

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 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	<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:

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: 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 Min. Meadow Marsh CODE: MAM2-2

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC PLANT SPECIES LIST

SITE: Turbine 11 + Access Rd 581817

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	O												
SOLRUGO	O												
P. looestrife	R												
EUTGRAM	O												
ASTLATE	O												
ASTNOVA	O												
willowherb		O											
CORSTOL	R												
LYCUNIF		O											
Polygonum		O											
Teasle		O											
EUPPERF		O											

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: <u>2</u>	
	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
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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: 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	
						ARITR.TR				R	
RIBCYNO			O			willow herb				O	
LONTATA			R			OLASTRI				O	
RUBALLE			A			RHURANE				A	
PRUVIN1			A			SOLRUGO				O	
						STRAMPL				O	X
						DRYCART				O	
						l. aster				O	
						SIUSUAV				O	
						turtle head				R	
						LYCUNI				O	
						SOLDULC				O	
						ASTLATE					
GLYSTRI											
SOLCAES											
IRIVERS											

581818

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: 161010646	POLYGON: 2
	SURVEYOR(S): GAW	DATE: Sept. 22, 2010
	START: END	UTMZ: UTMN:

ELC PLANT SPECIES LIST	SITE: Turbine + Access Rd
	POLYGON: Feature 58
	DATE:
	SURVEYOR(S):

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 FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <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 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=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 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: 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:

LAYERS: 1 = CANOPY > 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
STANDING SNAGS:	/ < 10	O 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:	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: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: Fresh-moist Oak-maple-Hickory Dec. Forest	CODE: FOD9
VEGETATION TYPE: F-M Oak-Sugar Maple Dec. Forest	CODE: FOD9-1
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		<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
			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		
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:

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	

Notes:



W:\active\60960577\rawing\GIS\MXD\NaturalHeritageAssessment\60960577_DRAFT_ELCs\5_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 Mxd 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

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 **DRAFT**

Title

**ELC VEGETATION
COMMUNITIES**

December 2010
160960577

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

SURVEYOR(S): _____ DATE: _____

START: _____ END: _____

UTM: _____

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"/> 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

STAND DESCRIPTION:

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

LAYER	HT	CVR	SPECIES
1 CANOPY	1	4	QUERUBR > FRAPEN
2 SUB-CANOPY	2	4	ACESACS < FRAPEN
3 UNDERSTOREY	3	4	PAGGRAN
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
A	0	0	0	M

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: _____ g = _____ G = _____

MOISTURE: _____ (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. Forest FOD5-3 CODE: _____

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 O											
FRAPEN O O											
QUERUS A R											
ACESACS R											
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"/> 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. FODA-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:	
	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"/> GRAMNOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <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	3	PoPlar > PRAPPENN
2 SUB-CANOPY	3		
3 UNDERSTOREY	4	2	COASTAL
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:	AH < 10	A 10-24	M 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	<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: Dry-fresh PoPlar 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	
PoPlar		D				Asters					
PRAPPENN		O				Goldenrods					
COASTAL				O							

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		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"/> 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:			SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)	
LAYER	HT	CVR		
1 CANOPY	2	3	FRAPPENN [®] QUÉBICO [®] / ULMAERL [®]	
2 SUB-CANOPY				
3 UNDERSTOREY				
4 GRD. LAYER	57	4	Dead Forbs - mamm 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, 50% 4 = CVR > 60%

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 <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: Green Ash Mineral Dec Swamp SWS2-2	CODE:
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Groundcover unknown mamm w creek hard to see most hidden under cover w out leaves

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 O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
ULMAERL [®]		R									
FRAPPENN [®]		O									
QUÉBICO [®]		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		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUERUBA > ACOSALS > QUERUBA
2 SUB-CANOPY	2	4	ACOSALS > FAGLRAN
3 UNDERSTOREY	3	4	FAGLRAN > OSTVLOS
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:	<input type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input checked="" 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:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: P-F Sugar maple - Oak Dec. Forest	CODE: FODS-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	
ACOSALS	0	0			
FAGLRAN	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:

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"/> 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	QUERALBA > ACER
2 SUB-CANOPY	2	4	TALINIAN & QUERALBA > PRADON & ACER
3 UNDERSTOREY	3	4	FRAGRAN
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:	N < 10	R 10 - 24	M 25 - 50 A > 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 <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: Fresh moist Sugar Maple-Hardwood	CODE: FOD6-5.
INCLUSION Dec. Forest	CODE:
COMPLEX	CODE:

Notes:

Edge assessment - white Oak appeared most dominant; Not swampy though....

ELC PLANT SPECIES LIST	SITE: Samsung.
	POLYGON: 11-7
	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	
QUERALBA	0	0	-								
FRAGRAN	0	0	0								
QUERUBA	0	-	-								
ALCFRES	N	-	-								
LILIPMMA	0	0	-								
FRUPEMN	0	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			
2 SUB-CANOPY			
3 UNDERSTOREY	4	2	CORNFACE > Hawthorn.
4 GRD. LAYER	5-7	4	Aster, Goldenrods.

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 2=10%<CVR 3=25%<CVR 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

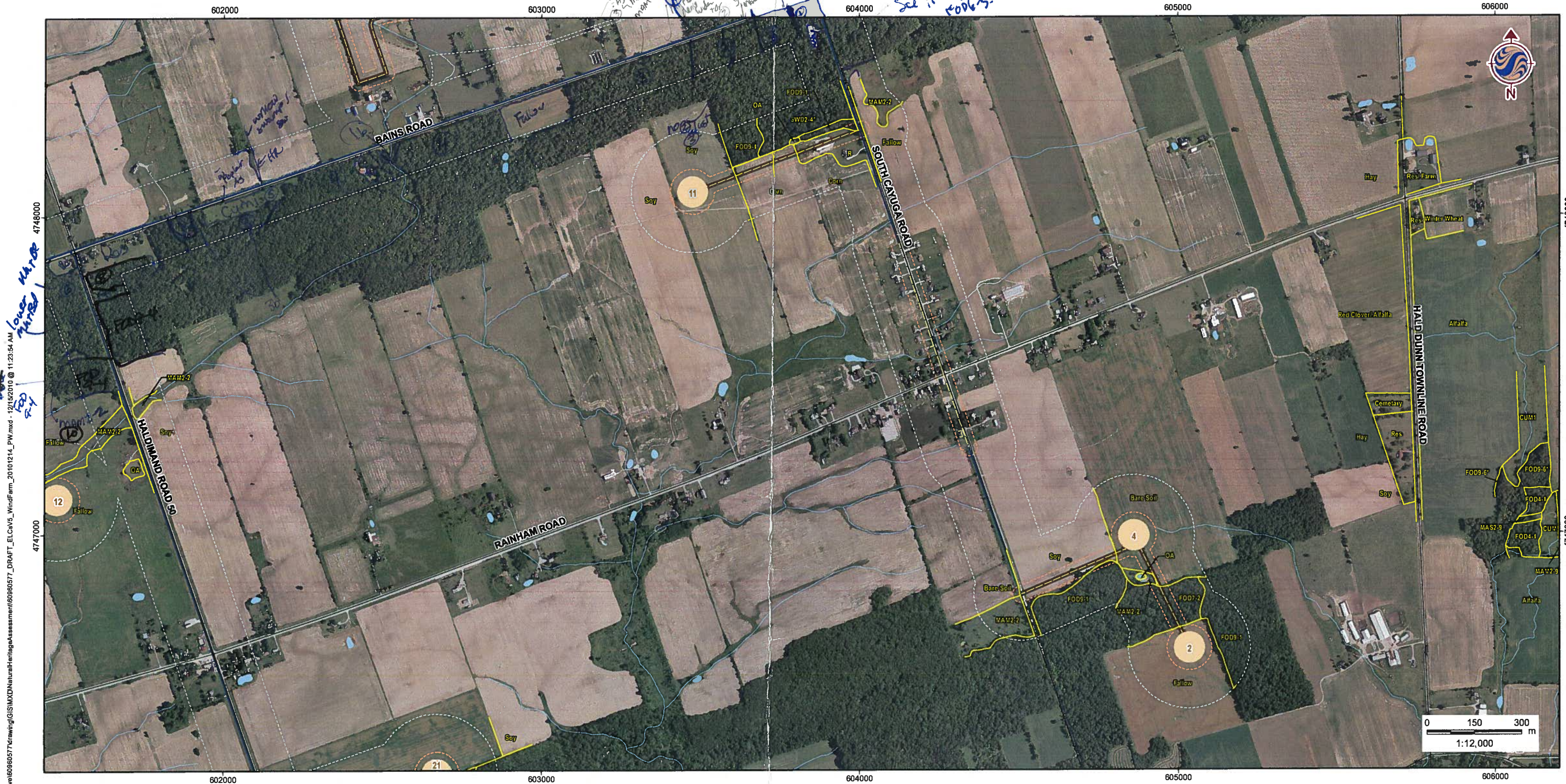
No feature

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 11-8
	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	
Howthorn					O
Goldenrod					O

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Phragmites					D
Tarset					O
Cum sp.					
Aster					D
Goldenrods					D



W:\archive\60960577\drawing\GIS\MXN\NaturalHeritageAssessment\60960577_DRAFT_ELC\N5_WindFarm_20101214_PW.mxd - 12/15/2010 @ 11:23:54 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- Dry-fresh White Elm Lowland 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 12

Title
**ELC VEGETATION
COMMUNITIES**

DRAFT



Feature 58

ELC
COMMUNITY
DESCRIPTION
CLASSIFICATION

SITE: _____ POLYGON: _____

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

START: _____ END: _____ UTMZ: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT COMMUNITY	PERMANENCY
<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			FRAPENN
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
---	------	---	---------	---	---------	---	------

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 - Red maple Mixed Dec. Swamp SWD2-H*

INCLUSION CODE:

COMPLEX CODE:

Notes:

105-SWD2-2
 Savanna 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 COMMUNITY DESCRIPTION CLASSIFICATION	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"/> 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		ACESACS & FRAPPEN
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:	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:	CODE:
Fresh-moist Sugar Maple Hardwood FOD 69	
INCLUSION	CODE:
Decid. Forest	
COMPLEX	CODE:

Notes:

From road - Agave in Bz under + some th. Not Swamp

SITE:	Scungung
	POLYGON: 12-2
	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

DATE	TIME	HT	CVR	SP	HT	CVR	SP	HT	CVR	SP	HT	CVR	SP	HT	CVR	SP
				ACESACS			0									
				FRAPPEN			AA									
				FRAGMUN			0									

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
<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 > QUERALBA
2 SUB-CANOPY	2	4	CAROVAT, FRAPPEN
3 UNDERSTOREY	3	3-4	FRAGILAN
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	
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 <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 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																			
QUERALBA	0																			
FRAPPEN	0																			
FRAGILAN	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 <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	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
------	---------	---------	------

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>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	
<i>Acer</i>	2	1	
<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"/> BFN <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

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 = 10-25m 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 < 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:	< 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 F0D6-S

INCLUSION: Deciduous Forest CODE:

COMPLEX CODE:

Notes: Upland bits - Mhr bc, lowland Mhr bd, + areas more
 Shagbark oak. Overall = F0D6-S. - 2 wet lower pockets

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 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			\$ 7 4 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 < 50% 4 = CVR > 50%

STAND COMPOSITION:				BA:
SIZE CLASS ANALYSIS:	0 < 10	M 10 - 24	M 25 - 50	M > 50
STANDING SNAGS:	0 < 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:	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:	CODE:
Cattail Mineral Shallow Marsh	MAS2-1
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Cattail Marsh.

Feature 58

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:	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	23	FRAPPENN
2 SUB-CANOPY	3	4	
3 UNDERSTOREY	4	3	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, 60% 4 = CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS: A < 10 B 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: Green Ash Mineral Cultural woodland	CODE: CUNW1-4*
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes: On bank as leads into MAS

Feature 58

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: 12-8	
	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				
FRAPPENN	0													
Cornus	0													

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: _____ POLYGON: _____

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

START: _____ END: _____ UTMN: _____

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input 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"/> BASIC BEDR. <input type="checkbox"/> CARB. 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"/> 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
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: *MMPDZ*

INCLUSION _____ CODE: _____

COMPLEX _____ CODE: _____

Notes: *Slightly
 From road - visible through trees*

ELC
 PLANT SPECIES LIST

SITE: *Samsung*

POLYGON: *12-10*

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	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

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"/> 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			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	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 , 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:
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	



4749000

4748000

4749000

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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



Feature 42

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"/> PLANKTON <input type="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
1 CANOPY	2	4	Poplar
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER	5-7	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 < 50% 4 = CVR > 50%

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 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: 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 0 = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Poplar		D			

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Asters					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"/> 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	4	ALESACS > TILAMER > ALBFREE
2	SUB-CANOPY	4	0 1
3	UNDERSTOREY	4	FAGGRANR
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: 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. 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	0	A			
ALBFREE	R				
TILAMER	O	O			
FAGGRANR	O	O			

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

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581818
2=MAM2-2

Soy
Fallow
Soy



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 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



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					
TAROFFI						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: 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"/> 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 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					

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:				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 type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE
			<input type="checkbox"/>	<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 Mineral Mead. Marsh	CODE: MAM2-2
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		
reed canary			D	D								
blue vervain	O											
Canada Thistle	O											
EUTGRAM			O									
willowherb			O									

Notes:



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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"/> 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 - PINREST
2 SUB-CANOPY	3	4	FRAPENN
3 UNDERSTOREY	4	3	CORRACE
4 GRD. LAYER	5-7	Y	ASTES, Goldenrocks

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 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	
Astes				0	
Goldenrocks				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 <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	Quercus
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 : _____ 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: _____

Big Oak Mineral Dec. Swamp **SHD1-2**

INCLUSION _____ CODE: _____

COMPLEX _____ CODE: _____

Notes:

*From a distance - Oak species not 100%
 Sure - definitely a white oak thicket*

^{1 No feature}

ELC
PLANT SPECIES LIST

SITE: *Samsung*
 POLYGON: *14-3*
 DATE: *21-Dec-2010*
 SURVEYOR(S): *M. Franck*

LAYERS: 1 = CANOPY > 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>Quercus</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"/> 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	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

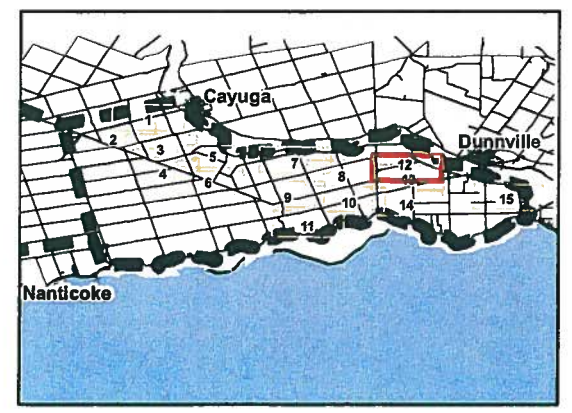
SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		

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

COMM. AGE:	<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:	CODE:
<u>Wh. Elm Cw Woodland</u>	<u>CW16</u>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

3 snag < 10m / 20 DBH

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						2m. corn					
RHACMTA						brock					
FRAMER						red gum					
RHACMTA						sm. brock					
ALCESA						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:

BA:

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

DEADFALL / LOGS:	0	< 10	1	10 - 24	1	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

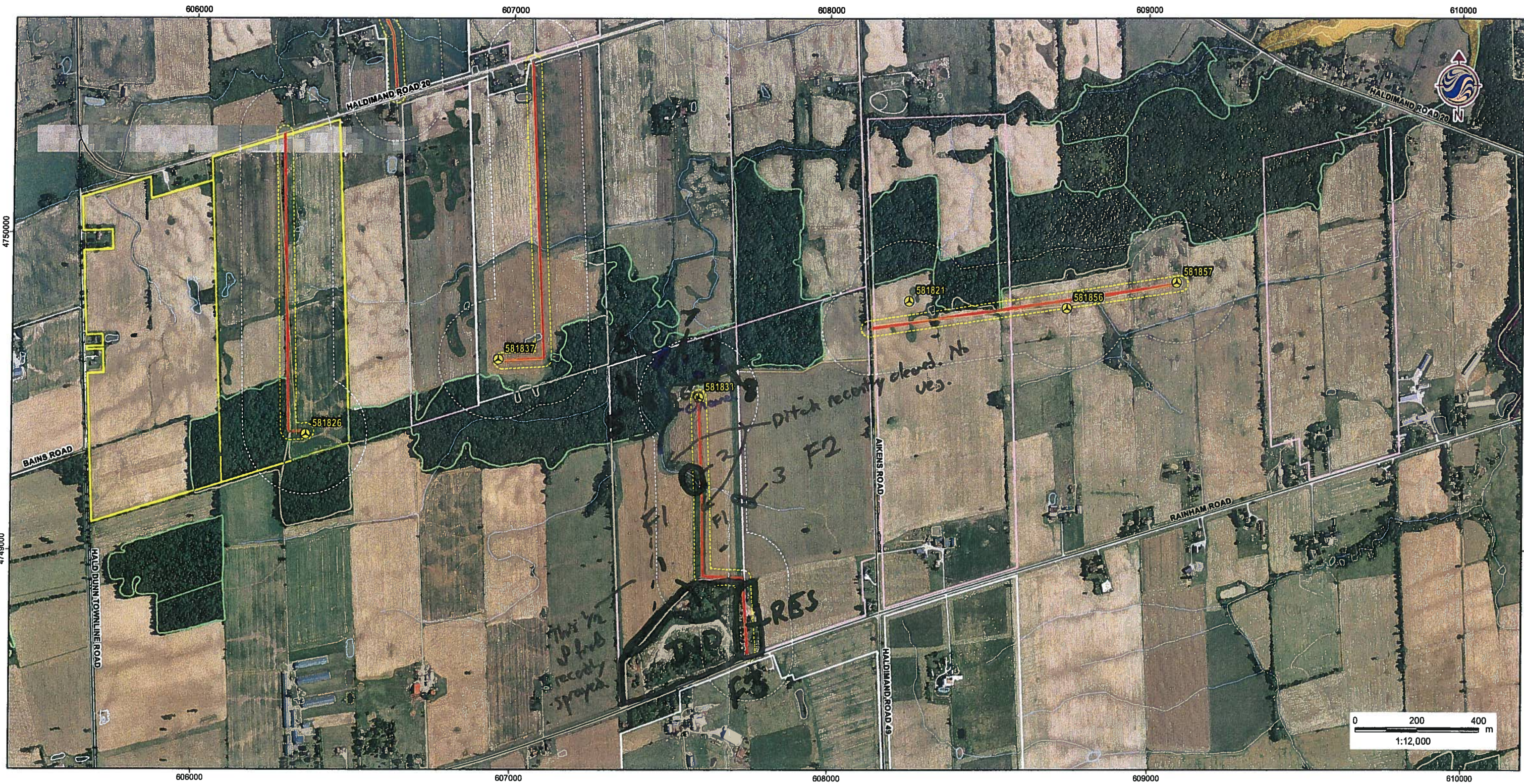
LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

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	
RH ACATA						Crab' grass seed					
CO RRAB						cal. wood					
PRR / SBTO						Burdock					
Apple						fall globe					
ULM AMYLA						NSA					
RH ACATA						we cant					
Amylar						reed and					
red rasp											
pear											

No feature

W:\active\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\FldMap\FldMap60960577_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 |
| | 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"/> ALLVAY <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	N	25 - 50	/	> 50
---	------	---	---------	---	---------	---	------

DEADFALL / LOGS:

O	< 10	N	10 - 24	N	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 POLYGON: 3

SURVEYOR(S): ART DATE: Sept 28, 2010 UTME: ✓

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 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	RHACATH = Sweet cherry
2 SUB-CANOPY	4	5	red canary = goldfinch / A. dory
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:	A	< 10	10 - 24	25 - 50	> 50
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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: CODE: CUT1-7

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.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
RHACATH						reed canary					
red. rasp.						Can. goldfinch					
Sweet cherry						HL 2 dory					
Hal. them						Burdock					
CDRSTOL						teasel					
RASMULT						ragweed					
						strawberry					
						yellow anem.					
						chickory					
						St. John's wort					
						Sm. Green					
						red top.					

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP POLYGON: F2

SURVEYOR(S): ABT 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 <input type="checkbox"/> MEADOW <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	8	4	Red clover > dandelion
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: Recently sprayed fallow field CODE: F2

INCLUSION CODE:

COMPLEX CODE:

Notes:

- recently sprayed - dying vegetation

No feature

ELC
PLANT SPECIES LIST

SITE: GREP POLYGON: F2

DATE: Sept 28, 2010 SURVEYOR(S): ABT

LAYERS: 1 = CANOPY > 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											
timothy											
foxtail											
H. Membrane											
prairie grass											
Witch grass											

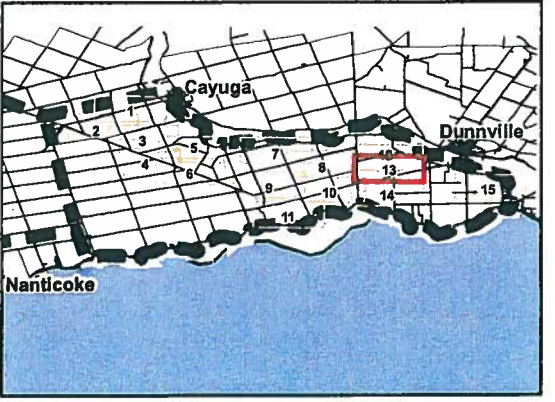


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Legend

- | | | | |
|--|---------------------------|---|---|
| | 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 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} _{obscure}

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	WADR-TK	GRTF GRFR SPPE AMTO		

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP
SURVEYOR(S): ART
DATE: Sept 28, 2010
START: END
POLYGON: 1
UTME:
UTMZ: OTMN:

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"/> BCG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <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	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

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 goldenrod					
Apple						Calico aster					
RHUTYPH						hairy					
COBRALB						v. corn					
RHACATH						bur oak					
red maple						road canopy					
UJTRIPA						white sweet clover					
Multhorn						nigh' hnd					
TILAMB						red top					
CAKJOST						smartweed					
LARTART						garlic mustard					
ROSMULT											
PROSETO											
OLMAMEL											
v. creeper											
UJTRIPA											
ROSTOL											
WAL											

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 <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	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>topical</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>													



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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- Forb – Graminoid 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	QUERFAGL > FILAPENN
2 SUB-CANOPY	2	4	FRAPENN = OSTVIRG
3 UNDERSTOREY	3	4	CORNU < 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
----------------------	----------	---------	---------	--------

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


feature 64

ELC
 PLANT SPECIES LIST

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	0	0										
QUERFAGL	0	0										
OSTVIRG			0									
Hawthorn			0									
Cornus			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
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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 - 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 COOP-VO BRAD-VO PBLUD-VO WAVE-VO SCHE-VO CULCA-VO WHE-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)
Mr 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 P15m (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)
<i>1/ha?</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 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
~ 2/ha 15-20m 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)
<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 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 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>PICABU PINSTRO</i>
2 SUB-CANOPY	<i>2</i>	<i>4</i>	<i>PICABU LINSTRO</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>PICABU</i>	<i>A</i>											
<i>PINSTRO</i>	<i>A</i>											
<i>PICABU</i>	<i>R</i>											
<i>Wild grape</i>												
<i>Shrub</i>												

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Samsung
SURVEYOR(S): MS
DATE: 11-Oct-2010
POLYGON: 3
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	2	4	FRAPPEN > ACERUBR > ULMAMEL
2 SUB-CANOPY	3	4	FRAPPEN > ACERUBR > ULMAMEL > CAROUAT
3 UNDERSTOREY	4	4	RUBSIDEA > Silky Dogwood
4 GRD. LAYER	5	4	Goldenrod > W.T. 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: Q < 10 A 10-24 O 25-50 R > 50

STANDING SNAGS: M < 10 O 10-24 R 25-50 R > 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:
Green Ash Mineral Deciduous Swamp SWD2-2

INCLUSION: CODE:

COMPLEX: CODE:

Notes:

Pic 1626
Some dense Dogwood bits - 1627

Feature 66

ELC
PLANT SPECIES LIST

SITE: Samsung
POLYGON: 3
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	
ACERUBR	O	O	R	R		Flat white Aster					O
FRAPPEN	D	O	R	R		Agrimony					O
TILAMER	R	-	-	R		Spiralose Wood Fern					R
ULMAMEL	O	O	R	R							
CAROUAT	R	O	R	-							
RUBSIDEA	R	-	-	-							
ALCESAS	R	-	-	-							
FAGGLAN	R	R	R	-							
ACERUBR	-	R	-	-							
ULMAMEL	R	R	R	-							
Goldenrod	R	-	-	-							
Virginia Creeper				R							
Silky Dogwood			O								
RUBSIDEA			R								
SAMCANR			R								
RUBSIDEA			O		Swamp						
SPIALBA			R								
RUBSIDEA			A								R
FRAPPEN				O							O
CAROUAT			R								A

Feature 66

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Samsung	POLYGON: 8
	SURVEYOR(S): MS	DATE: 11 Oct 2010
	START: END	UTM: 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 > QUERCUR > ALESACS
2 SUB-CANOPY	2	4	CARDUAT > ALESACS > FRAGLAN
3 UNDERSTOREY	3-4	4	FRAGLAN > OSTVIRG
4 GRD. LAYER	5-7		FRAMER > 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.60% 4=CVR>60%

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: F-M Shagbark Hickory Deciduous Forest	CODE: FOD9-4
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Bic 1634

ELC PLANT SPECIES LIST	SITE: Samsung
	POLYGON: 8
	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	
FRAGLAN	R	R	O	R		Starflower					R
FRAMER	O	O	R	O		Goldenrod sp					O
ALESACS	O	O	R	R		Buttercup sp					O
QUERCUR	O										
ULMAMER	R										
CARDUAT	O	O	R	O							
OSTVIRG			R								
FRAMER											D
RUBIDEA											R
Gray Dogwood											R



W:\active\60960577\drawing\GIS\MXD\NaturalHeritageAssessment\60960577_DRAFT_ELCv5_WhiteFirm_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"/> 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"/> 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
----------------------	--------	-----------	-----------	--------

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 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		
ERAPENN	O											
Salix	R											
Haw												
COESTBL					O							



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598788 599788 600788 601788 602788
 4744447 4745447
 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: <u>12°C</u>	Wind: <u>2</u>	Cloud: <u>100% - 80%</u>	PPT: <u>light - none</u>	PPT in last 24 hrs: <u>14.0</u>
----------------------------	----------------------	-------------------	-----------------------------	-----------------------------	------------------------------------

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 SOSP-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 MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO 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

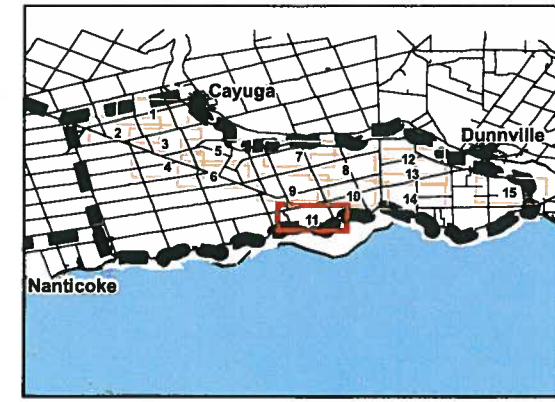
SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
CARDUAT	D	D				PRIMONY					O
ACERUB	R	R	O	R		White Aster					R
ALESACS	R	O	O	O		Toothwort					R
OSTVIRG	-	O	O			(two-leaved)					
BRUSERO				R							
FRAPENN	R										
ULMAMEL			R								
FAGSRAU	R	R									
QUERUBR	R	R	R								
TILAMEL	R										
PRVIRG				R							
RUBIDEA		R	R								
RHACRTH		O	O								
CARCARO		R									
FEAVIRG				O		Buttercup sp					O

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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



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

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 type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input 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	
						AGRIGIA				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 type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <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 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: 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		O	O		X						
Salix sp.		O	O								
RHACATH		O	O								
Crataegus sp		O	O								

ELC SITE: 161010646 POLYGON: 2
 SURVEYOR(S): GAW DATE: Sept. 29, 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 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
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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: 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 SITE: Turbine 18 + Access Rd 581811
 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: ∅
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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	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=10-25m 3=2<HT<10m 4=1<HT<2m 5=0.5-1m 6=0.2<HT<0.5m 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 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<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	/	> 50
STANDING SNAGS:	0	< 10	0	10 - 24	R	25 - 50	/	> 50
DEADFALL / LOGS:	A	< 10	0	10 - 24	/	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: Fresh-moist Sugar Maple Dec. Forest	CODE: FOD6
VEGETATION TYPE: Fresh-moist Maple-Hickory Dec. Forest	CODE: FOD6-6*
INCLUSION	CODE:
COMPLEX	CODE:

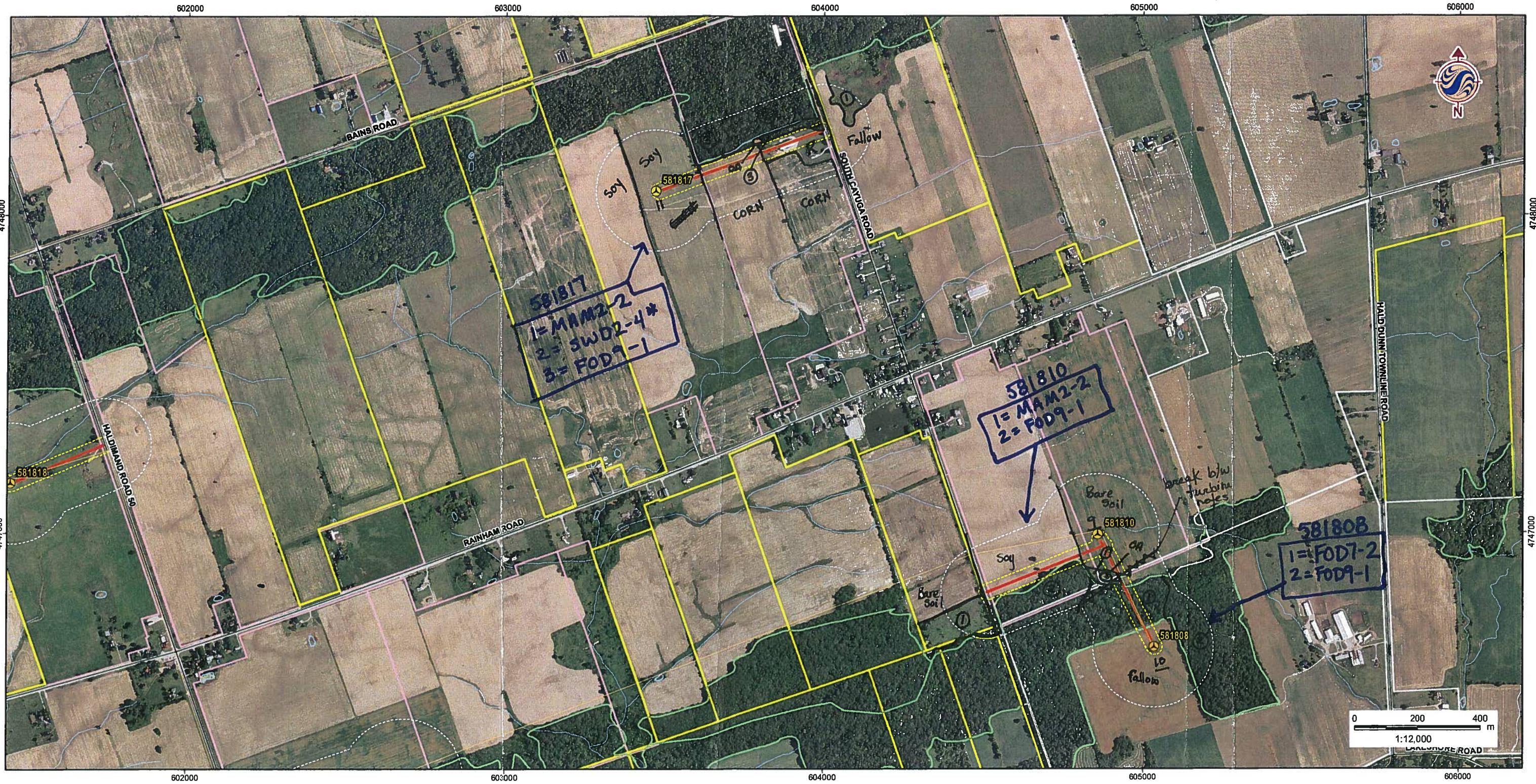
Notes:

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			EUOBOV				O	
ULMAMER		R				SOLCANA				O	
						SOLRUGO				O	
						SOLCAES				O	
						GEUAPPE				O	
PRUVINI			A			false. S. seal				O	
RUBIDAE			O			DRYCART				O	
J. barberry			R			l. l. aster				O	
SAMCANA			R			foam flower				O	
RIBCYNO			O			RHURANE				O	
RHACATH			O			OXASTRI				O	
Craegus sp			O			FRAVESC				O	
VITRIPA			O			PREALBA				O	
PARINSE			O			hog peanut				O	
						Viola sp				O	
						AGRGRYP				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 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



Stantec

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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
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		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 >> 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:

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 YOUNG MID-AGE MATURE OLD GROWTH

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
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:

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: 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 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	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	
						GEUAPPE				O	
						AGRGRYP				O	
						Viola sp.				O	
						IMCAPE				O	
						SOLDULC				O	
						BIDFRO				O	
						GEUCANA				O	
						HYPPERF				O	



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**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:		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 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"/> COVER <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 <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
DEADFALL / LOGS:	A < 10	O 10-24	R 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: 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	



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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>
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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 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

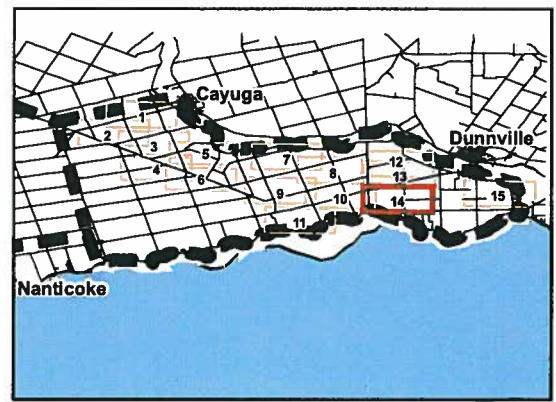
Vernal Pools Present? Yes No If yes,

#	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\field\Map\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



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**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.</i> AMRNO BLJA WBNU OVEN BCH DWO	Red squirrel Bl squirrel	GRE 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 (FRAPAX) 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	10 in Clem	1887 - Clem - west side - no obs. channel		
1886/1889	Cum East side (open)	more wet - edges + veg	Road 24m wide	NO emergent	2x12
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 SWD2-2 right to edge on east - Room but DP. Mined SWD (1) on both east + west side (not as low (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: GR EP
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	C. ... red chip
4 GRD. LAYER	6	3	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 = 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: A < 10 A 10-24 A 25-50 R > 50

STANDING SNAGS: 0 < 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 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: Shagbark Hickory Deciduous Forest CODE: EOD9-4

INCLUSION CODE:

COMPLEX CODE:

Notes:

ELC
PLANT SPECIES LIST

SITE: GR EP
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					
RHWRADI					
ACPSPACE					
FRAPPEN					
blue berry					
red currant					
sata grass					
g. mustard					
Gottlebush grass					
wood nettle					
Blueberry					
s. 5th ...					
A real all					
green ...					

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
LL aster					
BG goldend					
B lettuce					
Jewel weed					
Bismus sp					X
F solomon seed					
mintwort					
wh. avert					
Viola sp.					
strawberry					
wide patch - x					
clea weed					
wood nettle					
calico aster					
incomplete ...					
yellow viola					
w. geranium					
Cuck					
Com. goldend					
nightshade					
Bessier tech					
w. bean					
many stamens					
P. nightshade					
typ ...					
the polygon					
w. lech					

PF resp.
m. honey suckle

sleepy cottonwood, Page of

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREY
 SURVEYOR(S): ARI
 DATE: Sept 30, 2010
 START: END
 POLYGON: 2
 UTMZ: UTME:
 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"/> 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			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	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
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STANDING SNAGS:	b < 10	N 10-24	N 25-50	N > 50
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DEADFALL / LOGS:	O < 10	O 10-24	A 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: CODE:
 VEGETATION TYPE: CODE: SWD3-3
Swamp maple Deciduous Swamp
 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						Dewil wood					
TILAMER						wood fern					
Holly						grass sp.					
CORRACE						Star-tweeter fern					
CARCARA						calico aster					
yellow eldberg						PG goldenrod					
ACEROB											
red cap.											
FRAPENN											
CAROUAT											

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GRBP POLYGON: 4

SURVEYOR(S): ART DATE: Sept 30, 2010

START: GND 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 oak, oster
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 . 60% 4 = CVR > 60%

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

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						Wood nettle					
FRAPENN						Yellow Starwort					
ULNAMER						W. garcin					
CARCARO						Calico cat					
CAROUAT						Can. goldenrod					
yellow oak						grass spec					
black bay						W. oaks					
RHOPODI						Small weed					
RAACAT19						begon. tick					
red 16 sp						bracken sp					
FRAGGRAN						Sedge sp					x
						marginal wood fern					
						Satin grass					
						charisma fern					
						oxc. cat					
						enchanter wght herb					
						Sp. John's wort					

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: CRKP
SURVEYOR(S): ART
DATE: Sept 30, 2010
POLYGON: 5
UTME: 2
UTMZ: 18
START: END:

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	ACOSPJA > FRAPPEN > TIL AMEX
2 SUB-CANOPY	2	4	ACOSPJA > FAGGRAN > TIL AMEX
3 UNDERSTOREY	3.4	4	FAGGRAN > FRAPPEN
4 GRD. LAYER	5.6	3	CLARK > P.M.

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: CODE: Sugar maple - lowland Ash Deciduous Forest FOD6-1
INCLUSION CODE:
COMPLEX CODE:

Notes:

ELC
PLANT SPECIES LIST

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			
ACOSPJA						Yarler							
FAGGRAN						P. solanaceae							
FRAPPEN						PF rasp							
red rasp						cherry							
blackberry						mansuet Wood Fern							
TIL AMEX						Til. ov.							
ROSHULT						W. geranium							
CARCARO						Sensitive Fern							
dayberry						BG gaddens							
CAROUAT						tall pop, yew							
RAURADI						agrostis							
FRAPPEN						golden grass							
						Bonus sp							X
						Calico Aster							
						herb robert							

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GKEP
 SURVEYOR(S): ART
 DATE: Sept 30, 2010
 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"/> 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>CBRRACB</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	10 - 24	25 - 50	> 50
STANDING SNAGS:	<u>NA</u> < 10	10 - 24	25 - 50	> 50
DEADFALL / LOGS:	<u>NA</u> < 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 Ash Deciduous Forest CODE: FOP42
 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>CBRRACB</u>						<u>NIS Aster</u>					
<u>RHACATH</u>						<u>Colic. aster</u>					
<u>red rasp</u>						<u>ln 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 <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	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<50% 4=CVR>50%

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						all grass					
RAUTYPH						FT goldenrod					
FRAMESB						rug. reed					
red rasp.						calico aster					
RUVTIG						reed canary					
ULM AMB						w. canard					
						timothy					
						Groundch					
						G. roughed					
						c. milkweed					
						G. pectus					
						lobelia, thalic					
						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
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STANDING SNAGS:	0 < 10	N 10-24	N 25-50	N > 50
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DEADFALL / LOGS:	0 < 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:
 COMMUNITY SERIES: CODE:
 ECOSITE: CODE:
 VEGETATION TYPE: Hedgerow A CODE:
 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 goldend					
DULRUSS						NF Liker					
FRABMBA						FT goldend					
TLLAMER						leafel					
CAROUAT						Cyl. ca. alb					
PROSETO						W. card					
Rantlorn						ty-oth					
RHACATH						fox-tail					
RHOTOPIH						C. regneeb					
Pear						bull thistle					
LABTARA											

ELC
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP
 SURVEYOR(S): ART DATE: Sept 30, 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 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	<u>Alfa 7 grasses</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
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:

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		
<u>Alfa</u>												
<u>Tilothly</u>												
<u>dandelion</u>												
<u>lady's thumb</u>												
<u>wh. clover</u>												
<u>res clover</u>												

605374

606374

607374

608374

609374

4748032

4747032

4748032

4747032

4746032

W:\active\60960577\Drawing\GIS\MXD\NaturalHeritageAssessment\Fields\Map\Map\Mapbook_V2\0101014_DH.mxd - 10/14/2010 @ 3:15:10 PM



605374

606374

607374

608374

609374



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 | | |

22422



Notes

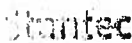
1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Data Sources: Ontario Ministry of Natural Resources
© QuattroGIS Printer Ontario, 2009; © GREP, 2010;
© Samsung, 2010.
3. Imagery Source: © First Base Solutions, 2010 - Imagery
Date: Spring 2006. **LIDAR IMAGERY SOURCE???**
4. Product using the Version 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 WIFE-VO (1/10)	WOTDEER-OB Badger Gopher-OB	ERFE-VO LEFR-OB		

2WBL-OB
 WIFE-OB
 WIFE-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. tree

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</i>	<i>3m</i>	<i>15cm</i>	<i>2</i>	<i>small</i>
<i>live tree</i>	<i>20</i>	<i>25</i>	<i>2</i>	<i>small.</i>
<i>Mh.</i>	<i>25cm</i>	<i>30cm</i>	<i>1m</i>	<i>hollow</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 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
<i>Multiple</i>	<i>at edge of</i>	<i>< 10cm</i>	<i>2-5m</i>	<i>no</i>	<i>no</i>
<i>1</i>	<i>"D" on map</i>	<i>10-15cm</i>	<i>.8m</i>	<i>no</i>	<i>no</i>
<i>2</i>	<i>"E" on map</i>	<i>< 5cm</i>	<i>5m</i>	<i>no.</i>	<i>no</i>

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:

no loose bark

	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 2.5m	15-20cm 50-60cm	7-8 2m	med-small large
Be snag	2	50	0m	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 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,

Swamp

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrub logs at pond edge
1-?	Scattered throughout swamp for 10/100m x 100m habitat	< 5cm	2m - 20m (Ply #19)	No	No

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	
DEBNEE	O	O	R	R	
FRAPENN	O	O	R	R	
TLLAMER	-	O	-	-	
CARRARD	O				
FRANIGR			R		
SAMANA			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 > OSTVIRG.
4 GRD. LAYER	5-7		ASTMACR = AGRGYR > 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	O 25 - 50	N > 50
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STANDING SNAGS:	N < 10	R 10 - 24	N 25 - 50	N > 50
-----------------	--------	-----------	-----------	--------

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: FO
COMMUNITY SERIES: CODE: FOD
ECOSITE: CODE: FOD9
VEGETATION TYPE: CODE: FOD9-4
FM Shag bark Hickory Deciduous Forest
INCLUSION CODE:
COMPLEX CODE:

Notes: PE #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: _____ 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"/> PLANKTON <input type="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	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-Hickory 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

Feature 69

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"/> 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 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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ALCSACS
2 SUB-CANOPY	2	4	ALCSACS
3 UNDERSTOREY	3	4	FAM BIRCH FAGGRAN = OSTVIRG
4 GRD. LAYER	6-7	4	ALCSACS > 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: 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

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.
	1	2	3	4	
ALCSACS	O				
FAGGRAN		R			
FRAPPEN		R			
FRAMMER	R				
OSTVIRG			O		
RHURADI				R	
Rosa sp.				R	
FRVIRG				O	
RUBIDEA				O	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
IMPURTE				O	
Canada Plum					
Pichne 1780					
Plum?					
					R/R

+1781
 Plum?

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	
SORABLI				R	
Rosa sp.				R	

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: 160960577
POLYGON: 20

SURVEYOR(S):
DATE:
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:	< 10	10 - 24	25 - 50	> 50
	0	0	0	N

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

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

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

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

SOIL ANALYSIS:

TEXTURE:	DEPTH TO 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			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	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			
ACETILEE	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"/> 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	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. Stalls

LAYERS: 1 = CANOPY > 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:	TIME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> LACUSTRINE	<input type="checkbox"/> NATURAL	<input type="checkbox"/> PLANKTON	<input type="checkbox"/> LAKE
<input 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	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 = 10-41.25m 3 = 24HT:10m 4 = 14HT: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: < 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:

Pitch 1875.

ELC PLANT SPECIES LIST	SITE: <i>Sandling</i>	
	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.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
CAROVAT	D	D	O	O		IMP CRTS					
FLAPENN	O	O	O	O							
TILKMER	R	O	R	R							
RUBIOEA											
CALCARO		R									
Poa sp.									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 Forest
 - 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
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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.
DRAFT

Title
**ELC VEGETATION
COMMUNITIES**



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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

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 - 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

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- 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
 - 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:

ELC PLANT SPECIES LIST	SITE: Samsung	
	POLYGON: ①	
	DATE: 17-Dec-2010	
	SURVEYOR(S): MFS	

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			

FODS-3
1c
ACSBAS
QUERCUS
-1a

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

STANDING SNAGS:	< 10	10 - 24	25 - 50	> 50
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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)
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HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)
------------------------	-------------------	------

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
------------------	-------

COMMUNITY SERIES:	CODE:
-------------------	-------

ECOSITE:	CODE:
----------	-------

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

INCLUSION	CODE:
-----------	-------

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

Notes:

FOD6-1? Not a lot of Mh though.

Pic 1890

1b - loss of young - Pic 1890 = FOD9-4
1c - more Mh - Pic 1890 = FOD9-4
Variable dominance
Overall

LAYERS: 1 = CANOPY > 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										
ACSBAS														
FRAPENN	R	0												
FLAPENN	0	R												
QUERCUS	0													
CAROLINAT	0	0												
CARCARO														
QUERCUS														

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

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: Dry-fresh Red Oak Decid Forest	CODE: 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												

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 > QUERUBR > FAGGRAN
2 SUB-CANOPY	24	4	FAGGRAN > ALBSACS
3 UNDERSTOREY	3	4	QUERUBR < 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:	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	O										
FAGGRAN	A	A										
QUERUBR	R											
QUERUBR	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 PRAPENN
2 SUB-CANOPY			TILAMER < PRAPENN
3 UNDERSTOREY			FRAGILICORN > CALCARLO
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:

Photo 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

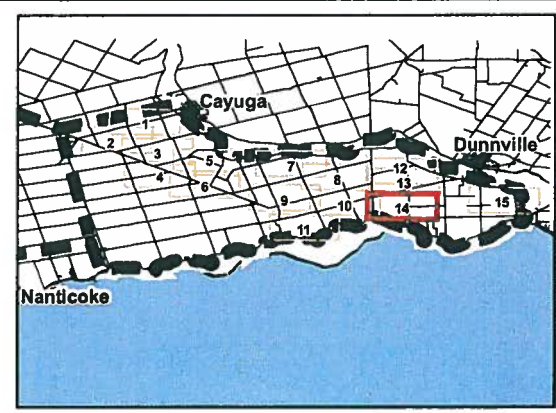
SPECIES CODE	LAYER				COLL.
	1	2	3	4	
FRAPENN	0	0			
TILAMER	0	0			
ALB SACS	0				
FRAGILICORN	0	0			
QUERUBER					R
UMMAMER	0				-
FRAGILICORN					R
BETALE					-RR-
CALCARLO			0		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Beck drops					R
Carex pedunc.					R

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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



- 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: 18N

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>Herb</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 = 0.2<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	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:

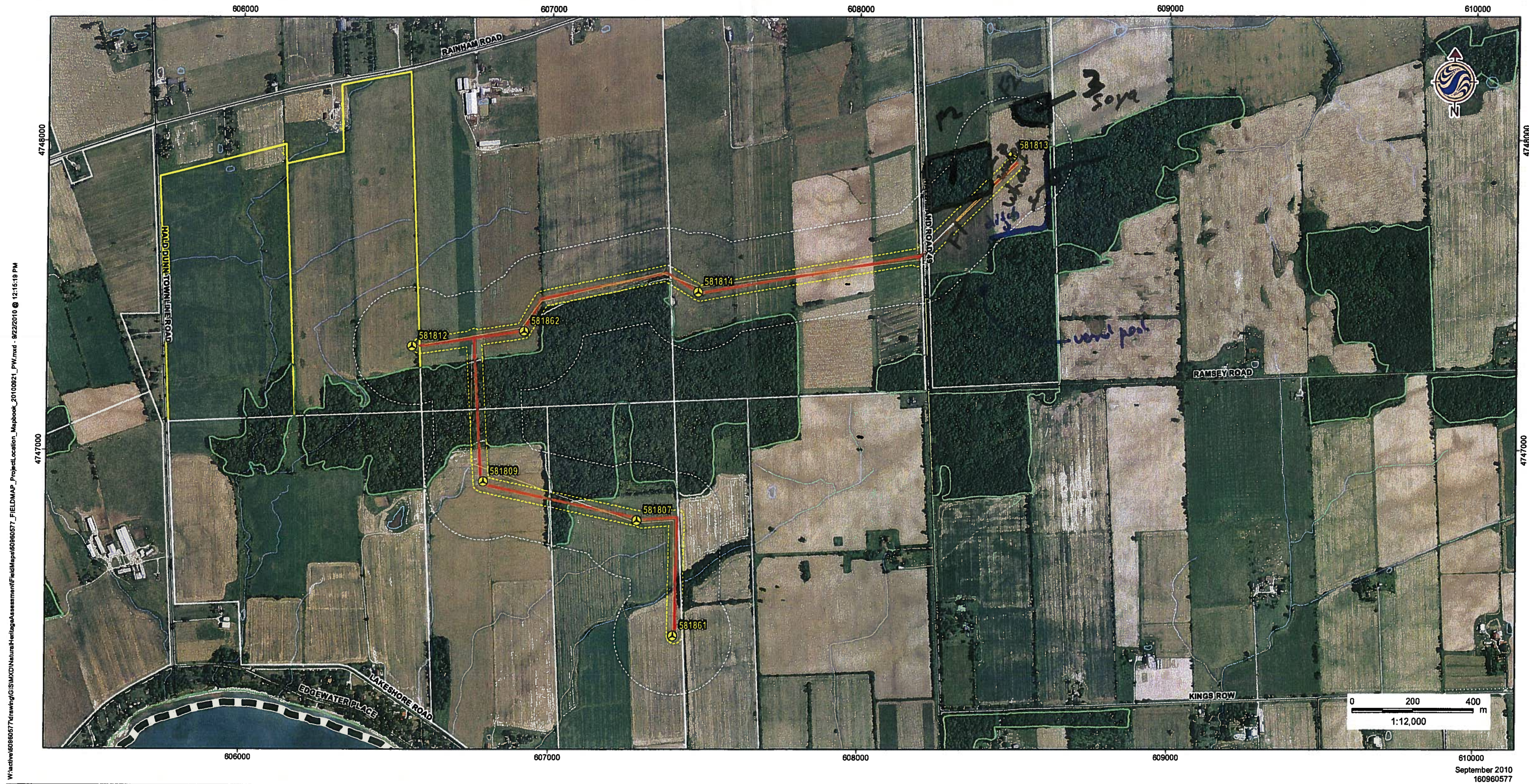
Notes:

ELC
PLANT SPECIES LIST

SITE: UTKEP
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>Munro's Pralby</u>					
<u>PROVIRG</u>						<u>W. 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>Jewelweed</u>					
<u>Herb 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 | | 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 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:

0mm

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 60yrs.

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>CRFP</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 > FACCOM
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
----------------------	--------	---------	---------	--------

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

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

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT
COMM. AGE: PIONEER YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Sugar maple - Ash Deciduous forest</u>	CODE: <u>F0D5-8</u>
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

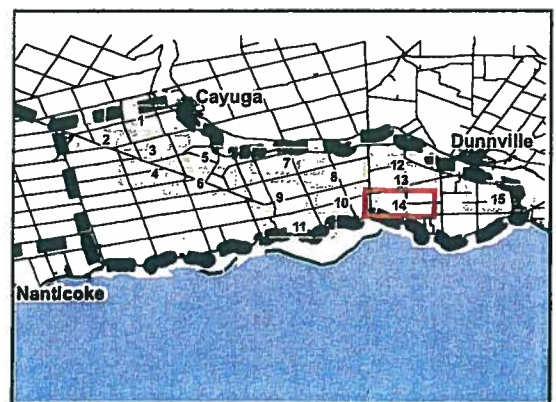
SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRP AMBR						Strawberry					
ALB SPAHA						runy shagbark					
FRP AMBR						fall goldend					
PROSETO						calico aster					
RITACATIT						CB goldend					
CAROUAT						Goldenrod					
ULTRIPA						marginal leaf					
DOUBURA						wh. aster					
CORRACV						glor. weed					
QUEMYR						small polygonum					
FRAD						Can goldend					
RAURAD						white sp					
PROVING						low nettle					
FAGGRAM						sective fern					
FRAD						w. leaf					
TILAMBR											
OSTUJEG											
FRAD											
SPICE GWH											
YELLOW BIRCH											
ULTRIPA											
CARCARO											
strawberry											
Co. berry											

W:\active\160960577\Drawing\GIS\MXD\NaturalHeritageAssessment\FieldMap\Map\Mapbook_20100821_P\Mapbook - 9222010 @ 12:16:18 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 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
 SURVEYOR(S): ART
 START: END

POLYGON: 3
 DATE: Sept 28, 200
 UTME: UTMZ: UTDM:

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 > FRAPAN > C. ST. WOODLOR
2 SUB-CANOPY	3	3	RHACATH > CARQUAT > FRAPAN
3 UNDERSTOREY	5	3	Goldens > other herb
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: FOD946
Shag bark Hickory Deciduous Forest
 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 goldrod						
FRAPAN						LL herb						
DUERUBR						RK goldrod						
RHACATH						Ran holi						
RHURAB						Jack-in-the-box						
Blackberry						yellow ed						
red rasp						Full goldrod						
OSTWIG						Arum						
BARBER						Brown sp.						
CORRAL						W. geranium						
FRACORAN						herb robert						
Gooseberry						strawberry						
ROSMULT						Urtica sp.						
						red rasp						

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"/> 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"/> 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 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	<u>ULMAM GR > KRAPPBN</u>
2 SUB-CANOPY	4	2	<u>wh. elder bry > KRAPPBN</u>
3 UNDERSTOREY	5	4	<u>reed canopy >> Herb</u>
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:	<u>0</u> < 10	<u>R</u> 10 - 24	<u>R</u> 25 - 50	<u>1</u> > 50
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STANDING SNAGS:	<u>R</u> < 10	<u>N</u> 10 - 24	<u>N</u> 25 - 50	<u>1</u> > 50
-----------------	---------------	------------------	------------------	---------------

DEADFALL / LOGS:	<u>0</u> < 10	<u>N</u> 10 - 24	<u>N</u> 25 - 50	<u>1</u> > 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: <u>Red Cany Meadow Marsh</u>	CODE: <u>MAM2-2</u> <u>AAA</u>
INCLUSION	CODE:
COMPLEX	CODE:

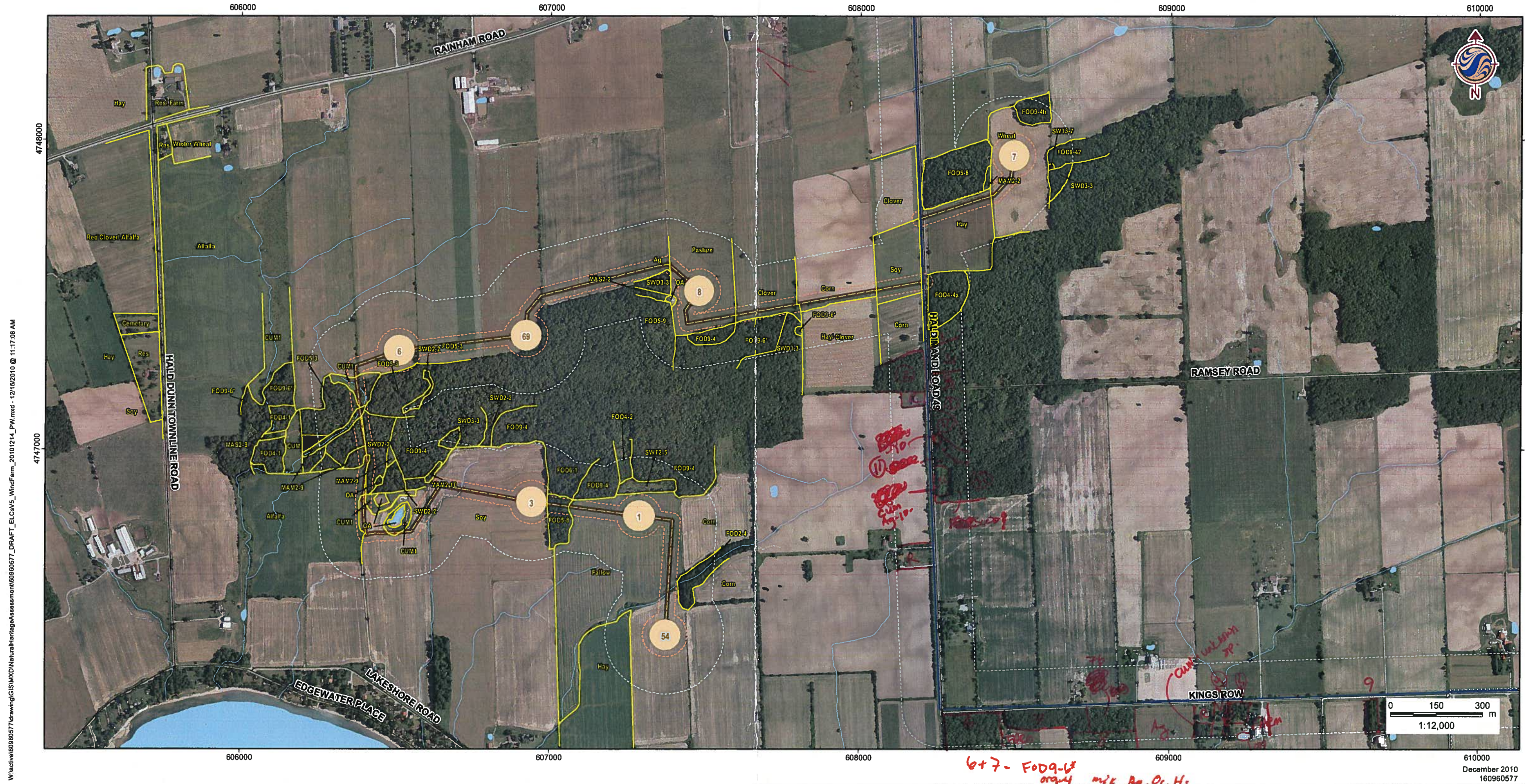
Notes:

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>Red Cany</u>					
<u>ULMAM GR</u>						<u>reed</u>					
<u>CRUSC</u>						<u>Can. goldenb</u>					
<u>KRAPBN</u>						<u>Calico aster</u>					
						<u>NB aster</u>					
						<u>C. milkweed</u>					
						<u>begonia</u>					
						<u>weed</u>					



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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 **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 <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-egl

No feature

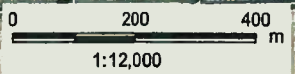
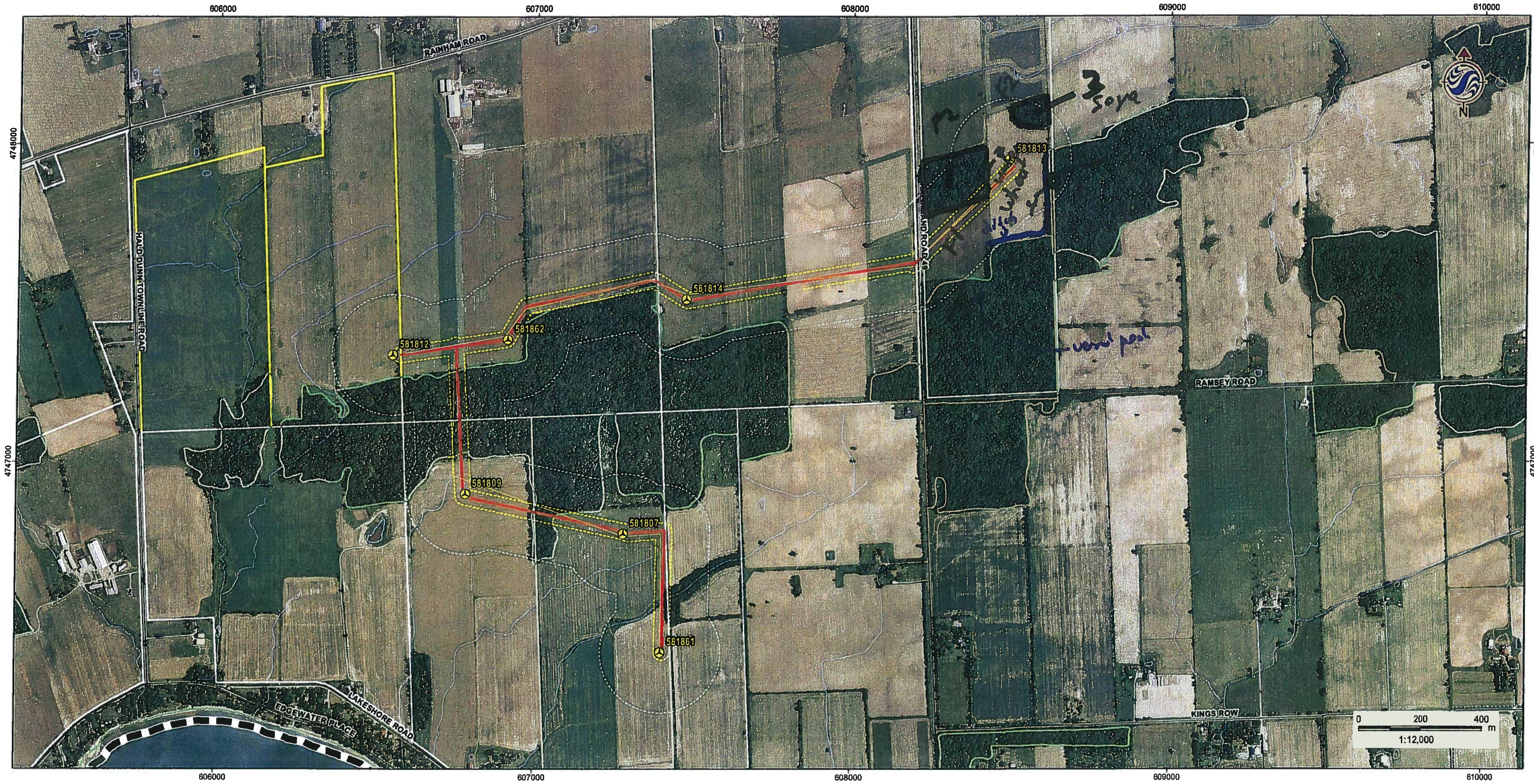
ELC PLANT SPECIES LIST	SITE: <i>Samsung</i>	
	POLYGON: <i>15-5.8</i>	
	DATE: <i>21-Dec-2010</i>	
	SURVEYOR(S): <i>M. Straus</i>	

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.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FRAPENN	D					Red Canary					R
ULM AMER	O										
Cornus											

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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 14

Title
PROJECT LOCATION MAP

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	OJUVIRG > 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	O 25-50	N > 50	
STANDING SNAGS:	O < 10	R 10-24	R 25-50	I > 50	
DEADFALL / LOGS:	O < 10	O 10-24	R 25-50	I > 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:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: Shrubland Huckleberry Deciduous Forest	CODE: FOD9-4a
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					
OJUVIRG						shrub					
PRUSETO						Sat. grow					
PROVIRG						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: /
	UTMM: /		

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 zolderberry
4 GRD. LAYER	5-6	3	Aster / Goldenrod = other forbs > corn

HT CODES: 1=>25m 2=10<HT<25m 3=2<HT<10m 4=1<HT<2m 5=0.5<HT<1m 6=0.2<HT<0.5m 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: **Swamp Maple Deciduous Swamp** CODE: **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					
CANEXPS						SS bedrock					
acwbery						woodland horizontal					
corvibw						LL asst					
OUTROBT						rubus w/					
RHWKAPP						yellow w/					
red rasp						foral bay					
wh elderbry						wh. green					
						can exp.					
						BG golden					
						height shade					
						clear wood					
						sun grass					
						wood fern					
						wh. hornwort					
						Needling					

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"/> 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	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												

 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 water
50 years
have
several
pools
(1995-2004)*

Feature 75

ELC
COMMUNITY DESCRIPTION GENERATOR

SITE: _____ POLYGON: ④

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"/> 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:	<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: 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

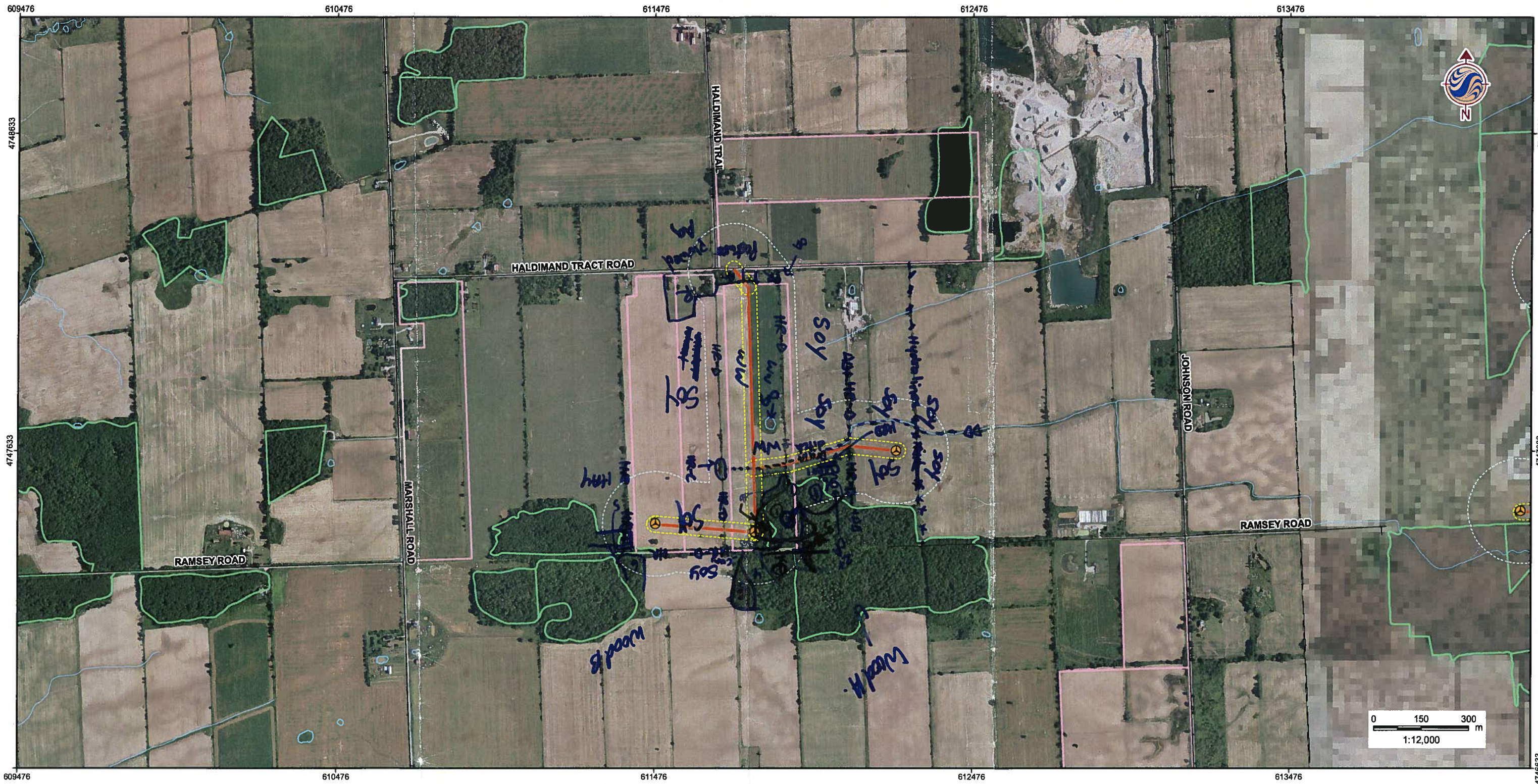
DATE: 20-Oct-2010

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

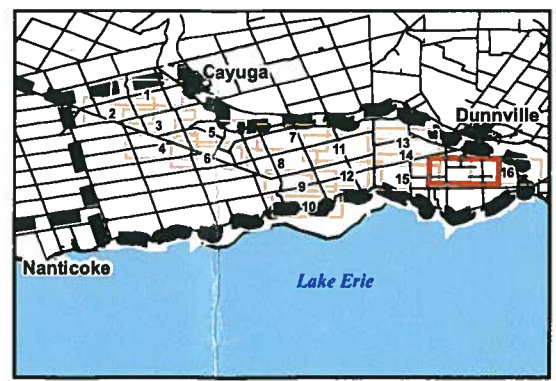
Species	HT	CVR	Code
FRAPPENN			R
Cum sp.			
Goldenrod			
P.S. Aster			
Sedges			A
Scirpus			D
Silky Dogwood			O



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 #7	none @ present	3-5m	Gray Dogwood	No

Feature 75

	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"/> 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	FRAPENN > ALBFRUE
2 SUB-CANOPY	2	4	FRAPENN > ACEFREE
3 UNDERSTOREY	3	3	*Grass, Deadwood (1b11)
4 GRD. LAYER	5-7	4	RUBIDEA / RUBRUB

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:	<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 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: CODE:
Green Ash Mineral Dec. Swamp SWD2-2

INCLUSION: CODE:

COMPLEX: CODE:

Notes: Pic# 1710 - water marks 15cm up
 - 1b = FRAPENN all < 10cm
 1c - Pic# 175 @ 15-20cm from distance

	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	-	-
ACEFREE	O	O	-	-
ALBFRUE				R
AGRGRYP				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

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
Serpis sp.			R
Silky Dogwood			O
SPIALBA			O
Sedge			A

Notes:

Feature 7.4

FIG	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	IMPCA & water (4. incl. H ₂ O)

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
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 <input checked="" type="checkbox"/> YOUNG MID-AGE MATURE OLD GROWTH

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

COMMUNITY CLASSIFICATION:	CODE: SW
COMMUNITY CLASS:	
COMMUNITY SERIES:	CODE: SWT
ECOSITE:	CODE:
VEGETATION TYPE:	CODE: SW2-4
Vegetation description: Buttonbush Mineral Thicket Swamp	
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes: 160960577 - has high water level still.

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	Abundance
FRAPPENN		1	R
IMPCA		4	D
B. th. bush		4	
Buttonbush			D

W:\active\16096577\drawing\GIS\MXD\NaturalHeritageAssessment\fieldmap\PROJECT_LOCATION_MAP.mxd - 02/22/2010 @ 12:15:19 PM



Original: Don't Throw out



**landowner notes that extensive flooding occurs through fields along all water courses shown on map.*

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 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:

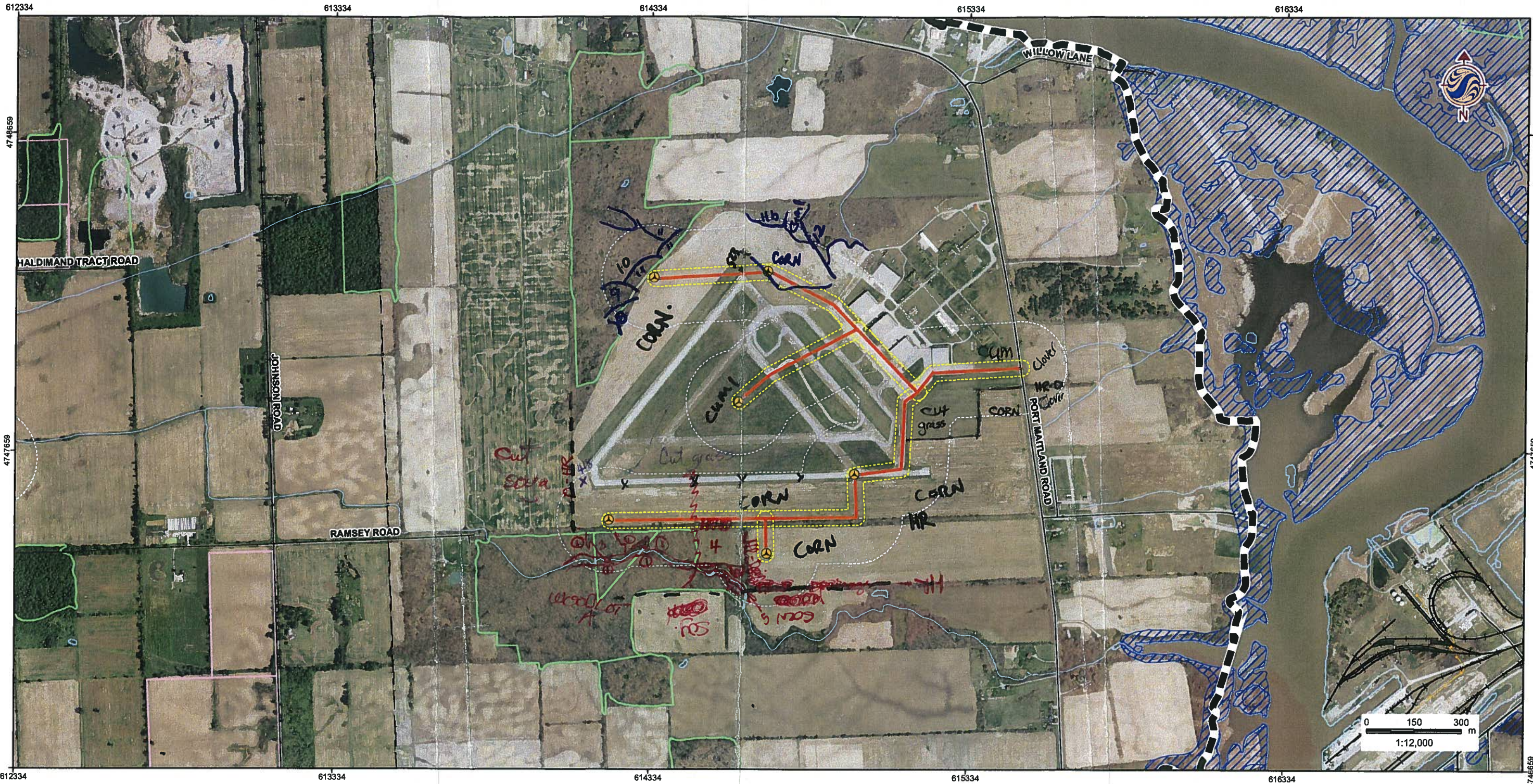
COMMUNITY CLASS: Marsh	CODE: MA
COMMUNITY SERIES: Meadow Marsh	CODE: MAM
ECOSITE: Mineral Meadow Marsh	CODE: MAMZ
VEGETATION TYPE: Forb-Graminoid Mineral Meadow Marsh	CODE: MAMZ-17
INCLUSION	CODE:
COMPLEX	CODE:

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. ea, loose bark, ↑ 3m, DBH < 10cm, 1m ↑, no bark < 10cm DBH, 1 @ 20cm DBH ↑ 10m, no 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	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: 160960577 Project Name: Samsung

Date / Time: 25-Oct-2010 Field Personnel: Melissa Strauss

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 KMC-OB WITU-OB BLJA-VO	WTDGER-OB Eastern Cottontail-OB	SPPF-VO LEFR-OB		

DWD-OB
HAWD-OB
CRGD-NR

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	OSTVIRG
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:	CODE: FOD96*
F-M Red Oak - Snagbark Hickory Dec. Forest	
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	
OSTVIRG				O	
CORSTOL			R		
FRANIRG				O	
RUBALEC				O	
RUBIDEA				O	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ASTMACR				O	
Rubus				O	
Viola				R	

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"/> BGS <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	N > 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 YOUNG MID-AGE MATURE OLD GROWTH

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE: S0
 COMMUNITY SERIES: CODE: S002
 ECOSITE: CODE: S002
 VEGETATION TYPE: CODE: FOD9-4
 F-M Shagbark Hickory Dec. Forest
 INCLUSION CODE:
 COMPLEX CODE:

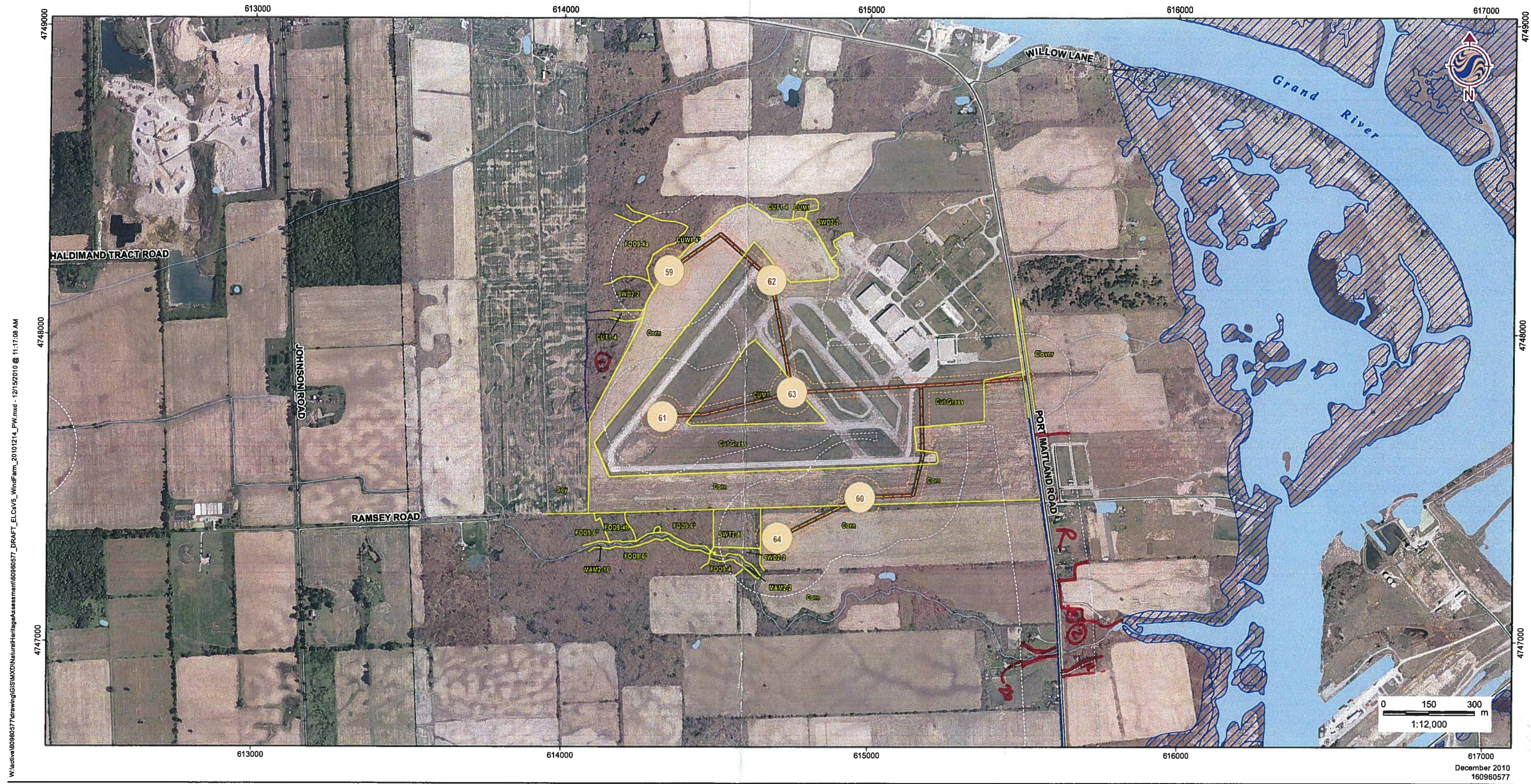
Notes: Pic# 1765

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	



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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)**
- FOD2-2- 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 <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	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											
CARBARD					O							
Hawthorn					O							
KUBALLO					O							
Prickly Ash					R							

