > PROVIRG</u>
3 UNDERSTOREY	5	3	<u>Goldard / ADP > FRAMA</u>
4 GRD. LAYER	6	1	<u>Forb</u>

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	A 10-24	R 25-50	N > 50
STANDING SNAGS:	D < 10	N 10-24	N 25-50	N > 50
DEADFALL / LOGS:	D < 10	R 10-24	N 25-50	N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: FOD2-4

Oak - hardwood Deciduous Forest

INCLUSION CODE:

COMPLEX CODE:

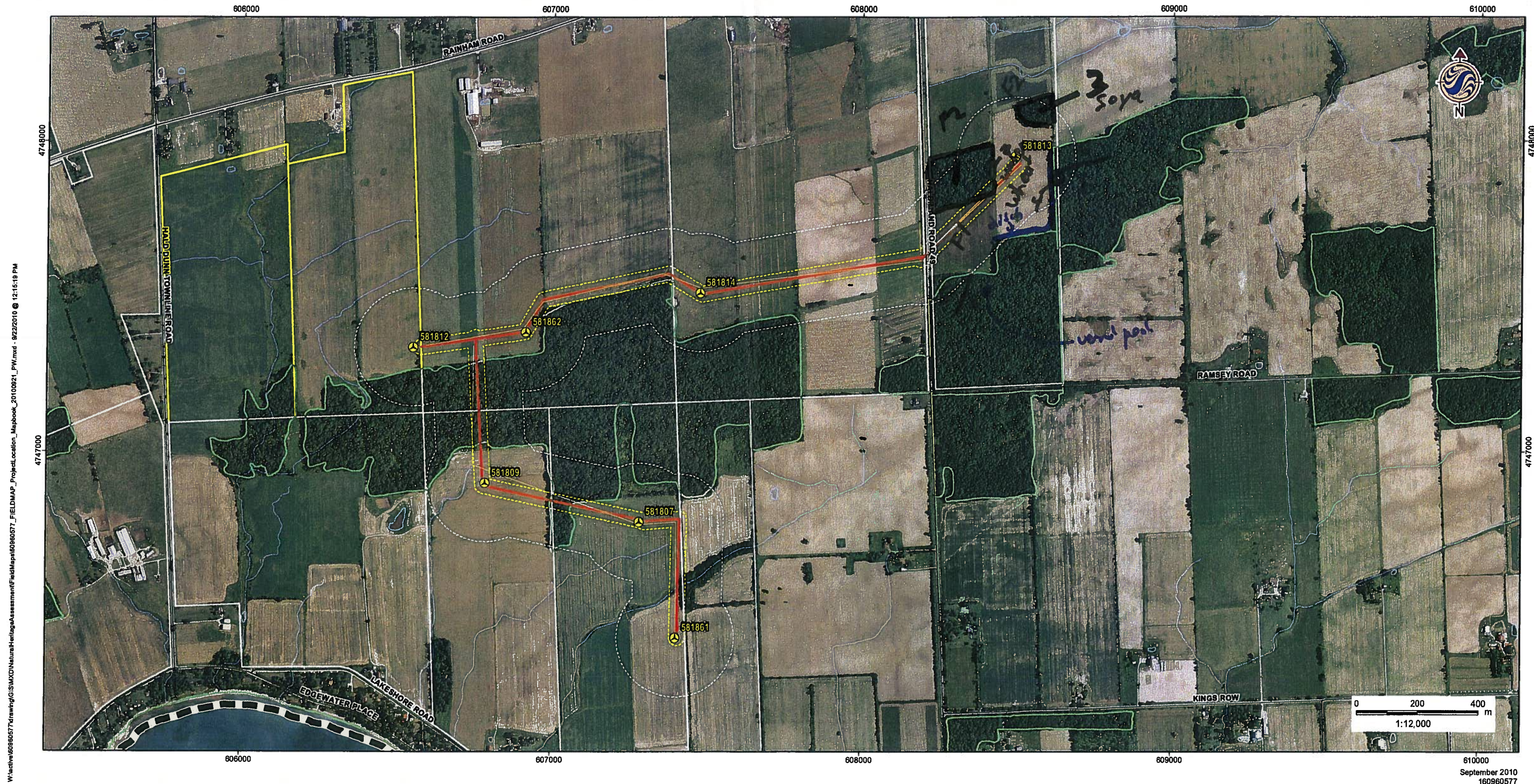
Notes:

ELC
PLANT SPECIES LIST

SITE: UKB1
POLYGON: 9 - Feature 70
DATE: Sept 30, 2010
SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
<u>QUBRUBS</u>						<u>Can. golden</u>					
<u>FRAMA</u>						<u>alice oak</u>					
<u>RHACATH</u>						<u>Prunella</u>					
<u>PROVIRG</u>						<u>U. geranium</u>					
<u>JL AUBA</u>						<u>herb robert</u>					
<u>CARUAT</u>						<u>w. carrot</u>					
<u>Anthora</u>						<u>LL aster</u>					
<u>ACERUBA</u>						<u>jewel weed</u>					
<u>Hy. honeysuckle</u>						<u>oody</u>					
<u>ACCORD</u>											
<u>Red top</u>											
<u>RDA MULT</u>											
<u>RHURADT</u>											



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Legend	
	Project Location
	Proposed Turbine Location
	Proposed Access Road
	Proposed Collector Line
	ROW Installation Zone
	120m Investigation Zone
	Elexco Aquired Agreements
	Government Lands
	UDI Lands
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 14

Title
PROJECT LOCATION MAP

September 2010
 160960577



Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Wildlife Habitat Assessment

Project Number

160960577

Project Name:

GREP

Date / Time:

Sept 28, 2010 13:15-15:30

Field Personnel:

A. Taylor

Weather Conditions:

Temp:

18°C

Wind:

1-2

Cloud:

90%

PPT:

period of light rain

PPT in last 24 hrs:

Rain

Location (i.e. turbine #s/description)

581813

Reptile Hibernacula Features

i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows) Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features

i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO RTHA mdp AMCR AMR BCC DOLV	GRSQ	XLFR AMTO SPPE GRFR WDFR		

Feature 71

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 1

Approximate age of stand 60 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. approx 10 snags - 10-15m hsh / 10-30cm DBH

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
1	17T 608314 4747864	no standing water	5 x 22m	Dense Jewelweed w/ Nicotiana	Yes - few fallen logs

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>CRP</u>	POLYGON: <u>1</u>	
	SURVEYOR(S): <u>ART</u>	DATE: <u>Sept 28, 2010</u>	UTM:
	START: <u> </u> END: <u> </u>	UTMZ: <u> </u>	UTME: <u> </u>

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ALB SPAHA > FRP AMBR < SEAROUAT
2 SUB-CANOPY	3	3	OUTJEG > FRAD > FACORAM
3 UNDERSTOREY	4.5	3	FRAD AMBR > goldend
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	R < 10	A 10-24	O 25-50	N > 50
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STANDING SNAGS:	O < 10	R 10-24	N 25-50	M > 50
-----------------	--------	---------	---------	--------

DEADFALL / LOGS:	O < 10	O 10-24	R 25-50	M > 50
------------------	--------	---------	---------	--------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT
COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
ECOSITE: CODE:
VEGETATION TYPE: CODE: F0D5-8
SUGAR MAPLE - ASH DECIDUOUS FOREST
INCLUSION CODE:
COMPLEX CODE:

Notes:

- few snag
↳ no cavities.

ELC PLANT SPECIES LIST	SITE: <u>CRBP</u>
	POLYGON: <u>1 - Feature 71</u>
	DATE: <u>Sept 28, 2010</u>
	SURVEYOR(S): <u>ART</u>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRP AMBR						Strawberry					
FRP AMBR						runy dabege					
PROSETO						fall goldend					
RITACATIT						calico after					
CAROUAT						CB goldend					
ULTRPA						Goldend					
DOLUBA						marginal land					
CORRAC						wh. avary					
QUEMYR						glor weed					
FRP AMBR						small polygon					
RAURAD						Can goldend					
PROVING						wh. ep					
FRAGGRAM						low nettle					
FRP AMBR						ser. tree fern					
TILAMBR						wh. leaf					
OSTUJEG											
FRP AMBR											
SPICE GWH											
YELLOW BUSH											
ULTRPA											
CARCARO											
SNOWBERRY											
COBBERRY											

No feature

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>GR/EP</i>	POLYGON: <i>F1</i>	
	SURVEYOR(S): <i>ART</i>	DATE: <i>Sept 28, 2010</i>	UTME:
	START: <i>END</i>	UTMZ:	UTMN:

POLYGON DESCRIPTION					
SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> STABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:			
LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	6	9	<i>Grasses >> forbs.</i>
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 => 25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:					BA:
SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50	
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50	
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50	
ABUNDANCE CODES:	N = NONE R = RARE O = OCCASIONAL A = ABUNDANT				
COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH

SOIL ANALYSIS:			
TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Hay</i>	CODE: <i>Hay</i>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: <i>GR/EP</i>
	POLYGON: <i>F1</i>
	DATE: <i>Sept 28, 2010</i>
	SURVEYOR(S): <i>ART</i>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
<i>2-pally</i>													
<i>Forest</i>													
<i>C. planten</i>													
<i>d and/or</i>													
<i>roses</i>													
<i>6ms, 4m, 3m</i>													
<i>6m tall thicket</i>													

Feature 71

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>CRBP</u>	POLYGON: <u>2</u>
	SURVEYOR(S): <u>ART</u>	DATE: <u>Sept 28, 2010</u>
	START: <u>END</u>	UTMZ: <u>UTRN</u>

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input checked="" type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input checked="" type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	ULMAMEX > FRAPENN
2 SUB-CANOPY	4	2	Ch. edle wry > FRAPENN
3 UNDERSTOREY	5	4	reed canopy >> herbs
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, 80% 4=CVR > 60%

STAND COMPOSITION:		BA:	
SIZE CLASS ANALYSIS:	<input type="checkbox"/> < 10	<input checked="" type="checkbox"/> R 10-24	<input checked="" type="checkbox"/> R 25-50
STANDING SNAGS:	<input checked="" type="checkbox"/> R < 10	<input checked="" type="checkbox"/> N 10-24	<input checked="" type="checkbox"/> N 25-50
DEADFALL / LOGS:	<input checked="" type="checkbox"/> D < 10	<input checked="" type="checkbox"/> N 10-24	<input checked="" type="checkbox"/> N 25-50
ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT			
COMM. AGE:	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE
		<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Red Canopy Meadow Marsh</u>	CODE: <u>MAM2-2</u>
INCLUSION	CODE:
COMPLEX	CODE:

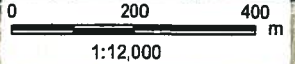
Notes:

ELC PLANT SPECIES LIST	SITE: <u>CRBP</u>
	POLYGON: <u>52-28, 2010</u>
	DATE: <u>Sept 28, 2010</u>
	SURVEYOR(S): <u>ART</u>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
<u>Ch. edle wry</u>						<u>reed canopy</u>					
<u>ULMAMEX</u>						<u>ground</u>					
<u>FRAPENN</u>						<u>canopy herbs</u>					
						<u>canopy</u>					
						<u>NE wry</u>					
						<u>canopy</u>					
						<u>canopy</u>					
						<u>canopy</u>					

W:\active\160960577\Drawing\GIS\MXD\NaturalHeritageAssessment\FieldMap\Map\Mapbook_20100821_P\Mapbook - 9222010 @ 12:16:18 PM

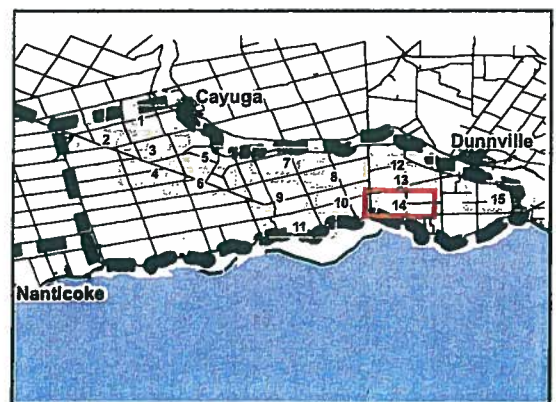


September 2010
160960577



Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2008; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 14

Title
PROJECT LOCATION MAP

Feature 72

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 3

Approximate age of stand 50 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
1	17T 608574 4748084	no water	10x10m	Reed canopy	-wh. elder

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GRBP POLYGON: 3

SURVEYOR(S): ART DATE: Sept 28, 200 UTME:

START: END: UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	7	4	CARQUAT > FRAGRAN > STURGE > BARKBERY
2 SUB-CANOPY	3	3	RHACATH > CARQUAT > FRAGRAN
3 UNDERSTOREY	5	3	Goldens > other herb
4 GRD. LAYER			

HT CODES: 1 = >25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 A 10-24 R 25-50 A > 50

STANDING SNAGS: 0 < 10 X 10-24 N 25-50 > 50

DEADFALL / LOGS: 0 < 10 0 10-24 R 25-50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG X MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Shag bark Hickory Deciduous Forest CODE: FOD946

INCLUSION: CODE:

COMPLEX: CODE:

Notes:

Feature 7L

ELC
PLANT SPECIES LIST

SITE: GRBP POLYGON: 3

DATE: Sept 28, 200 SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
CARQUAT						Car goldens					
FRAGRAN						LL water					
DUERUBR						RK goldens					
RHACATH						Rand rock					
RHURAB						Jack path plant					
Blackberry						yellow ed					
red cany						Full goldens					
STURGE						Arum					
BARKBERY						Brown sp.					
CORRAL						W. germs					
FRAGRAN						herb robot					
Gooseberry						strawberry					
ROSMULT						Urtica sp.					
						red cany					

Feature 71

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>CRBP</u>	POLYGON: <u>2</u>	
	SURVEYOR(S): <u>ART</u>	DATE: <u>Sept 28, 2010</u>	UTME:
	START: <u>END</u>	UTMZ:	UTMN:

POLYGON DESCRIPTION					
SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARS. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input checked="" type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input checked="" type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:					
LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)		
1	CANOPY	2	2	ULMAM GR > KRAPPBN	
2	SUB-CANOPY	4	2	wh. elder bry > KRAPPBN	
3	UNDERSTOREY	5	4	reed canopy >> Herb	
4	GRD. LAYER				

HT CODES: 1=>25m 2=10<HT.25m 3=2<HT.10m 4=1<HT.2m 5=0.5<HT.1m 6=0.2<HT.0.5m 7=HT<0.2m
 CVR CODES: 0=NONE 1=0%<CVR.10% 2=10<CVR.25% 3=25<CVR.60% 4=CVR>60%

STAND COMPOSITION:					BA:			
SIZE CLASS ANALYSIS:								
	0	< 10	R	10 - 24	R	25 - 50		> 50
STANDING SNAGS:								
	R	< 10	N	10 - 24	N	25 - 50		> 50
DEADFALL / LOGS:								
	0	< 10	N	10 - 24	N	25 - 50		> 50
ABUNDANCE CODES:					N = NONE R = RARE O = OCCASIONAL A = ABUNDANT			
COMM. AGE:								
		PIONEER	<input checked="" type="checkbox"/> YOUNG	MID-AGE	MATURE	OLD GROWTH		

SOIL ANALYSIS:			
TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: <u>MAM2-2</u>
<u>Red Cany Meadow Marsh</u>	<u>AAA</u>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: <u>GRBP</u>
	POLYGON: <u>Sept 28, 2010</u>
	DATE: <u>Sept 28, 2010</u>
	SURVEYOR(S): <u>ART</u>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
<u>wh. elder</u>						<u>reed canopy</u>					
<u>ULMAM GR</u>						<u>reed bed</u>					
<u>CRUSC</u>						<u>Can. goldenb</u>					
<u>KRAPBN</u>						<u>Calico aster</u>					
						<u>NB aster</u>					
						<u>C. mill weed</u>					
						<u>begonia</u>					
						<u>weed</u>					



W:\active\60960577\drawing\GIS\MXD\Natural\highAssessment\60960577_DRAFT_ELCs\5_Vis\ofFarm_12/15/2010 @ 11:17:08 AM

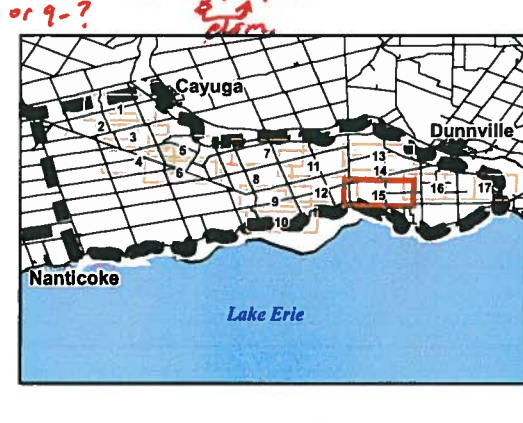
Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 15

Title
**ELC VEGETATION
 COMMUNITIES**

DRAFT



SITE: _____ POLYGON: _____
 SURVEYOR(S): _____ DATE: _____ UTME: _____
 START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	FEATURE	NATURAL	PLANKTON	LAKE
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ALBESAC > TILAMER < PLAMER
2 SUB-CANOPY	2	4	
3 UNDERSTOREY	3		FAGGIAN > TILAMER
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS: A < 10 A 10-24 O 25-50 N > 50
 STANDING SNAGS: N < 10 N 10-24 N 25-50 N > 50
 DEADFALL / LOGS: 0 < 10 R 10-24 N 25-50 N > 50
 ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG / MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = _____ G = _____
 MOISTURE: DEPTH OF ORGANICS: _____ (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____
 COMMUNITY SERIES: _____ CODE: _____
 ECOSITE: _____ CODE: _____
 VEGETATION TYPE: Dry-fresh Sugar Maple-Whitash CODE: F0D5-8
 INCLUSION: 0 Dic. Food CODE: _____
 COMPLEX: _____ CODE: _____

Notes:

From Road

Feature 33

SITE: Sunbury
 POLYGON: 15-2
 DATE: 17-Dec-2010
 SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4
ALBESAC	D			
QUEALBA	R			
PLAMER	A			
CARONAT	R			
QUERUS	R	O		
TILAMER	O	O	R	

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY			
3 UNDERSTOREY	4	2	<i>Cornus</i>
4 GRD. LAYER	5-7	4	<i>R.C. Grass</i>

HT CODES: 1=>25m 2=10<HT<.25m 3=2<HT<.10m 4=1<HT<.2m 5=0.5<HT<.1m 6=0.2<HT<.0.5m 7=HT<0.2m
 CVR CODES 0= NONE 1=0%<CVR<.10% 2=10<CVR<.25% 3=25<CVR<.60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<i>A</i> < 10	<i>R</i> 10 - 24	<i>M</i> 25 - 50	<i>N</i> > 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
-----------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: *Reed-canary Grass Mineral Meadow Mes M2-2* CODE:
 INCLUSION CODE:
 COMPLEX CODE:

Notes:

No feature

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>	
	POLYGON: <i>15-4</i>	
	DATE: <i>21-Dec-2010</i>	
	SURVEYOR(S): <i>M. Strauss</i>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
						<i>Reed-canary Grass</i>					D
<i>CORNUS</i>					O						

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1-2	4	FRAPENN
2 SUB-CANOPY	3	4	"
3 UNDERSTOREY	4	3	Cornus
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<.25m 3=2<HT<.10m 4=1<HT<.2m 5=0.5<HT<.1m 6=0.2<HT<.0.5m 7=HT<0.2m
 CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
----------------------	------	---------	---------	------

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
-----------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
------------------	------	---------	---------	------

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Green Ash Mineral Dec. Swamp	CODE: SWD2-2.
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Sa-Young
 Sb-Acid-Log

No feature

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 15-5.0
	DATE: 21-Dec-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAPENN	D					Red Canopy					R
ULM AMER	O										
Cornus											

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAPPENIN > ALCEPREE
2 SUB-CANOPY	2	4	"
3 UNDERSTOREY	4	3	CORNUS
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<.05m 7=HT<.0.2m
CVR CODES 0=NONE 1=0%<CVR<.10% 2=10<CVR<.25% 3=25<CVR<.60% 4=CVR>60%

STAND COMPOSITION:				BA:
SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
ABUNDANCE CODES:	N = NONE R = RARE O = OCCASIONAL A = ABUNDANT			
COMM. AGE:	PIONEER	YOUNG	MID-AGE	MATURE
				OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
#MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Green Ash Mineral Dec. Swamp	CODE: SWD2=2
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

feature 73

ELC PLANT SPECIES LIST	SITE: <i>Wamsung</i>
	POLYGON: <i>S-11</i>
	DATE: <i>21-Dec-2010</i>
	SURVEYOR(S): <i>M. Straus</i>

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ALCEPREE	0	B	-								
FRAPPENIN	D	D	-								
Rabus			0								
Cornus			0								

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	2	2	FRAPPENN, Hawthorn
3 UNDERSTOREY	3	2	Gray Dogwood
4 GRD. LAYER	57	4	Goldenrods, asters

HT CODES: 1=>25 m 2=10<HT<.25 m 3=2<HT<.10 m 4=1<HT<.5 m 5=0.5<HT<.1 m 6=0.2<HT<.05 m 7=HT<0.2 m
CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 R 10-24 N 25-50 M > 50

STANDING SNAGS: N < 10 N 10-24 N 25-50 N > 50

DEADFALL / LOGS: 0 < 10 N 10-24 N 25-50 N > 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS: TEXTURE: DEPTH TO MOTTLES / GLEY g = G=

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION: COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: *Cultural meadow* CODE: *C4m1*

INCLUSION CODE:

COMPLEX CODE:

Notes:

Feature 73

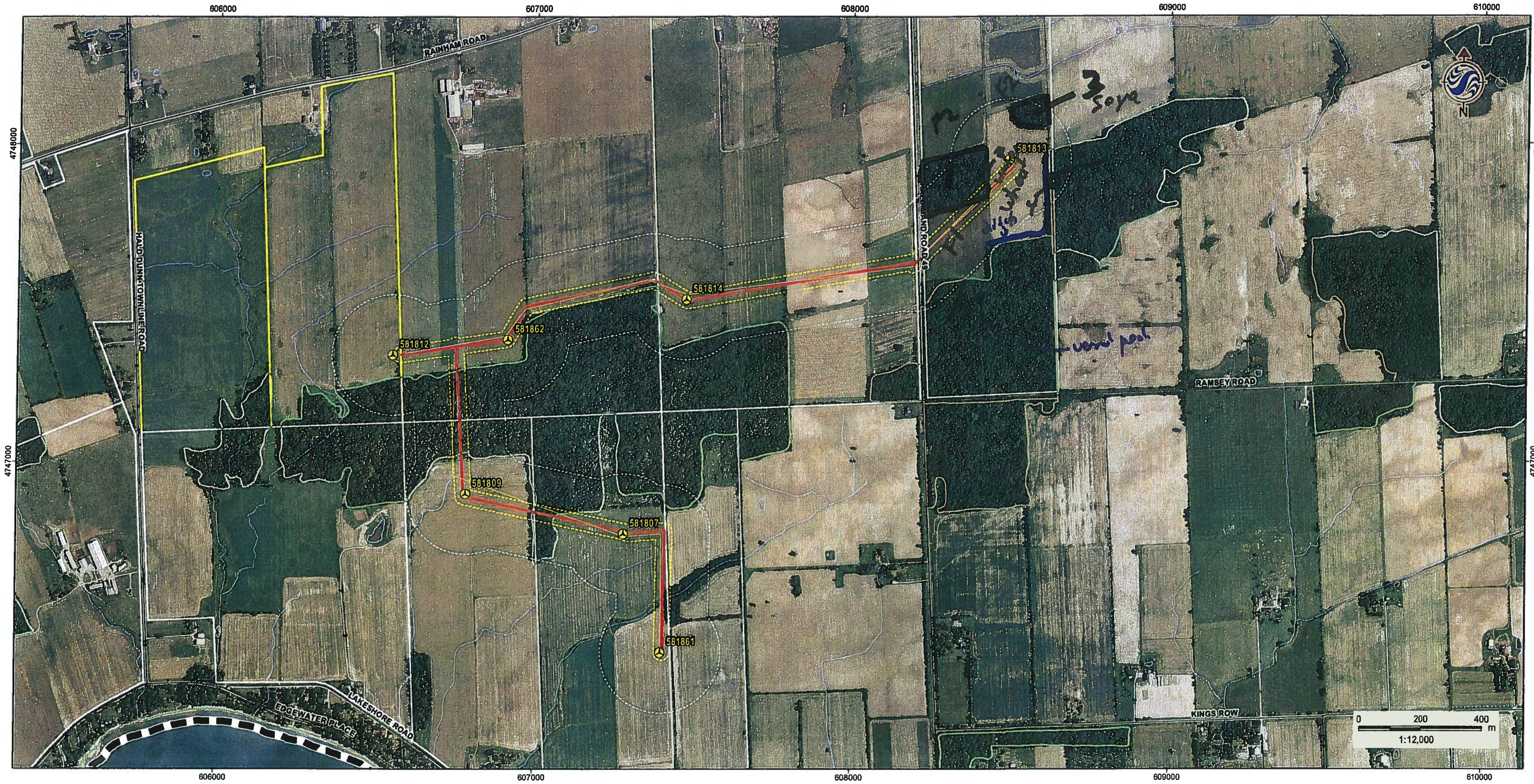
ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>	
	POLYGON: <i>15-18</i>	
	DATE: <i>21-Dec-2010</i>	
	SURVEYOR(S): <i>M. Straus</i>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

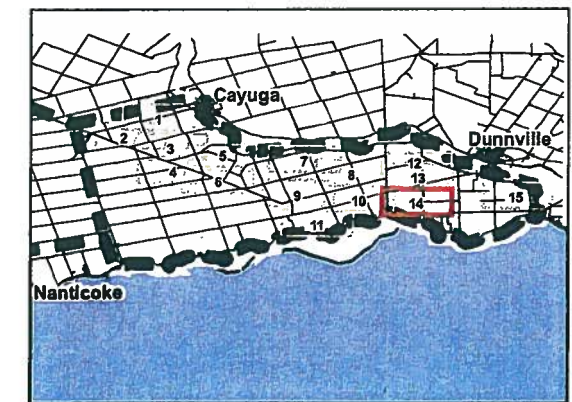
SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRAPPENN	-	R	-		
Hawthorn					R+
Gray Dogwood					O

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<i>Cum sp.</i>					
<i>Asters</i>					
<i>Goldenrods</i>					

W:\active\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\field\Map\60960577_FIELDMAP_ProjectLocation_Mapbook_20100921_PW.mxd - 9/22/2010 @ 12:16:19 PM



Legend	
	Project Location
	Proposed Turbine Location
	Proposed Access Road
	Proposed Collector Line
	ROW Installation Zone
	120m Investigation Zone
	Elexco Aquired Agreements
	Government Lands
	UDI Lands
	Road
	Railway
	Abandoned Railway
	Transmission Line (OBM)
	Deer Wintering Area
	Provincially Significant Wetland
	Non-Provincially Significant Wetland
	Watercourse (OBM)
	Waterbody
Area of Natural and Scientific Interest (ANSI)	
	Life Science, Provincially Significant
	Earth Science, Provincially Significant
	Earth Science, Regionally Significant



- Notes**
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
 2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
 3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 14

Title
PROJECT LOCATION MAP

September 2010
 160960577

Feature 73

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 6

Approximate age of stand 80 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No
 If yes, approximate # present or % of stand 50% - mostly ACE/SEA
 Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No
 If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 2 - 20m high; 40cm DBH

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant
 If present:

Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No
 If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No
 If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
SWT - #4	17T 608633 4747873	30-40cm	50x30m	rare	Abundant shrub cover
NAM - 2	17T 608435 4747524	No water	50x20m	- Carex sp.	- spruce bush/ elder - logs.

Feature 73

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 5

Approximate age of stand 80

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand 25%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities Yes No (if yes, describe details in Table 1).

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: GRBP	POLYGON: 3
	SURVEYOR(S): ART	DATE: Sept 28, 2010
	START: _____	END: _____
	UTMZ: _____	UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input checked="" type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input checked="" type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	12-4	4	CAROLINA > QUERUBR = FRAMBR
2 SUB-CANOPY	3	3	OJTOURB > FRAMBR > RUCATT
3 UNDERSTOREY	4	3	FRAMBR > other shrubs
4 GRD. LAYER	5-6	2	Carex pa = other = Perb

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=.5<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS: A < 10 A 10-24 0 25-50 N > 50

STANDING SNAGS: 0 < 10 R 10-24 R 25-50 I > 50

DEADFALL / LOGS: 0 < 10 0 10-24 R 25-50 I > 50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS: TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION: COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Shrubland Hackberry Deciduous Forest FOD9-4a CODE:

INCLUSION CODE:

COMPLEX CODE:

Notes: NLFR in field GRBP

WofR

SPE

ELC PLANT SPECIES LIST	SITE: GRBP
	POLYGON: 5 - Feature 73
	DATE: Sept 28, 2010
	SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAMBR						Strawberry					
TLAMBR						Car golden					
ACERUBR						call. to wh					
QUERUBR						Carex pa					
OJTOURB						shrub					
PRUSETO						Sat. grow					
PROURBG						clean leaf					
RUCATT						wood tan					
QUERMACR						R. golden					
ULMAMBR						oak					
wh. eldbr						Christmas tree					
red rasp						Wood nettle					
spice bowl						wood coral					
SPURCARO						W. Star					
RHURADJ						white birch					
grass long											
ACERUBR											
grass long											

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: GRBP	POLYGON: 6	
	SURVEYOR(S): ART	DATE: Sept 28, 2010	UTME: /
	START: /	END: /	UTMZ: /
	JTMN: /		

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEOK. <input type="checkbox"/> BASIC BEOK. <input type="checkbox"/> CARB BEOK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	10-15	4	ACBSACC > FRAPBIV
2 SUB-CANOPY	3	3	OSTUSRC > FRAPBIV / Bpte 6w
3 UNDERSTOREY	4	4	red raspberry / older berry
4 GRD. LAYER	5-6	3	Aster / Goldenrod = other forbs > COMEX

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0= NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 A 10-24 D 25-50 N > 50

STANDING SNAGS: 0 < 10 R 10-24 R 25-50 > 50

DEADFALL / LOGS: 0 < 10 0 10-24 R 25-50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT
COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:
TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:
COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
ECOSITE: CODE:
VEGETATION TYPE: CODE:
Swamp Maple Deciduous Swamp SWD33
INCLUSION CODE:
COMPLEX CODE:

Notes: - Ground cover similar to FOD9-5 (5)

ELC PLANT SPECIES LIST	SITE: GRBP
	POLYGON: 6 - Feature 73
	DATE: Sept 28, 2010
	SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ACBSACC						Feature					
ACBRVDR						Deciduous					
FRAPBIV						White Birch					
COMEX						SS bedrock					
ACBRY						woodland herb					
COMEX						LL aster					
OSTUSRC						rubus wet					
FRAPBIV						yellow white					
RHWKAPP						foral berry					
red rasp						white green					
white elderberry						COMEX					
						BG golden					
						height shade					
						clear wood					
						sun green					
						wood fern					
						white herb					
						Red cherry					

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GRBP
POLYGON: F2

SURVEYOR(S): ART
DATE: Sept 28, 2010
UTME: [initials]
START: [initials] END: [initials]
UTMZ: [initials] UTMN: [initials]

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WFTLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	6	4	Red clover = Grasses
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Hay CODE: A

INCLUSION CODE:

COMPLEX CODE:

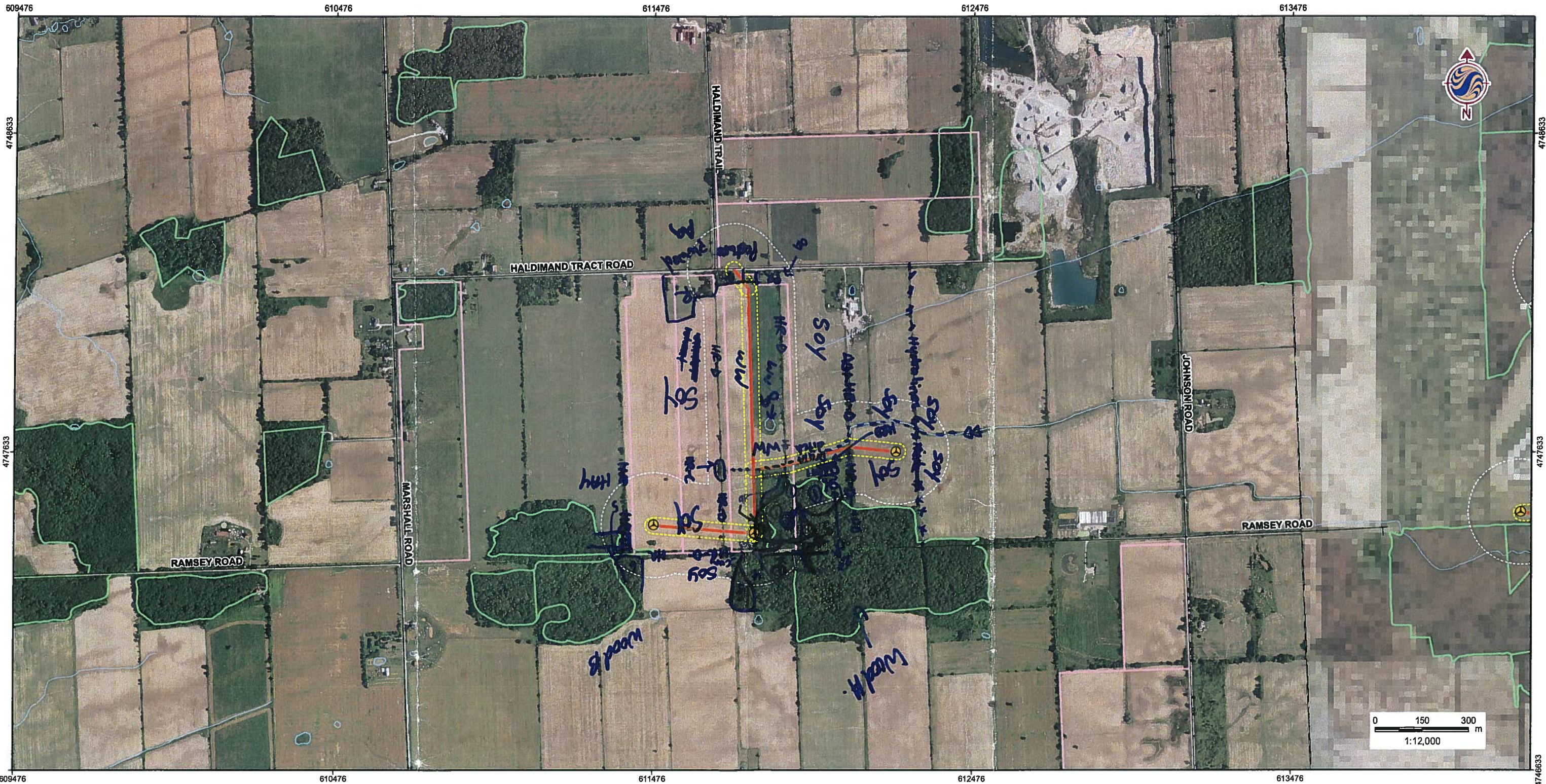
Notes:

ELC
PLANT SPECIES LIST

SITE: GRBP
POLYGON: F2 - No feature
DATE: Sept 28, 2010
SURVEYOR(S): ART

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
Who clover												
W. carrot												
Birds foot trefoil												
Red clover												
Timothy												
foxtail												



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October 2010
160960577



Legend

- | | | | |
|--|-------------------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location V2 Oct 08 | | Deer Wintering Area |
| | 120m Investigation Zone V2 Oct 13 | | Provincially Significant Wetland |
| | Substation Property | | Non-Provincially Significant Wetland |
| | Proposed Collector Line V2 Sept 30 | | Watercourse (OBM) |
| | Proposed Access Road V2 Oct 13 | | Waterbody |
| | ROW Installation Zone V2 Oct 13 | Area of Natural and Scientific Interest (ANSI) | |
| | Elexco Aquired Agreements | | Life Science, Provincially Significant |
| | Government Lands | | Earth Science, Provincially Significant |
| | UDI Lands | | Earth Science, Regionally Significant |
| | Road | | |
| | Railway | | |
| | Abandoned Railway | | |




Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 2 site plan provided by Samsung issued on October 13, 2010

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 17

Title
PROJECT LOCATION MAP

 Stantec		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		Wildlife Habitat Assessment	
Project Number 160960577		Project Name: Samsung			
Date / Time: 20 Oct 2010 @ 10:00AM - 5:00PM		Field Personnel: Melissa Straus			
Weather Conditions:	Temp: 10°C	Wind: 6	Cloud: 10%	PPT: none	PPT in last 24 hrs: none

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO ✓ HOA - VO CEKT - VO DOWD - OB RBWD - OB SOSP - OB	Coyote - SC			

Feature 74

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): A

Approximate age of stand Variable - edges 15; interior - 50-80 years

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand < 1%

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) Some red oaks in FOD upland (#3)

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Very few - 1 @ 8m; 15cm DBH.

n 2/ha.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Snag	2m	10cm	2m	Small

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe lots of v@ edge of cum. debris, etc. garbage

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrub logs at pond edge
1	Habitat #1 (611916.474743)	Present - 25cm	4m	no	no

*of in farm field
- Cattail in 1st
2m
- Pic # 1708*

*already
as usual
50 years
have
several
pools
(most - recent)*

Feature 7.4

EIC CONTINENTAL ECOLOGY INVENTORY	SITE: 160960577	POLYGON: 5		
	SURVEYOR(S):	DATE:	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC POSITION	GEOL. HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	3	1	FRAGRANN
3 UNDERSTOREY	3	4	Buttbush
4 GRD. LAYER	5-7	4	IMPCARE & water (4 incl. 1. Hood)

HT CODES: 1 = >25m 2 = 10-24m 3 = 2-9m 4 = 1-4m 5 = 0.5-1m 6 = 0.2-0.5m 7 = HT < 0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR : 10% 2 = 10 < CVR : 25% 3 = 25 < CVR : 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	R 10-24	N 25-50	N > 50
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STANDING SNAGS:	N < 10	R 10-24	N 25-50	N > 50
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DEADFALL / LOGS:	N < 10	R 10-24	N 25-50	N > 50
------------------	--------	---------	---------	--------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE: SW
COMMUNITY SERIES:	CODE: SWT
ECOSITE:	CODE:
VEGETATION TYPE: Buttbush Mineral Thicket Swamp P.	CODE: SWT-4
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pic # 1710 - has high water level still.

SITE: Samsurf
POLYGON: 5
DATE: 20-Oct-2010
SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

DATE	TIME	HT	CVR	1	2	3	4	5	6	7	8	9	10
FRAGRANN													
IMPCARE													
Buttbush													

Feature 75

ELC
COMMUNITY
DESCRIPTION
REGISTRATION

SITE: _____ POLYGON: ④

SURVEYOR(S): _____ DATE: _____ UTMZ: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> GREYCE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> OPEN		<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THicket
<input type="checkbox"/> OPEN WATER		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> TREE		<input type="checkbox"/> SAVANNAH
<input type="checkbox"/> SHALLOW WATER		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
<input type="checkbox"/> SURFICIAL DEP.		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
<input type="checkbox"/> BEDROCK					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	2	2	FRAPPENN
3 UNDERSTOREY	3	3	Silky Dogwood
4 GRD. LAYER	5-7	4	Goatsfoot, Sedge

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m

CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: _____ BA: _____

SIZE CLASS ANALYSIS: < 10 10 - 24 25 - 50 > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G = _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE _____ DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: SW

COMMUNITY SERIES: _____ CODE: SWT

ECOSITE: _____ CODE: _____

VEGETATION TYPE: _____ CODE: _____

Silky Dogwood Mineral Thicket Swamp SWT2-8

INCLUSION _____ CODE: _____

COMPLEX _____ CODE: _____

Notes: PIC 1714

ELC
PLANT
SPECIES
LIST

SITE: Swamps

POLYGON: 4

DATE: 20-Oct-2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Abundance
FRAPPENN			R
Cum sp.			
Goldenrod			
P.S. Aster			
Sedges			A
Scirpus			O
Silky Dogwood			O

1 KUMIK 34

ELC COMMUNITY DESCRIPTION CLASSIFICATION	SITE: 1		POLYGON: 7	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	FEATURE	OPEN	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR		<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND		<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> BEACH / BAR	<input type="checkbox"/> OPEN	<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> SAND DUNE	<input type="checkbox"/> SHRUB	<input type="checkbox"/> FOREST
		<input type="checkbox"/> BLUFF	<input type="checkbox"/> TREE	<input type="checkbox"/> PLANTATION
SITE				
<input type="checkbox"/> OPEN WATER				
<input type="checkbox"/> SHALLOW WATER				
<input type="checkbox"/> SURFICIAL DEP.				
<input type="checkbox"/> BEDROCK				

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAPENN > CAROAT
2 SUB-CANOPY	2	4	QUEBICO > ACELUIC
3 UNDERSTOREY	2	4	UMAMER > RHACATH
4 GRD. LAYER	5-9	4	ASTER. > BUTHERUP

HT CODES: 1=>25 m 2=10<HT<25 m 3=2<HT<10 m 4=1<HT<2 m 5=0.5<HT<1 m 6=0.2<HT<0.5 m 7=HT<0.2 m
CVR CODES: 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 50% 4= CVR > 50%

STAND COMPOSITION:					BA:
SIZE CLASS ANALYSIS:	A < 10	O 10-24	R 25-50	N > 50	
STANDING SNAGS:	N < 10	N 10-24	N 25-50	N > 50	
DEADFALL / LOGS:	N < 10	O 10-24	N 25-50	N > 50	
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT					
COMM. AGE:	PIONEER	<input checked="" type="checkbox"/> YOUNG	MID-AGE	MATURE	OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

F-M

Notes:

Pic
Hedge row + some car. sp
Dense understory

1 KUMIK 34

ELC PLANT SPECIES LIST	SITE: 1		POLYGON: 7	
	POLYGON: 7		DATE: 20-Oct-2010	
	SURVEYOR(S): M. Strauss			

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

PLANT SPECIES	HT	CVR	HT	CVR
CAROAT	R	-		
FRAPENN	O	R		
UMAMER	-	O		
QUEBICO	-	O		
ACELUIC	-	O		
RHACATH				
BUTHERUP				
ASTER.				
RHACATH	R			
RHURAP		O		
RUBIDIA		O		
BUTHERUP		O		
ASTER.		O		
VIOL. sp.		O		

Feature 74 & 75

EIC
COMMITTEE
DESCRIPTION
DATE

SITE: _____ POLYGON: (6)

SURVEYOR(S): _____ DATE: _____ UTMZ: _____ UTMN: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> SOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> COVERED <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACERUBR > FLAPENN
2 SUB-CANOPY	2	4	"
3 UNDERSTOREY	3	4	OSTVIRG
4 GRD. LAYER	2-3	3	Aspers. > Seedlings

HT CODES: 1=>25m 2=10-41:25m 3=2-41:10m 4=1-41:2m 5=0.5-41:1m 6=0.2-41:0.5m 7=HT<0.2m
 CVR CODES: 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS:	0	< 10	0	10 - 24	R	25 - 50	N	> 50
STANDING SNAGS:	N	< 10	N	10 - 24	N	25 - 50	N	> 50
DEADFALL / LOGS:	N	< 10	R	10 - 24	N	25 - 50	N	> 50

ABUNDANCE CODES: N = NONE - R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Rac Made Mineral Dec. Swamp	CODE: SWD3-1
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pic 1717 - Edgwt Young Forest ii

EIC
COMMITTEE
DESCRIPTION
DATE

SITE: Samsony

POLYGON: 6

DATE: 20-Oct-2010

SURVEYOR(S): m. Strauss

LAYERS: 1= CANOPY > 10m 2= SUB-CANOPY 3= UNDERSTOREY 4= GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4
FLAPENN	O	O	R	R
ACERUBR	O	O	R	R
ULMUBR		R		
OSTVIRG			O	
Barberry				O
KLACATHL			O	
Goblet oak sp				O



W:\active\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\field\Map\60960577_FIELDMAP_ProjectLocation_Mapbook_V2Oct13_20101016_10:33:47 AM

609476 610476 611476 612476 613476 614476 615476 616476 617476 618476 619476 620476 621476 622476 623476 624476 625476 626476 627476 628476 629476 630476 631476 632476 633476 634476 635476 636476 637476 638476 639476 640476 641476 642476 643476 644476 645476 646476 647476 648476 649476 650476 651476 652476 653476 654476 655476 656476 657476 658476 659476 660476 661476 662476 663476 664476 665476 666476 667476 668476 669476 670476 671476 672476 673476 674476 675476 676476 677476 678476 679476 680476 681476 682476 683476 684476 685476 686476 687476 688476 689476 690476 691476 692476 693476 694476 695476 696476 697476 698476 699476 700476 701476 702476 703476 704476 705476 706476 707476 708476 709476 710476 711476 712476 713476 714476 715476 716476 717476 718476 719476 720476 721476 722476 723476 724476 725476 726476 727476 728476 729476 730476 731476 732476 733476 734476 735476 736476 737476 738476 739476 740476 741476 742476 743476 744476 745476 746476 747476 748476 749476 750476 751476 752476 753476 754476 755476 756476 757476 758476 759476 760476 761476 762476 763476 764476 765476 766476 767476 768476 769476 770476 771476 772476 773476 774476 775476 776476 777476 778476 779476 780476 781476 782476 783476 784476 785476 786476 787476 788476 789476 790476 791476 792476 793476 794476 795476 796476 797476 798476 799476 800476 801476 802476 803476 804476 805476 806476 807476 808476 809476 810476 811476 812476 813476 814476 815476 816476 817476 818476 819476 820476 821476 822476 823476 824476 825476 826476 827476 828476 829476 830476 831476 832476 833476 834476 835476 836476 837476 838476 839476 840476 841476 842476 843476 844476 845476 846476 847476 848476 849476 850476 851476 852476 853476 854476 855476 856476 857476 858476 859476 860476 861476 862476 863476 864476 865476 866476 867476 868476 869476 870476 871476 872476 873476 874476 875476 876476 877476 878476 879476 880476 881476 882476 883476 884476 885476 886476 887476 888476 889476 890476 891476 892476 893476 894476 895476 896476 897476 898476 899476 900476 901476 902476 903476 904476 905476 906476 907476 908476 909476 910476 911476 912476 913476 914476 915476 916476 917476 918476 919476 920476 921476 922476 923476 924476 925476 926476 927476 928476 929476 930476 931476 932476 933476 934476 935476 936476 937476 938476 939476 940476 941476 942476 943476 944476 945476 946476 947476 948476 949476 950476 951476 952476 953476 954476 955476 956476 957476 958476 959476 960476 961476 962476 963476 964476 965476 966476 967476 968476 969476 970476 971476 972476 973476 974476 975476 976476 977476 978476 979476 980476 981476 982476 983476 984476 985476 986476 987476 988476 989476 990476 991476 992476 993476 994476 995476 996476 997476 998476 999476 1000476



Legend			
	Project Location		Transmission Line (OBM)
	Proposed Turbine Location V2 Oct 08		Deer Wintering Area
	120m Investigation Zone V2 Oct 13		Provincially Significant Wetland
	Substation Property		Non-Provincially Significant Wetland
	Proposed Collector Line V2 Sept 30		Watercourse (OBM)
	Proposed Access Road V2 Oct 13		Waterbody
	ROW Installation Zone V2 Oct 13	Area of Natural and Scientific Interest (ANSI)	
	Elenco Aquired Agreements		Life Science, Provincially Significant
	Government Lands		Earth Science, Provincially Significant
	UDI Lands		Earth Science, Regionally Significant
	Road		
	Railway		
	Abandoned Railway		



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**
4. Produced using the Version 2 site plan provided by Samsung issued on October 13, 2010

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 17

Title
PROJECT LOCATION MAP

October 2010
160960577

Feature 75

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): B

20-Oct-2010

Approximate age of stand 40-60 years

Only assessed from edge.

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Snag	10m	20cm	8-9m	Small

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe Paths

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrub logs at pond edge
①	See habitat #5 ↳ Butternut swamp	>10cm	10m	Butternut bush	no.

Feature 77

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): C

Approximate age of stand < 20 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Extremely rare < 1 per ha

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs/logs at pond edge
X2	scattered throughout	none @ present	3-5m	Gray Dogwood	No

Feature 75

FIG FEDERAL INVENTORY GEOSPATIAL DATA	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAPENN > ALBFRG
2 SUB-CANOPY	2	4	FRAPENN > ACEFRG
3 UNDERSTOREY	3	3	*Garvey Deadwood (1b11)
4 GRD. LAYER	5-7	4	RUBIDEA / RUBRUB

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10-24	<input type="checkbox"/> 25-50	<input checked="" type="checkbox"/> > 50
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STANDING SNAGS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10-24	<input checked="" type="checkbox"/> 25-50	<input checked="" type="checkbox"/> > 50
DEADFALL / LOGS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10-24	<input type="checkbox"/> 25-50	<input checked="" type="checkbox"/> > 50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Green Ash Mineral Dec. Swamp	CODE: SWD2-2
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes:

Pic# 1710 - Water marks 15cm up
- 1b = FRAPENN all < 10cm
1c - Pic# 175 @ 15-20cm from distance

FIG FEDERAL INVENTORY GEOSPATIAL DATA	SITE: Samsung	
	POLYGON: (1)	
	DATE: 20-Oct-2010	
	SURVEYOR(S): M. Straus	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4
FRAPENN	D	A	R	R
LUMMERR	R	R	R	R
OPROVAT	R	R	-	-
ACEFRG	O	O	-	-
ASLATE				R
AGRGRP				R
Bidgeweed				R
Wood Nettle				R
Ench. Nightshade				R
TRUCKER				R
Gray Dogwood				R
RUBRUB				O
FRAPENN				O
RHURAD				R
RUBIDEA				O
Scirpus				R
Viola				R

FIC

SITE: _____ POLYGON: **Cumt**

SURVEYOR(S): _____ DATE: _____ UTMZ: _____ UTMN: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN MEADOW
		<input type="checkbox"/> CREVICE / CAVE	<input type="checkbox"/> OPEN	<input type="checkbox"/> MIXED	<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ALVAR	<input type="checkbox"/> SHRUB		<input type="checkbox"/> THicket
		<input type="checkbox"/> ROCKLAND	<input type="checkbox"/> TREE		<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> FOREST
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	1	
2 SUB-CANOPY	2		
3 UNDERSTOREY	4	1	FRAPENN
4 GRD. LAYER	5-7	4	Goldenrod sp. & Asters

HT CODES: 1= <25 m 2= 10-41:25 m 3= 2-41:10 m 4= 1-41:2 m 5= 0.5-41:1 m 6= 0.2-41:0.5 m 7= HT<0.2 m
CVR CODES: 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 50% 4= CVR > 50%

STAND COMPOSITION: _____ BA: _____

SIZE CLASS ANALYSIS:

<input checked="" type="checkbox"/> R < 10	<input checked="" type="checkbox"/> M 10-24	<input checked="" type="checkbox"/> M 25-50	<input checked="" type="checkbox"/> M > 50
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STANDING SNAGS:

<input checked="" type="checkbox"/> N < 10	<input checked="" type="checkbox"/> M 10-24	<input checked="" type="checkbox"/> M 25-50	<input checked="" type="checkbox"/> M > 50
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DEADFALL / LOGS:

<input checked="" type="checkbox"/> N < 10	<input checked="" type="checkbox"/> M 10-24	<input checked="" type="checkbox"/> M 25-50	<input checked="" type="checkbox"/> M > 50
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ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY: g = _____ G = _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE: _____ DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE: Mineral Cultural Meadow	CODE: Cumt1
VEGETATION TYPE:	CODE:
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes:

Pic # 1709

No feature

FIC

SITE: **.. Samsung**

POLYGON: **Cumt1**

DATE: **20-Oct-2010**

SURVEYOR(S): **M. Straus**

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species Name	Abundance Code
FRAPENN	RR
Wild Carrot	R
Milkweed	R
Corn Grass	O
Aster	O
P.S. Aster	O
Red Clover	R
Chickory	R
Triset	R
B.F. Trefoil	R
Scirpus sp.	R
Sedge sp.	O
Hawkweed (Aster)	O
Goldenrod sp.	A

Feature 75

EIC COUNTY DESCRIPTION CLASSIFICATION	SITE:		POLYGON: 2	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

EIC COUNTY DESCRIPTION CLASSIFICATION	SITE: Samsburg	
	POLYGON: 2	
	DATE: 20-Oct-2010	
	SURVEYOR(S): M Straus	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	3	1	FRAPPENN
3 UNDERSTOREY	4	3	SILKY > SPIALBA
4 GRD. LAYER	5-7	4	Sedge

HT CODES: 1 => 25m 2 = 10-41:25m 3 = 2-41:10m 4 = 1-41:2m 5 = 0.5-41:1m 6 = 0.2-41:0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION:					BA:			
SIZE CLASS ANALYSIS:								
	A	< 10	N	10 - 24	N	25 - 50	N	> 50
STANDING SNAGS:								
	N	< 10	N	10 - 24	N	25 - 50	N	> 50
DEADFALL / LOGS:								
	N	< 10	N	10 - 24	N	25 - 50	N	> 50
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT								
COMM. AGE:								
	X	PIONEER	YOUNG	MID-AGE	MATURE	OLD GROWTH		

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Silky Dogwood Mineral Thicket Swamp	SWT2-8
INCLUSION	CODE:
Open aquatic	OAO
COMPLEX	CODE:

Species	HT	CVR	Abundance
FRAPPENN			R
Silky Dogwood			O
SPIALBA			O
Sedge			A
Serpis sp.			R
G. S. Dogwood			O
Sedge			A

Notes:

Feature 75

	SITE:		POLYGON: 4	
	SURVEYOR(S):		DATE:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> SOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
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STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	2	2	FRAPENN
3 UNDERSTOREY	3	3	Silky Dogwood
4 GRD. LAYER	5	7	Goldenrod, Sedges

HT CODES: 1 = >25 m 2 = 10-41/25 m 3 = 2-41/10 m 4 = 1-41/22 m 5 = 0.5-41/1 m 6 = 0.2-41/0.5 m 7 = HT=0.2 m
 CVR CODES 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION:	BA:
SIZE CLASS ANALYSIS:	<input type="checkbox"/> < 10 <input type="checkbox"/> 10 - 24 <input type="checkbox"/> 25 - 50 <input type="checkbox"/> > 50
STANDING SNAGS:	<input type="checkbox"/> < 10 <input type="checkbox"/> 10 - 24 <input type="checkbox"/> 25 - 50 <input type="checkbox"/> > 50
DEADFALL / LOGS:	<input type="checkbox"/> < 10 <input type="checkbox"/> 10 - 24 <input type="checkbox"/> 25 - 50 <input type="checkbox"/> > 50
ABUNDANCE CODES:	N = NONE R = RARE O = OCCASIONAL A = ABUNDANT
COMM. AGE:	<input checked="" type="checkbox"/> PIONEER <input type="checkbox"/> YOUNG <input type="checkbox"/> MID-AGE <input type="checkbox"/> MATURE <input type="checkbox"/> OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE: SW
COMMUNITY SERIES:	CODE: SWT
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Silky Dogwood Mineral Thicket Swamp SWT 2-8	
INCLUSION	CODE:
COMPLEX	CODE:

Notes: PIC 1714

	SITE: Samswp
	POLYGON: 4
	DATE: 20-Oct-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4
FRAPENN		R		
Cum sp.				
Goldenrod				
P.S. Aster				
Sedges				A
Scirpus				O
Silky Dogwood				O

Feature 7.4

FIG SITE	SITE: 160960577	POLYGON: 5	
	SURVEYOR(S):	DATE:	UTME:
	START: END	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARCH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	3	1	FRAPPENN
3 UNDERSTOREY	3	4	B. th. bush
4 GRD. LAYER	5-7	4	Impcape & water (4. includ. H2O)

HT CODES: 1=>25m 2=10-4HT:25m 3=2-4HT:10m 4=1-4HT:2m 5=0.5-4HT:1m 6=0.3-4HT:0.5m 7=HT<0.3m
 CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 50% 4= CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	R 10-24	N 25-50	N > 50
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STANDING SNAGS:	N < 10	R 10-24	N 25-50	N > 50
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DEADFALL / LOGS:	N < 10	N 10-24	N 25-50	N > 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:
 TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE: SW
COMMUNITY SERIES:	CODE: SWT
ECOSITE:	CODE:
VEGETATION TYPE: Buttonbush Mineral Thicket Swamp	CODE: SWT-4
INCLUSION	CODE:
COMPLEX	CODE:

Notes: 160960577 - has high water level still.

FIG SITE	SITE: Samsung
	POLYGON: 5
	DATE: 20-Oct-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Notes
FRAPPENN		R	
Impcape			
Buttonbush		D	

Feature 74 & 75

	SITE:		POLYGON: <u>6</u>	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> PEN. <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION		
<table border="1"> <tr> <td> <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK </td> <td> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE </td> </tr> </table>						<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE						

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACERUBR > FRAPENN
2 SUB-CANOPY	2	4	"
3 UNDERSTOREY	3	4	OSTVIRG
4 GRD. LAYER	5-7	3	Beters > Seedlings

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES: 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 50% 4= CVR > 50%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS: 0 < 10 0 10-24 R 25-50 N > 50

STANDING SNAGS: N < 10 N 10-24 N 25-50 N > 50

DEADFALL / LOGS: N < 10 R 10-24 N 25-50 N > 50

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g= _____ G= _____
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Red Maple Mineral Dec. Swamp	CODE: SWD3-1
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pic 1717 - Edget Young Forest is

	SITE: <u>Samsung</u>	
	POLYGON: <u>6</u>	
	DATE: <u>20-Oct-2010</u>	
	SURVEYOR(S): <u>M. Strauss</u>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	Code	Code	Code	Code
FRAPENN	O	O	R	R
ACERUBR	O	O	R	R
ULMAMBR	-	R	-	-
QUERCA	R	-	-	-
OSTVIRG		O		
QUERCA		O		
Golden rod sp				O

ELC SITE: 1 POLYGON: 7

SURVEYOR(S): DATE: UTME:

START: END UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	FEATURE	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CRVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	4	FRAPENN > CAROAT
2	SUB-CANOPY	4	QUEBICO > ACERUBA
3	UNDERSTOREY	4	ULMAMER > RITACATI
4	GRD. LAYER	5-7	ASTER > BUTERCAP

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-1 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	O 10-24	R 25-50	N > 50
----------------------	--------	---------	---------	--------

STANDING SNAGS:	N < 10	N 10-24	N 25-50	N > 50
-----------------	--------	---------	---------	--------

DEADFALL / LOGS:	N < 10	O 10-24	N 25-50	N > 50
------------------	--------	---------	---------	--------

ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS: TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: FOD9-4

INCLUSION CODE:

COMPLEX CODE:

F-M

Shagbark Hickory Deciduous Forest

Notes:

Pic
Hedge row + some Car. sp
Dense understorey

feature 74

ELC SITE: Samsung

POLYGON: 7

DATE: 20-Oct-2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4
CAROAT	R	-		
FRAPENN	O	O	R	R
ULMAMER	-	O	-	
QUEBICO	-	O	-	
ALCQUBR.	-	O	O	O
BUTERCAP				O
ASTER sp.				O
VIOLA sp.				O
MACATHE	R			
RITURATI		O		
RUBIDIA		O		

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Legend

	Project Location		Transmission Line (OBM)
	Proposed Turbine Location		Deer Wintering Area
	Proposed Access Road		Provincially Significant Wetland
	Proposed Collector Line		Non-Provincially Significant Wetland
	ROW Installation Zone		Watercourse (OBM)
	120m Investigation Zone		Waterbody
	Elexco Aquired Agreements	Area of Natural and Scientific Interest (ANSI)	
	Government Lands		Life Science, Provincially Significant
	UDI Lands		Earth Science, Provincially Significant
	Road		Earth Science, Regionally Significant
	Railway		
	Abandoned Railway		

Original: Don't Throw out



*landowner notes that extensive flooding occurs through fields along all water courses shown on map.

Notes

- Coordinate System: UTM NAD 83 - Zone 17 (N).
- Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
- Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
FIELD MAP 7

Title
PROJECT LOCATION MAP

581829

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: ①		
	SURVEYOR(S): GAW	DATE: Sept. 29, 2010	UTME:	
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID <input checked="" type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input checked="" type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	1	ULMAMEB
2 SUB-CANOPY	4	4	Corstals + weed canary
3 UNDERSTOREY	5	4	asters + goldenrods
4 GRD. LAYER	6-7	4	" "

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: < 10 10 - 24 25 - 50 > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

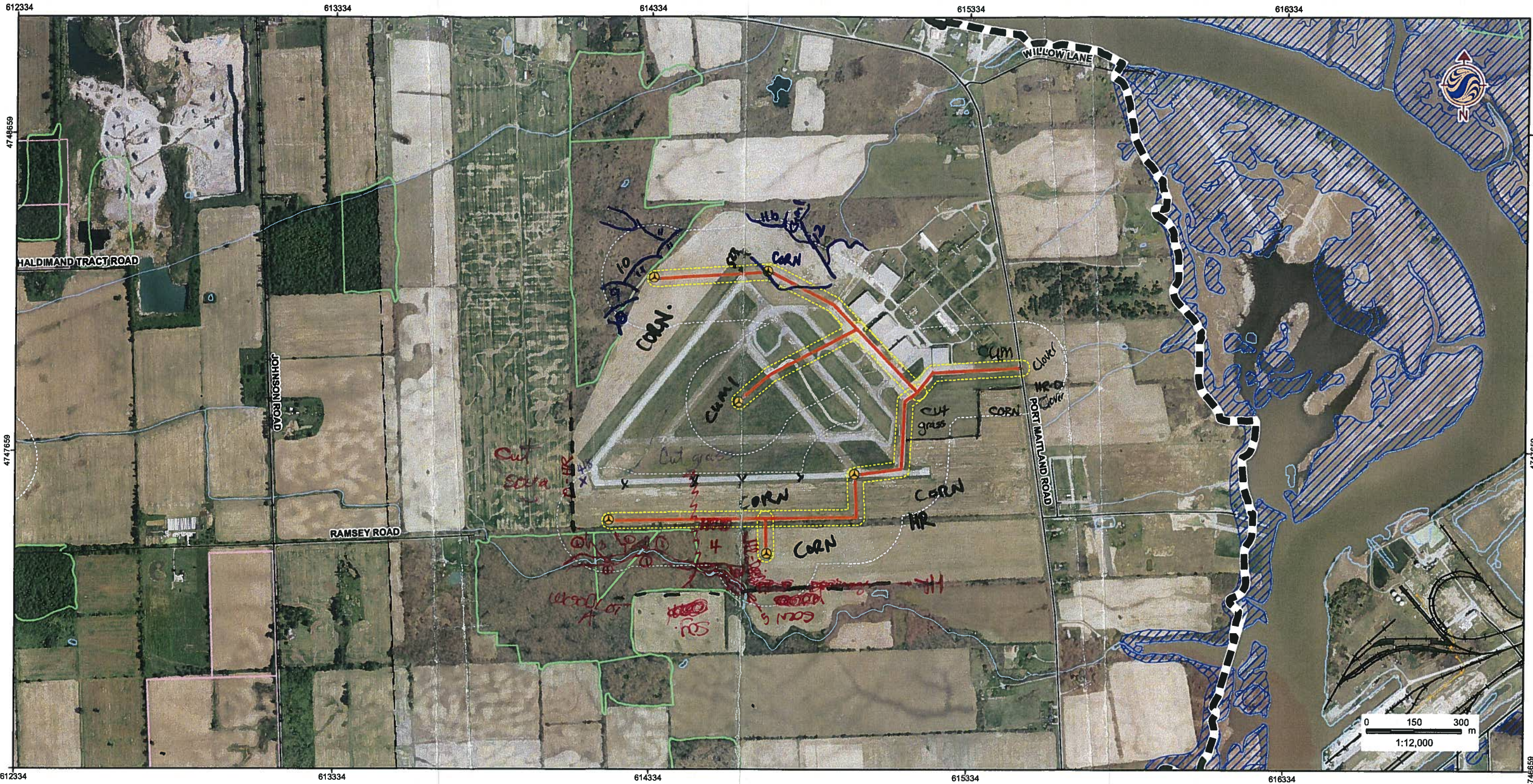
COMMUNITY CLASS: Marsh	CODE: MA
COMMUNITY SERIES: Meadow Marsh	CODE: MAM
ECOSITE: Mineral Meadow Marsh	CODE: MAMZ
VEGETATION TYPE: Forb-Graminoid Mineral Meadow Marsh	CODE: MAMZ-17
INCLUSION	CODE:
COMPLEX	CODE:

Notes: No Access; from roadside

ELC PLANT SPECIES LIST	SITE: Turbine 72 + Access Road
	POLYGON: Feature 78
	DATE:
	SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
Salix sp.	0					TYPLATI			0	0	
CORTO.PA		0	0			P.stern aster				A	
CORSTOL		0	0			SOLCHNA				A	
ULMAMEB	0					SOLRUGO				A	
FRAPENN	0					ASTUROP				0	
						EUTGRAM				A	
						Carex sp.				C	
						weed canary			0	A	
						VITRIPA				0	
						SCIATRO				0	



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Legend

- | | | | |
|--|-------------------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location V2 Oct 08 | | Deer Wintering Area |
| | 120m Investigation Zone V2 Oct 13 | | Provincially Significant Wetland |
| | Substation Property | | Non-Provincially Significant Wetland |
| | Proposed Collector Line V2 Sept 30 | | Watercourse (OBM) |
| | Proposed Access Road V2 Oct 13 | | Waterbody |
| | ROW Installation Zone V2 Oct 13 | Area of Natural and Scientific Interest (ANSI) | |
| | Elenco Acquired Agreements | | Life Science, Provincially Significant |
| | Government Lands | | Earth Science, Provincially Significant |
| | UDI Lands | | Earth Science, Regionally Significant |
| | Road | | |
| | Railway | | |
| | Abandoned Railway | | |



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006. LIDAR IMAGERY SOURCE???
4. Produced using the Version 2 site plan provided by Samsung issued on October 13, 2010

Client/Project

**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.

FIELD MAP 16

Title

PROJECT LOCATION MAP

October 2010
160960577

Feature 76

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : A

Approximate age of stand 60 years

Are large (i.e. >40cm DBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 1 @ 20cm DBH 10m, no bark; 1 @ 3m, DBH < 10cm, 1m, no bark < 10cm DBH;

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
snag	4m	25cm	2-3 m	small-med

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No


If yes, describe Trail btw hedgerow + forest

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrub logs at pond edge
1-3	Habitat #3	none present	~5m	Dogwood	no

 Stantec	Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493	Wildlife Habitat Assessment
	Project Number <u>160960577</u>	

Date / Time: <u>25-Oct-2010</u>	Field Personnel: <u>Melissa Strauss</u>
------------------------------------	--

Weather Conditions:	Temp: <u>15°</u>	Wind: <u>5</u>	Cloud: <u>100%</u>	PPT: <u>none -</u>	PPT in last 24 hrs: <u>Rain</u>
----------------------------	------------------	----------------	--------------------	--------------------	---------------------------------

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO WBNU-VO RWBL-OB WTSP-OB NOCA-OB NOPO-OB WITU-OB AMCK-OB WITU-OB BLJA-VO	WTDGER-OB Eastern Cottontail-OB	SPPF-VO LEFR-OB		

DOWD-OB
 HAWD-OB
 CRGD-NA

Feature 76

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ①	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUERUBR > CAROVAT
2 SUB-CANOPY	2	4	
3 UNDERSTOREY	3-4	4	OSTVRS
4 GRD. LAYER	5-7	4	FRANIRG > ASTMACR > Rubus

HT CODES: 1 => 25 m 2 = 10<HT: 25 m 3 = 2<HT: 10 m 4 = 1<HT: 2 m 5 = 0.5<HT: 1 m 6 = 0.2<HT: 0.5 m 7 = HT<0.2 m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION:					BA:			
SIZE CLASS ANALYSIS:								
	0	< 10	0	10 - 24	0	25 - 50	R	> 50
STANDING SNAGS:	N	< 10	N	10 - 24	N	25 - 50	N	> 50
DEADFALL / LOGS:	R	< 10	R	10 - 24	R	25 - 50	N	> 50
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT								
COMM. AGE:		PIONEER	YOUNG	<input checked="" type="checkbox"/> MID-AGE	MATURE	OLD GROWTH		

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE: FO
COMMUNITY SERIES:	CODE: FOD
ECOSITE:	CODE: FOD
VEGETATION TYPE: F-M Red Oak - Snagbark Hickory Dec. Forest	CODE: FOD96*
INCLUSION	CODE:
COMPLEX	CODE:

Notes Pic 1703

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 1	
	DATE: 25-Oct-2010	
	SURVEYOR(S): M. Strauss	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
QUERUBR	O	O	R	O	
CAROVAT	O	O	R	O	
FRAGGRAN	-	R	-	-	
FRADENN	R	R	R	R	
TILHAMER	R	R	R	R	
ACEFREE	R	R	R	R	
OSTVRS				O	
CORSTOL			R		
FRANIRG				O	
RUBALEC				O	
RUBIDEA				O	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ASTMACR				O	
Rutherspp				O	
Vilasp				R	

Feature 76

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 160960577	POLYGON: 2
	SURVEYOR(S):	DATE:
	START: 12:00	END:
	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input checked="" type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER	<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	1	FRAPENN
2 SUB-CANOPY	2	0	
3 UNDERSTOREY	3-4	0	
4 GRD. LAYER	5-7	4	Rubus > Goldenrod sp. = Asters.

HT CODES: 1=>25m 2=10<HT:25m 3=2<HT:10m 4=1<HT:2m 5=0.5<HT:1m 6=0.2<HT:0.5m 7=HT<0.2m
CVR CODES: 0= NONE 1= 0% < CVR - 10% 2= 10 < CVR - 25% 3= 25 < CVR - 60% 4= CVR > 60%

STAND COMPOSITION:	BA:
--------------------	-----

SIZE CLASS ANALYSIS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input checked="" type="checkbox"/> > 50
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STANDING SNAGS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input checked="" type="checkbox"/> > 50
-----------------	--	---	---	--

DEADFALL / LOGS:	<input checked="" type="checkbox"/> < 10	<input checked="" type="checkbox"/> 10 - 24	<input checked="" type="checkbox"/> 25 - 50	<input checked="" type="checkbox"/> > 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	<input checked="" type="checkbox"/> PIONEER	<input type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS: (cm)		
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)		

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Forb mineral Meadow Marsh	MAM2-10
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 2
	DATE: 25-Oct-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
PRUSERO				R	
FRAPENN	R				
CORSTOL		R			
RUBALLI			O		
RUBIDETA			O		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Dandelion				R	
Burdock				R	
Teasel				R	
Vetch sp				O	
Red Canary Grass				O	
Impatiens				O	
Goldenrod sp.				O	

Feature 76

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: 3	
	SURVEYOR(S):		DATE:	UTME:
	START: 12:30	END: 13:00	UTMZ:	UTMN:

POLYGON DESCRIPTION					
SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> Bogs <input type="checkbox"/> BAREEN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED			

STAND DESCRIPTION:			
LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENN > CAROAT
2 SUB-CANOPY	3	4	ULMAMER > CARCARO
3 UNDERSTOREY	4	3	COROBLI > R
4 GRD. LAYER	5	4	Rubus

HT CODES: 1 = >25m 2 = 10<HT. 25m 3 = 2<HT. 10m 4 = 1<HT. 2m 5 = 0.5<HT. 1m 6 = 0.2<HT. 0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR . 10% 2 = 10 < CVR . 25% 3 = 25 < CVR . 60% 4 = CVR > 60%

STAND COMPOSITION:					BA:
SIZE CLASS ANALYSIS:	0 < 10	0 10 - 24	R 25 - 50	M > 50	
STANDING SNAGS:	M < 10	0 10 - 24	R 25 - 50	N > 50	
DEADFALL / LOGS:	R < 10	0 10 - 24	0 25 - 50	N > 50	
ABUNDANCE CODES: N = NONE . R = RARE O = OCCASIONAL A = ABUNDANT					
COMM. AGE:	PIONEER	<input checked="" type="checkbox"/> YOUNG	MID-AGE	MATURE	OLD GROWTH

SOIL ANALYSIS:	
TEXTURE:	DEPTH TO MOTTLES / GLEY g = G =
MOISTURE:	DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:	
COMMUNITY CLASS:	CODE: S00
COMMUNITY SERIES:	CODE: S002
ECOSITE:	CODE: S002
VEGETATION TYPE:	CODE: FOD9-4
F-M Shagbark Hickory Dec. Forest	
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pic# 1765

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 3
	DATE: 25-Oct-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRAPENN	D	O	R	R	
ALCFREE	O	R	R	R	
ULMAMER	-	O	O	O	
CAROAT	O	O	R	R	
QUERUBR	R	-	-	-	
CARCARO	-	O	R	-	
RUBIDEN				O	
COROBLI		O			

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Viola sp.				O	

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE:	POLYGON: 5	
SURVEYOR(S):	DATE:	UTME:
START:	END:	UTMZ:
		UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE
(>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)			
1 CANOPY	2	2	FRAPPENN
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	5-7	4	Reed Canary Grass > IMPCAPE = Rubus

HT CODES: 1 = >25m 2 = 10<HT. 25m 3 = 2<HT. 10m 4 = 1<HT. 2m 5 = 0.5<HT. 1m 6 = 0.2<HT. 0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:

< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

DEADFALL / LOGS:

< 10	10 - 24	25 - 50	> 50
------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Reed-canary Grass Mineral Meadow Marsh	MAM 2-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes: 1767 R

Feature 76

ELC
PLANT SPECIES LIST

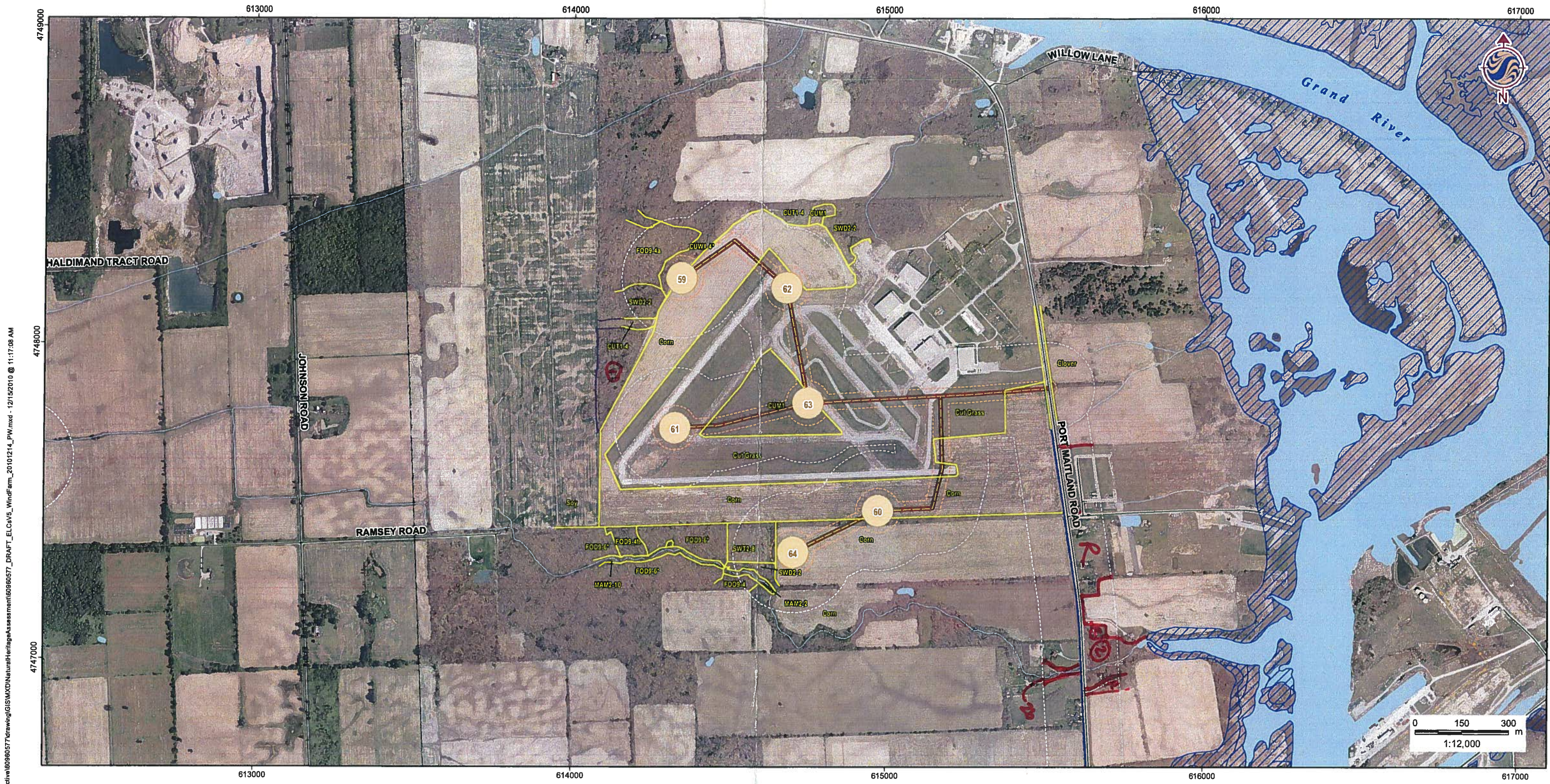
SITE: Samsung
POLYGON: 5
DATE: 25-Oct-2010
SURVEYOR(S): mstraus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Same as Poly #2					
FRAPPENN R					
RUBIOBA					O

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Reed Canary					A
IMPCAPE					O
Sing. Nettles					O
Goldenrod sp.					O
Fraxel					R
Sedge					O
Burdock					R
Asters sp.					O
eg. P.S. Asta					
ASTLATE					



W:\active\60960577\drawing\GIS\WX\DW\NaturalHeritage\Assessment\60960577_DRAFT_ELCv5_WindFarm_20101214_PW.mxd - 12/15/2010 @ 11:17:08 AM

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11*- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12*- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-3- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-8*- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-8*- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3*- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4*- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5*- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6*- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13*- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14*- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15*- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11*- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3*- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4*- Green Ash Mineral Cultural Woodland
 - CUW1-5*- Maple-Ash Cultural Woodland
 - CUW1-6*- Green Ash Cultural Woodland
 - CUW1-7*- Red maple Mineral Cultural Woodland
 - CUP3-12*- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13*- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources
© Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.
TILE 17

Title
ELC VEGETATION COMMUNITIES

DRAFT





Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

Wildlife Habitat Assessment

Project Number
160960577

Project Name:
Samsung-wind

Date / Time:
21-Dec-2010

Field Personnel:
Nelson Stokes

Weather Conditions:	Temp: <u>-5°C</u>	Wind: <u>0</u>	Cloud: <u>50%</u>	PPT: <u>none</u>	PPT in last 24 hrs: <u>none</u>
----------------------------	----------------------	-------------------	----------------------	---------------------	------------------------------------

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Time -
10:00AM -
4:00PM

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO RBWD RTHA HOLA NOSH POWP BLJA RLHA SNBU HESP				

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): Aspen 17-1

Approximate age of stand Mid-age

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
	<u>scattered throughout - SWD.</u>		<u>max = 5 x 10. min = 1 x 1</u>	<u>no</u>	<u>no</u>

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUEBICO
2 SUB-CANOPY	2	4	II
3 UNDERSTOREY	3	4	FRAPENN < QUEBICO
4 GRD. LAYER	5-7		

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA: _____

SIZE CLASS ANALYSIS: A < 10 A 10-24 R 25-50 N > 50

STANDING SNAGS: M < 10 N 10-24 N 25-50 N > 50

DEADFALL / LOGS: 0 < 10 R 10-24 N 25-50 N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER- YOUNG X MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:
Swamp White Oak Mineral Dec. Swamp SWD1-1

INCLUSION CODE:

COMPLEX CODE:

Notes: Pic 4 - standing H₂O - now ice, exclusively low - edge influences - lots of woody growth.

Feature 77

ELC
PLANT SPECIES LIST

SITE: Samburg

POLYGON: 17-1

DATE: 21-Dec-2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
QUEBICO	D	D											
FRAPENN	R	O	O										
FRAPENN	R												
CARBATO		O											
Hawthorn		O											
KUBALLO													
Prickly Ash													

612334

613334

614334

615334

616334

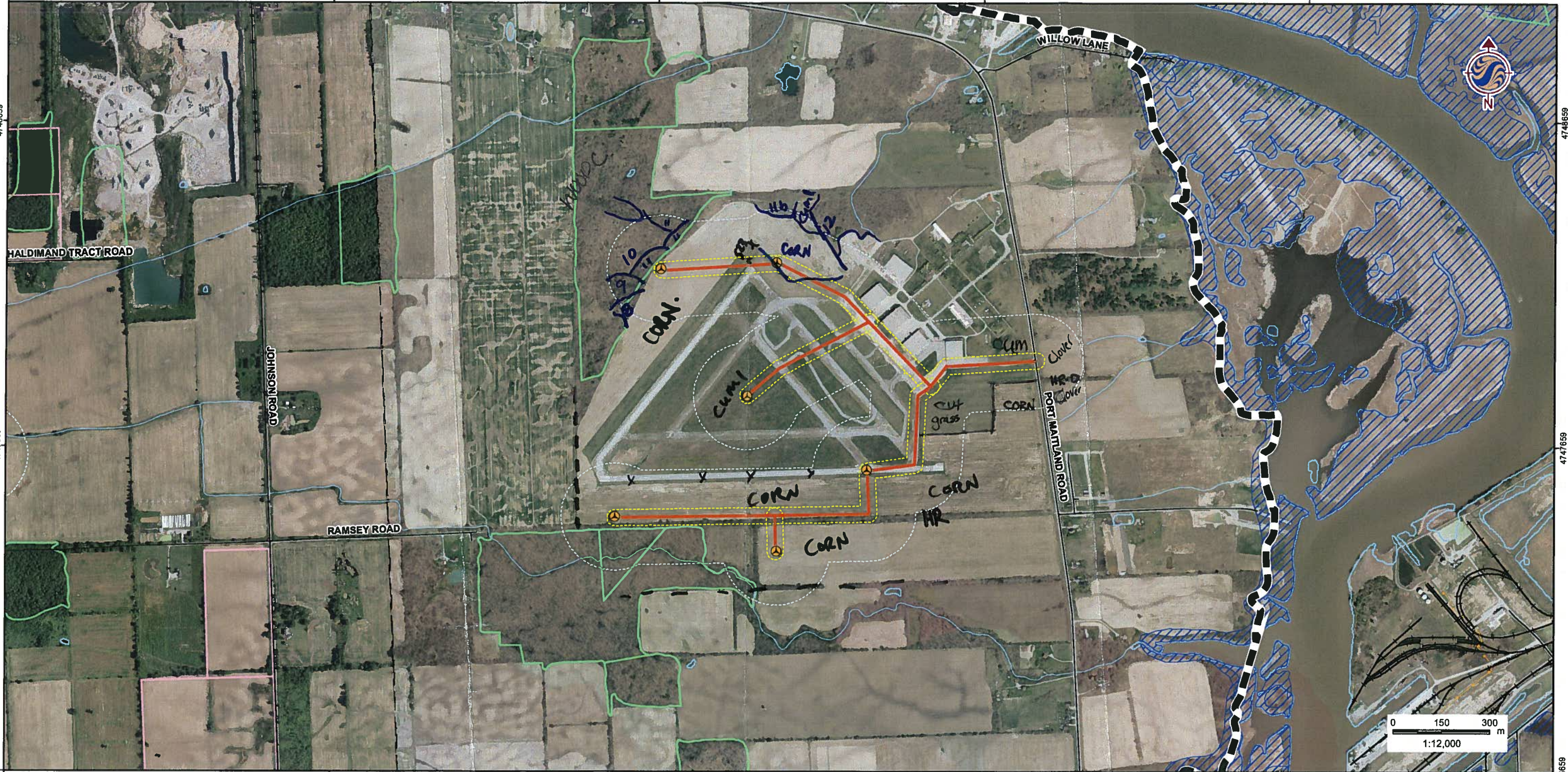
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October 2010
160960577



W:\active\160960577\drawing\CISMXD\NaturalHeritageAssessment\FeldMaps\160960577_FIELDMAP_V2Oct13_20101014_DH.mxd - 10/14/2010 @ 3:15:10 PM



Legend

- Project Location
- Proposed Turbine Location V2 Oct 08
- 120m Investigation Zone V2 Oct 13
- Substation Property
- Proposed Collector Line V2 Sept 30
- Proposed Access Road V2 Oct 13
- ROW Installation Zone V2 Oct 13
- Elenco Aquired Agreements
- Government Lands
- UDI Lands
- Road
- Railway
- Abandoned Railway
- Transmission Line (OBM)
- Deer Wintering Area
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody
- Area of Natural and Scientific Interest (ANSI)**
- Life Science, Provincially Significant
- Earth Science, Provincially Significant
- Earth Science, Regionally Significant

SSA-OB



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources
© Queens Printer Ontario, 2009; © GREP, 2010;
© Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery
Date: Spring 2006, **LIDAR IMAGERY SOURCE???**
4. Produced using the Version 2 site plan provided by Samsung
issued on October 13, 2010

Client/Project


SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.

FIELD MAP 16

Title

PROJECT LOCATION MAP

 Stantec	Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493	Wildlife Habitat Assessment
--	---	--

Project Number 160960577	Project Name: Samsung
Date / Time: 20-Dec-2010 @ 10:00AM - 5:00PM	Field Personnel: Melissa Strauss

Weather Conditions:	Temp: 10°C	Wind: 6	Cloud: 10%	PPT: none	PPT in last 24 hrs: none
----------------------------	---------------	------------	---------------	--------------	-----------------------------

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed usin feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO ✓ HOLA - VO PERI - VO DOWD - OB DOWD - OB SOSP - OB	Coyote - SC			

Feature 77

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : C

Approximate age of stand 20 years

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. Indigenous 4/100

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree-DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of st logs at pond ex
2	scattered throughout	none to 25cm	3-5m	Gray Dogwood	No

LECTURE 77

ELC COMMUNITY DESCRIPTION CLASSIFICATION	SITE: 160960577	POLYGON: 8		
	SURVEYOR(S): ms	DATE: 20-Oct-2010	UTME:	
	START: 14:48	END: 15:15	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	FEATURE	NATURAL / CULTURAL	PLANKTON	LAKE / POND
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY			
2 SUB-CANOPY	3	3	FRAPPEN
3 UNDERSTOREY	4	4	GRAY DOGWOOD > Hawthorn
4 GRD. LAYER	5-7	4	Goldenrod

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-0.5 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10% < CVR < 25% 3 = 25% < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	R 10-24	N 25-50	M > 50
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STANDING SNAGS:	N < 10	N 10-24	N 25-50	N > 50
DEADFALL / LOGS:	N < 10	R 10-24	N 25-50	N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS: TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE: C1
COMMUNITY SERIES:	CODE: CUT 501
ECOSITE: Mineral Cultural Thicket	CODE: CUT1
VEGETATION TYPE: Gray Dogwood Cultural Thicket	CODE: CUT1-4
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes: Pic 1718

ELC COMMUNITY DESCRIPTION CLASSIFICATION	SITE: Samsung
	POLYGON: 8
	DATE: 20-Oct-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	R	O	A	D
FRAPPEN	R	R		
ULMATER	R	R		
RECURSE	R			
SPALUBA				D
Gray Dogwood				D
Hawthorn				O
Silvery Shrubworts				O
Goldenrod				A

Feature 77

	SITE: 1609160577	POLYGON: 9	
	SURVEYOR(S): MS	DATE: 2004-2010	UTME:
	START: 1515	END: 1530	UTMZ:
			UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDR.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE:					
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAPENN
2 SUB-CANOPY	2	4	ALUMINER - KUMMNER
3 UNDERSTOREY	4	3	Silky Dogwood
4 GRD. LAYER	57	3	RUBIDFA

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:0.6m 7=HT<0.2m
 CVR CODES 0= NONE 1=0% < CVR < 10% 2=10 < CVR < 25% 3=25 < CVR < 50% 4= CVR > 50%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	0 < 10	0 10-24	0 25-50	M > 50
STANDING SNAGS:	M < 10	M 10-24	M 25-50	M > 50
DEADFALL / LOGS:	M < 10	0 10-24	M 25-50	M > 50

ABUNDANCE CODES: N=NONE -R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Green Ash Mineral Deciduous Swamp	CODE: SWD2-2
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pick 7A - Ash green w Dog Silky Areas - 9a - only Ag
 L. in on side Sub canopy

	SITE: Samsup
	POLYGON: 9
	DATE: 20-Oct-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	Code	Code	Code	Code
FRAPENN	D	O	R	R
ALUMINER	-	O	R	R
ALUMINER	R	O	R	R
Wood Nettle				R
Imperata				R
RUBIDFA				O
Picky Ash				R
Silky Dogwood				O

FLC
COMMUNITY
DESCRIPTION
CLASSIFICATION

SITE: 160960577 POLYGON: 10

SURVEYOR(S): MS DATE: UTME:

START: 15:30 END: 16:00 UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHY	SOIL	PLANT COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> PEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	CAROUAT
2 SUB-CANOPY			
3 UNDERSTOREY	4	3	Hawthorn
4 GRD. LAYER	5-7	4	FRAXILIS v. vidua sp.

HT CODES: 1=>25m 2=10-24m 3=2-10m 4=1-2m 5=0.5-1m 6=0.2-0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR<10% 2=10%<CVR<25% 3=25%<CVR<50% 4=CVR>50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0	<10	A	10-24	R	25-50	N	>50
STANDING SNAGS:	N	<10	N	10-24	N	25-50	N	>50
DEADFALL / LOGS:	R	<10	R	10-24	N	25-50	N	>50

ABUNDANCE CODES: N=NONE R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE:
F-M Shorebank Hickory Deci. Forest F009-4

INCLUSION CODE:

COMPLEX CODE:

Notes:

Pic1720 young

FLC
SITE: Samsung
POLYGON: 10
DATE: 20-Oct-2010
SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	1	2	3	4
CAROUAT	D	R	T	
FRAXILIS	O	R	T	
HAWTHORN	R	R	R	T
FRAXILIS				R
Hawthorn				O
FRAXILIS				O
V. vidua sp.				A

Feature 77

EUC COUNTY DEPARTMENT PROJECT	SITE: 1109160577	POLYGON: 11
	SURVEYOR(S): MS	DATE:
	START: 16:00	END: 16:15
	UTMZ:	UTMR:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	3	FRAPPEN - W. MANEER
2 SUB-CANOPY			
3 UNDERSTOREY	3	4	Hawthorn, C. c. nus
4 GRD. LAYER	5-7	4	FRAVIRS, AGRGALP

HT CODES: 1= >25m 2=10-24m 3=2-9m 4=1-4m 5=0.5-1m 6=0.2-0.5m 7=HT<0.2m
 CVR CODES: 0=NONE 1=0% < CVR < 10% 2=10 < CVR < 25% 3=25 < CVR < 50% 4= CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A < 10	O 10-24	R 25-50	N > 50
----------------------	--------	---------	---------	--------

STANDING SNAGS:	N < 10	N 10-24	N 25-50	N > 50
-----------------	--------	---------	---------	--------

DEADFALL / LOGS:	N < 10	N 10-24	N 25-50	N > 50
------------------	--------	---------	---------	--------

ABUNDANCE CODES: N=NONE .R=RARE O=OCCASIONAL A=ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE: C1
COMMUNITY SERIES:	CODE: C1
ECOSITE:	CODE: C1
VEGETATION TYPE:	CODE: CUW-4* C1
INCLUSION	CODE:
COMPLEX	CODE:

Notes: 11b- Pic 17.23 - Nooder story - Gray dog + Hawth. = cut 1-4
 11- Pic 17.22 (cut 1-4)

EUC COUNTY DEPARTMENT PROJECT	SITE: Samsung
	POLYGON: 11
	DATE: 20-Oct-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR	Abundance
FRAPPEN	2	3	O
W. MANEER			O
FRAVIRS	5-7	4	O
Gray Dogwood			A
Hawthorn			A

 ENVIRONMENTAL INVENTORY GEOSPATIAL	SITE: 160960577	POLYGON: 12	
	SURVEYOR(S): M.S.	DATE: 20-Oct-2010	UTME:
	START: 16:15	END: 16:45	UTMZ:
			UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHY	SOIL	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					
<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE					

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FLAPEAN > Salix sp.
2 SUB-CANOPY	2		
3 UNDERSTOREY	3-4	4	Salix sp > CANUS
4 GRD. LAYER	5-7	4	RUBIDEA, Canopy Grass

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 5-10 m 4 = 1-10 m 5 = 0.5-1 m 6 = 0.2-1 m 7 = HT < 0.2 m
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 O 10-24 O 25-50 N > 50

STANDING SNAGS: N < 10 N 10-24 N 25-50 N > 50

DEADFALL / LOGS: N < 10 O 10-24 O 25-50 N > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: Green Ash Mineral Dec. Swamp SWD2-2 CODE:

INCLUSION CODE:

COMPLEX CODE:

Notes: Pic 123

Feature 7+

 ENVIRONMENTAL INVENTORY GEOSPATIAL	SITE: Samsung
	POLYGON: 17
	DATE: 20-Oct-2010
	SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Species	HT	CVR
Salix sp	2	00+
POPTRE	1	---
FLAPEAN	0	00R
RUBIDEA		0
Gray Dogwood		0

Species	HT	CVR
Cum sp		
Along can		
Road Canopy Grass		



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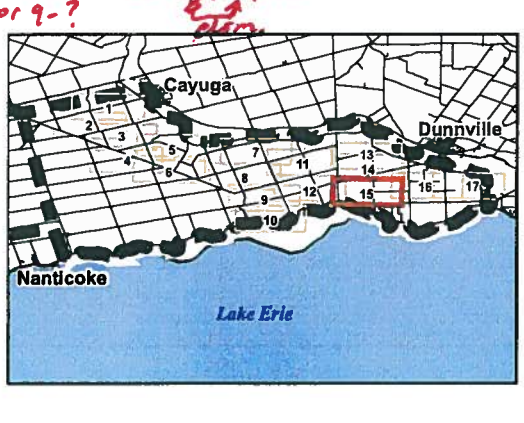
Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
 GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 15

Title
**ELC VEGETATION
 COMMUNITIES**

DRAFT



Feature 81

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1-2	4	FRAPENN > QUERUBR.
2 SUB-CANOPY	3	4	FRAPENN > CAROAT
3 UNDERSTOREY	4	3	CORNUS.
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION:	BA:
--------------------	-----

SIZE CLASS ANALYSIS:	0 < 10	0 10 - 24	0 25 - 50	R > 50
----------------------	--------	-----------	-----------	--------

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIIONEER	YOUNG	<input checked="" type="checkbox"/> MID-AGE	MATURE	OLD GROWTH
------------	----------	-------	---	--------	------------

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Fresh-moist Red Oak-Sharpbark Hickory	FOD9-6 ⁺
INCLUSION	De. Polest
COMPLEX	CODE:

Notes:

Edge

ELC PLANT SPECIES LIST	SITE: <i>Samsury</i>	
	POLYGON: <i>15-6</i>	
	DATE: <i>21-Dec-2010</i>	
	SURVEYOR(S): <i>M. Straw</i>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
CAROAT	R	O											
FRAPENN	D	D											
QUERUBR	O												
ACESACS													
FRAGRAN	R	R											
CORNUS													

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTME: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input type="checkbox"/> WETLAND	<input type="checkbox"/> MINERAL SOIL	<input type="checkbox"/> RIVERINE	<input type="checkbox"/> CULTURAL	<input type="checkbox"/> SUBMERGED	<input type="checkbox"/> POND
<input type="checkbox"/> AQUATIC	<input type="checkbox"/> PARENT MIN.	<input type="checkbox"/> BOTTOMLAND		<input type="checkbox"/> FLOATING-LVD.	<input type="checkbox"/> RIVER
	<input type="checkbox"/> ACIDIC BEDRK.	<input type="checkbox"/> TERRACE		<input type="checkbox"/> GRAMINOID	<input type="checkbox"/> STREAM
	<input type="checkbox"/> BASIC BEDRK.	<input type="checkbox"/> VALLEY SLOPE		<input type="checkbox"/> FORB	<input type="checkbox"/> MARSH
	<input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> TABLELAND		<input type="checkbox"/> LICHEN	<input type="checkbox"/> SWAMP
		<input type="checkbox"/> ROLL UPLAND		<input type="checkbox"/> BRYOPHYTE	<input type="checkbox"/> FEN
		<input type="checkbox"/> CLIFF		<input type="checkbox"/> DECIDUOUS	<input type="checkbox"/> BOG
		<input type="checkbox"/> TALUS		<input type="checkbox"/> CONIFEROUS	<input type="checkbox"/> BARREN
		<input type="checkbox"/> CREVICE / CAVE		<input type="checkbox"/> MIXED	<input type="checkbox"/> MEADOW
		<input type="checkbox"/> ALVAR			<input type="checkbox"/> PRAIRIE
		<input type="checkbox"/> ROCKLAND			<input type="checkbox"/> THICKET
		<input type="checkbox"/> BEACH / BAR			<input type="checkbox"/> SAVANNAH
		<input type="checkbox"/> SAND DUNE			<input type="checkbox"/> WOODLAND
		<input type="checkbox"/> BLUFF			<input type="checkbox"/> FOREST
					<input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUERUBR
2 SUB-CANOPY	2	4	CAROVAT & FRAPENN
3 UNDERSTOREY	3	4	CORNUS, RHACATH
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<50% 4=CVR>50%

STAND COMPOSITION: _____ BA: _____

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
----------------------	------	---------	---------	------

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
-----------------	------	---------	---------	------

DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
------------------	------	---------	---------	------

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: _____ DEPTH TO MOTTLES / GLEY g = _____ G= _____

MOISTURE: _____ DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: _____ CODE: _____

Fresh-moist Red Oak-Shagbark Hickory FOD9-6*

INCLUSION Dec. Forest CODE: _____

COMPLEX _____ CODE: _____

Notes:

7b - FRAPENN > CAROVAT

a = 9-6*
 b = 9-6*

} Both Feature 81

feature 81

ELC
PLANT SPECIES LIST

SITE: *Samsung*

POLYGON: *15-7*

DATE: *21-Dec-2010*

SURVEYOR(S): *M. Strauss*

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
QUERUBR	D											
CAROVAT	R	O										
FRAPENN	R	O										
CORNUS				O								
RHACATH				O								

Feature 81

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	3	FRAPENNA
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1 => 25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 60% 4 = CVR > 60%

STAND COMPOSITION:

SIZE CLASS ANALYSIS:	< 10	10 - 24	25 - 50	> 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Green Ash Cultural Woodland	CODE: CW1-4
INCLUSION	CODE:
COMPLEX	CODE:

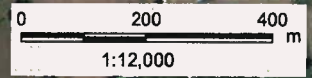
Notes: Succeeding forest

ELC PLANT SPECIES LIST	SITE: Samsung.
	POLYGON: 15-8
	DATE: 21-Dec-2010
	SURVEYOR(S): M. Strauss

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAPENNA	D					Cum sp.					

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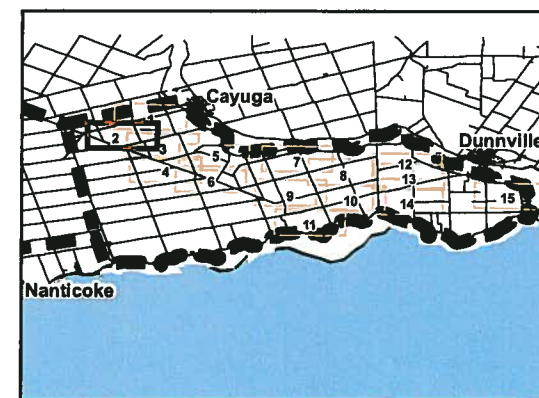


September 2010
160960577



Legend

- | | | | |
|--|---------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Aquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |



*Original:
Don't Throw
Out*

Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**

Client/Project

SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK

Figure No.

FIELD MAP 2

Title

PROJECT LOCATION MAP



Stantec

Stantec Consulting Ltd.
70-1 Southgate Drive
Guelph, Ontario, Canada
N1G 4P5
Tel: (519) 836-6050
Fax: (519) 836-2493

**Wildlife Habitat
Assessment**

Turbine ⁵⁸¹⁸²⁶ B + Access Road

Project Number 161010646

Project Name: Samsung

Date / Time: Sept. 23, 2010

Field Personnel: GAW

Weather Conditions:	Temp: <u>22°</u>	Wind: <u>2</u>	Cloud: <u>50%</u>	PPT: <u>∅</u>	PPT in last 24 hrs: <u>RAIN</u>
----------------------------	------------------	----------------	-------------------	---------------	---------------------------------

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e.</i> AMRO/VO EUST BLJA	barn kitty		Sulphur yellow monarch	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : None

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) trees present Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc.,) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 161010646
 SURVEYOR(S): GAW
 DATE: Sept. 21, 2010
 POLYGON: ①
 UTME:
 UTMZ:
 UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL, UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	7	4	Grasses, clovers, b.f. trefoil
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 7=HT<0.2m
 CVR CODES: 0=NONE 1=0%<CVR<10% 2=10<CVR<25% 3=25<CVR<60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: < 10 10 - 24 25 - 50 > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50

DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: CODE: Pasture
 INCLUSION: CODE:
 COMPLEX: CODE:

Notes:

No feature

581819


ELC
 PLANT SPECIES LIST

SITE: Turbine #2 + Access Road
 POLYGON:
 DATE:
 SURVEYOR(S):

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
PLAMAJO	A					Grasses	A				
ragweed	O					ROSMULTI	O				
barnyard gr.	O					ASCYRI	O				
Green foxtail	O										
timothy	O										
red clover	A										
b. medic	A										
alsike clover	A										
RUMCRIS	O										
ladythumb	O										
ASTNOVA	O										
SOLCANA	O										
SOLALTI	O										
DAUCARD	O										
VICCRAC	A										
TAROFF1	A										
b.f. trefoil	A					Hedgerows:					
teale	O					Plum?		R			X
c. burdock	O					GUEALBA	O				
VITRIPA	O					CORFORA			A		
RUBIDAE	O					ACESASA	O				
chicory	O					FRAAMER	O				
bull thistle	O					RHACATH		A	A		
whit. clover	O					QUEMACR	O				
ERIPH.PH	O					Crataegus sp.		A	A		
Ox-eye daisy	O					Shagbark	A				
orchard grass	A					PRUSERO	O	O			

 <p>Stantec</p>		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		<p>Wildlife Habitat Assessment</p> <p>Turbine 581819</p>	
Project Number		161010646		Project Name: Samsung	
Date / Time:		Sept. 21. 2010		Field Personnel: GAW	
Weather Conditions:	Temp: 23°	Wind: 4	Cloud: 25%	PPT: ∅	PPT in last 24 hrs: ∅

Reptile Hibernacula Features i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

Does the site contain potential reptile hibernacula features? Yes No (if yes, describe details in Table 1).

Bat Hibernacula Features i.e. karst topography, abandoned mines or caves

Does the site contain potential bat hibernacula features? Yes No (if yes, describe details in Table 1).

Table 1: Potential bat/reptile hibernacula features identified on site

UTM	Feature type	Photo #	Description	Species observed using feature
-see air photo	old barn	∅	old barn	∅

Species Observations

List species and type of observation: (TK = track, SC = scat, VO = vocalization, OB = observed, DP = distinctive parts, FE = feeding evidence, CA = carcass, FY = eggs, nest, HO = house/den, SI = other sign)

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO MODO BLJA KILL			yellow sulphur cabbage wht	

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : No Woodlots

Approximate age of stand _____

Are large (i.e. >40cmDBH and >25m tall) **trees present** Yes No

If yes, approximate # present or % of stand _____

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) _____

Are snags present? Yes No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark.

Trees with cavities present? No Rare Occasional Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)

Presence of large stick nests (i.e. raptor nests)? Yes No

If yes, UTM and describe tree type, height and position in tree, size of nest, species present

Evidence of disturbance? (i.e logging, roads, paths, ATV use, trails) Yes No

If yes, describe _____

Seeps/ springs present? Yes No **If yes,**

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present? Yes No **If yes,**

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge

↳ farm pond present

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Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-4- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUM1-3- Ash – Sumac Mineral Cultural Woodland
 - CUM1-4- Green Ash Mineral Cultural Woodland
 - CUM1-5- Maple-Ash Cultural Woodland
 - CUM1-6- Green Ash Cultural Woodland
 - CUM1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 2

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT





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December 2010
160960577

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
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 - SWD4-2- White Elm Mineral Deciduous Swamp
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 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
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 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed
R- Residential



Notes

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2. Data Sources: Ontario Ministry of Natural Resources
3. Queens Printer Ontario, 2009; © Samsung, 2010.
4. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE ???
5. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 4

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT





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December 2010
160960577

Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
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 - FOD- Deciduous Forest
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 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD3-1- Dry-fresh Beech Deciduous Forest
 - FOD4-1- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
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 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
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- D- Disturbed
R- Residential



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Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 7

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____ UTM: _____

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE RIVERINE <input type="checkbox"/> BOTTOMLAND TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> SOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENNA
2 SUB-CANOPY	3		"
3 UNDERSTOREY	4	4	CORNUS, [Hawthorn, edge]
4 GRD. LAYER			

HT CODES: 1 = >25m 2 = 10<HT:25m 3 = 2<HT:10m 4 = 1<HT:2m 5 = 0.5<HT:1m 6 = 0.2<HT:0.5m 7 = HT<0.2m
CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

STAND COMPOSITION:

BA: _____

SIZE CLASS ANALYSIS:	A < 10	O 10 - 24	R 25 - 50	N > 50
STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = _____ G = _____

MOISTURE: DEPTH OF ORGANICS: _____ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: _____ (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: _____ CODE: _____

COMMUNITY SERIES: _____ CODE: _____

ECOSITE: _____ CODE: _____

VEGETATION TYPE: Green Ash Mineral Acc. Swamp SWD22 CODE: _____

INCLUSION: _____ CODE: _____

COMPLEX: _____ CODE: _____

No feature

ELC
PLANT SPECIES LIST

SITE: Samsung

POLYGON: 7-3

DATE: 22-Dec-2010

SURVEYOR(S): M. Straus

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRAPENNA		D			
RHACATH Hawthorn			R	O	
COR (RARE?)				D	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ASTERS g					O

Notes: Snaggy mth @ edge - down into SWD
b - wide hedgerow - M

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACESACS 2 CAROVAT > FRAPENN
2 SUB-CANOPY	2	4	FRAGGRAN
3 UNDERSTOREY	3	4	FRAGGRAN
4 GRD. LAYER			

HT CODES: 1 => 25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 0.2<HT<0.5m 7 = HT<0.2m
 CVR CODES: 0 = NONE 1 = 0% < CVR, 10% 2 = 10 < CVR, 25% 3 = 25 < CVR, 50% 4 = CVR > 50%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: < 10 10 - 24 25 - 50 > 50

STANDING SNAGS: < 10 10 - 24 25 - 50 > 50
 DEADFALL / LOGS: < 10 10 - 24 25 - 50 > 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G=
 MOISTURE: DEPTH OF ORGANICS: (cm)
 HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: CODE:
 Fresh-moist Sugar Maple-hardwood FODG-S
 INCLUSION: Deciduous Forest CODE:
 COMPLEX CODE:

Notes:

Corner - had more Mh.
 Hs + Agdom along here by stream
 2b - wide HR - Mh dominant

No feature

ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>	
	POLYGON: <i>7-2</i>	
	DATE: <i>22-Dec-2010</i>	
	SURVEYOR(S): <i>M. Straus</i>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.		
	1	2	3	4			1	2	3	4			
ACESACS	0	0											
FRAGGRAN	R	O	O										
CALOVAT	O	O											
FRAPENN	O	O											



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Legend

- Proposed Turbine Location
- 120m Zone of Investigation
- ROW Installation Zone
- ELC Communities
- Access Road
- Overhead Collector Line
- Underground Collector Line
- Substation Property
- Road
- Transmission Line (OBM)
- Provincially Significant Wetland
- Non-Provincially Significant Wetland
- Watercourse (OBM)
- Waterbody

- Forest Communities (FO)**
- FOM2-2- Dry-fresh White Pine – Sugar Maple Mixed Forest
 - FOD- Deciduous Forest
 - FOD2-1- Dry-fresh Oak – Red Maple Deciduous Forest
 - FOD2-2- Dry-fresh Oak – Hickory Deciduous Forest
 - FOD2-4- Dry-fresh Oak – Hardwood Deciduous Forest
 - FOD3-1- Dry-fresh Poplar Deciduous Forest
 - FOD4-1- Dry-fresh Beech Deciduous Forest
 - FOD4-2- Dry-fresh White Ash Deciduous Forest
 - FOD5-1- Dry-fresh Sugar Maple Deciduous Forest
 - FOD5-2- Dry-fresh Sugar Maple – Beech Deciduous Forest
 - FOD5-3- Dry-fresh Sugar Maple – Oak Deciduous Forest
 - FOD5-8- Dry-fresh Sugar Maple – White Ash Deciduous Forest
 - FOD5-11- Dry-fresh Sugar Maple – Oak – Beech Deciduous Forest
 - FOD5-12- Dry-fresh Sugar Maple – Hickory – Beech Deciduous Forest
 - FOD6-1- Fresh-moist Sugar Maple – Lowland Ash Deciduous Forest
 - FOD6-5- Fresh-moist Sugar Maple – Hardwood Deciduous Forest
 - FOD6-6- Fresh-moist Sugar Maple – Hickory Deciduous Forest
 - FOD7-1- Fresh-moist White Elm Lowland Deciduous Forest
 - FOD7-2- Fresh-moist Ash Lowland Deciduous Forest
 - FOD9-1- Fresh-moist Oak – Sugar Maple Deciduous Forest
 - FOD9-4- Fresh-moist Shagbark Hickory Deciduous Forest
 - FOD9-6- Fresh-moist Red Oak – Shagbark Hickory Deciduous Forest

- Swamp Communities (SW)**
- SWD1-1- Swamp White Oak Mineral Deciduous Swamp
 - SWD2-2- Green Ash Mineral Deciduous Swamp
 - SWD2-3- Ash – Hardwood Mineral Deciduous Swamp
 - SWD2-4- Green Ash – Red Maple Mineral Deciduous Swamp
 - SWD3-1- Red Maple Mineral Deciduous Swamp
 - SWD3-2- Silver Maple Mineral Deciduous Swamp
 - SWD3-5- Swamp Maple – Green Ash Mineral Deciduous Swamp
 - SWD4-1- Willow Mineral Deciduous Swamp
 - SWD4-2- White Elm Mineral Deciduous Swamp
 - SWD3-3- Swamp Maple Mineral Deciduous Swamp
 - SWD4-6- Green Ash – Swamp Maple Mineral Deciduous Swamp
 - SWT- Thicket Swamp
 - SWT2-4- Buttonbush Mineral Thicket Swamp
 - SWT2-5- Red Osier Dogwood Mineral Thicket Swamp
 - SWT2-8- Silky Dogwood Mineral Thicket Swamp
 - SWT2-9- Gray Dogwood Mineral Thicket Swamp
 - SWT2-13- Willow – Dogwood Mineral Thicket Swamp
 - SWT2-14- Winterberry – Buttonbush Mineral Thicket Swamp
 - SWT2-15- Red Maple Mineral Thicket Swamp
 - SWT3-7- Winterberry Organic Thicket Swamp

- Marsh Communities (MA)**
- MAM2-2- Reed Canary Grass Mineral Meadow Marsh
 - MAM2-10- Forb Mineral Meadow Marsh
 - MAM2-11- Forb – Graminoid Mineral Meadow Marsh
 - MAS2-1- Cattail Mineral Shallow Marsh
 - MAS2-8- Rice Cut-grass Mineral Shallow Marsh
- Cultural Communities (CU)**
- CUM1- Mineral Cultural Meadow
 - CUT1-7- European Buckthorn – Sweet Cherry Cultural thicket
 - CUW1-3- Ash – Sumac Mineral Cultural Woodland
 - CUW1-4- Green Ash Mineral Cultural Woodland
 - CUW1-5- Maple-Ash Cultural Woodland
 - CUW1-6- Green Ash Cultural Woodland
 - CUW1-7- Red maple Mineral Cultural Woodland
 - CUP3-12- White Pine – White/Norway Spruce Coniferous Plantation
 - CUP3-13- White Spruce Coniferous Plantation
- D- Disturbed**
R- Residential



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N)
2. Data Sources: Ontario Ministry of Natural Resources
© Queens Printer Ontario, 2009; © Samsung, 2010.
3. Image Source: © Grand River Conservation Authority, 2010 - Imagery Date: Spring 2006; **LIDAR IMAGERY SOURCE???**
4. Produced using the Version 5 site plan produced by Stantec updated on Dec 13.

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
TILE 16

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	FRAPENN > CAROVAT
2 SUB-CANOPY	2	4	"
3 UNDERSTOREY	3	4	Cornus
4 GRD. LAYER			

HT CODES: 1=>25m 2=10<HT<.25m 3=2<HT<.10m 4=1<HT<.2m 5=0.5<HT<.1m 6=0.2<HT<.0.5m 7=HT<0.2m
CVR CODES 0=NONE 1=0%<CVR, 10% 2=10<CVR, 25% 3=25<CVR, 60% 4=CVR>60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	0 < 10	A 10 - 24	0 25 - 50	M > 50
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STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =
MOISTURE: DEPTH OF ORGANICS: (cm)
HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:
COMMUNITY SERIES: CODE:
ECOSITE: CODE:
VEGETATION TYPE: CODE:
Green Ash Mineral Deciduous Swamp SWS 2-2
INCLUSION CODE:
COMPLEX CODE:

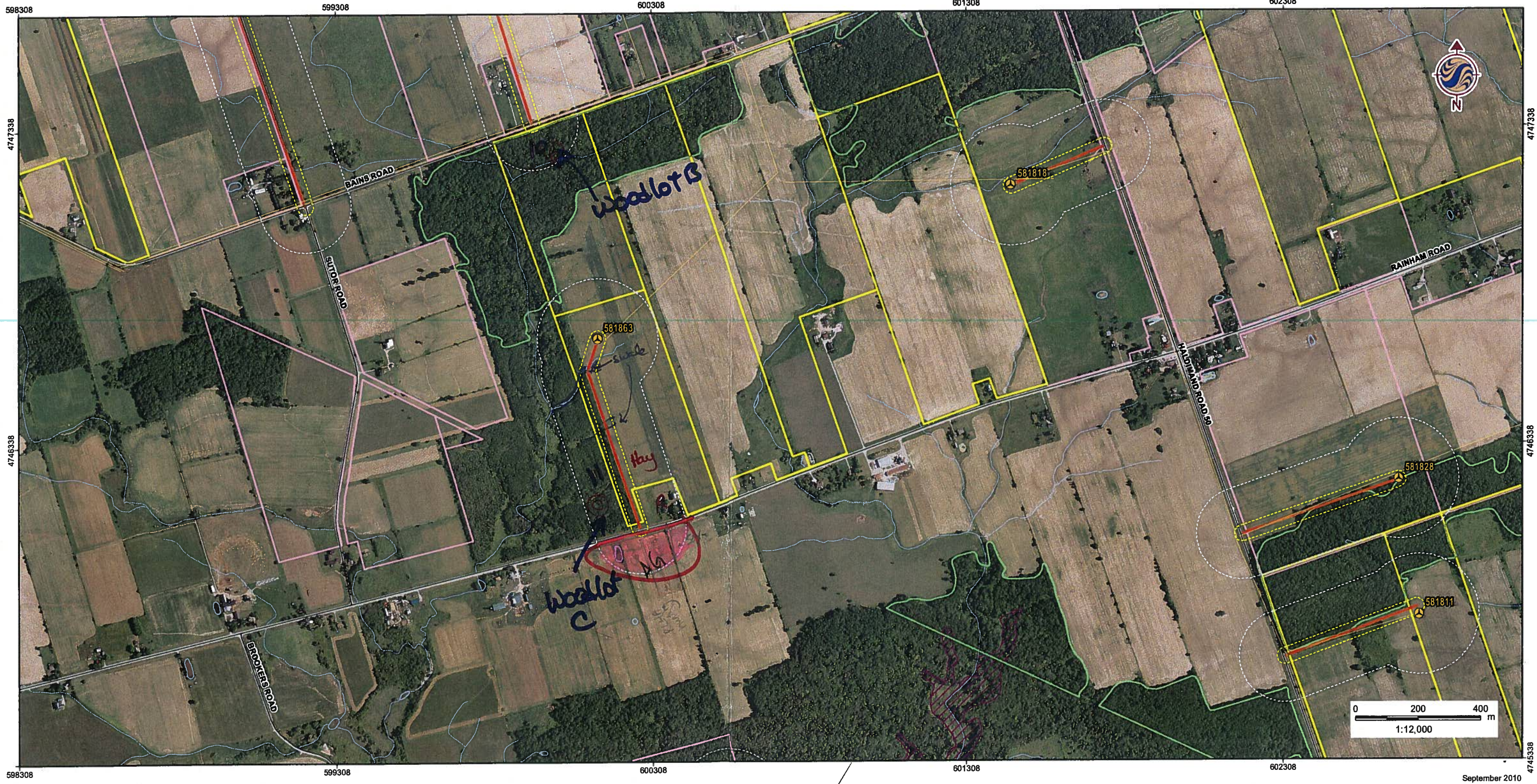
Notes:
- small pocket of lowland w/ car out
- standing H₂O - vernal pool @ road intersection
Ab = Young w/ Poplar

NO feature

ELC PLANT SPECIES LIST	SITE: <i>Sunburg</i>	
	POLYGON: <i>16-2</i>	
	DATE: <i>21-Dec-2010</i>	
	SURVEYOR(S): <i>M. Straus</i>	

LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
FRAPENN	D	D	-									
ULMAMER	R	R										
RIXE (Bar or Swamp)												
FRAGGRAN	R											
CAROVAT	O											
Cornus												
STOL OR OBLI												



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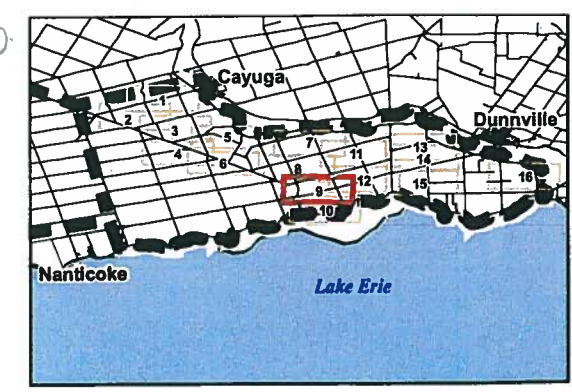
September 2010
160960577



Legend

- | | | | |
|--|----------------------------|---|---|
| | Project Location | | Transmission Line (OBM) |
| | Proposed Turbine Location | | Deer Wintering Area |
| | Proposed Access Road | | Provincially Significant Wetland |
| | Proposed Collector Line | | Non-Provincially Significant Wetland |
| | ROW Installation Zone | | Watercourse (OBM) |
| | 120m Investigation Zone | | Waterbody |
| | Elenco Acquired Agreements | Area of Natural and Scientific Interest (ANSI) | |
| | Government Lands | | Life Science, Provincially Significant |
| | UDI Lands | | Earth Science, Provincially Significant |
| | Road | | Earth Science, Regionally Significant |
| | Railway | | |
| | Abandoned Railway | | |

2-Dec-2010



Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources © Queens Printer Ontario, 2009; © GREP, 2010; © Samsung, 2010.
3. Image Source: © First Base Solutions, 2010 - Imagery Date: Spring 2006; LIDAR IMAGERY SOURCE???

Client/Project
**SAMSUNG C&T
GRAND RENEWABLE ENERGY PARK**

Figure No.
FIELD MAP 9

Title
PROJECT LOCATION MAP