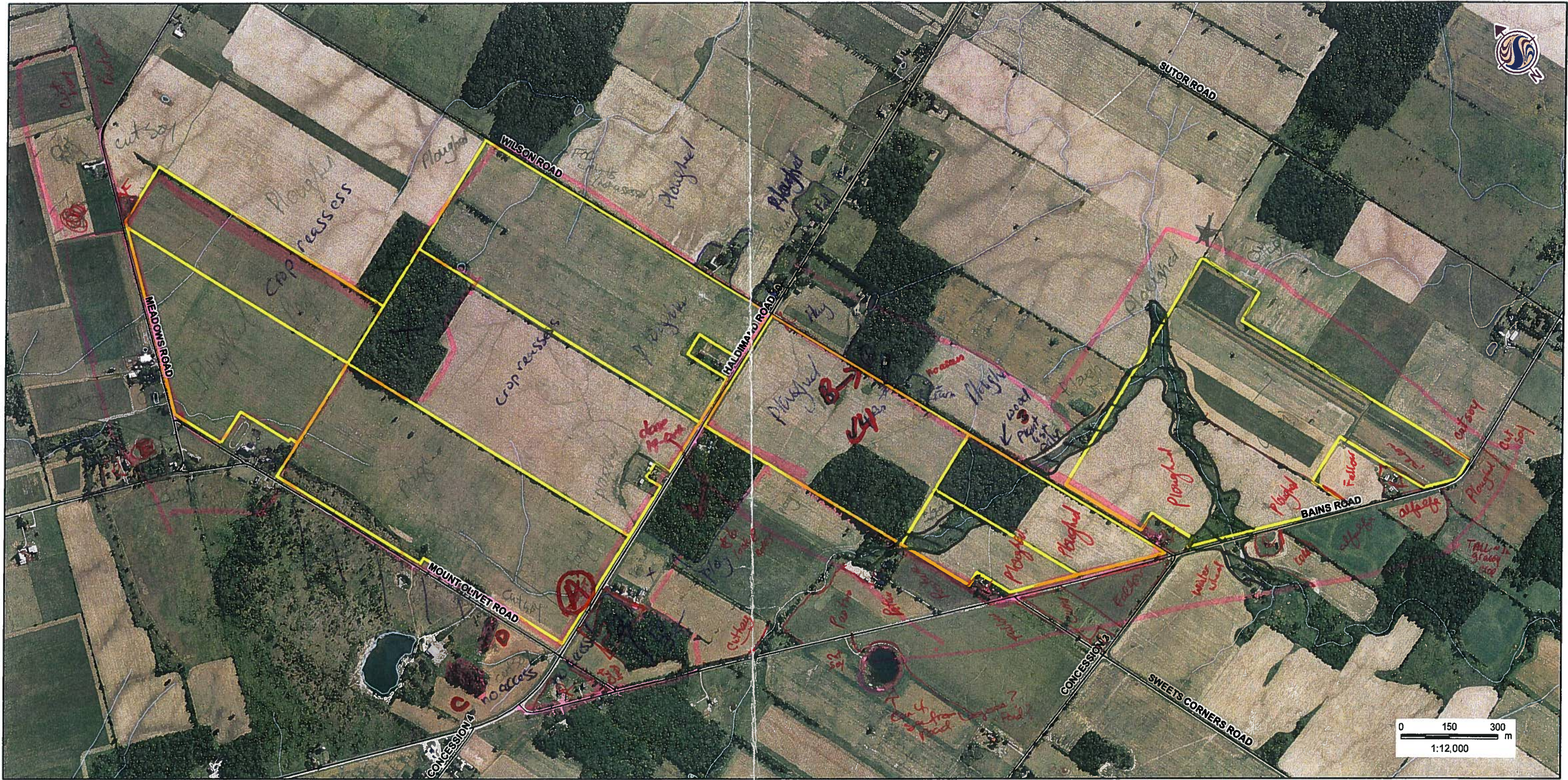


W:\active\16096577\drawing\GIS\MXD\SolarLands\_20100922\_P\W.mxd - 9/22/2010 @ 1:56:54 PM

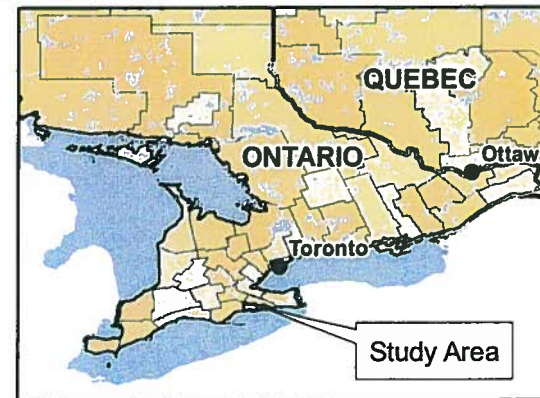


September 2010  
16096577

**Legend**

- Project Location
- Government Lands
- Road
- Railway
- Abandoned Railway
- Watercourse (OBM)
- Waterbody (OBM)

*every field in yellow  
reassess it w in 120m  
Only some woodlots  
needed. See notes.*



**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. LIDAR IMAGERY SOURCE???

Client/Project

**SAMSUNG C&T  
GRAND RENEWABLE ENERGY PARK**

Figure No.

**DRAFT**

Title

**PROJECT LOCATION MAP**



**Stantec**



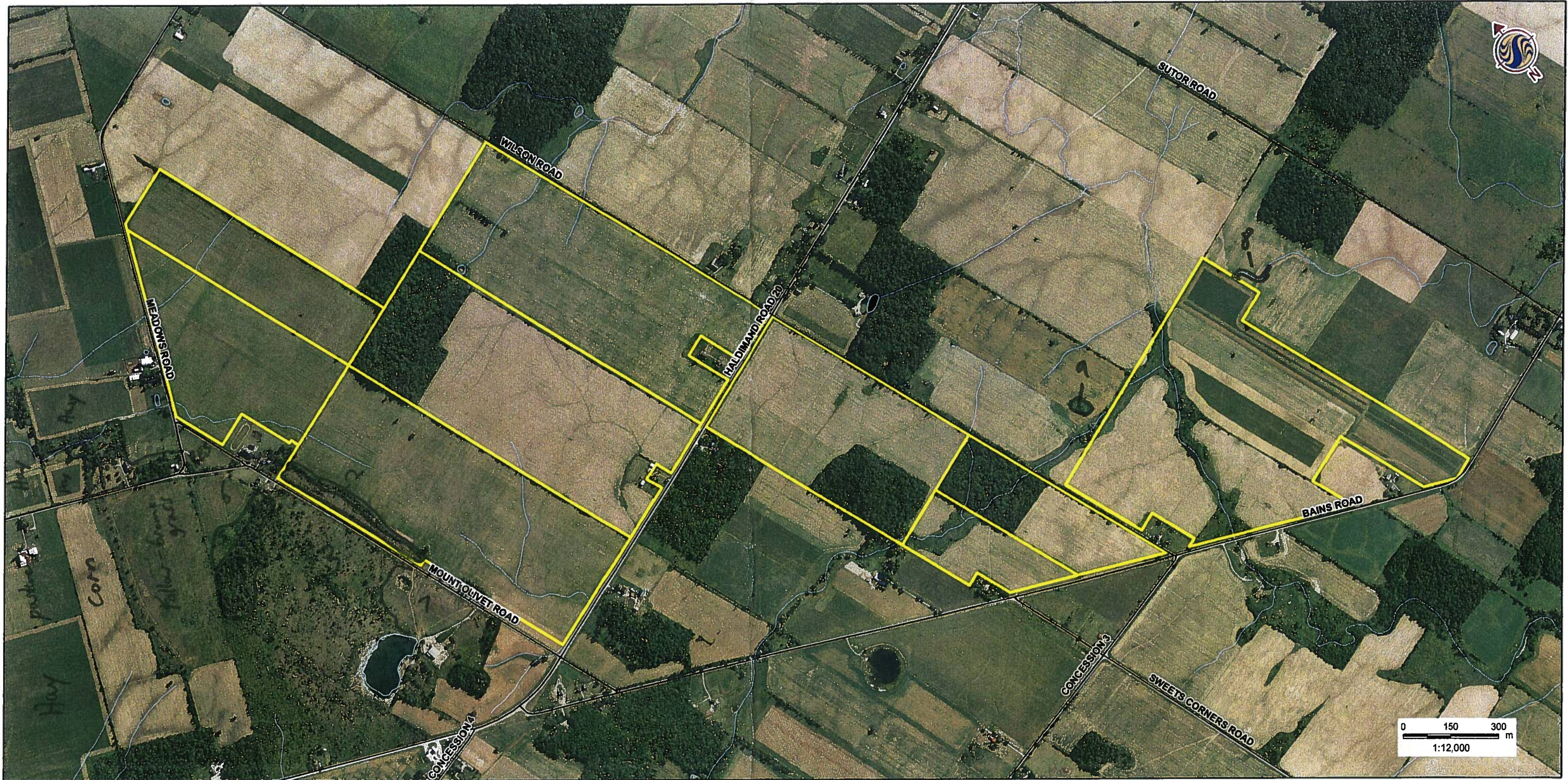















W:\active\160960577\drw\img\GIS\MXD\SolarLands\160960577\_DRAFT\_SolarLands\_20100922\_P\W.mxd - 9/22/2010 @ 1:59:54 PM



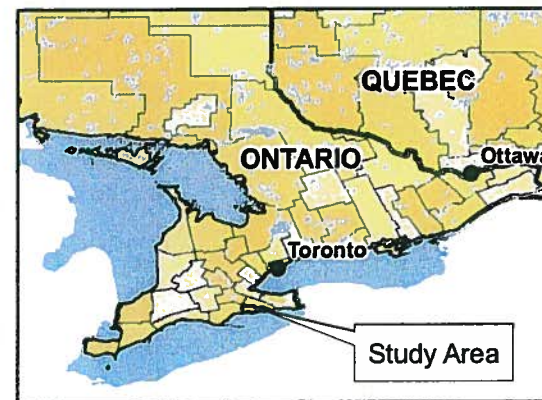
September 2010  
160960577

**Legend**

-  Project Location
-  Government Lands
-  Road
-  Railway
-  Abandoned Railway
-  Watercourse (OBM)
-  Waterbody (OBM)



Stantec



**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. LIDAR IMAGERY SOURCE???

Client/Project

SAMSUNG C&T  
GRAND RENEWABLE ENERGY PARK

Figure No.

DRAFT

Title

**PROJECT LOCATION MAP**





Stantec

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

### Wildlife Habitat Assessment

Project Number 160960577

Project Name: GREP - Solar

Date / Time: Sept 17, 2010 14:30-19:00

Field Personnel: ART

Weather Conditions:	Temp: <u>18°C</u>	Wind: <u>1</u>	Cloud: <u>40%</u>	PPT: <u>/</u>	PPT in last 24 hrs: <u>Rain</u>
---------------------	-------------------	----------------	-------------------	---------------	---------------------------------

Location (i.e. turbine #s/description) Solar Lands - Northern Perimeter

**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
<u>Length ACUS (polygon 3)</u>	<u>Reptile</u>	<u>1-4</u>	<u>- Exposed cobble outcropping</u>	<u>/</u>
<u>17T 596030 (polygon 2) 4749074</u>	<u>Reptile</u>	<u>5-9</u>	<u>- Animal burrow. - Dead grass over entrance suggests it was not active</u>	<u>/</u>

Project relocated to avoid these features. Now >120m

**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
<u>i.e. AMRO/VO RCKE WBNO. BCCH AMCO DowD BLTA NONA</u>		<u>NLFR GRFR</u>	<u>Darner.</u>	



**Woodland Assessment- complete 1 assessment for each woodland**

Woodlot # (indicate on map): Polypen 2 (cor) Feature 29

Approximate age of stand 10 yrs.

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. 2 snags ~3-4m high / 30cm DBH

- no cavities or evidence of wildlife

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 ATV trail

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

If yes, describe \_\_\_\_\_

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

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





Stantec

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

### Wildlife Habitat Assessment

Project Number: 160960577

Project Name: GREP Solar

Date / Time: Sep 24, 2010 9:00-19:30

Field Personnel: ART

Weather Conditions:

Temp: 27°C

Wind: 5

Cloud: 90%

PPT: showers

PPT in last 24 hrs:           

Location (i.e. turbine #s/description) Solar Land

**Reptile Hibernacula Features** i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows) Does the site contain potential reptile hibernacula features?  Yes  No (if yes, describe details in Table 1).

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

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

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

UTM	Feature type	Photo #	Description	Species observed using feature

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

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i>				



Feature 29 (b)

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 3

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. → 6 dead trees; 5m high / 20cm DBH

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities  Yes  No (if yes, describe details in Table 1).

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

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

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

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

If yes, describe \_\_\_\_\_

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

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



Feature 29 (a)

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 4

Approximate age of stand 60 yrs.

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

If yes, approximate # present or % of stand \_\_\_\_\_

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

Are snags present?  Yes  No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. ~ 8 mature snags; 15-20m high / 20-30cm 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 unlikely If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No unlikely If yes,

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

*Handwritten note:* No access

Feature 29

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 5

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 \_\_\_\_\_

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

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

No access



**ELC**  
COMMITTEE  
DESCRIPTION  
ABBREVIATION

SITE: GREP POLYGON: ①

SURVEYOR(S): ART DATE: Sept 17, 2010 UTM E:

START: — END:  UTM Z:  UTM N:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHY / FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LAGUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<b>SITE</b>					
<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	4	100%	lilac - planted in row
2 SUB-CANOPY	6	50%	heath = top
3 UNDERSTOREY	7	60%	king beal
4 GRD. LAYER			

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	<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:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Cultural Meadow</u>	CODE: <u>Cum</u>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

Lilac

**ELC**  
BLANK  
SPECIES  
LIST

SITE: GREP POLYGON: 1

DATE: Sept 17, 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

DATE	TIME	LOC	HT	CVR	SP	AB	CD	HT	TIME	LOC	HT	CVR	SP	AB	CD
		lilac													
		red pine													
		heath = top													
		royal weds													
		W. coast													
		orchard grass													
		king beal													
		fox tail													
		red clove													
		st. johnswort													
		pot comphre													
		pot recta													
		an. platanus													
		tall goldenrod													
		christmas													

# Feature 29

ELC COMMUNITY DESCRIPTION CLASSIFICATION	SITE: GREP	POLYGON: 2
	SURVEYOR(S): ART	DATE: Sept 12, 2010
	START: END	UTMZ: UTMN:

## POLYGON DESCRIPTION

SYSTEM	SUBSYSTEM	PLANT COMM.	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"/> LAQUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input 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"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOOLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION: 4-20% FEATHER 7 walnut 2 cherry

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	60	Fr. buckthorn = h. thorn 7 white
2 SUB-CANOPY	4.5	20	red maple 7 h. thorn 7 white
3 UNDERSTOREY	6	40	goldenrod 7 h. thorn 7 white
4 GRD. LAYER	7	60	king doll

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

STAND COMPOSITION:	BA:				
SIZE CLASS ANALYSIS:	<table border="1"> <tr> <td>&lt; 10</td> <td>10-24</td> <td>25-50</td> <td>&gt; 50</td> </tr> </table>	< 10	10-24	25-50	> 50
< 10	10-24	25-50	> 50		
STANDING SNAGS:	<table border="1"> <tr> <td>&lt; 10</td> <td>10-24</td> <td>25-50</td> <td>&gt; 50</td> </tr> </table>	< 10	10-24	25-50	> 50
< 10	10-24	25-50	> 50		
DEADFALL / LOGS:	<table border="1"> <tr> <td>&lt; 10</td> <td>10-24</td> <td>25-50</td> <td>&gt; 50</td> </tr> </table>	< 10	10-24	25-50	> 50
< 10	10-24	25-50	> 50		
ABUNDANCE CODES:	N = NONE R = RARE O = OCCASIONAL A = ABUNDANT				
COMM. AGE:	<input type="checkbox"/> PIONEER <input checked="" type="checkbox"/> YOUNG <input type="checkbox"/> MID-AGE <input type="checkbox"/> MATURE <input type="checkbox"/> OLD GROWTH				

## SOIL ANALYSIS:

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

## COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Hawthorn Cultural Savanna (US1-1)	
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

- on a slope  
- exposed cobble rock  
- trees @ north end.

ELC FLORISTIC SPECIES LIST	SITE: GREP
	POLYGON: 2
	DATE: Sept 17, 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	1	2	3	4
apple				
hickory				
sumac				
buckhorn				
pear				
gr. dogwood				
grape				
red maple				
Fr. buckthorn				
white oak				
bl. cherry				
heather				
roy. weed				
we. carrot				
orchard grass				
king pin				
fox tail				
red clover				
mullin				
St. John's wort				
POA can. 2/10				
POA set. 4				
PN: Fleabane				
tail goldenrod				
chickory				
ox eye				
partly goldenrod				
lat. mad. 4				
sy. clover				
steel bane				
food flax				
NE aster				
handi tongue				
grey gullard				



ELC SITE: GREP POLYGON: 3  
 COMMUNITY DESCRIPTION & CLASSIFICATION SURVEYOR(S): ART DATE: Sept 24, 2010 UTME:  
 START: END UTMZ: UTMN

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input 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	3	1	CARQUAT = TILAMSB = FRADMER
2 SUB-CANOPY	4	2	Hawthorn > pear = RHACATH
3 UNDERSTOREY	5	4	Goldenrods / Aster
4 GRD. LAYER	6	3	Hawweeb

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 1 25 - 50 1 > 50

STANDING SNAGS: 0 < 10 R 10 - 24 1 25 - 50 1 > 50

DEADFALL / LOGS: R < 10 R 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: CODE: Cum  
 INCLUSION CODE:  
 COMPLEX CODE:

Notes:

Feature 29

ELC SITE: GREP  
 PLANT SPECIES LIST POLYGON: 3  
 DATE: Sept 24, 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>Panther</u>						<u>Tall goldenrod</u>					
<u>Pear</u>						<u>Hawthorn</u>					
<u>RHACATH</u>						<u>King dowl</u>					
<u>TILAMSB</u>						<u>Teasel</u>					
<u>CARQUAT</u>						<u>Rayweed</u>					
<u>FRADMER</u>						<u>Fox tail</u>					
						<u>St. John's wort</u>					
						<u>An. Heabone</u>					
						<u>Chickory</u>					

Feature 29

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>GREP</u>	POLYGON: <u>4</u>		
	SURVEYOR(S): <u>AKT</u>	DATE: <u>Sept 24, 2010</u>	UTME: <u>        </u>	
	START: <u>        </u>	END: <u>        </u>	UTMZ: <u>        </u>	UTMN: <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"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	CAROUAT > FRAAmER
2 SUB-CANOPY	3	3	FRAAmER > TILAmER
3 UNDERSTOREY	4	3	RHUTYPH = Hawthorn
4 GRD. LAYER	5	3	Goldrods / Asks

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 D 25-50 || > 50

STANDING SNAGS: 0 < 10 0 10-24 R 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: Shagbark Hickory Deciduous Forest CODE: FODQ-4

INCLUSION:          CODE:         

COMPLEX:          CODE:         

Notes:         

<b>ELC</b> PLANT SPECIES LIST	SITE: <u>GREP</u>
	POLYGON: <u>4</u>
	DATE: <u>Sept 24, 2010</u>
	SURVEYOR(S): <u>AKT</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	
FRAAmER						Fall goldrods					
CAROUAT						calcico arto					
TILAmER											
RHUTYPH											
Hawthorn											



**ELC**  
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: CR EP  
SURVEYOR(S): ART  
DATE: Sept 24, 2010  
POLYGON: 5  
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 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 checked="" type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<b>SITE</b>			<b>COVER</b>		
<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	3	FRAADMLK > CARQUAT
2 SUB-CANOPY	4	3	RHTUTYPH = CORRACE
3 UNDERSTOREY	5-6	4	Goldenrod / Aster
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:**

<u>1</u> < 10	<u>1</u> 10 - 24	<u>1</u> 25 - 50	<u>1</u> > 50
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**STANDING SNAGS:**

<u>1</u> < 10	<u>1</u> 10 - 24	<u>1</u> 25 - 50	<u>1</u> > 50
---------------	------------------	------------------	---------------

**DEADFALL / LOGS:**

<u>1</u> < 10	<u>1</u> 10 - 24	<u>1</u> 25 - 50	<u>1</u> > 50
---------------	------------------	------------------	---------------

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

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

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

**COMMUNITY CLASS:** CODE:   
**COMMUNITY SERIES:** CODE:   
**ECOSITE:** CODE:   
**VEGETATION TYPE:** CODE: CW1-4  
White ash cultural woodland  
**INCLUSION:** CODE:   
**COMPLEX:** CODE:

Notes:

-early successional

Feature 29

**ELC**  
PLANT SPECIES LIST

SITE: CR EP  
POLYGON: 5  
DATE: Sept 24, 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	
FRAADMLK						Tall goldenrod					
CARQUAT						calico aster					
CORRACE						teasel					
RHTUTYPH											







swale alt east end.

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP POLYGON: 8

SURVEYOR(S): ART DATE: Sept 24 2010 UTME:           

START: END 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"/> CARR. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input checked="" type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input 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	fox tail > crab grass > soybean
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: Cum

Cultural meadow.

INCLUSION CODE:

COMPLEX CODE:

Notes:

Swale in agricultural field

No feature

ELC PLANT SPECIES LIST

SITE: GREP POLYGON: 8

DATE: Sept 24, 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>fox tail</u>													
<u>crab grass</u>													
<u>orig weed</u>													
<u>C. rogersii</u>													
<u>soya</u>													



ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>GREP</u>	POLYGON: <u>9</u>	
	SURVEYOR(S): <u>ART</u>	DATE: <u>Sept 24, 2010</u>	UTM E
	START: <u>END</u>	UTM Z	UTM N

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	FRAAMER
2 SUB-CANOPY	3-4	3	Lilac > Pr. ash
3 UNDERSTOREY	5	3	Grass > Goldenrods / Asters
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:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50	
STANDING SNAGS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50	
DEADFALL / LOGS:	<input checked="" type="checkbox"/> < 10	<input type="checkbox"/> 10 - 24	<input type="checkbox"/> 25 - 50	<input type="checkbox"/> > 50	
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT					
COMM. AGE:	<input type="checkbox"/> PIONEER	<input checked="" type="checkbox"/> YOUNG	<input type="checkbox"/> MID-AGE	<input type="checkbox"/> MATURE	<input type="checkbox"/> OLD GROWTH

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <u>Cultural Thicket</u>	CODE: <u>COTT</u>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

- no snags

ELC PLANT SPECIES LIST	SITE: <u>GREP</u>
	POLYGON: <u>9</u>
	DATE: <u>Sept 24, 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	
FRAAMER						Calico aster					
SALFRAG						tewel					
Apple						tall goldenrod					
Lilac						redwing blackberry					
pr. ash											



594000

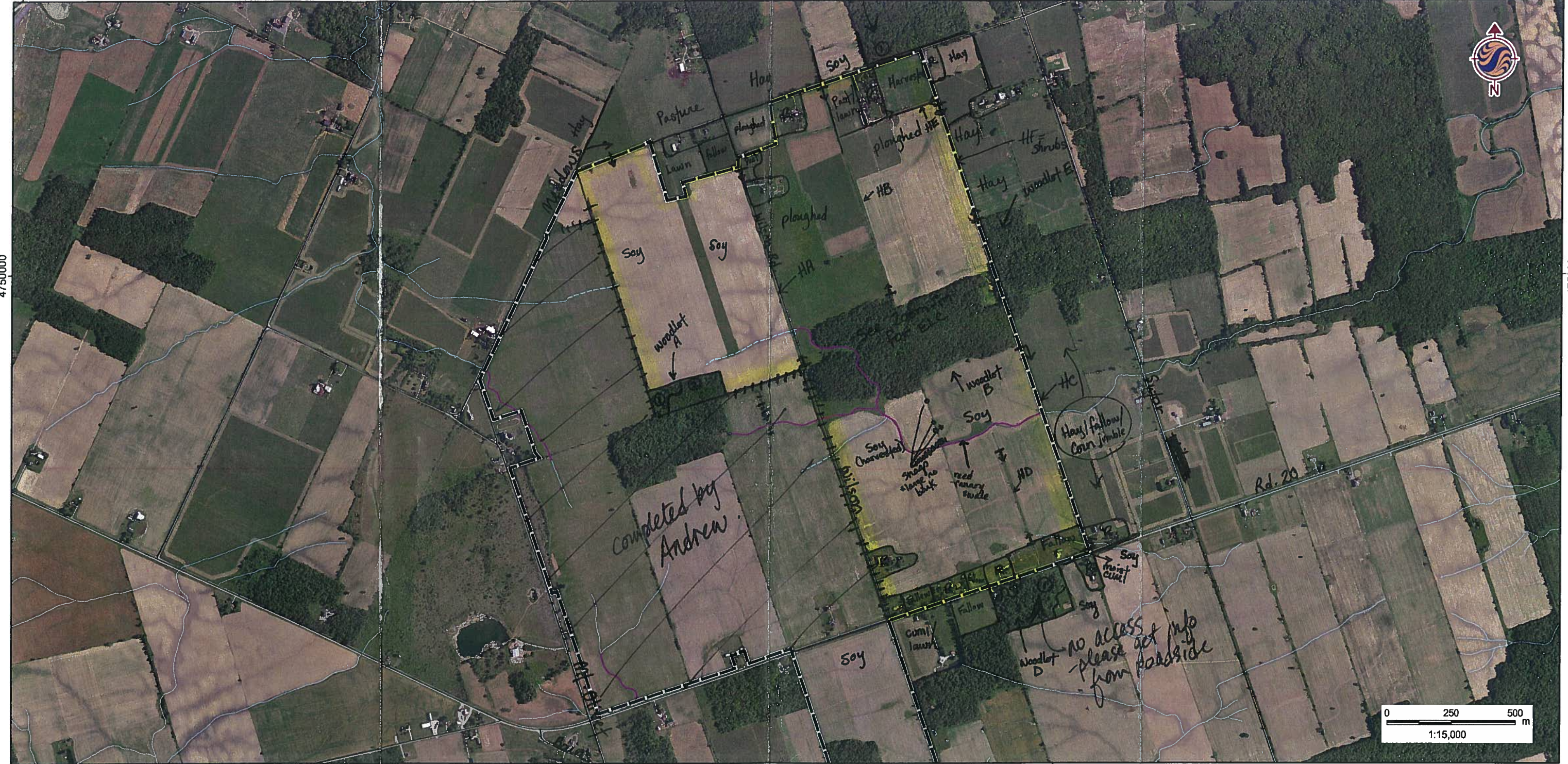
596000

Woodlot C no access - roadside 598000

4750000

4750000

W:\active\60960577\Drawing\GIS\MXD\WaterReport\60960577\_DRAFT\_SolarLandAndFishHabitatLocations\_20101012\_P1.mxd - 10/12/2010 @ 1:56:05 PM



594000

596000

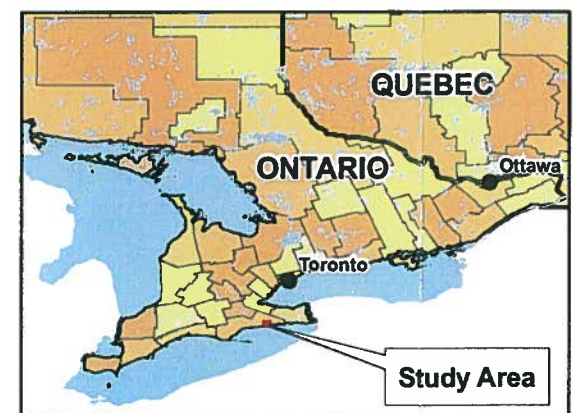
598000

October 2010  
160960577

- Legend**
- Study Area
  - Road
  - Railway (OBM)
  - Nonexistent Watercourse (Field Verified)
  - Potential Fish Habitat (as defined by Fisheries Act)
  - Watercourse (OBM)

**SOLAR LANDS .**  
 - please examine all features + 120 m  
 - crop types  
 - hedgerows

GAW  
 Oct. 13. 2010



- 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 Sources: **LIDAR IMAGERY SOURCE????** © First Base Solutions, 2010 - Imagery Date: Spring 2006.

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

Figure No.  
**DRAFT**

Title  
**SOLAR LANDS - POTENTIAL  
 FISH HABITAT LOCATIONS**







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 30  
Woodlot A

Project Number 161010624

Project Name: Samsung Solar Lands

Date / Time: Oct. 13. 2010

Field Personnel: GAW

<b>Weather Conditions:</b>	Temp: <u>16°</u>	Wind: <u>1-2</u>	Cloud: <u>20%</u>	PPT: <u>∅</u>	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>i.e. AMRO/VO</i> BCCH NOFL BLJA	<i>Cottontail</i>	/	/	/

**Woodland Assessment- complete 1 assessment for each woodland**

**Woodlot # (indicate on map) :** (A)

**Approximate age of stand** Mature

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

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

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. Smaller (< 20 cm DBH) snags, some with loose bark.

BAT MAT ROOST? No

**Trees with cavities present?**  No  Rare  Occasional  Abundant

If present:

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

**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
	SWD portion	∅	throughout	yes	yes.



Woodlot A 161010624

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Solar Lands		POLYGON: ①	
	SURVEYOR(S): GAW		DATE: Oct. 13. 10	UTME:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input checked="" type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input 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 >> ACERUBR >> QUEMACR
2 SUB-CANOPY	3	4	FRAPENN = blue beech
3 UNDERSTOREY	4.5	4	blue beech = ACERUBR
4 GRD. LAYER	1-7	4	FRAVESC ASTLATE

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

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

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

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

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

COMMUNITY CLASSIFICATION:

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

Notes:

ELC PLANT SPECIES LIST	SITE: FEATURE 30
	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	O		l. i. aster				O	
ACERUBR	O	A	A			FRAVESC				D	
QUEMACR	O	O				POTSIMP				O	
Shagbark	@	O				heal-all				O	
QUERUBR	R	O	O	O		ASTLATE				A	
FAGGRAN			R			SMITHISP				O	
TILAMER	R	O	O	O		GEUCANA				O	
OSTVIRG	O					Viola sp.				O	
						CIRLEUT				O	
						Scutellaria sp				O	
						ONOSENS				O	
blue beech	D	O				LYCUNIF				O	
dewberry				O		ARYFI-FE				O	
LIGVULG				O		CARLACU				O	
CORSTOL			O	O		VRTDIOI				O	
RUBIDAE				O		P.st. Aster				O	
Salix sp.				O		EUPPERF				O	
VITRIPA			O	O		BIDFRON				O	
RHACATH				O		bladder sedge				O ✓	
LONDIOI				O		Marsh fern				O	
Craetagus sp.				O		AGRGRYP				O	
SPIALBA				O		hog-peanut				O	
						DRYCAR				O	
						GERMACU					

<b>ELC</b> 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"/> 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
<b>SITE</b>		<b>COVER</b>			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED			

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ACESASA ≥ Shagbark ≥ QUERCUS spp.
2 SUB-CANOPY	3	4	ACESASA > FAGGRAN
3 UNDERSTOREY	4-5	4	FAGGRAN = blue beech
4 GRD. LAYER	6-7	4	barren straw, FRAVESC

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

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

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

<b>COMMUNITY CLASSIFICATION:</b>	
COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: D-F Sugar Maple Dec. Forest	CODE: FOD5
VEGETATION TYPE: Fresh-moist Maple - oak Deciduous Forest	CODE: FOD5-3
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

<b>ELC</b> 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	
Shagbark	A					GERMACU				0	
ACESA.SA	A					Viola sp.				0	
CARCORD	0					FRAVESC				A	
OSTVIRG		0				barren straw				A	
TILAMER	0	0				GEUCANA				0	
ACERUBR	0					x.mas fern				0	
FAGGRAN	A	A				EUOBOV				0	
QUERUBR	A	0				l.l. aster				0	
FRAPENN	0	0	0			VEROFFE				0	
QUEALBA	R					Carex sp.				0	
QUEMACR	A					PREALBA				R	
PRUVI.VI		0				POTSIMP				0	
LONTA.TA		0				EPIHELL				R	
blue beech	A	0				CIRLEUT				0	
Crataegus sp.				0		SOLCAES				0	
Grey dogwood				0							
RUBIDAE				0							
RUBOCCI				0							
LONDIOI				R							
RIBcyNO				R							
PRUSERO				R							
cl.arrowwood				R							







 <p><b>Stantec</b></p>		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		<p><b>Wildlife Habitat Assessment</b></p>	
Project Number: <u>160960577</u>		Project Name: <u>GRFP</u>			
Date / Time: <u>Sept 17, 2010 15:00-18:30</u>		Field Personnel: <u>R. Taylor</u>			
Weather Conditions:	Temp: <u>18°C</u>	Wind: <u>1</u>	Cloud: <u>40%</u>	PPT: <u>—</u>	PPT in last 24 hrs: <u>Rain</u>

Location (i.e. turbine #s/description) Solar Lab - Woodlot #1

**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 NoFL BcCH WODU MODO CAGO WITU AmWD GRCA	WTDA-TK GRSA mole - hills in SWD3-3a next to pond	NLFR AmTO GRFP		



**Woodland Assessment- complete 1 assessment for each woodland**

**Woodlot # (indicate on map) :** SWD3-36

**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.

*7 elm snags along edge of field  
↳ 6m 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?

**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

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

Project Number: <u>160960577</u>	Project Name: <u>G-RFP</u>
Date / Time: <u>Sept 24, 2006 9:00-10:30</u>	Field Personnel: <u>A. Taylor</u>

Weather Conditions:	Temp: <u>26°C</u>	Wind: <u>S</u>	Cloud: <u>40%</u>	PPT: <u>/</u>	PPT in last 24 hrs: <u>/</u>
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Location (i.e. turbine #s/description) Solar Lands - Woodlot #1

**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 BCC H BLJP WODO NOPA	WTDR-TK	GAFR		

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : FOD 9-1

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 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. - Approx. 30 mature snags (some with loose bark) 15-25m high / 25-40cm 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?
	<u>15-25m</u>	<u>25-40cm</u>	<u>10-15m</u>	<u>1 small 3 medium</u>

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

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

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

If yes, describe ATV trail

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
<u>1</u>	<u>17T 596531 4749313</u>	<u>5cm</u>	<u>1 x 6m</u>	<u>None</u>	<u>None</u>
<u>2</u>	<u>17T 596513 4749292</u>	<u>5cm</u>	<u>1 x 4m</u>	<u>None</u>	<u>None</u>

↳ vernal pools in ATV rut - Adult GRFR



**Woodland Assessment- complete 1 assessment for each woodland**

Woodlot # (indicate on map): SWD3-3

Approximate age of stand 80 yrs.

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

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

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) large sugar maple 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. Over 30 snags, concentrated @ west end of community  
15-20m high / 30-40 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?
<u>20m</u>	<u>30-50cm</u>	<u>3-20m</u>	<u>4 medium</u>

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

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

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

If yes, describe ATV trail

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No in ATV mts. If yes,

#	Location	Depth of water	Size of pool (diameter)	Presence of emergent/submergent veg?	Presence of shrubs, logs at pond edge
<u>1</u>	<u>17T 596636</u> <u>4749396</u>	<u>10cm</u>	<u>1x3m</u>	<u>None</u>	<u>None</u>
<u>2</u>	<u>17T 596615</u> <u>4749393</u>	<u>10cm</u>	<u>1x15m</u>	<u>None</u>	<u>None</u>
<u>3</u>	<u>17T 596560</u> <u>4749358</u>	<u>10cm</u>	<u>3x25m</u>	<u>-Water plantain</u> <u>-Bidens sp.</u>	<u>None</u>

Adult GRFR  
ILFR Tadpoles

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): FOD9-4

Approximate age of stand ~70 yrs

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

If yes, approximate # present or % of stand 57% mostly Red oak

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. ~10 large snags; 15-20m high / 30-40cm DBH  
4 few w 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?
<u>15-20m</u>	<u>30-40cm</u>	<u>10-15m</u>	<u>2 small</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





<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>GREP</u>	POLYGON: <u>2</u>	
	SURVEYOR(S): <u>ART</u>	DATE: <u>Sept 24, 2010</u>	UTME:
	START: _____ END: _____	UTMZ: _____	UTMN: _____

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input checked="" type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> 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 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
<b>SITE</b>			<b>COVER</b>		
<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	24	3	ACEBACC
2 SUB-CANOPY	3	3	ACEBACC = ACERUBR = FRANTGR = FAGGRAN = CAROUAT
3 UNDERSTOREY	4	3	CARCARO > FRANTGR > ACERUBR
4 GRD. LAYER	56	3	Grasses = Calico Aster > Clearweed = Sensitive fern

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

**STAND COMPOSITION:** BA:

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

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

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

**SOIL ANALYSIS:**

TEXTURE: \_\_\_\_\_ DEPTH TO MOTTLES / GLEY g = \_\_\_\_\_ G = \_\_\_\_\_

MOISTURE: \_\_\_\_\_ DEPTH OF ORGANICS: \_\_\_\_\_ (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: \_\_\_\_\_ (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
<u>Swamp Maple Mineral Deciduous Swamp</u>	<u>SWD3-3a</u>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

<b>ELC</b> PLANT SPECIES LIST	SITE: <u>GREP</u>
	POLYGON: <u>2</u>
	DATE: <u>Sept 29, 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
	1	2	3	4	
ACEBACC					Sensitive fern
FAGGRAN					Jewelweed
ACERUBR					Calico aster
FRANTGR					Clearweed
CAROUAT					soft rush
CARCAR					Garlic mustard
FRAPENAI					heart all
					strawberry
					Hop sedge
					Bl. cernuin
					Tall goldenrod
					Jack in the pulpit
					water horkensand
					naked winterc
					Wood fern
					Christmas fern
					red blueberry
					lake side sedge
					wood nettle
					water plantain
					beetle
					U. creper
					CORRACE
					Delwberry
					Red rasp.









Feature 30

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>GREP</u>	POLYGON: <u>7</u>	
	SURVEYOR(S): <u>ART</u>	DATE: <u>Sept 17, 2010</u>	UTM:
	START: <u>END</u>	UTMZ:	UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input checked="" type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input 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	10-15m	15%	SALFRAG >> ACBJASC
2 SUB-CANOPY	1m	45%	cattails
3 UNDERSTOREY	5m	25%	duckweed
4 GRD. LAYER	-	50%	open water

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 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		> 50
STANDING SNAGS:	R	< 10	R	10 - 24	0	25 - 50		> 50
DEADFALL / LOGS:	R	< 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: <u>Duckweed-mixed shallow aquatic</u>	CODE: <u>SAMI-2</u>
INCLUSION	CODE:
COMPLEX	CODE:

Notes: - duck blind - muddy flats, - barky logs - but no turtles observed

<b>ELC</b> PLANT SPECIES LIST	SITE: <u>GREP</u>
	POLYGON: <u>7</u>
	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	
SALFRAG						ALL cattail					
ACBJASC						water poly grass					
						duckweed					
						rice catgrass					
						soft rush					
						small weed					
						Grass sp.					





**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP POLYGON: 8  
 SURVEYOR(S): ART DATE: Sept 17, 2013 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"/> 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 checked="" type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input 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
<b>SITE</b> <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<b>COVER</b> <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	Goldenrod/aster > smooth brack
2 SUB-CANOPY			
3 UNDERSTOREY			
4 GRD. LAYER			

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

STAND COMPOSITION: BA:

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

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

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

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

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

Notes:

- between field e woodlot

**ELC**  
 PLANT SPECIES LIST

SITE: GREP POLYGON: 8  
 DATE: Sept 17, 2013 SURVEYOR(S): ART

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

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
<u>Hawtorn</u>					
<u>Full goldenrod</u>					
<u>NE aster</u>					
<u>C. millecead</u>					
<u>smooth brack</u>					
<u>red top</u>					
<u>w. carrot</u>					
<u>fox tail</u>					
<u>Heath aster</u>					





W:\active\60960577\drawing\GIS\MXD\SolarLands\60960577\_DRAFT\_SolarLandConstraints\_20101015\_DH.mxd - 10/15/2010 @ 7:51:36 PM

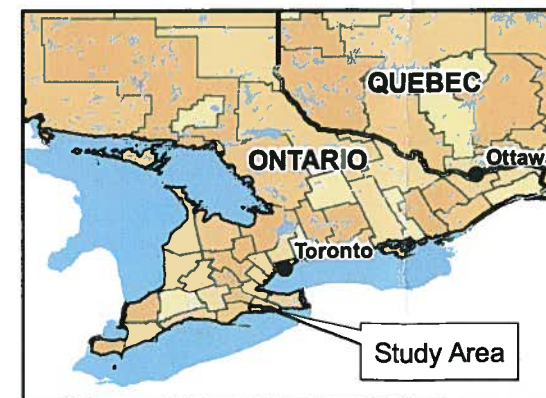
October 2010  
160960577

### Legend

- Project Location
- Solar Lands
- Government Lands
- Road
- Railway
- Abandoned Railway
- Watercourse
- Waterbody (OBM)

### Constraints to Development

- Woodland Area
- Wetland
- Potential Fish Habitat/Waterbody
- Potentially Significant Wildlife Habitat
- Wetland - 30m Setback
- Potential Fish Habitat/Waterbody - 30m Setback
- Potentially Significant Wildlife Habitat - 120m Setback



### 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. LIDAR IMAGERY SOURCE???

Client/Project

SAMSUNG C&T  
GRAND RENEWABLE ENERGY PARK

Figure No.

DRAFT

Title


**SOLAR LANDS NATURAL  
HERITAGE CONSTRAINTS**



Stantec





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

Date / Time: <u>19 Oct 2010</u>	@ <u>10:30 - 18:00</u>	Field Personnel: <u>M. Straus</u>
------------------------------------	------------------------	--------------------------------------

<b>Weather Conditions:</b>	Temp: <u>8°</u>	Wind: <u>4</u>	Cloud: <u>0</u>	PPT: <u>none</u>	PPT in last 24 hrs: <u>none</u>
----------------------------	-----------------	----------------	-----------------	------------------	---------------------------------

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

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

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

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

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

UTM	Feature type	Photo #	Description	Species observed usir 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 AXI-OB EPBL-OB SWSP-OB AMW-OB ZBL-OB HAW-OB AMR-OB NOFL-OB COCI-VO AMRO-OB RFA-OB		Garter Snake-OB		

19-Oct-2020 Feature 31

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : C

Approximate age of stand 50 years

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

If yes, approximate # present or % of stand \_\_\_\_\_

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. 12m<sup>T</sup>, 1, loose bark, 20cm DBH / Be snag - 10m<sup>T</sup>, 35cm dbh  
Alnus snag - 2m<sup>T</sup>, 15cm dbh

2-3 trees  
ha

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Be snag	8m	30cm	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 Heavy logging in dense Beech regeneration area

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 at pond edge
1	OA on map 597809.475008	None @ present	10m	No	Dogwood
2	Small pockets throughout				



Feature 40

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): B

19-Oct-2010

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 Red Oaks - < 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. No loose bark ~ 6/ area surveyed

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 - Ag ↳ Ea ↳ Be	7m 8m 8m	25 30cm 30	6.5 7m 8m	Small Small medium

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

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

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

If yes, describe Houses in 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 shrubs/logs at pond edge
1	597849. 4748706	none @ present	-creek through woodlot	Spotted touch me-nots	yes - N

FLC  
SITE: 160960577  
POLYGON: 9  
SURVEYOR(S):  
DATE: 19-Oct-2010  
UTME:  
START: 16:00 END 16:30  
UTMZ:  
UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	CARLOVAT > ACERURB
2 SUB-CANOPY	2	4	FAGGRAN = CARLOVAT
3 UNDERSTOREY	3-4	4	OSTVIRS & FAGGRAN
4 GRD. LAYER	5-9	4	ACESACS

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: 0 < 10 0 10-24 14 25-50 N > 50

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

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

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

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

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

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION: COMMUNITY CLASS: Forest CODE: FO

COMMUNITY SERIES: Deciduous Forest CODE: FOD

ECOSITE: F-Moist Oak-maple-Hickory CODE: FOD9

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

INCLUSION: Pond CODE: OF

COMPLEX CODE:

Notes: Pic 1700 ↑ w lot of understory  
- water inclusion mix - lept low

TEMPERATURE 51  
SITE: Samsung Solar  
POLYGON: 9  
DATE: 19-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

FAGGRAN	O O O R	Sensitive fern	R
CARLOVAT	O O R R	LYCUMIF	R
PRUSERO	- R -	THIRCAPE	R
ACERURB	O O O O	Wood Nettle	R
ACESACS	R R O O		
ACERURB	R - -		
OSTVIRS	O		
FRAXURS	O		
GRAY DOGWOOD	R	Golden rod	R
CARCARO	O		





**FIG** COUNTY OF DECATUR  
 SITE: 160960677 POLYGON: 10  
 SURVEYOR(S): DATE: 19-Oct-2010 UTM:  
 START: 17.00 END: 17.15 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 checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input 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"/> EPYOPHYTE <input type="checkbox"/> RESIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <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 checked="" type="checkbox"/> TREED		

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	ACESACS & FAGGLAN
2 SUB-CANOPY	2	4	ACESACS & FAGGLAN
3 UNDERSTOREY	3	4	FAGGLAN > ACESACS
4 GRD. LAYER	5-9	4	ACESACS

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: = 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
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STANDING SNAGS:	N < 10	R 10-24	R 25-50	N > 50
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DEADFALL / LOGS:	D < 10	D 10-24	R 25-50	R > 50
------------------	--------	---------	---------	--------

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

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

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: Forest CODE: FO  
 COMMUNITY SERIES: Deciduous Forest CODE: FOD  
 ECOSITE: Dry-Fresh Sugar Maple Dec. Forest CODE: FODS  
 VEGETATION TYPE: D-F Sugar Maple - Beech Dec. Forest CODE: FODS-2  
 INCLUSION CODE:  
 COMPLEX CODE:

Notes:

pic 1705 - Be or Mh dominated - long in disturbance

Feature 31

SITE: Samburg Solar  
 POLYGON: 10  
 DATE: 19-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
FAGGLAN	A	O	O	O
ACESACS	A	O	O	O
Field Hostal				R
Niolaga				O





**FLC** SITE: 11009100577 POLYGON: 110  
 SURVEYOR(S): DATE: 19-Oct-2010 UTME:  
 START: 11:30 END: 17:00 UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	FEATURE	FORM	PLANT	SOIL
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-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"/> PEN <input type="checkbox"/> BOG <input type="checkbox"/> BAREEN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<b>SITE</b> <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

**STAND DESCRIPTION:**

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

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

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A	< 10	0	10 - 24	N	25 - 50	N	> 50
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STANDING SNAGS:	M	< 10	0	10 - 24	M	25 - 50	N	> 50
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DEADFALL / LOGS:	0	< 10	0	10 - 24	R	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: Forest CODE: FO  
 COMMUNITY SERIES: Deciduous forest CODE: FOD  
 ECOSITE: Fresh-moist Oak-Maple-Hickory CODE: FOD.9  
 VEGETATION TYPE: F-M Shagbark Hickory Decid. Forest CODE: FOD9-4 (C)  
 INCLUSION CODE:  
 COMPLEX CODE:

Notes: 1706. Young-wet area

ELO SITE: Samsung Solar  
 POLYGON: 110  
 DATE: 19-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
FRAPEREN	0	3	R
ULMAMEX	-	0	
CAROUAT	0	4	R
ACERUBR	-	0	R
OSTVIRG	-	0	O
ASTLATE			O
RHUBAD			R
RIBHIRT			R





EIC  
 SITE: 160960577 POLYGON: (12)  
 SURVEYOR(S): MS DATE: 19-01-2010 UTME:  
 START: 7:15 END: 17:30 UTMZ: UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	FEATURE	PERMANENT	DOMINANT	
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE RIVERINE <input type="checkbox"/> BOTTOMLAND TERRACE <input type="checkbox"/> VALLEY SLOPE TABLELAND <input type="checkbox"/> ROLL UPLAND CLIFF <input type="checkbox"/> TALLUS CREVICE / CAVE <input type="checkbox"/> ALVAR ROCKLAND <input type="checkbox"/> BEACH / BAR 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 SUBMERGED <input type="checkbox"/> FLOATING-LVD. GRAMINOID FORB <input type="checkbox"/> LICHEN BRYOPHYTE <input type="checkbox"/> DECIDUOUS CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE POND RIVER <input type="checkbox"/> STREAM MARSH SWAMP <input type="checkbox"/> FEN BOG BARREN <input type="checkbox"/> MEADOW PRARIE THicket <input type="checkbox"/> SAVANNAH WOODLAND <input type="checkbox"/> FOREST PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUERCUBR > CAROUAT
2 SUB-CANOPY	2	4	CAROUAT > ACESACS
3 UNDERSTOREY	3	4	ACESACS > OSTVIRS
4 GRD. LAYER	5-7	4	ACTMACL & Saplings esp. ACESACS

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

**STAND COMPOSITION:** BA: \_\_\_\_\_

SIZE CLASS ANALYSIS:	0 < 10	0 10-24	A 25-50	R > 50
STANDING SNAGS:	N < 10	N 10-24	N 25-50	N > 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: Forest CODE: F0  
 COMMUNITY SERIES: Deciduous Forest CODE: F0D  
 ECOSITE: Fresh-Moist Oak-Maple-Hickory Dec CODE: F0D9  
 VEGETATION TYPE: F-M Oak-Shagbark-Hickory Dec. Forest CODE: F0D9-6<sup>+</sup>  
 INCLUSION CODE:  
 COMPLEX CODE:

Notes:

Pic 20V - Red Oak-Shagbark-Hickory.

EIC  
 SITE: Samsung Solar  
 POLYGON: 12  
 DATE: 19-Oct-2010  
 SURVEYOR(S): M. Strauss

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

Species	1	2	3	4
QUERCUBR	0	R		
FRAPENN	0			
CAROUAT	0	0		
ACESACS	0	0		
QUETMACL				
ACERUBR	0	0		
OSTVIRS		0		
RIBHIRT			R	







W:\active\60960577\drawing\GIS\MXD\SolarLands\60960577\_DRAFT\_SolarLandsConstraints\_20101016\_DH.mxd - 10/16/2010 @ 7:51:38 PM

October 2010  
160960577

**Legend**

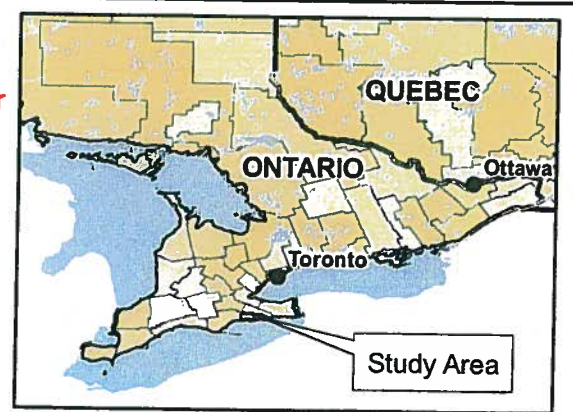
- Project Location
- Solar Lands
- Government Lands
- Road
- Railway
- Abandoned Railway
- Watercourse
- Waterbody (OBM)

**Constraints to Development**

- Woodland Area
- Wetland
- Potential Fish Habitat/Waterbody
- Potentially Significant Wildlife Habitat
- Wetland - 30m Setback
- Potential Fish Habitat/Waterbody - 30m Setback
- Potentially Significant Wildlife Habitat - 120m Setback



*Handwritten notes:*  
 Woodlot E  
 2-2ac P1W1  
 Wet pocket - trail right thru it  
 Sedges



**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. LIDAR IMAGERY SOURCE???

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

Figure No.  
**DRAFT**

Title  
**SOLAR LANDS NATURAL**



Feature 31

<b>ELC</b> 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
<b>SITE</b>		<b>COVER</b>			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	7	4	ALCPRAL 3 FILAPENW
2 SUB-CANOPY	3		" 2 ULMAMER
3 UNDERSTOREY	4	4	CORUS.
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 < 60% 4= CVR > 60%

STAND COMPOSITION:

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

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Swamp Noddy - Green Ash Mineral Dec. Swamp	SWD3-5*
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Plot # 1878  
Young Swamp - closer to road a bit older (midaged)

<b>ELC</b> PLANT SPECIES LIST	SITE: GIREP	
	POLYGON: 1 (Woodlot Sutora)	
	DATE: 3 Dec-2010	
	SURVEYOR(S): Melissa Straus	

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

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

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.
	1	2	3	4			1	2	3	4	
FILAPENW	O	O	-			Sedges					O
CANOVAT	R	R				Ferns					R
ALCPRAL	O	O	-								
ULMAMER	N										
QUEBICO	R										
CALCMTD				R							
COTRACE				R							
COTROBLI				R							
FLAVIRG				R							

*Feature 31*

<b>ELC</b> 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
<b>SITE</b>		<b>COVER</b>			
<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	FAEGRIAN >
2 SUB-CANOPY	2	4	"
3 UNDERSTOREY	34	4	FAEGRIAN
4 GRD. LAYER			

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

**STAND COMPOSITION:** BA:

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

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

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

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

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

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <i>Dry-fresh Beach Dec. Forest</i>	CODE: <i>F04-1</i>
INCLUSION:	CODE:
COMPLEX:	CODE:

Notes: *Pic 1879 - overmature - Be dying back slightly wet*

<b>ELC</b> PLANT SPECIES LIST	SITE: <i>Samsung</i>	
	POLYGON: <i>2</i>	
	DATE: <i>2-Dec-2010</i>	
	SURVEYOR(S): <i>Melissa Straus</i>	

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

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
<i>FAEGRIAN</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>-</i>								
<i>CARDIAT</i>	<i>R</i>	<i>R</i>	<i>-</i>	<i>-</i>								
<i>FRAPPEN</i>	<i>R</i>	<i>R</i>	<i>-</i>	<i>-</i>								



Feature 31

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

**POLYGON DESCRIPTION**

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

**STAND DESCRIPTION:**

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

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

STAND COMPOSITION: BA:

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

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

**SOIL ANALYSIS:**

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	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: Cum
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pic 1883 Cum & cut burden

<b>ELC</b> PLANT SPECIES LIST	SITE: GREP
	POLYGON: Sutor Rd A (3)
	DATE: 3-Dec-2010
	SURVEYOR(S): M. Stroup

LAYERS: 1 = CANOPY > 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		
						Cum						
						Goldenrods					A	
						Asters					A	
						Goldenrod						
						COLLEGE					D	







Woodlot: 25.65 acres

Fall Wheat: 9.87 acres

Total Solar Lands: 69.25 acres

Cattle Pen: 2.07 acres

*Handwritten red ink:*  
Fall Wheat  
- 1000 ft  
- 1000 ft  
- 1000 ft

*Handwritten red ink:*  
Hayfield

*Handwritten red ink:*  
1000 ft

*Handwritten red ink:*  
1000 ft

*Handwritten red ink:*  
1000 ft





Feature 31

3-Dec-2010

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): Sutor Rd "B"

Approximate age of stand 80 years - Oaks old  
understory + subcanopy  
young  
Plantation - 10-15 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. None visible from road!

15cm DBH + 15m + loose bark

Trees with cavities present?  No  Rare  Occasional  Abundant unknown.

	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 Firewood cutting (trails for Ketti, even)

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 at pond edge



Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : \_\_\_\_\_

Approximate age of stand \_\_\_\_\_

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

If yes, approximate # present or % of stand \_\_\_\_\_

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

Are snags present?  Yes  No

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

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

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

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

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

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

If yes, describe \_\_\_\_\_

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

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

Feature 31

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

<b>ELC</b> PLANT SPECIES LIST	SITE: Samsung Solar	
	POLYGON: Suta Road 'B' ①	
	DATE: 3-Dec-2010	
	SURVEYOR(S): M. Straus	

POLYGON DESCRIPTION

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

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUEECUS 20 (PURRA > ALBA >> BICOLOR) > ACESACS > (LAPINA)
2 SUB-CANOPY	2	4	ACESACS > FRAPENN > CARONAT
3 UNDERSTOREY	3	4	ACESACS > 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	D 25-50	R > 50
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STANDING SNAGS:	< 10	10-24	25-50	> 60
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DEADFALL / LOGS:	< 10	10-24	25-50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

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

SOIL ANALYSIS:

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

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Dry-fresh Sugar Maple - Oak Deciduous Forest FODS-3	
INCLUSION	CODE:
Gray Dogwood Swamp Thicket	
COMPLEX	CODE:
SWT29	

Notes: from road Pic 1880... - Oak dom. mixed overstory  
Hawb dense understory (maple?)

SPECIES CODE	LAYER				COLL.	SPECIES CODE	LAYER				COLL.	
	1	2	3	4			1	2	3	4		
FRAPENN	R	O	O	-								
QUEBICO	R	-	-	-								
CARONAT	O	O	R	-								
QUECUBR	A	R	R	-								
QUEMBA	O	R	R	R								
FRAPENN	O											
ACESACS	O	O	O									
ACEFUSE	R											
CORRACE				O								

JIC















59.2 acres

WINDY HOLLOW

FOD

WINDY HOLLOW





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: GRFP

Date / Time: Sept 24, 2010 11:00-11:20

Field Personnel: A. Taylor

Weather Conditions:

Temp: 26°C

Wind: 5

Cloud: 40%

PPT: —

PPT in last 24 hrs: —

Location (i.e. turbine #s/description) Solar beds - Woodlot #2

**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  YBSA BCCH				

Feature 31

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): FOD2-2

Approximate age of stand 80 yrs.

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

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

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

Are snags present?  Yes  No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. - one snag; 20cm DBH / 15m tall

- Air photo shows more snags throughout woodlot.

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?

No access

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 31

**Woodland Assessment- complete 1 assessment for each woodland**

Woodlot # (indicate on map): COW

Approximate age of stand 15 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 Roadway

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

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

**Woodland Assessment- complete 1 assessment for each woodland**

**Woodlot # (indicate on map) :** \_\_\_\_\_

**Approximate age of stand** \_\_\_\_\_

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

If yes, approximate # present or % of stand \_\_\_\_\_

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

**Are snags present?**  Yes  No

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

**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















FOD9-1

CUM1/dist.

SWD4-5\*

FOD9-1

← MAM2-11\*

SWD4-5\*

← MAM2-11\*

SWD4-5\*

59.2 acres

FOD9-1

MAM2-11\* →

← SWD4-5\*/MAM2-11\*

SWD4-5\*

FOD9-4

FOD9-1

CUM1 (see ART's map)

FOD9-1

CUM1

DA

150m Maple-hick



Samsung Selas Lands 161010624

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: Woodlot B (+A)	POLYGON: ①
	SURVEYOR(S): GAW	DATE: Oct. 14, 2010
	START:	END
	UTME:	UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input 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"/> 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
<b>SITE</b>			<b>COVER</b>		
<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	QUERUBR > ACESASA = Shagbark
2 SUB-CANOPY	3	4	ACESASA = ACERUBR = FAGGRAN > blue beech
3 UNDERSTOREY	4-5	4	" " " "
4 GRD. LAYER	6-7	4	SANMARI, FRAVESC, l.l. aster

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

STAND COMPOSITION: BA:

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

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

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

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: Forest	CODE: FO
COMMUNITY SERIES: Deciduous Forest	CODE: FOD
ECOSITE: F-M Oak-Maple-Hickory Dec. Forest	CODE: FOD9
VEGETATION TYPE: Fresh-moist <sup>sugar</sup> Oak-Maple Dec. Forest	CODE: FOD9-R
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

<b>ELC</b> PLANT SPECIES LIST	SITE: FEATURE 31
	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	O				RHURANE				O	
QUEALBA	O	O				FRAVESC				A	
ACESASA	O	A	A			early m. rup				O	
ACERUBR	O	A	A			ASTLATE				O	
Shagbark	A	O				SMITHSP				O	
TILAMER	O	O	O			GERMACV				O	
FRAPENN	O	O				GEUCANA				O	
OSTVIRG		O	O			BHURYDB				O	
						CIRLEUT				O	
FAGGRAN	O	A	A			SANMARI				A	
PINSTRO	R					IMCAPE				O	
blue beech		A	A			LAPCANA				O	
Crataegus sp			O			l.l. aster				O-A	
RHACATH				O		Carex sp.				O	
barberry				R		EVOBOV				O	
AIBCYNO				O		AGRGRYP				O	
CORFO RA				O		GLYSTRI				O	
VITRIPA				O		Viola sp.				O	
LONDIOL				O		PREALBA				R	
RUBIDAE				O		GERROBE				O	
RUBOCCI				O		Grapefern				R	X
Witch hazel				R		DRYART				O	
PRUVINI				O	O	ARYFI-FE				O	
						ONOSENS				R	
						SOLCAES				O	
blunt hepatica				O		X-mas fern				O	
sw. cealy				O		POTSIMP				O	

fl. from base

<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE:		POLYGON: ②	
	SURVEYOR(S):		DATE:	UTME:
	START:	END:	UTMZ:	UTMN:

**POLYGON DESCRIPTION**

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / 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
			<b>COVER</b>		
<b>SITE</b>			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK					

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	Shagbark = ACERUBR > FRAPENN > Quercus
2 SUB-CANOPY	3	4	ACERUBR > blue beech
3 UNDERSTOREY	4-5	4	blue beech >> Cornus
4 GRD. LAYER	6-7	4	ASTLATE, Grasses, mosses, SANMARI

HT CODES: 1=>25m 2=10<HT.25m 3=2<HT.10m 4=1<HT.2m 6=0.5<HT.1m 8=0<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%

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

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b> Swamp	<b>CODE:</b> SW
<b>COMMUNITY SERIES:</b> Deciduous Swamp	<b>CODE:</b> SWD
<b>ECOSITE:</b> Mineral Deciduous Swamp	<b>CODE:</b> SWD4
<b>VEGETATION TYPE:</b> Shagbark - Red Maple Min. Dec. Swamp	<b>CODE:</b> SWD4-5*
<b>INCLUSION</b>	<b>CODE:</b>
<b>COMPLEX</b>	<b>CODE:</b>

Notes: some areas more open

<b>ELC</b> 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	
Shagbark	A	0				ONOSCNS				0	
ACERUBR	A	A	A			LYCUNIF				0	
FRAPENN	0	A	A			ASTLATE				A	
QUEMACR	0	0				ARVFI-FE				0	
TILAMER	0	0	0			RHURANE				0	
QUERUBR	R					Carex sp				0	
QUEALBA	0	0				Mosses				A	
blue beech		A	A			SANMARI				0	A
RIBCYNO			0			GLYSTR1				0	
RIBAMER			0			Grass sp.				0	
CORBTOL			A			round hepatica				0	
						URTDIOL				0	
						Viola sp.				0	
						mirewort				0	
						Ranunculus sp				0	
						IMPCAPE				0	





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

**POLYGON DESCRIPTION**

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

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	Shagbark >> FRAPENN = QUERUBR
2 SUB-CANOPY	3-4	3	OSTNIRG > ACESASA
3 UNDERSTOREY	5	3	" " = blue beech
4 GRD. LAYER	6-7	4	SOLCANA-SANMARI-FRAVESC

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

STAND COMPOSITION: BA:

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

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

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

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

**SOIL ANALYSIS:**

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: Forest CODE: FO

COMMUNITY SERIES: Deciduous Forest CODE: FOD

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

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

INCLUSION CODE:

COMPLEX CODE:


Notes:

<b>ELC</b> 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	
Shagbark	D	A				SANMARI				A	
QUERUBR	O	O				FRAVESC				A	
FRAPENN	O	O				SOLCANA				A	
ACESASA		O	O			EUOBOV				O	
OSTNIRG		O	O			GERMACU				O	
TILAMER		O	O			ASTLATE				O	
blue beech		A	A			sw. acaly				O	
ACERUBR		O	O			GLYSTR1				O	
						Viola sp.				O	
						RHURANE				O	
						GEVALLE				O	
						DRYCRIS				O	
LONDIOL				O							
CORSTOL				O							
RUBIDAE				O							
PRUVI.VI				O							
RHACATH				O							



 <b>Stantec</b>	Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493			<b>Wildlife Habitat          Assessment</b> FEATURE 31 Woodlot B	
	Project Number: <u>161010624</u>		Project Name: <u>Samsung Solar lands</u>		
Date / Time: <u>Oct. 14. 10</u>		Field Personnel: <u>GAW</u>			
<b>Weather Conditions:</b>	Temp: <u>7°</u>	Wind: <u>2</u>	Cloud: <u>100%</u>	PPT: <u>showers</u>	PPT in last 24 hrs: <u>Rain</u>

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

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

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

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

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

UTM	Feature type	Photo #	Description	Species observed using feature

**Species Observations**

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

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMR/VO</i> BLJA AMCR NOFL KILL	deer - OB grey squir. -OB	/	/	/

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): Woodlot B

Approximate age of stand Mature

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

If yes, approximate # present or % of stand < 10%, oaks throughout

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. Very few (most visible on air photo). 20-30 cm DBH. One or two with loose bark. One larger (>30cm DBH) - no loose bark.

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

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

Bat Mat Roost? Nope

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

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

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

If yes, describe Trails (ATV) throughout

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	none	variable	yes	yes
	rare in FOD	none	small (1-2m)	yes	yes



**ELC**  
 COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Woodlot E  
 POLYGON: ①

SURVEYOR(S): GAW  
 DATE: Oct. 14, 10  
 UTME:  
 UTMZ: UTMN:

START: END:

**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  <b>COVER</b> <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	ULMAMER ≥ ACERUBR
2 SUB-CANOPY	3	4	"
3 UNDERSTOREY	4-5	4	CORSTOL
4 GRD. LAYER	6-7	4	reed canary, CORSTOL

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

**STAND COMPOSITION:** BA:

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

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

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

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

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: Swamp	CODE: SW
COMMUNITY SERIES: Deciduous Swamp	CODE: SWD
ECOSITE: Mineral Deciduous Swamp	CODE: SWD4
VEGETATION TYPE: White Elm Mineral Deciduous Swamp	CODE: SWD4-4
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

No Access  
 From edge only. → first 50m.

**ELC**  
 PLANT SPECIES LIST

SITE: FEATURE 31  
 POLYGON:  
 DATE:  
 SURVEYOR(S):

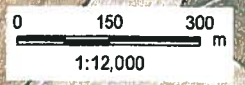
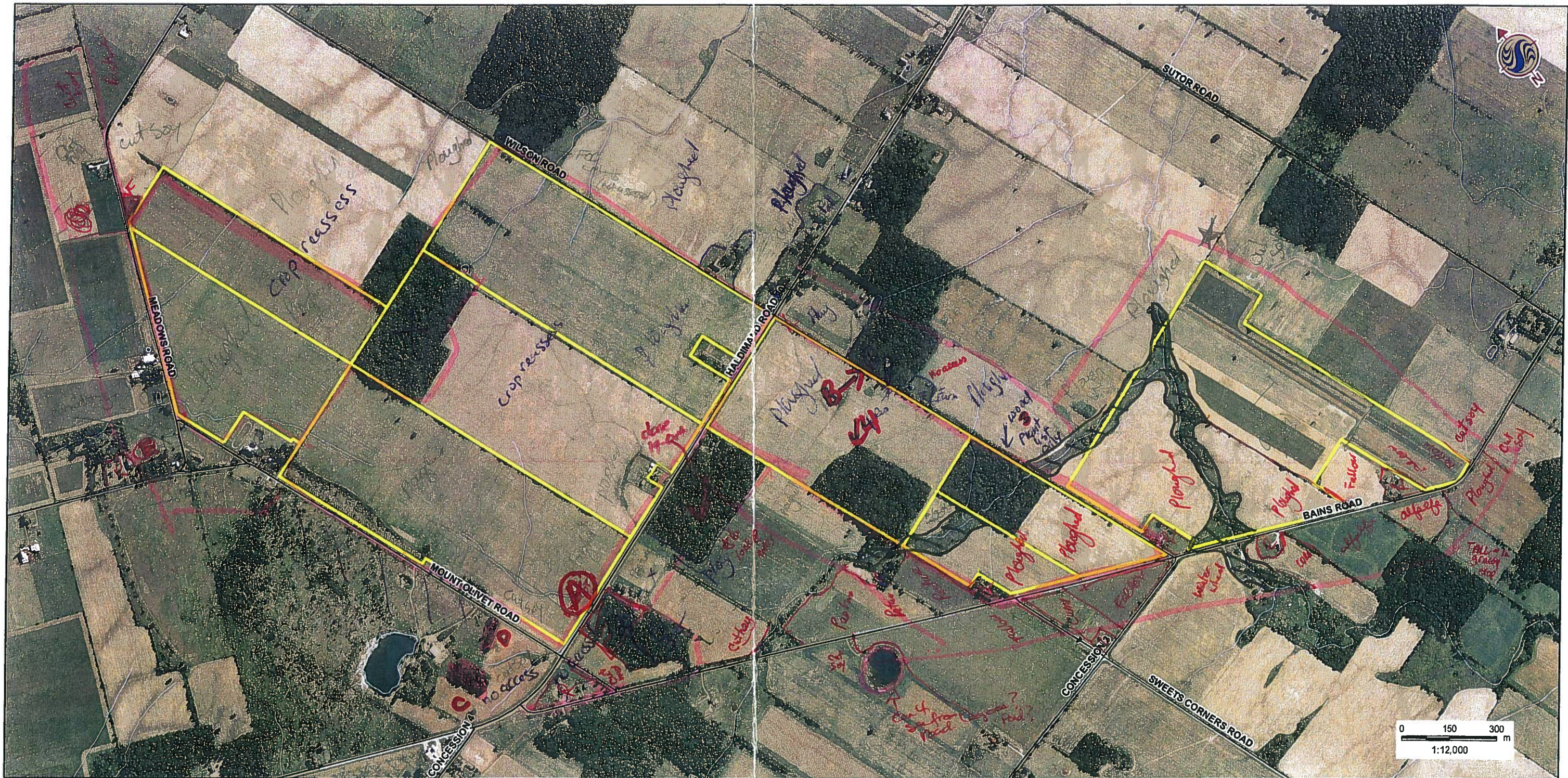
LAYERS: 1 = CANOPY > 10m 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER  
 ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ACERUBR	R	A			
ULMAMER	D	A			
QUERUBR	R				
shagbark	O	O			
RHACATH		O			
CORSTOL			D	A	








SPECIES CODE	LAYER				COLL.
	1	2	3	4	
reed canary				A	
p.stem aster				O	
SOLRUGO				O	
SOLCANA				O	
LYCUNIF				O	



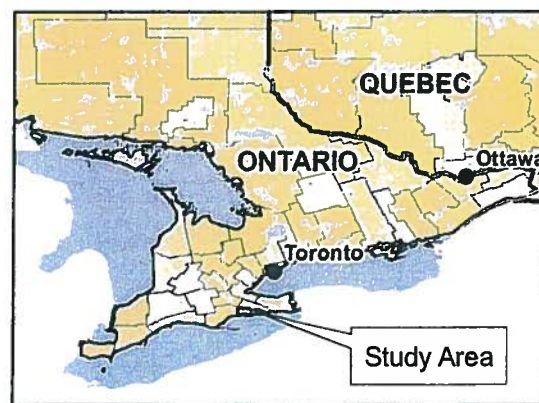
W:\active\160960577\drw\img\GIS\MXD\SolarLands\160960577\_DRAFT\_SolarLands\_20100922\_P\W.mxd - 9/22/2010 @ 1:56:54 PM



September 2010  
160960577

- Legend**
-  Project Location
  -  Government Lands
  -  Road
  -  Railway
  -  Abandoned Railway
  -  Watercourse (OBM)
  -  Waterbody (OBM)

*every field in yellow  
reassess it w in 120m  
Only some woodlots  
needed. See notes.*



- 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. LIDAR IMAGERY SOURCE???

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

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Figure No.  
**DRAFT**

---

Title  
**PROJECT LOCATION MAP**





2-Dec-2010

# Feature 37

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): A - solar site

*Assessed from edge.  
Little info available.*

Approximate age of stand 40-50 years

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

If yes, approximate # present or % of stand \_\_\_\_\_

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

Are snags present?  Yes  No Probably, None visible from edge

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

*Unknown*

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 shrut logs at pond edge

Feature 40

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : B

Approximate age of stand 70-80

From edge  
little info  
avail

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)
Snag ①	4m	10-15cm	4m	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 Honesteads cut into 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 shrubs at pond edge



Feature 37

EIG MINOR DESIGNATION CLASSIFICATION	SITE:		POLYGON:	
	SURVEYOR(S):		DATE:	UTM:
	START:	END:	UTMZ:	UTMN:

POLYGON DESCRIPTION

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

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	2	QUEBICO >> FRAPENNO
2 SUB-CANOPY			
3 UNDERSTOREY	4		Cornus
4 GRD. LAYER	5-7	4	Red canary grass

HT CODES: 1 = >25 m 2 = 10-25 m 3 = 2-10 m 4 = 1-2 m 5 = 0.5-1 m 6 = 0.2-1 m 7 = HT=0.1 m  
 CVR CODES: 0 = NONE 1 = 0% < CVR < 10% 2 = 10 < CVR < 25% 3 = 25 < CVR < 50% 4 = CVR > 50%

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE:	CODE:
Red canary grass Mineral Meadow mmm 2-2	
INCLUSION	CODE:
COMPLEX	CODE:

Notes: Pic 1864 - From Road. Nosects.

EIG SPECIES	SITE: Farmsung
	POLYGON: A1 (Solar)
	DATE: 2-Dec-2010
	SURVEYOR(S): M. Straus

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

Species	1	2	3	4	Code
QUEBICO	0	0			
FRAPENNO					
Red Canary Grass					A
CORNUS sp.				0	

(Reticular or silky)

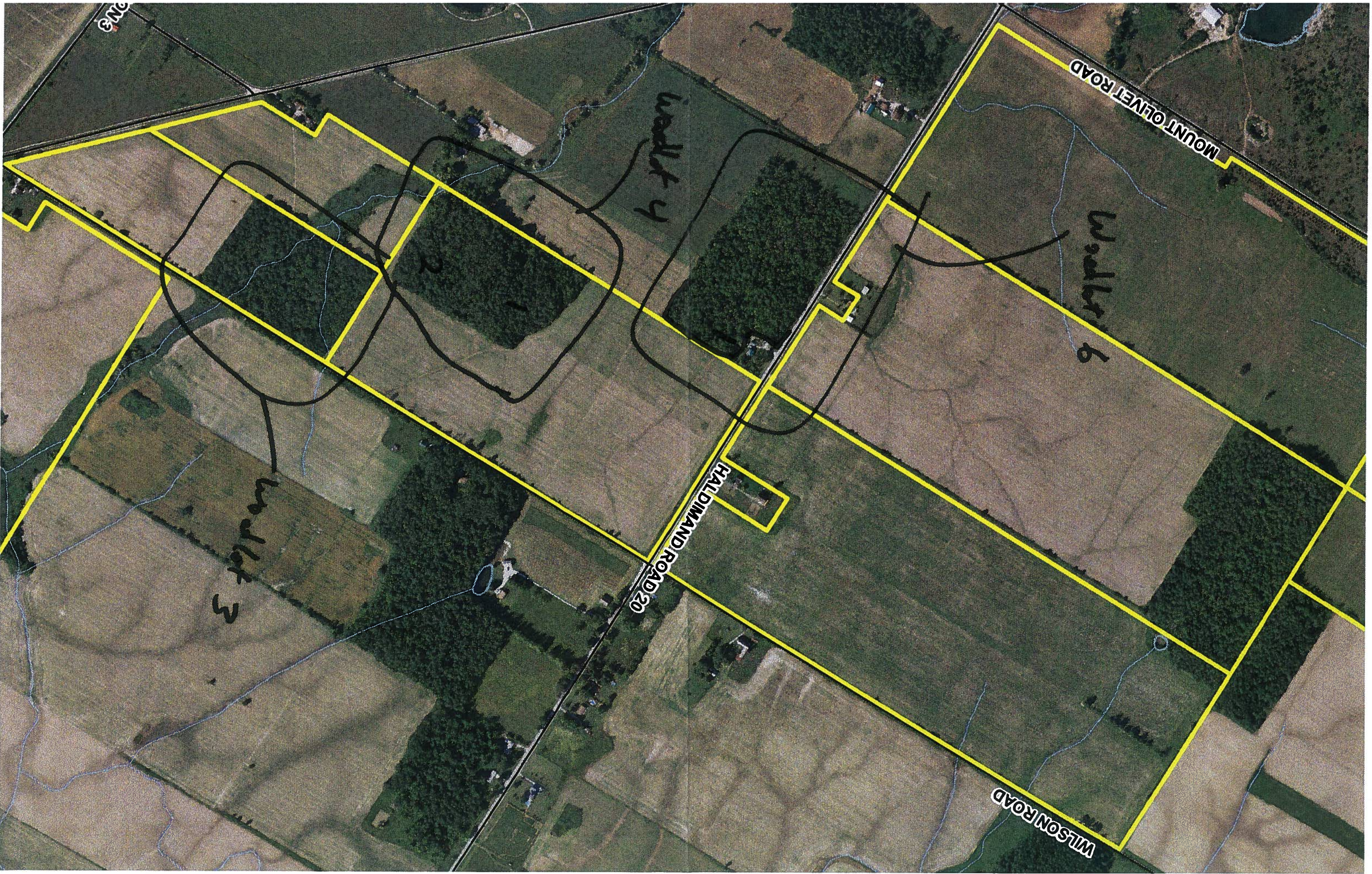












ENC

MOUNT OLIVET ROAD

Wadler 4

Wadler 6

Wadler 3

BALDAMAND ROAD 20

WILSON ROAD





**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 24, 2010 17:00-19:30

Field Personnel: ART

Weather Conditions:	Temp: <u>27°C</u>	Wind: <u>3</u>	Cloud: <u>90%</u>	PPT: <u>/</u>	PPT in last 24 hrs: <u>Rain</u>
---------------------	-------------------	----------------	-------------------	---------------	---------------------------------

Location (i.e. turbine #s/description) Solar Lnd - woods 3, 4 and 6  
Features 38 + 39

**Reptile Hibernacula Features** i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows) Does the site contain potential reptile hibernacula features?  Yes  No (if yes, describe details in Table 1).

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

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

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

UTM	Feature type	Photo #	Description	Species observed using feature

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

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMROVO</i> <u>Ottow</u>	<u>Musk rat</u>	<u>Milk snake;</u> <u>- dead on road</u> <u>- 6cm long</u> <u>- 17T 597688</u> <u>4747730</u>	<u>} Project location</u> <u>changed - now</u> <u>&gt; 120m.</u>	



Feature 38 + 39

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): 1 - Woodlot #6

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.

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?
	None observed from edge			

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

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

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

If yes, describe \_\_\_\_\_

Seeps/ springs present?  Yes  No If yes,

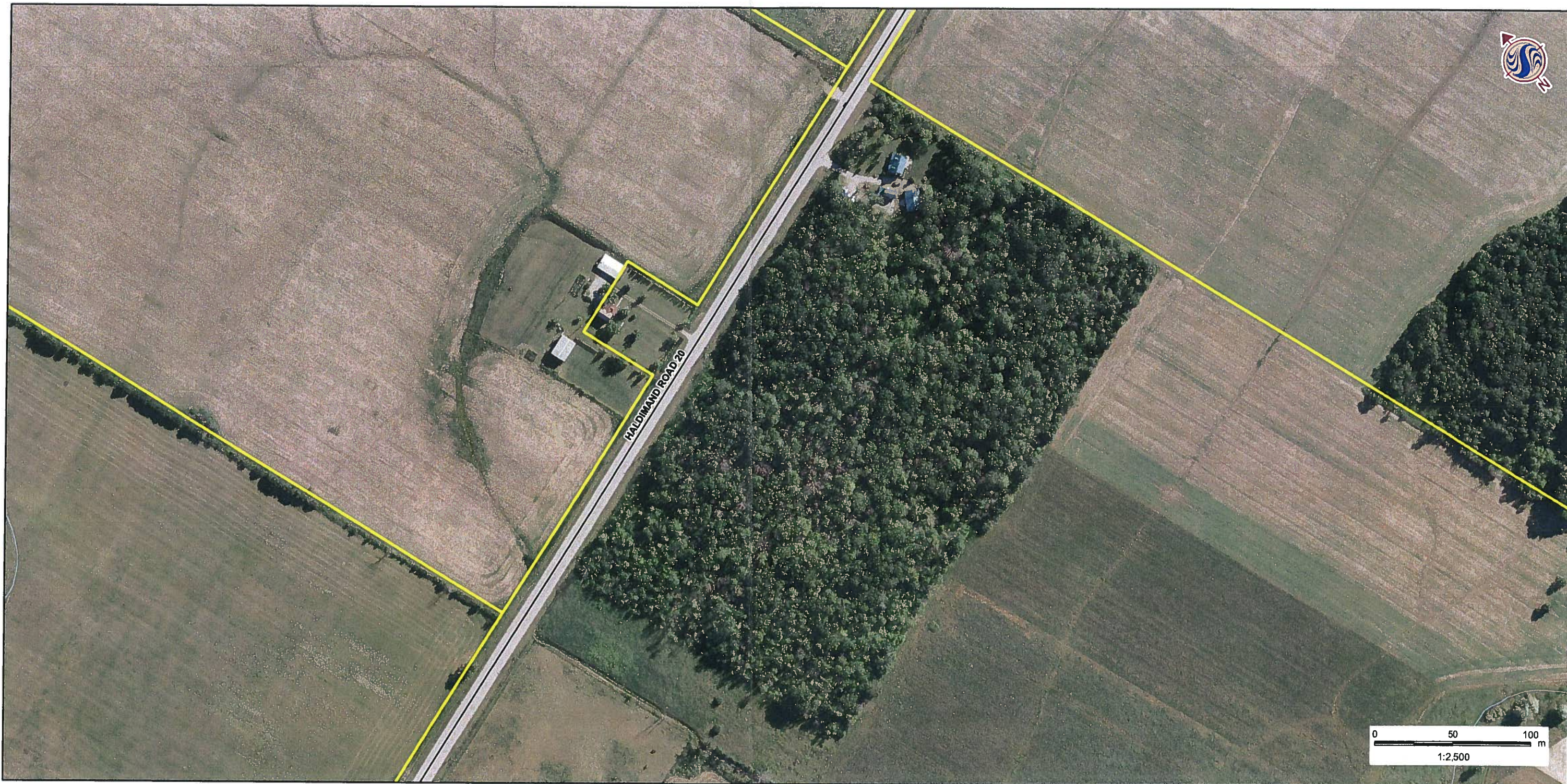
Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

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

No access












W:\a\160960577\drawing\GIS\MXD\SolarLands\160960577\_DRAFT\_Woodlot6\_20100927\_DH.mxd - 9/27/2010 @ 10:06:04 AM

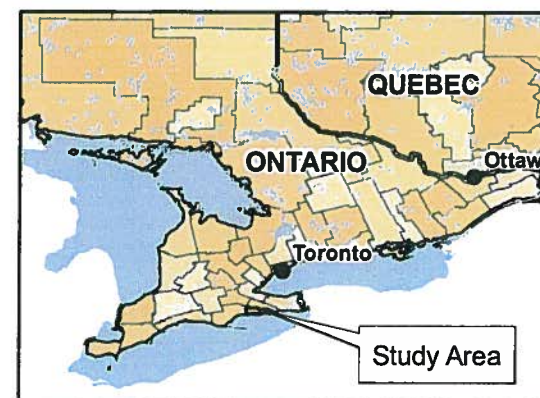
September 2010  
160960577

**Legend**

-  Project Location
-  Government Lands
-  Road
-  Railway
-  Abandoned Railway
-  Watercourse (OBM)
-  Waterbody (OBM)



**Stantec**



**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. LIDAR IMAGERY SOURCE???

Client/Project

SAMSUNG C&T  
GRAND RENEWABLE ENERGY PARK

Figure No.

DRAFT

Title

**Woodlot 6**



Woodlot 6

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: GLEP	POLYGON: 1
	SURVEYOR(S): ART	DATE: Sept 24, 2010
	START: END	UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input 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"/> SHALDOW 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	FRAAMEB > QUENACR > CAROUAT
2 SUB-CANOPY	3	3	FRAAMEB > ACBJASA
3 UNDERSTOREY	4	3	FRAAMEB > RHACATH
4 GRD. LAYER	56	2	Calico etc

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 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 O 25-50 W > 50
STANDING SNAGS:	R < 10 R 10-24 R 25-50 W > 50
DEADFALL / LOGS:	0 < 10 O 10-24 R 25-50 W > 50
ABUNDANCE CODES:	N = NONE R = RARE O = OCCASIONAL A = ABUNDANT
COMM. AGE:	PIIONEER 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:	CODE: Oak-Hardwood Deciduous forest FOD2-4
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

L-> FROM EDGE?

Feature 38

ELC PLANT SPECIES LIST	SITE: GLEP
	POLYGON: 1
	DATE: Sept 24, 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			
CAROUAT													
QUENACR													
FRAAMEB													
QUENACR													
RHACATH													
Calico													
ACBJASA													





### SUBSTATION

- park in driveway of vacant house off Bains Rd  
- ELC for everything w/ 120m



Stantec

#### Legend

- |  |                                     |  |                                      |  |  |
|--|-------------------------------------|--|--------------------------------------|--|--|
|  | Project Location                    |  | Transmission Line (OBM)              |  | Fencing  |
|  | 120m Investigation Zone V2 Oct 08   |  | Deer Wintering Area                  |  | Substation Fencing                             |
|  | Proposed Turbine Location V2 Oct 08 |  | Provincially Significant Wetland     |  | Substation                                     |
|  | Substation Property                 |  | Non-Provincially Significant Wetland |  | Waterbody                                      |
|  | Proposed Collector Line V2 Sept 30  |  | Watercourse (OBM)                    |  | Area of Natural and Scientific Interest (ANSI) |
|  | Proposed Access Road V2 Oct 08      |  | Planted Trees                        |  | Life Science, Provincially Significant         |
|  | ROW Installation Zone V2 Oct 08     |  | Roadway                              |  | Earth Science, Provincially Significant        |
|  | Elenco Aquired Agreements           |  | Storm Water Management               |  | Earth Science, Regionally Significant          |
|  | Government Lands                    |  | Transmission Line                    |  | Maintenance Building                           |
|  | UDI Lands                           |  |                                      |  |  |
|  | 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 2008; LIDAR IMAGERY SOURCE 777.
4. Produced using the Version 2 site plan provided by Samsung issued on October 8, 2010

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

Figure No.  
**FIELD MAP**

Title  
**SUBSTATION PROPERTY**



 <b>Stantec</b>		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		<b>Wildlife Habitat Assessment</b>	
Project Number <u>1609160577</u>		Project Name: <u>Samsung</u>			
Date / Time: <u>19-Oct-2010</u>		<u>@ 10:30 -</u> <u>18:00</u>		Field Personnel: <u>M. Straus</u>	
<b>Weather Conditions:</b>	Temp: <u>8°</u>	Wind: <u>4</u>	Cloud: <u>0</u>	PPT: <u>none</u>	PPT in last 24 hrs: <u>none</u>

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

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

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

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

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

UTM	Feature type	Photo #	Description	Species observed using feature

**Species Observations**

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

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
i.e. AMRO/VO ROVA-OB SWSP-OB RBWD-OB AMCR-OB BCCH-VO AMRO-OB RTHA-OB EABL-OB AMWO-OB HAWO-VO NOFL-OB		Garter Snake-OB		

# Feature 38

## Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : A

Approximate age of stand 60-80 years (mature)

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..) Hedge row - 1 or 2 Red Oak

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 @ 25cm; 18m tall, no loose bark; 10 Ea @ 20-25cm DBH; 7m tall; 2 @ 15cm 2 to 8m tall

many in mfr swamp  
to 10/ha

Dead  
26/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)
Mr	35cm	↔ 5m	.0m	hollow
Mr	45cm	↔ 25m	8m	Small
snags → Ea.	35cm	↔ 25m	8m	Small
live	35cm	20m.	.0m	hollow

loose bark

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

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

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

If yes, describe Firewood cutting

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat
1 Spring	N 597083. 474923	old by landowner - behind house	cattail marsh MAS

10m from 205

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	596773. 474836	< 5cm	3m	Silky Dogwood	No
2	596826. 474837	N 20cm	8m	NO	Partially man made

in swamp  
Pic 695











Feature 38

**EIC** SITE: 1609160577 POLYGON: 4  
 SURVEYOR(S): DATE: UTME:  
 START: 12:45 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 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"/> TALLUS <input type="checkbox"/> GREVCE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL  <input type="checkbox"/> COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THicket <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	FRAPENN > ACBFRGE
2 SUB-CANOPY	3	4	"
3 UNDERSTOREY	4	4	RHACATH < Gray Dogwood
4 GRD. LAYER	5-7	4	FRAVRS > Aster = Goldenrod

HT CODES: 1=>25m 2=10-4HT:25m 3=2-4HT:10m 4=1-4HT:22m 5=0.5-4HT:1m 6=0.3-4HT:0.5m 7=HT<0.2m  
 CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 50% 4= CVR > 50%

**STAND COMPOSITION:**

BA: \_\_\_\_\_

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

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

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

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

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

**SOIL ANALYSIS:**

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

**MOISTURE:** DEPTH OF ORGANICS: (cm)

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

**COMMUNITY CLASSIFICATION:**

**COMMUNITY CLASS:** CODE: TO

**COMMUNITY SERIES:** CODE: TOB

**ECOSITE:** F-M / ... CODE: FBT

**VEGETATION TYPE:** Green Ash / mineral Deciduous Swamp SWO22 CODE: SWO22

**INCLUSION** CODE:

**COMPLEX** CODE:

Notes:

edge + young wet slightly more upland. Pic 164, low tall wet

**EIC** SITE: Samsung  
 POLYGON: 4  
 DATE: 19-Oct-2010  
 SURVEYOR(S): MS.

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

Species	1	2	3	4
FRAPENN	0			
ACBFRGE	0			
RHACATH				
FRAVRS				
Aster				
Goldenrod				
RUBICANA	0			
Silky Dogwood	0			
CASCARO				
RHACATH	0			
FRAVRS				
Hawthorn	0			
Goldenrod				0
Buttercup				R



FLC  
COMMITTEE  
ON  
CLASSIFICATION

SITE: 160960577 POLYGON: 5

SURVEYOR(S): DATE: UTM:

START: 13.00 END: 13.45 UTMZ: UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	FEATURE	FORM	COMMONITY	
<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"/> CANYON / CAVE <input type="checkbox"/> ALMVA <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREE	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOD. <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> 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	4	ACERUBR > QUERMA
2	SUB-CANOPY	7	ACERUBR
3	UNDERSTOREY	4	OSTVIRG > CARCARO
4	GRD. LAYER	4	FRAVIRG > Viola sp.

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

STAND COMPOSITION: BA:

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

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

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Swamp CODE: SW

COMMUNITY SERIES: Deciduous Swamp CODE: SWD

ECOSITE: Maple Mineral Deciduous Swamp CODE: SWD3

VEGETATION TYPE: Red Maple Mineral Deciduous Swamp CODE: SWD3-1

INCLUSION CODE:

COMPLEX CODE:

Notes:

midstage - Red Maple

FOI - 5/11/96  
- other

Pic 11697-1696

FLC  
COMMITTEE  
ON  
CLASSIFICATION

Feature 58

SITE: Samsung

POLYGON: 5

DATE: 19-Oct-2010

SURVEYOR(S): MS

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

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

Species	1	2	3	4
FRAPENN	O	R	R	
TILAMBR	O	R		
ACERUBR	O	O	O	
CARCARO	R	R		
QUERMA	O	R		
OSTVIRG			O	
FRAVIRG		R	R	
QUERUBR	R			
ALUSICS	O			
RUBIANA			R	
Gray Dogwood			R	
CARPCATL			O	
RHACATH			R	
R. HU RAP			R	
RUBIDEA			R	
FRAVIRG			O	
ASTMAR				R
ASTLATE				O
Buttercup				O
Viola sp.				O

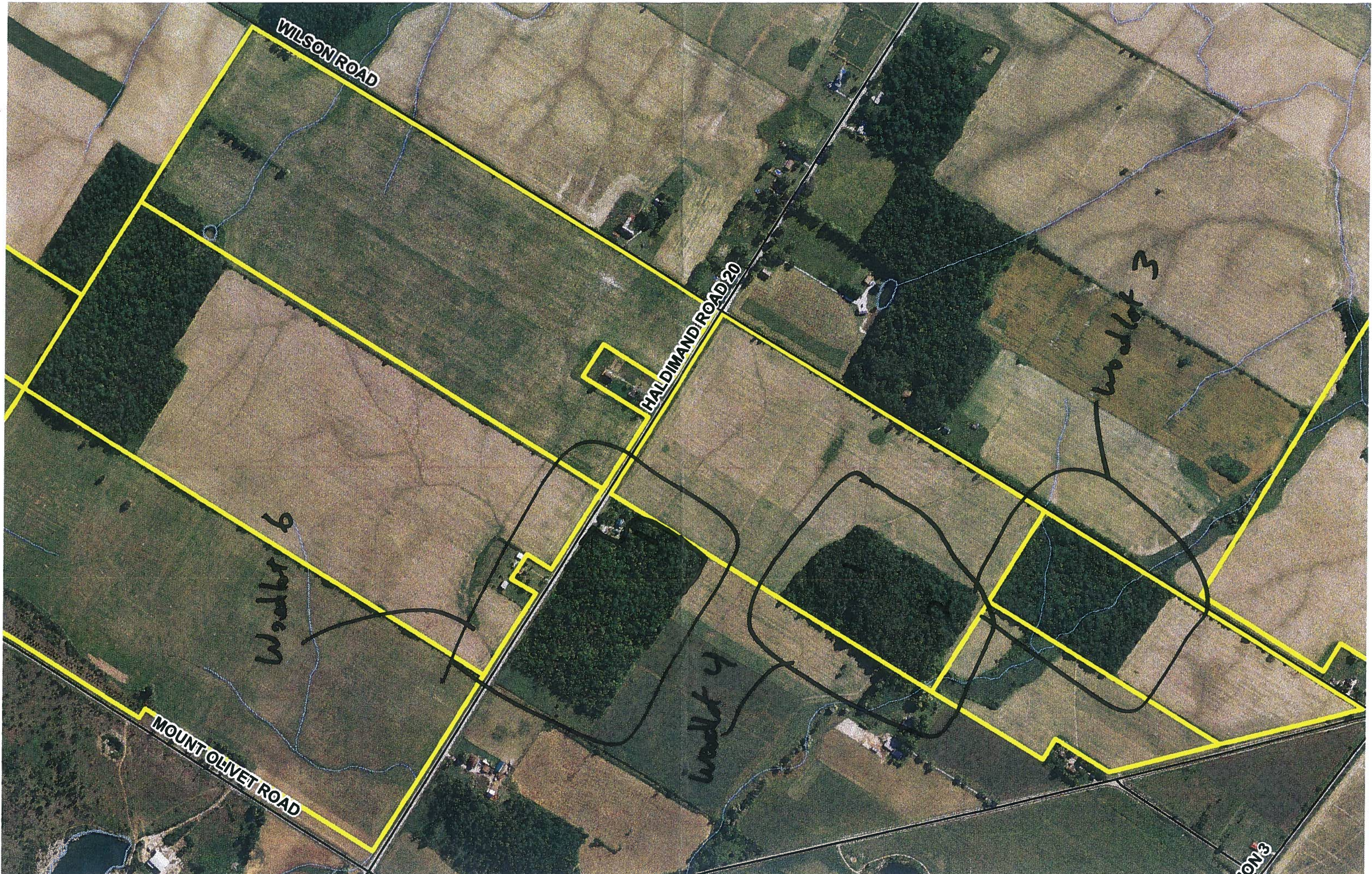












WILSON ROAD

HALDIMAND ROAD 20

MOUNT OLIVET ROAD

Woodlot 6

Woodlot 4

Woodlot 3

SONA





**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 160460577 Project Name: GREP

Date / Time: Sept 24, 2010 17:00-19:30 Field Personnel: ACT

Weather Conditions:	Temp: <u>27°C</u>	Wind: <u>3</u>	Cloud: <u>90%</u>	PPT: <u>/</u>	PPT in last 24 hrs: <u>Rain</u>
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Location (i.e. turbine #s/description) Solar Land - woodchips 3, 4 and 6

**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
<u>i.e. AMRO/VO</u> <u>Gt Owl</u>	<u>Mustelid</u>	<u>Milk Snake;</u> <u>- dead on road</u> <u>- 597108</u> <u>4747230</u>		



Feature 39

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): 1 - woodlot 4

Approximate age of stand 100 yrs?

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

If yes, approximate # present or % of stand 50%

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. - Rare as most dead and very mature trees logged out approx 10 snags - 25m high / 30-50cm 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?
	<u>20-25m</u>	<u>20-60DBH</u>	<u>10-15 m</u>	<u>2 small</u>

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

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

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

If yes, describe Logging

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): 2 - woodlot 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 30%

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. rare, as most snags logged out

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities  Yes  No (if yes, describe details in Table 1).  
5 snags; 20-25m high / 30-50cm high

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?
	<u>15m</u>	<u>40cm</u>	<u>15m</u>	<u>1 medium</u>

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

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

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

If yes, describe logging

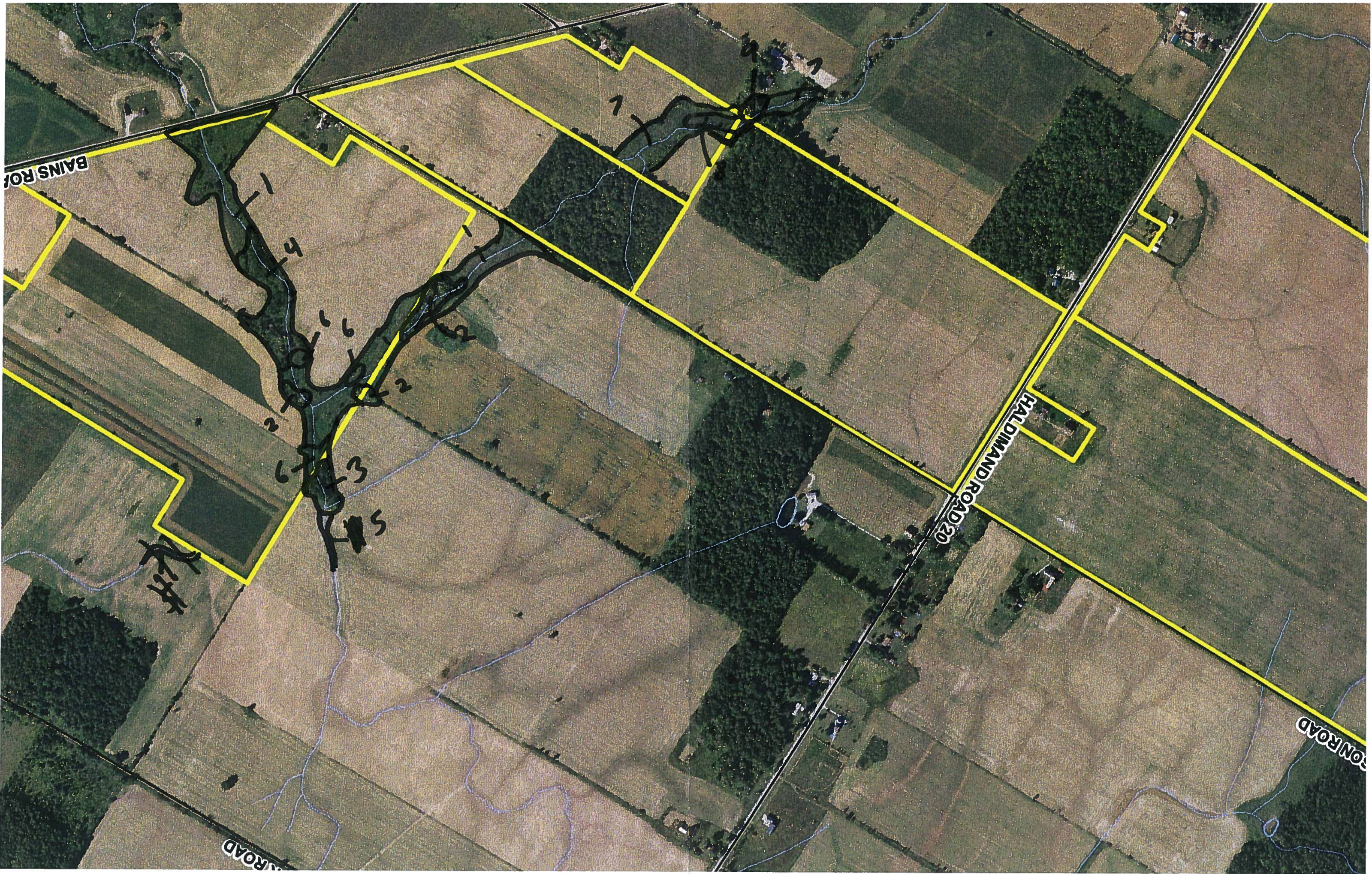
Seep/ springs present?  Yes  No If yes,

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





BAINS ROAD

HALDIMAND ROAD 20

SON ROAD

ROAD

Handwritten scribbles

Handwritten numbers 1, 2, 3, 4, 5, 6, 7





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:  
CRFP

Date / Time:  
Sept 24, 2010 13:00-17:00

Field Personnel:  
A. Taylor

Weather Conditions:	Temp: 27	Wind: S	Cloud: 90%	PPT: showers	PPT in last 24 hrs: Rain
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Location (i.e. turbine #s/description) Solarland - along water course

**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 MODO Am CR AMRO WTSP SOSP BCC H BLJA		CRFR		



**Woodland Assessment- complete 1 assessment for each woodland**

Woodlot # (indicate on map): 2 Feature 39

Approximate age of stand 50 yrs.

Are large (i.e. >40cmDBH and >25m tall) trees present  Yes  No - few willow up to 1m DBH, but only  
 If yes, approximate # present or % of stand 5%  
 Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) 15m high

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 dead fall on willow.*

*- however, 5 ash snags were present; 15-30cm DBH / 10-15m high*

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities  Yes  No (if yes, describe details in Table 1).

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?
	10-15m	50-100cm	8-10m	4 medium 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 \_\_\_\_\_

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) : 3 Feature 39

Approximate age of stand 50

Are large (i.e. >40cmDBH and >25m tall) trees present  Yes  No  
 If yes, approximate # present or % of stand 5% - a few large willows  
 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; 10m 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?
<u>10m</u>	<u>40cm</u>	<u>5-10m</u>	<u>4 small in one snag.</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



Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 4

Approximate age of stand 30-40yrs.

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 elm snag; 2 branches each 15m high and 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?
	<u>5-15m</u>	<u>20-30cm</u>	<u>2-10m</u>	<u>3 small</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
<u>1</u>	<u>17T 598099 4747520</u>	<u>No water</u>	<u>5x30m</u>	<u>-reed canopy -blue flag</u>	<u>-button bush -fallen branches</u>

Feature 39

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 50% - willow over 40cm DBH, but 15m tall  
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. - but abundant deadfall on ground

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



**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.

**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 24, 2010  
POLYGON: 1  
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 checked="" type="checkbox"/> BOTTOMLAND <input 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 checked="" type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input checked="" type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input checked="" type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE			COVER		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input checked="" type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input checked="" type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE		

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2-3	1	SALFLAG > FRAMER
2 SUB-CANOPY	3-4	1	COBRACE
3 UNDERSTOREY	4	4	reed canopy >> Forb
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 R 10-24 25-50 > 50

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

DEADFALL / LOGS: R < 10 R 10-24 25-50 > 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:  
Reed = Canary Meadow Marsh MAM2-2  
INCLUSION CODE:  
COMPLEX CODE:

Notes:

- few small elm snags

Feature 39

ELC  
PLANT SPECIES LIST

SITE: GREP  
POLYGON: 1  
DATE: Sept 24, 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	
SALFLAG						Canary reed					
ACB NUGO						rales after					
FRAMER						NE after					
SALDISE						PT goldenrod					
Wetland						G ragweed					
WITRIP						teasel					
COBRACE						curled dock					
Red top						willow herb					
RHACATH						C. ragweed					
ULM AMER						jewel weed					
						Nightshade					
						We carrot					
						bill thistle					
						Polygonum lapata Polia					
						hardy thistle					
						tall goldenrod					
						RL cattail					
						blue woad					
						We mint					
						wood grass					
						Common milkweed					
						Yew thistle					
						rose cut grass					
						Blue Flag					
						Carox retro					
						buggale leaf					
						Polygonum punctatum					
						Hop. sedge					
						Soft rush					
						RL willow herb					



Feature 39

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <u>GREP</u>	POLYGON: <u>2</u>	
	SURVEYOR(S): <u>ART</u>	DATE: <u>Sept 24, 2010</u>	UTME
	START: <u>          </u>	END: <u>          </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 checked="" type="checkbox"/> RIVERINE <input checked="" type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input checked="" type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE		COVER			
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input checked="" type="checkbox"/> BEDROCK		<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE ( >> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	SALFRAG > FRAPENN
2 SUB-CANOPY	3	2	FRAPENN
3 UNDERSTOREY	4	3	Red raspberry = CORRACE
4 GRD. LAYER	4-5	4	reed clump > Calce & alysa

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: <u>Willow Mineral Deciduous Swamp</u>	CODE: <u>SWD4-1(A)</u>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: <u>GREP</u>
	POLYGON: <u>2</u>
	DATE: <u>Sept 24, 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	
SALFRAG						reed canopy					
FRAPENN						calce alysa					
ULMAMAR						G. rasheed					
CORRACE											
red rasp.											

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GREP POLYGON: 3

SURVEYOR(S): ART DATE: Sept 24, 2010 UTME:           

START:            END:            UTMZ:            UTMN:           

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input checked="" type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input 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	3	4	FRAPLENN > SALFRAG
2 SUB-CANOPY	3	3	FRAPLENN
3 UNDERSTOREY	4	2	CORRACLE
4 GRD. LAYER	5	4	Reed canopy

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: G < 10 O 10 - 24 D 25 - 50 R > 50

STANDING SNAGS: R < 10 N 10 - 24 R 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  MID-AGE  MATURE  OLD GROWTH

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g =            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 CODE: SWD2-2(e)

INCLUSION            CODE:           

COMPLEX            CODE:           

Notes:

Feature 39

ELC PLANT SPECIES LIST

SITE: GREP POLYGON: 3

DATE: Sept 24, 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	
FRAPLENN						BC cattail					
CORRACLE						NL cattail					
SALFRAG						Caragana					
						blue flag					
						smartweed					
						fall goldenrod					
						calico aster					
						fall goldenrod					
						joel weed					





Feature 39

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <b>GREP</b>	POLYGON: <b>5</b>	
	SURVEYOR(S): <b>ART</b>	DATE: <b>Sept 24, 2010</b>	UTME: <b>/</b>
	START: <b>END</b>	UTMZ: <b>/</b>	UTMN: <b>/</b>

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input checked="" type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input checked="" 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 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 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

STAND DESCRIPTION:

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

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

STAND COMPOSITION: BA: \_\_\_\_\_

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: **Cultural meadow** CODE: **Cum**  
 INCLUSION CODE:  
 COMPLEX CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: <b>GREP</b>
	POLYGON: <b>5</b>
	DATE: <b>Sept 24, 2010</b>
	SURVEYOR(S): <b>ART</b>

LAYERS: 1 = CANOPY > 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			
Witch grass													
C. rognweed													
soya													
fox tail													
G.S. glauca													
S. viridis													
soya													
reel grass													
Polygonum punctatum													







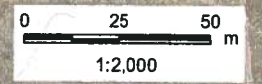
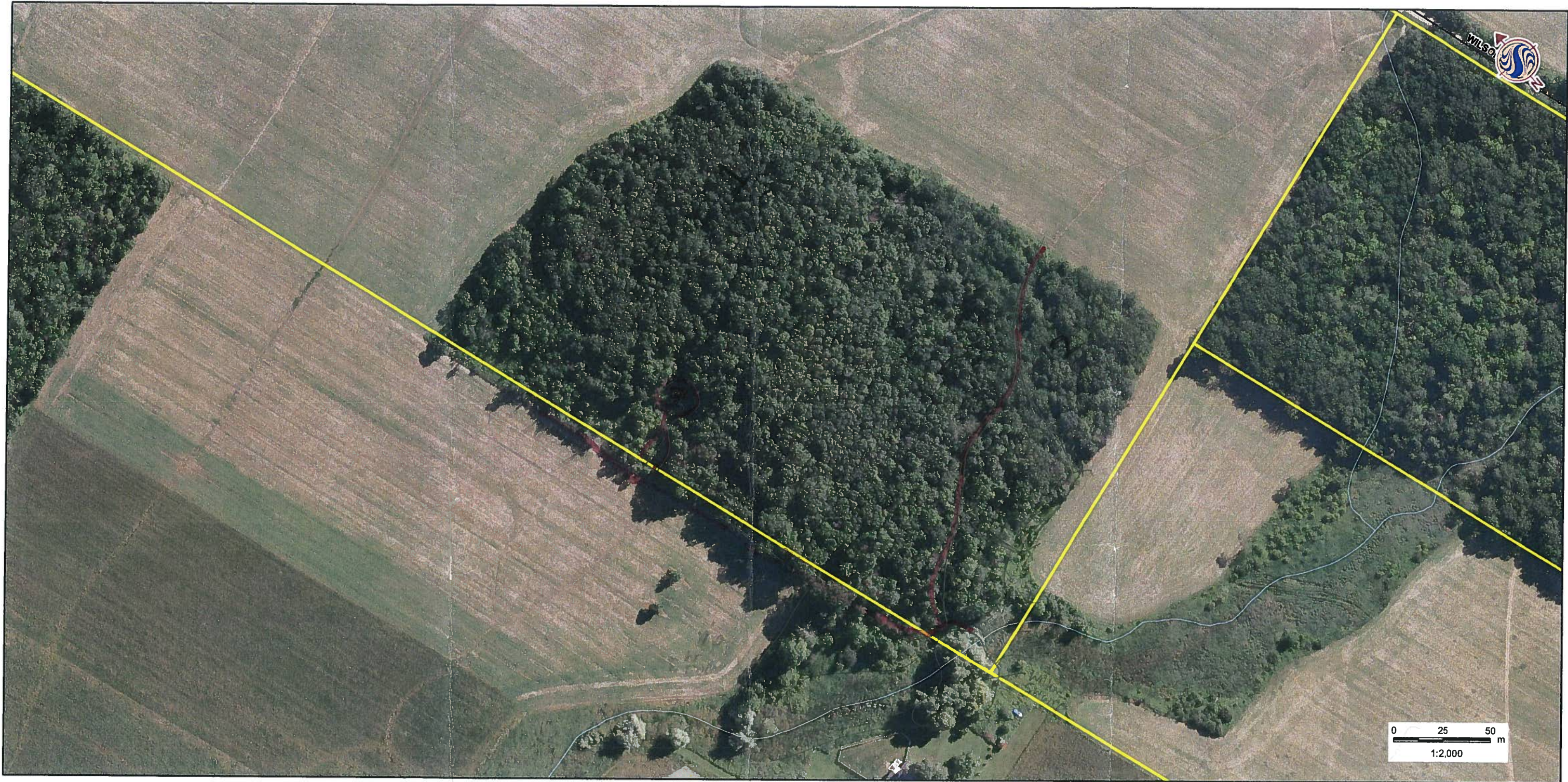








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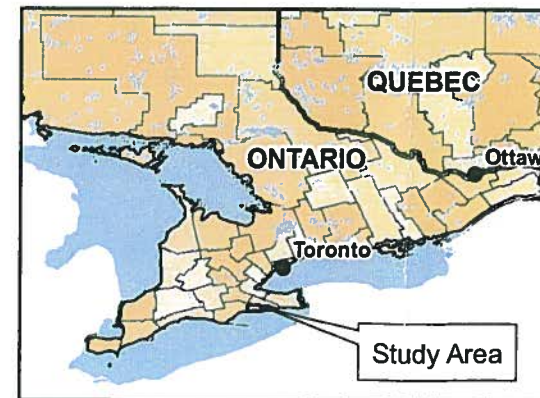
September 2010  
160960577

**Legend**

- Project Location
- Government Lands
- Road
- Railway
- Abandoned Railway
- Watercourse (OBM)
- Waterbody (OBM)

1 = Beech  
2 = Ash

rip hr in  
corners +  
Ash willow  
@ bottom



**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. LIDAR IMAGERY SOURCE???

Client/Project  
SAMSUNG C&T  
GRAND RENEWABLE ENERGY PARK

Figure No.  
DRAFT

Title  
**Woodlot 4**



 <b>Stantec</b>		Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		<b>Wildlife Habitat Assessment</b>	
Project Number		Project Name: <u>Samsung - Solar</u>			
Date / Time: <u>3-Dec-2010</u>		Field Personnel: <u>Melissa Straus</u>			
Weather Conditions:	Temp: <u>-3°C</u>	Wind: <u>1</u>	Cloud: <u>75%</u>	PPT: <u>light snow</u>	PPT in last 24 hrs: <u>light snow</u>

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

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

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

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

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

UTM	Feature type	Photo #	Description	Species observed using feature

**Species Observations**

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

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> <u>Scat/OB</u> <i>W6lot4</i> <u>POHO/VO</u>				



Feature 39g

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 4

8:30 am

Approximate age of stand 80-100 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. 1 @ 35cm ↑ 20m no loose bark; 1 @ 1.5m ↑ 20cm;

N Road / Woodlot  
4 @

20-40cm DBH, 1 loose bark, 1; ~8m ↑

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
Snag	2.5m	50cm	0-2	hollow
Snag	10m	25	5-10	small
live	45cm ← → 20m		6m	large
Snag	2	15cm	1.5m	small

live Snag 50cm → 25  
80cm → 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 Garbage @ edge, some fire wood cutting

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

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

Pond





Woodlot 4

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: GR EP POLYGON: 2

SURVEYOR(S): ART DATE: Sept 24, 2010 UTMZ: UTMN:

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 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 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	4	ALCJSAIA > FRAMER > CAROAT
2 SUB-CANOPY	2	3	ALCJSAIA > FAGGRAN > CAROAT
3 UNDERSTOREY	4.3	3	FRAMER > FAGGRAN = ALCJSAIA = PRUVFRG
4 GRD. LAYER	5.6	2	seedlings > RALRADL > running strawberry

HT CODES: 1 = >25m 2 = 10<HT<25m 3 = 2<HT<10m 4 = 1<HT<2m 5 = 0.5<HT<1m 6 = 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: C < 10 B 10-24 R 25-50 M > 50

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

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

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

SOIL ANALYSIS:

TEXTURE: DEPTH TO MOTTLES / GLEY g = G =

MOISTURE: DEPTH OF ORGANICS: (cm)

HOMOGENEOUS / VARIABLE DEPTH TO BEDROCK: (cm)

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:

COMMUNITY SERIES: CODE:

ECOSITE: CODE:

VEGETATION TYPE: CODE: Sugar Maple - Ash Deciduous Forest FODS-8

INCLUSION CODE:

COMPLEX CODE:

Notes:

-logged

Feature 39c

ELC PLANT SPECIES LIST

SITE: GR EP POLYGON: 2 DATE: Sept 24 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	
FRAMER	0	0	0	0	
ALCJSAIA	A	0	0	0	
CAROAT	0	R	R	R	
OSTVDRG	-	O	O		
FAGGRAN	R	R	R	R	
Red Rasp.					
Red currant					
Running Strawberry					
RHODRAE					
PRUVFRG					

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Calico arto					
Sensitive Fern					
Cl arto					
yellow violets					
W. geranium					
marshal fern					
herb robert					
beach drops					
lake rdworn reu					

Abundance  
MAY - Dec 3.
















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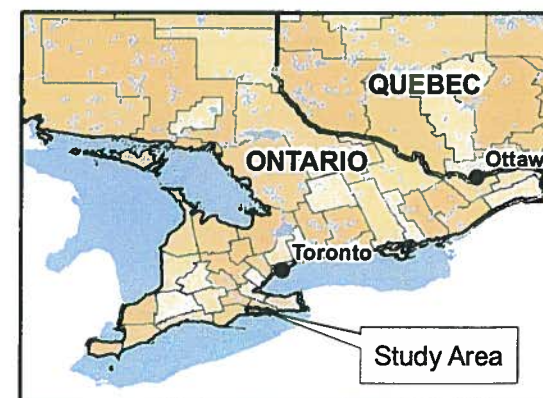
Woodlot 3

**Legend**

-  Project Location
-  Government Lands
-  Road
-  Railway
-  Abandoned Railway
-  Watercourse (OBM)
-  Waterbody (OBM)



Stantec



**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. LIDAR IMAGERY SOURCE???

Client/Project

SAMSUNG C&T  
GRAND RENEWABLE ENERGY PARK

Figure No.

DRAFT

Title

**Woodlot 3**

September 2010  
160960577



Feature 39(b) 3-Dec-2010

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map): Woodlot 3.

Approximate age of stand 80 years

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

If yes, approximate # present or % of stand \_\_\_\_\_

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

15-25 / woodlot  
Abundant

Are snags present?  Yes  No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 50 no loose bark 10-35cm DBH ~ 5-8m ↑  
no loose bark.

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes (approx. diameter)
snag	8	30	8	Small
live tree	25	25	6	med
snag	9	19	8	Small
snag	25	25	2m	hollow

many in small cavities - typically snags in broken top (8-12m)

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

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

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

If yes, describe Some garbage, firewood cutting

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

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

AMCR  
Geki  
RTHA

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : \_\_\_\_\_

Approximate age of stand \_\_\_\_\_

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

If yes, approximate # present or % of stand \_\_\_\_\_

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

Are snags present?  Yes  No

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

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

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

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

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

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

If yes, describe \_\_\_\_\_

Seeps/ springs present?  Yes  No

If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No

If yes,

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



<b>ELC</b> 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
<b>SITE</b>			<b>COVER</b>		
<input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK			<input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input type="checkbox"/> TREE		

**STAND DESCRIPTION:**

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	1	FRAPPENN > FRANLGR
2 SUB-CANOPY	3	3	"
3 UNDERSTOREY	4	2	Cornus
4 GRD. LAYER	5-1	4	Reed Canary Grass > Aster sp.

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

STAND COMPOSITION: BA:

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

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

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

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

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

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

COMMUNITY CLASS: CODE:  
COMMUNITY SERIES: CODE:  
ECOSITE: CODE:  
VEGETATION TYPE: CODE:  
Green Ash Mineral Dec. Swamp SWD2-2(a)  
INCLUSION Swamp White Oak Min Dec. Sw. CODE: SWD 1-1  
COMPLEX CODE:

Notes:

pic 1872 - Along creek - Fairly open.  
-1875  
1874 = pic of Inc.  
M-TREGG

Feature 396

<b>ELC</b> PLANT SPECIES LIST	SITE: GREP	
	POLYGON: 1 (Wood lot 3)	
	DATE: 3-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	
ULMAMER	R	R	R	R	
CHARVAT	R	R	R	-	
FRAPPENN	O				
FRANLGR	O	O	R	R	
QUERICO	D				
COROBLI		D		SDI code	
Cornus			O		
Hawthorn			R		
CARCARO			R		

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Aster sp.				O	
Reed Canary				A	

Inc.  
SWD.  
Sw. Oak





Feature 396

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

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<b>SITE</b>			<b>COVER</b>		
<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	FRAPENN >> ALSESACS
2 SUB-CANOPY	2	4	" >> TILAMER
3 UNDERSTOREY	3		CARCAMO & OSTVIRG
4 GRD. LAYER	3-7	4	FRAPENN & Sedges & V. etc

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

STAND COMPOSITION: BA:

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

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

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

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

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

SOIL ANALYSIS: TEXTURE: DEPTH TO MOTTLES / GLEY g = 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 SUD2-26b CODE:

INCLUSION CODE:

COMPLEX CODE:

Notes: Along smaller creek.  
Pic # 1876-77

<b>ELC</b> PLANT SPECIES LIST	SITE: GREP	
	POLYGON: 3	
	DATE: 3-Dec-2010	
	SURVEYOR(S): Melissa Straus	

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

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
ALFVREE	R				
FRAPENN	O	O	O	-	
ULMAMEL	R	R			
QUIBALBAR					
FRANIGR	R				
ALSESACS	R	R			
TILAMER		O			
OSTVIRG		O			
CARCAMO		R			
FRANIRG				O	

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
Aster sp				O	
Sedges				O	
V. etc					



















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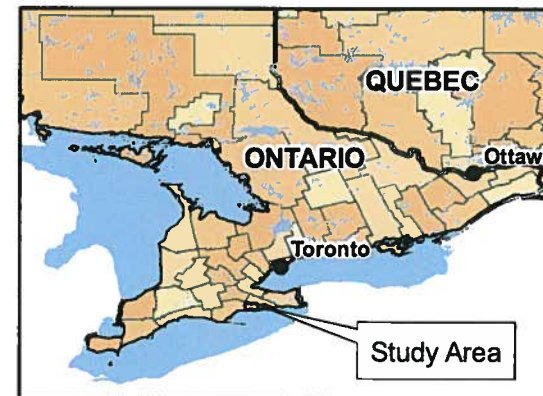
October 2010  
160960577

**Legend**

-  Project Location
-  Solar Lands
-  Government Lands
-  Road
-  Railway
-  Abandoned Railway
-  Watercourse
-  Waterbody (OBM)

**Constraints to Development**

-  Woodland Area
-  Wetland
-  Potential Fish Habitat/Waterbody
-  Potentially Significant Wildlife Habitat
-  Wetland - 30m Setback
-  Potential Fish Habitat/Waterbody - 30m Setback
-  Potentially Significant Wildlife Habitat - 120m Setback



**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. LIDAR IMAGERY SOURCE???

Client/Project

SAMSUNG C&T  
GRAND RENEWABLE ENERGY PARK


Figure No.

DRAFT

Title

**SOLAR LANDS NATURAL  
HERITAGE CONSTRAINTS**



 <b>Stantec</b> Stantec Consulting Ltd. 70-1 Southgate Drive Guelph, Ontario, Canada N1G 4P5 Tel: (519) 836-6050 Fax: (519) 836-2493		<b>Wildlife Habitat Assessment</b>			
Project Number 130960537		Project Name: Sarnia			
Date / Time: 19 Oct 2010 @ 10:30 - 18:00		Field Personnel: M. Straus			
<b>Weather Conditions:</b>	Temp: 8°	Wind: 4	Cloud: 0	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 usir 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 ROX-OB SWSP-OB ZBL-OB GRCR-OB ECH-VO AMRO-OB RHA-OB	EABL-OB AMWO-OB HALE-OB NORT-OB	Garter Snake-OB		



Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : B

19-Oct-2010

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 Red Oaks - < 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. No loose bark ~ 6/ area surveyed

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 - Aa → Ea → Ba	7m 8m 8m	25 30cm 30	6-5 7m 8m	Small Small medium

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

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

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

If yes, describe Houses in 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 shrubs at pond edge
1	5977849 7748706	none present	brook through woodlot	Spotted touch me lots	yes - N

FEATURK 40

SITE: 160960577  
 POLYGON: 6  
 SURVEYOR(S):  
 DATE:  
 START: 4:00 END 14:30  
 UTMZ:  
 UTMN:

SITE: Samsung - Solar  
 POLYGON: 6  
 DATE: 19-Oct-2010  
 SURVEYOR(S): M. Straus

POLYGON DESCRIPTION

<input type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALLUS <input type="checkbox"/> CREVICE / 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"/> MESSY <input type="checkbox"/> MEADOW <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 checked="" type="checkbox"/> TREE			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	1	4	QUERUBR > CAROVAT > ACESACS
2 SUB-CANOPY	2	4	ACESACS & FRAGLAN
3 UNDERSTOREY	3-4	4	FRAGLAN & ACESACS = OSTVIRG
4 GRD. LAYER	5-7	4	ALER > FRAXINUS > CARYA seedlings

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

STAND COMPOSITION: BA:

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

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

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

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: Forest CODE: FO  
 COMMUNITY SERIES: Deciduous Forest CODE: F00  
 ECOSITE: D-F Oak-Maple-Hickory Deciduous Forest CODE: F009  
 VEGETATION TYPE: B-M Oak-Sugar Maple Dec. Forest CODE: F009-1  
 INCLUSION CODE:  
 COMPLEX CODE:

Notes: Pic 1699

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

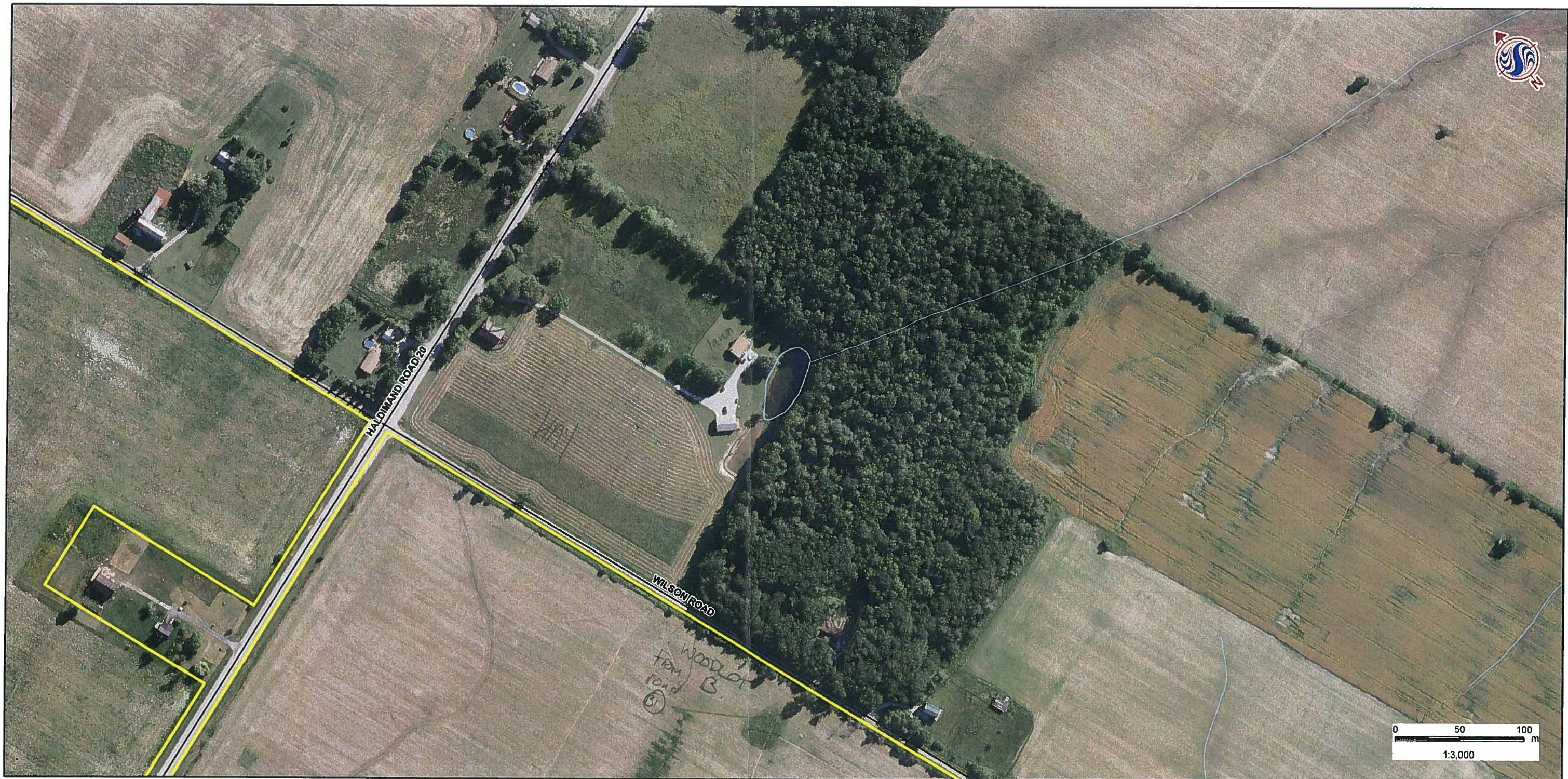
QUERUBR	O	-	-
FRAGLAN	R	O	R
FRAPEN	O	R	R
CAROVAT	O	O	R
ACESACS	O	O	O
ALNATMER	-	R	R
OSTVIRG	-	O	-
FRAMER	R	-	-
CARCARO	R	-	-
ACERUBR	R	-	O
PRUSERO			R
RITURADI			R
RHACATH			R
CARCARO			B
RUBIDEA			O
Large Avers			O

Banberry			R
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








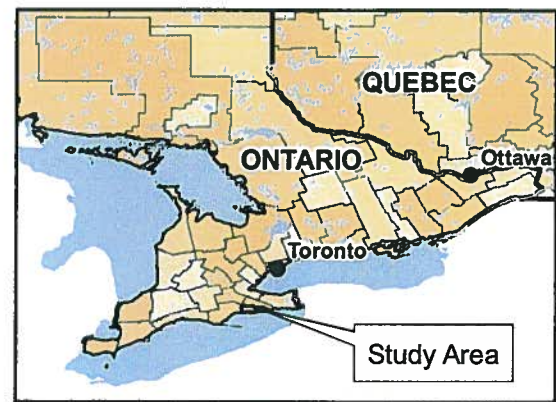


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September 2010  
160960577

- Legend**
-  Project Location
  -  Government Lands
  -  Road
  -  Railway
  -  Abandoned Railway
  -  Watercourse (OBM)
  -  Waterbody (OBM)

*no access*



- 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. LIDAR IMAGERY SOURCE???

Client/Project  
SAMSUNG C&T  
GRAND RENEWABLE ENERGY PARK

Figure No.  
DRAFT

Title  
**Woodlot 5**





40

Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 8

Approximate age of stand 70-80

From edge  
with life  
over

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)
Snag ①	4m	10-15cm	4m	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 Homesteads cut into 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 shrubs at pond edge



















594000

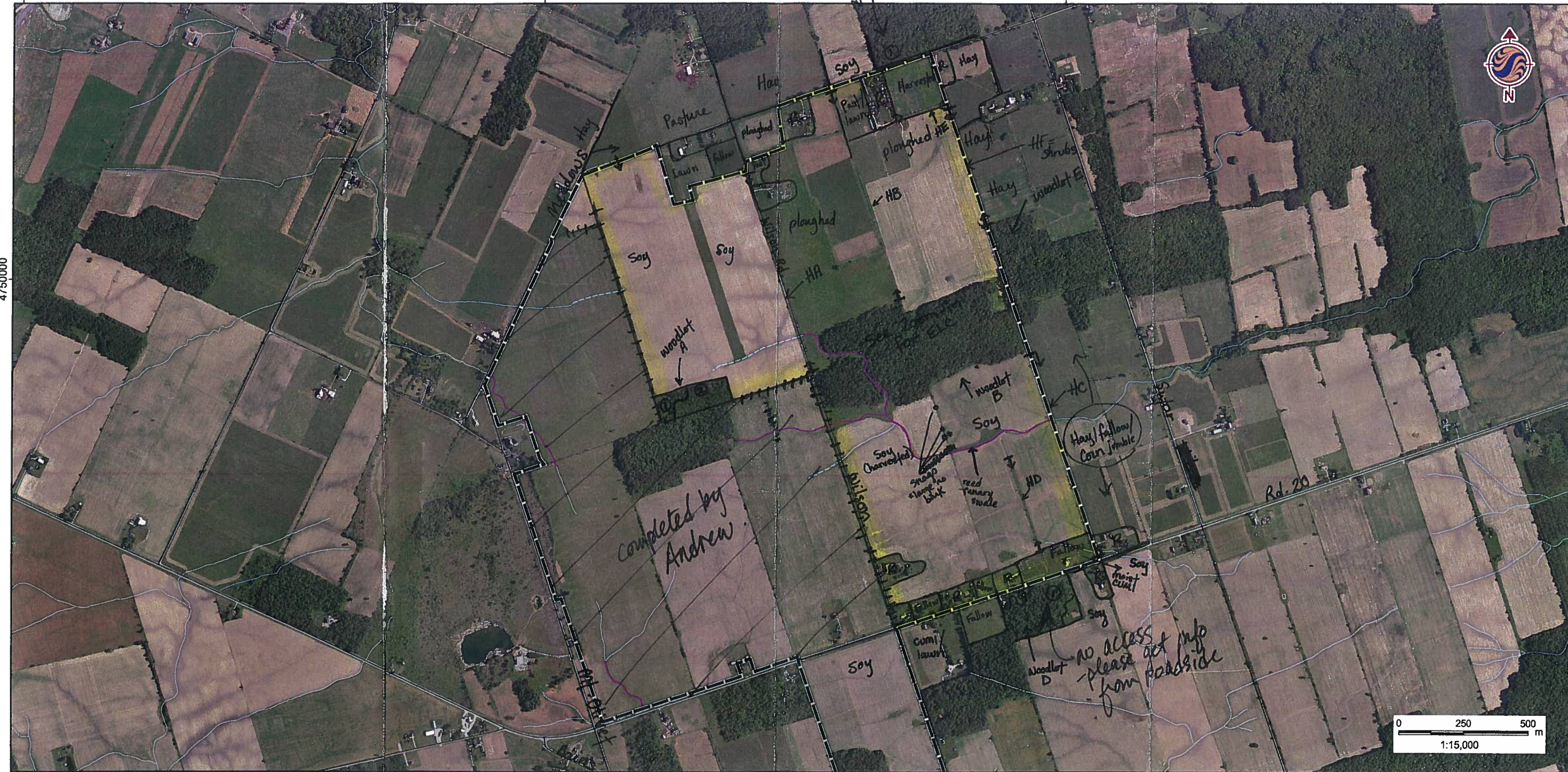
596000

Woodlot L no access - roadside 598000

4750000

4750000

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594000

596000

598000

October 2010  
160960577

**Legend**

- Study Area
- Road
- Railway (OBM)
- Nonexistent Watercourse (Field Verified)
- Potential Fish Habitat (as defined by Fisheries Act)
- Watercourse (OBM)

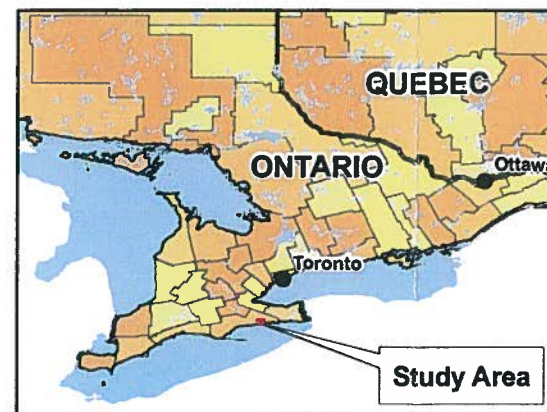
**SOLAR LANDS .**

- please examine all features .+ 120 m
- crop types
- hedgerows

GAW  
Oct. 13. 2010



Stantec



**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 Sources: **LIDAR IMAGERY SOURCE????** © First Base Solutions, 2010 - Imagery Date: Spring 2006.

Client/Project

SAMSUNG C&T  
GRAND RENEWABLE ENERGY PARK

Figure No.

DRAFT

Title

**SOLAR LANDS - POTENTIAL  
FISH HABITAT LOCATIONS**











**OFFICIAL PLAN  
SCHEDULE "E.2"**

**HALDIMAND COUNTY SOUTHWEST  
NATURAL ENVIRONMENT AREAS**

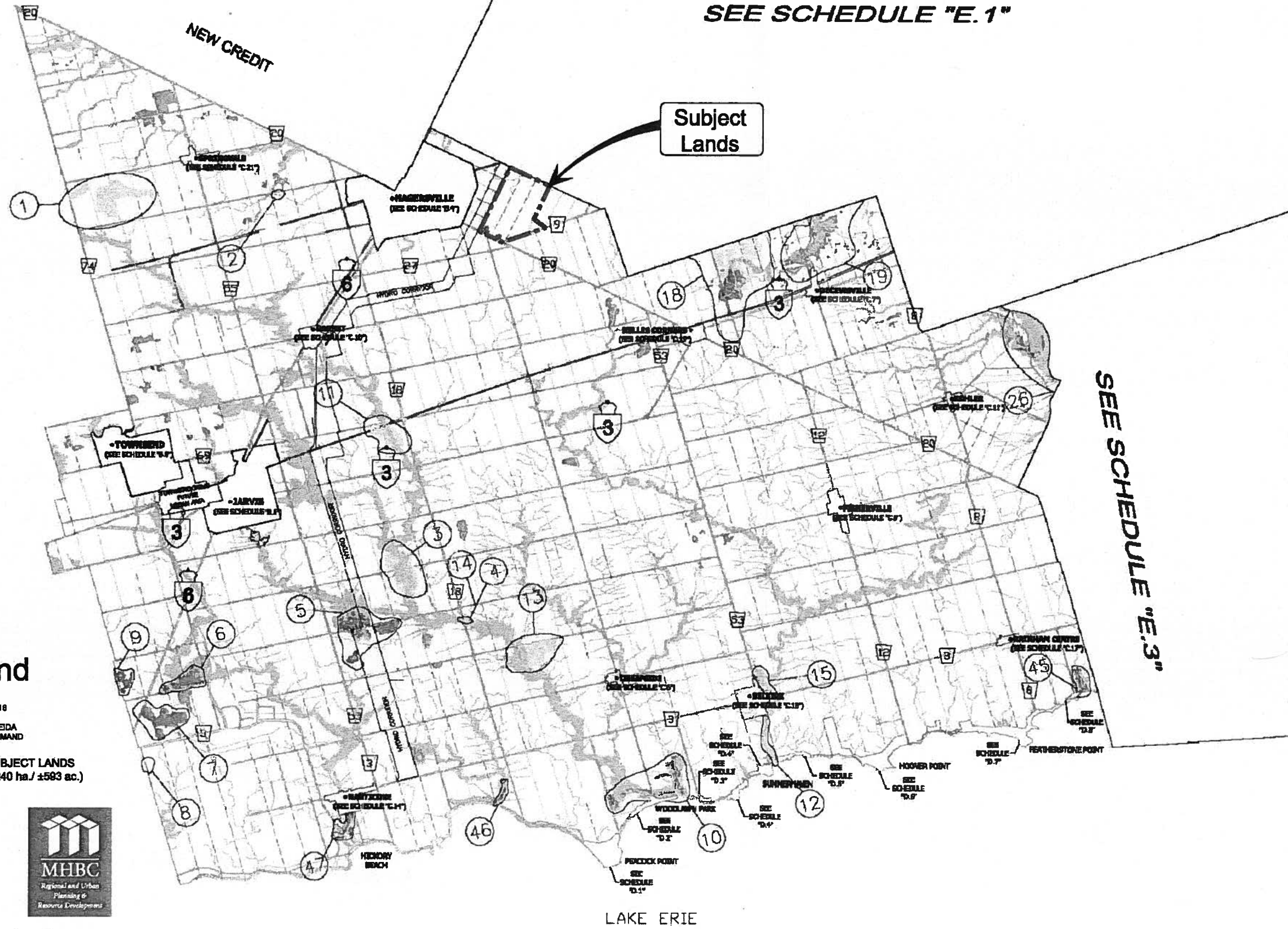
**LEGEND**

- PROVINCIALY SIGNIFICANT WETLANDS
- RIVERINE HAZARD LANDS
- LAKESHORE HAZARD LANDS
- LOCALLY SIGNIFICANT & UNEVALUATED WETLANDS
- NATURAL ENVIRONMENT/WETLAND AREAS
- NATURAL ENVIRONMENT/WETLAND AREAS REFERENCE NUMBERS (NOT ADJACENT LANDS) (SEE APPENDIX "2")
- WATER COURSE
- PROVINCIAL HIGHWAY
- HALDIMAND ROAD

SEE SCHEDULE "E.1"

Subject Lands

SEE SCHEDULE "E.3"



**Legend**

PART LOTS 13 TO 18  
CONCESSION 1  
TOWNSHIP OF ONEIDA  
COUNTY OF HALDIMAND

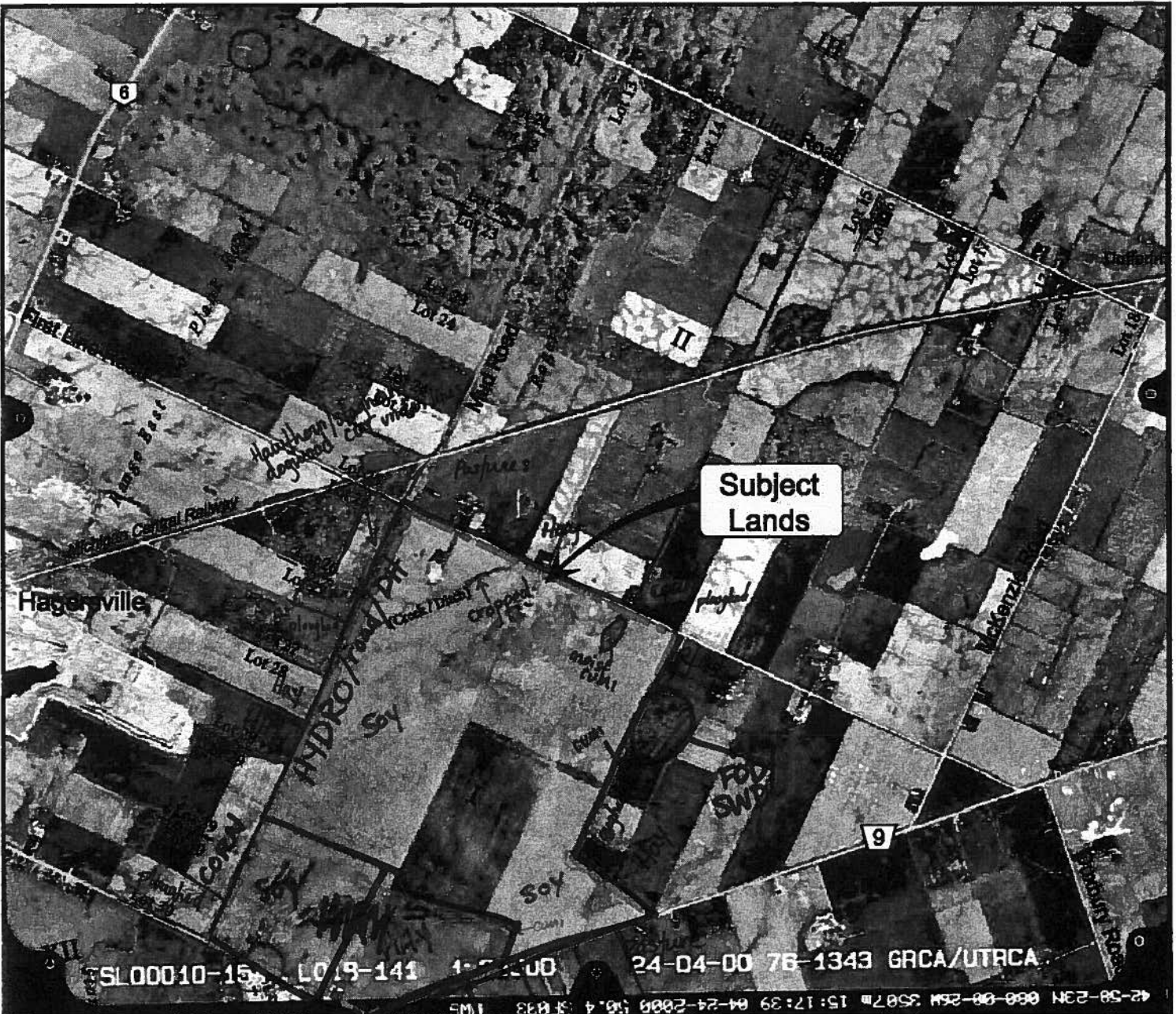
SUBJECT LANDS  
(±240 ha / ±593 ac.)

0 2500 5000 metres

DATE REVISED  
MAY 2006

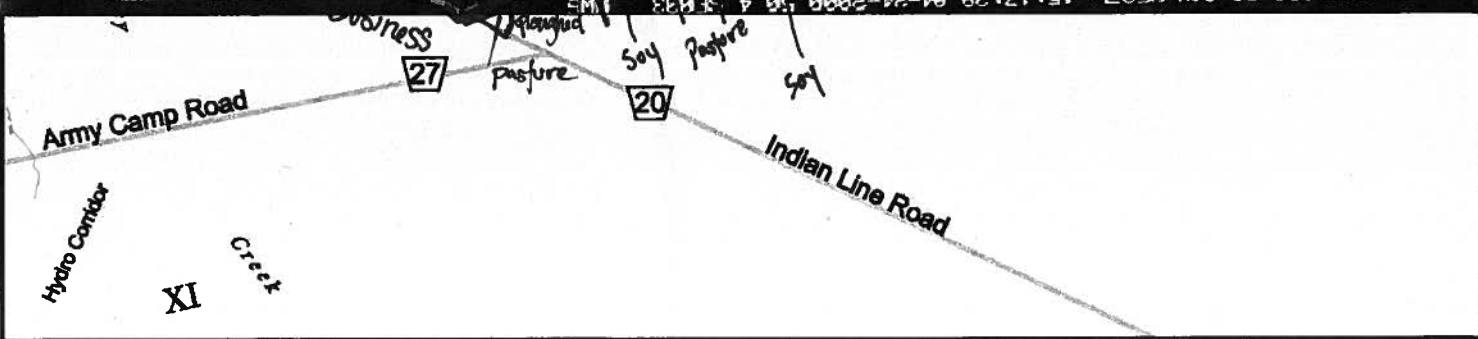






Subject Lands

SL00010-15 1019-141 1-2-2000 24-04-00 76-1343 GRCA/UTRCA



# Airphoto

PART LOTS 13 TO 18  
CONCESSION 1  
TOWNSHIP OF ONEIDA  
COUNTY OF HALDIMAND

**SUBJECT LANDS**  
(±240 ha / ±593 ac.)

SOURCE: AIRPHOTO IMAGE PROVIDED BY  
NORTHWAY PHOTOGRAPHY LTD., FLOWN APRIL 2000.





Stantec

Substation - meeting with Holcim (Jessica Davidson)

Hedgerow along mud road:

- ACESASA
- TLAMER
- Crataegus
- RHACATH
- JUGNIGR
- FRAPENN
- QUERUBR
- QUEMACR
- PRUSERO

- groundhog
- deer

- raccoon

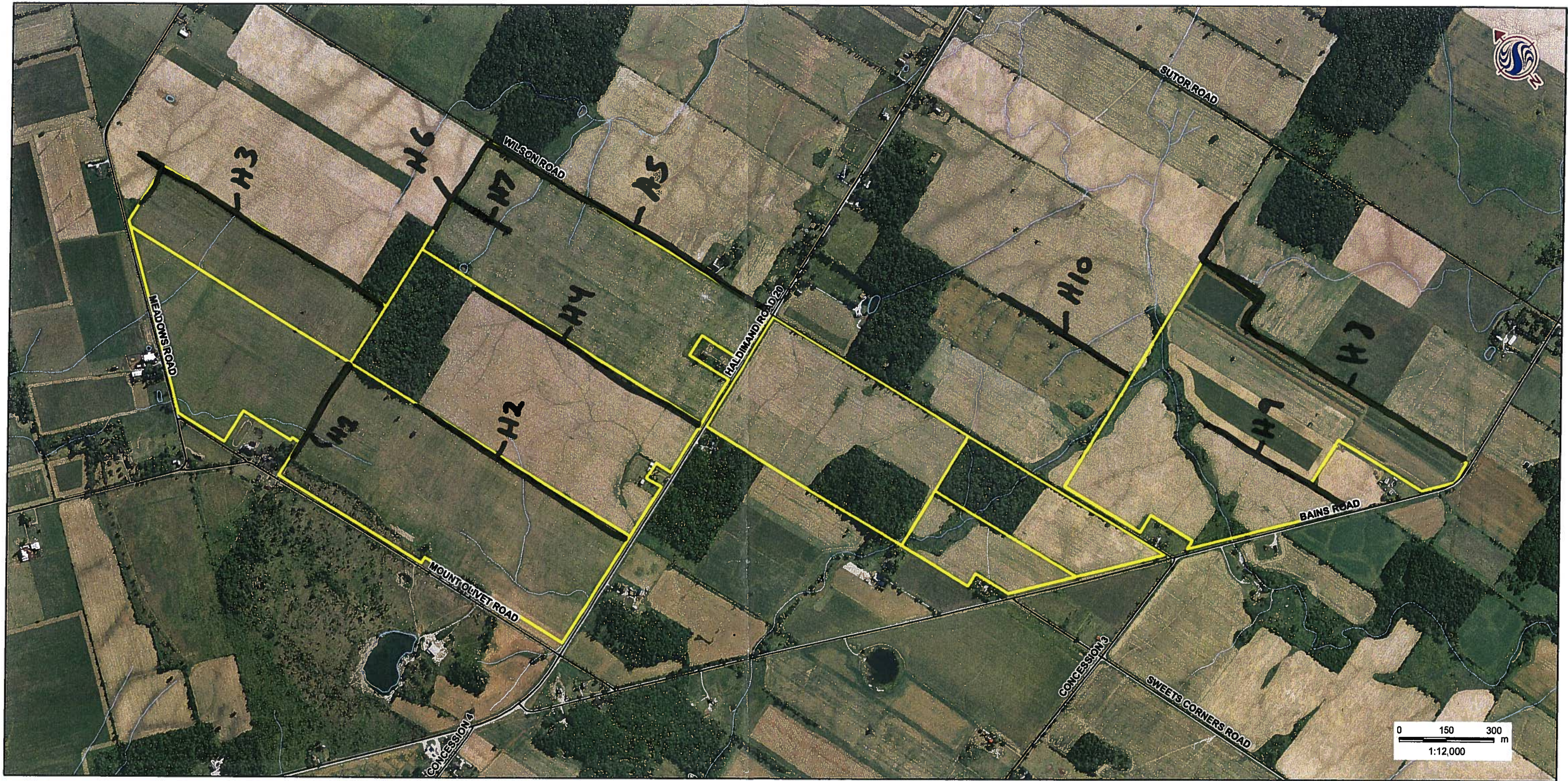
EUST  
BCCH  
DOWD

Designed by:

Checked by:



W:\active\160960577\drawing\GIS\MXD\SolarLands\160960577\_DRAFT\_SolarLands\_20100922\_PV.mxd - 8/22/2010 @ 1:59:54 PM



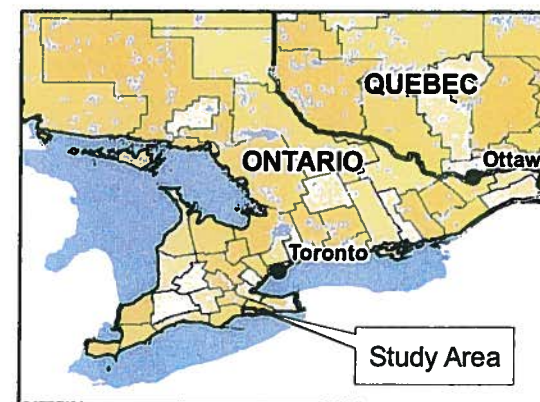
September 2010  
160960577

**Legend**

-  Project Location
-  Government Lands
-  Road
-  Railway
-  Abandoned Railway
-  Watercourse (OBM)
-  Waterbody (OBM)



Stantec



**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. LIDAR IMAGERY SOURCE???

Client/Project

SAMSUNG C&T  
GRAND RENEWABLE ENERGY PARK

Figure No.

DRAFT

Title

**PROJECT LOCATION MAP**



**Woodland Assessment- complete 1 assessment for each woodland**

Woodlot # (indicate on map): 171

Approximate age of stand 50+ years

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

If yes, approximate # present or % of stand 4 white ash, 1 red oak, 1 white oak, 1 button hole

Location in stand (i.e throughout, in west side only, in FOD2-6 only etc..) all @ west end of hedgerow.

Are snags present?  Yes  No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 3 snags @ east end; 5-7m high / 15-20cm DBH  
- no evidence of wildlife

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



Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : H 2

Approximate age of stand 20 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. 4 snags - 10-15cm DBH / 10m high  
- concentrated @ south end of hedgerow

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

**Woodland Assessment- complete 1 assessment for each woodland**

Woodlot # (indicate on map) : A3

Approximate age of stand 10-15 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. 8 @ north end, 2 @ south end

↳ Small / 20-25cm 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



**Woodland Assessment- complete 1 assessment for each woodland**

Woodlot # (indicate on map) : H4

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 \_\_\_\_\_

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) : HS

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 \_\_\_\_\_

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) : H 6

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 \_\_\_\_\_

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): H7

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 bark snag

↳ 6m tall / 20cm DBH

Potential Bat Maternity Roost: Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities  Yes  No (if yes, describe details in Table 1).

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

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

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

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

If yes, describe \_\_\_\_\_

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

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



Woodland Assessment- complete 1 assessment for each woodland

Woodlot # (indicate on map) : 48

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. 3 snags - 10m 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?

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) : H 10

Approximate age of stand 20 ym.

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

If yes, approximate # present or % of stand \_\_\_\_\_

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

Are snags present?  Yes  No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. - 3 elm snags; 10m high / 20cm DBH

Potential Bat Maternity Roost : Contains large, mature (i.e. >80 year old) snags or trees (living or dead) containing medium to large cavities  Yes  No (if yes, describe details in Table 1).

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

	Height ranges of tree	Range of Tree DBH	Range of Cavity Heights	Cavity sizes small: small birds, medium= large woodpeckers, large= mammals Hollow?

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

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

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

If yes, describe \_\_\_\_\_

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

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



**Woodland Assessment- complete 1 assessment for each woodland**

Woodlot # (indicate on map) : H 9

Approximate age of stand 30 yrs.

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

If yes, approximate # present or % of stand \_\_\_\_\_

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

Are snags present?  Yes  No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. *5 small snags; 3m high / <10cm DBH*

*2 large snags @ north end; 10m high / 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











<b>ELC</b> COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <b>G-REP</b>	POLYGON: <b>ART</b>
	SURVEYOR(S): <b>ART</b>	DATE: <b>Sept 24, 2010</b>
	START: <b>END</b>	UTM: <b>UTM: /</b>
	UTMZ: <b>UTMN: /</b>	

**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 checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<b>SITE</b>		<b>COVER</b>			
<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	1	Pear
2 SUB-CANOPY	4	2	CORRACK > Hawthorn
3 UNDERSTOREY	5	4	Sm Bronc = Goldenrod / aster.
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%

<b>STAND COMPOSITION:</b>					BA:
<b>SIZE CLASS ANALYSIS:</b>	0 < 10	1 10 - 24	1 25 - 50	1 > 50	
<b>STANDING SNAGS:</b>	R < 10	1 10 - 24	1 25 - 50	1 > 50	
<b>DEADFALL / LOGS:</b>	R < 10	1 10 - 24	1 25 - 50	1 > 50	
ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT					
<b>COMM. AGE:</b>	PIIONEER	<input checked="" type="checkbox"/> YOUNG	MID-AGE	MATURE	OLD GROWTH

**SOIL ANALYSIS:**

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

**COMMUNITY CLASSIFICATION:**

<b>COMMUNITY CLASS:</b>	CODE:
<b>COMMUNITY SERIES:</b>	CODE:
<b>ECOSITE:</b>	CODE:
<b>VEGETATION TYPE:</b> <i>Redburn</i>	CODE: <b>H4</b>
<b>INCLUSION</b>	CODE:
<b>COMPLEX</b>	CODE:

Notes:

<b>ELC</b> PLANT SPECIES LIST	SITE: <b>G-REP</b>
	POLYGON: <b>H4</b>
	DATE: <b>Sept 24, 2010</b>
	SURVEYOR(S): <b>ART</b>

LAYERS: 1 = CANOPY > 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	
CORRACK						Full gl'd herb					
red rosm.						NE aster					
RHACATH						Heath aster					
PROVERG						Tensel					
RHORADJ						C. milkweed					
Hawthorn						pr. lettuce					
Pear						Can thistle					
						Noddy thistle					
						C. mullina					
						smooth branc.					
						Ger dock					
						yellow					

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <b>GREP</b>	POLYGON: <b>H5</b>
	SURVEYOR(S): <b>ART</b>	DATE: <b>Sept 24, 2010</b>
	START: <b>END</b>	UTMZ: <b>UTMN</b>

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 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"/> WOOLAND <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	4	3	Hawthorn > CORRACIS
2 SUB-CANOPY	5	4	Smooth brome = Goldenrod/arter
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:	A	< 10	10 - 24	25 - 50	> 50
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STANDING SNAGS:	0	< 10	10 - 24	25 - 50	> 50
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DEADFALL / LOGS:	1	< 10	10 - 24	25 - 50	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <b>Hedge row</b>	CODE: <b>H5</b>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: <b>GREP</b>
	POLYGON: <b>H5</b>
	DATE: <b>Sept 24, 2010</b>
	SURVEYOR(S): <b>ART</b>

LAYERS: 1 = CANOPY > 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						tall goldenrod						
CORRACIS						NE a. te						
						teael						
						C. milkweed						
						S <sup>d</sup> John's wort						
						sm brome						
						Quack grass						
						Canary reed						
						wild card						
						cutted back						
						Fox tail						
						C. muller						









ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <b>GREP</b>	POLYGON: <b>H8</b>	
	SURVEYOR(S): <b>ART</b>	DATE: <b>Sept 24, 2010</b>	UTME
	START: <b>END</b>	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"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> 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 checked="" type="checkbox"/> SHRUB <input type="checkbox"/> TREED	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input checked="" type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	3	1	CAROUAT > FRAAMBR = QUISMACK
2 SUB-CANOPY	4	2	Hawthorn > CORRACK
3 UNDERSTOREY	5	4	Goldenrosey / wter > Smooth Brane
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	1	25 - 50	1	> 50
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STANDING SNAGS:	R	< 10	R	10 - 24	1	25 - 50	1	> 50
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DEADFALL / LOGS:	0	< 10	R	10 - 24	1	25 - 50	1	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

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

SOIL ANALYSIS:

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS: CODE:  
 COMMUNITY SERIES: CODE:  
 ECOSITE: CODE:  
 VEGETATION TYPE: Hedger row CODE: H8  
 INCLUSION CODE:  
 COMPLEX CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: <b>GREP</b>
	POLYGON: <b>H8</b>
	DATE: <b>Sept 24, 2010</b>
	SURVEYOR(S): <b>ART</b>

LAYERS: 1 = CANOPY > 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	
CORRACK						Smooth brane					
red rose						Can. goldenrod					
PROVICC						NE aster					
Apple						Hawthorn					
Hawthorn						FT goldenrod					
Rosa multiflora						v. carrot					
QUEMACK						calico aster					
SALDITC						POA PRATEUS					
CAROUAT						C. milkweed					
sweet cherry						Wood grass					
TRAMBR						Red rose					
RHURADI						Noddy thistle					
						Quack grass					
						chickory					
						willow herb					
						berger's tick					
						teasel					
						red rose					
						C. racemosa					
						teasel					

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <b>GREP</b>	POLYGON: <b>H9</b>	
	SURVEYOR(S): <b>ART</b>	DATE: <b>Sept 24, 2010</b>	UTME:
	START: <b>END</b>	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"/> CARR. 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 checked="" type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
<b>SITE</b> <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	1	FRAAMLS
2 SUB-CANOPY	3	1	Apple
3 UNDERSTOREY	4	2	Hawthorn > CORRACE
4 GRD. LAYER	5	4	Goldenrod / ART

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

STAND COMPOSITION: BA:

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

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

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

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	CODE:
COMMUNITY SERIES:	CODE:
ECOSITE:	CODE:
VEGETATION TYPE: <b>Aedgerow</b>	CODE: <b>H9</b>
INCLUSION	CODE:
COMPLEX	CODE:

Notes:

ELC PLANT SPECIES LIST	SITE: <b>GREP</b>
	POLYGON: <b>H9</b>
	DATE: <b>Sept 24, 2010</b>
	SURVEYOR(S): <b>ART</b>

LAYERS: 1 = CANOPY > 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	
Apple						Can goldend					
Hawthorn						NE A/B					
LONTARI						Calico w/R					
Pear						Tourel					
red rasp.						curled dsch					
COITHIA						W. C. not					
ROSA MULT						St. Timothy					
CORRACE						RT goldend					
sweet cherry						C. m. th. wood					
RHUTYPA						no dng th. th. r					
red cedar						Gragle End					
PROVIRG						bur dock					
						W. d. grass					







594000

596000

Woodlot C

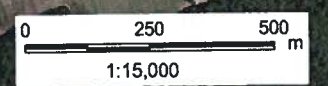
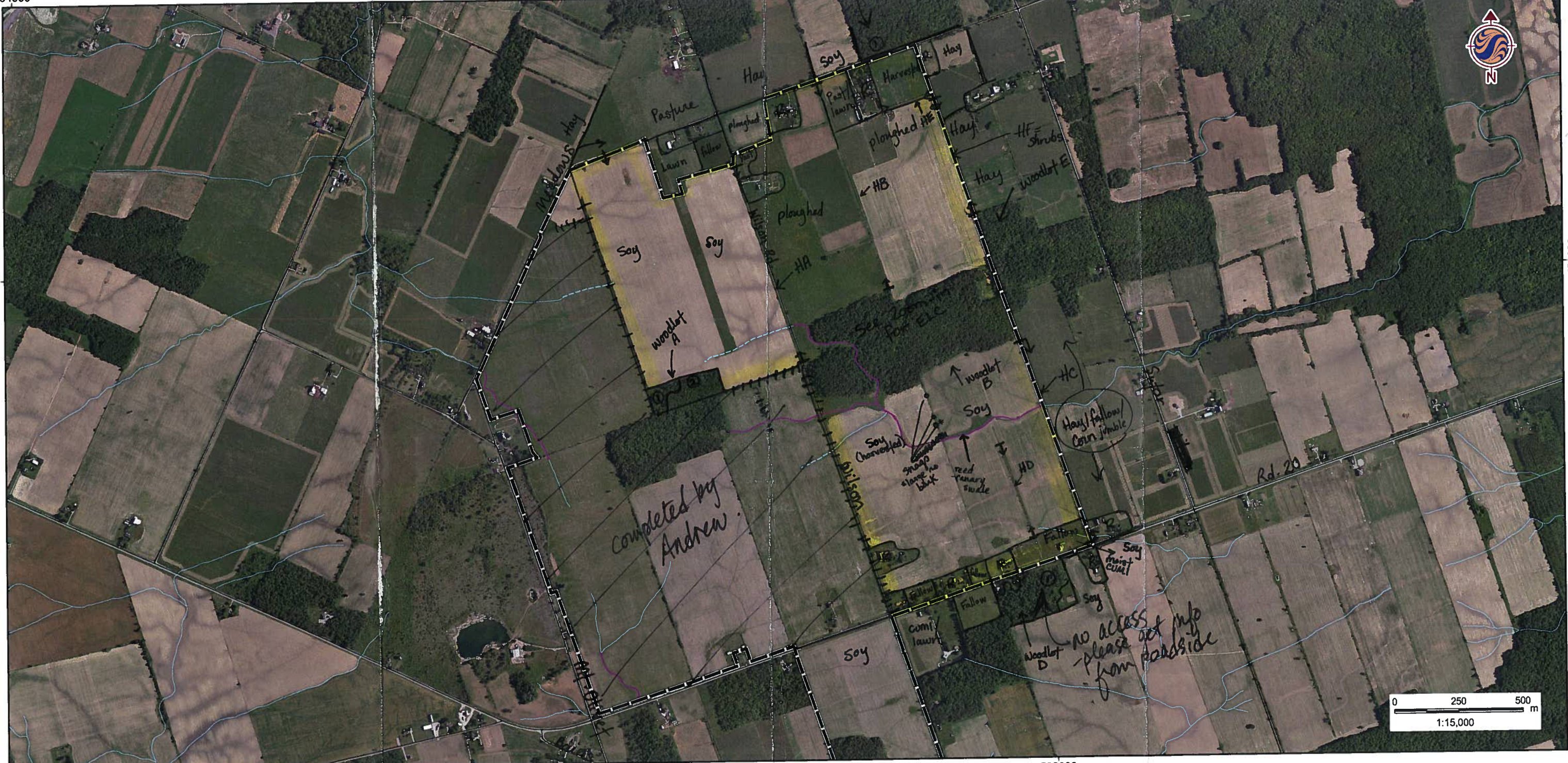
no access - roadside

598000

4750000

4750000

W:\active\60960577\drawing\GIS\MXD\WaterReport\60960577\_DRAFT\_SolarLands\FishHabitatLocations\_20101012\_PW.mxd - 10/12/2010 @ 1:56:05 PM

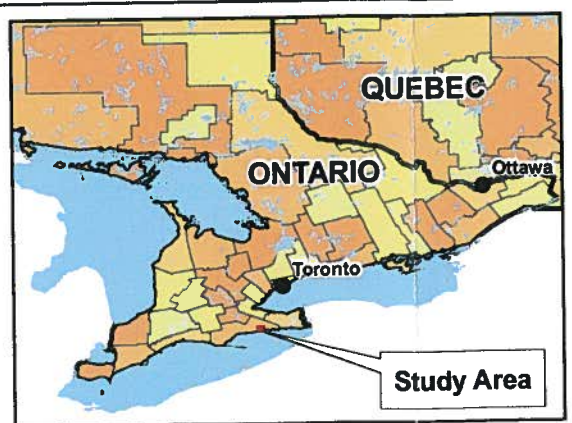


October 2010  
160960577

- Legend**
- Study Area
  - Road
  - Railway (OBM)
  - Nonexistent Watercourse (Field Verified)
  - Potential Fish Habitat (as defined by Fisheries Act)
  - Watercourse (OBM)

**SOLAR LANDS.**  
 - please examine all features + 120 m  
 - crop types  
 - hedgerows

GAW  
 Oct. 13. 2010



- 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 Sources: **LIDAR IMAGERY SOURCE????** © First Base Solutions, 2010 - Imagery Date: Spring 2006.

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

Figure No.  
**DRAFT**

Title  
**SOLAR LANDS - POTENTIAL FISH HABITAT LOCATIONS**







**Stantec**

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Fax: (519) 836-2493

**Wildlife Habitat  
Assessment**

*Hedgerow "A"*

Project Number: 161010624 Project Name: Samsung Solar Lands

Date / Time: Oct. 13. 2010 Field Personnel: GAW

<b>Weather Conditions:</b>	Temp: <u>16°</u>	Wind: <u>1-2</u>	Cloud: <u>25%</u>	PPT: <u>∅</u>	PPT in last 24 hrs: <u>∅</u>
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**Reptile Hibernacula Features** i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

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

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

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

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

UTM	Feature type	Photo #	Description	Species observed using feature

**Species Observations**

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

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> RWBB RBGU	Raccoon - TK whf. f. deer - TK	/	/	/

**Woodland Assessment- complete 1 assessment for each woodland**

Woodlot # (indicate on map): Hedgecove A - No Feature

Approximate age of stand Young - 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. *Small (< 20cm DBH) and rare.*

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 *dirt road (Wilson)*

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

Spp: Apple, hawthorn, Cornus, FRAPPEN, QUEMACR, RHACATH, domestic cherry, crafnegus

⊕ Very sparse tree cover: 1-2 mature.

old field herbaceous spp.





**Stantec**

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Fax: (519) 836-2493

**Wildlife Habitat  
Assessment**

*Hedgerow "B"*

Project Number 161010624 Project Name: Samsung Solar Lands

Date / Time: Oct. 13. 2010 Field Personnel: GAW

<b>Weather Conditions:</b>	Temp: <u>16°</u>	Wind: <u>1-2</u>	Cloud: <u>25%</u>	PPT: <u>∅</u>	PPT in last 24 hrs: <u>∅</u>
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**Reptile Hibernacula Features** i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

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

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

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

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

UTM	Feature type	Photo #	Description	Species observed using feature

**Species Observations**

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

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMROVO</i>	<i>deer - TK</i>	<i>/</i>	<i>/</i>	<i>/</i>

**Woodland Assessment- complete 1 assessment for each woodland**

Woodlot # (indicate on map) : HB

Approximate age of stand young - midage

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

If yes, approximate # present or % of stand \_\_\_\_\_

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

Are snags present?  Yes  No

If yes provide characterization of number present, height and DBH of snags and indicate if they contain loose bark. 2, 20cm DBH, loose bark, old ash or elms.

Trees with cavities present?  No  Rare  Occasional  Abundant

If present:

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

Bat Mat Roost? No.

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

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

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

If yes, describe \_\_\_\_\_

Seeps/ springs present?  Yes  No If yes,

Seep/Spring #	UTM	Description	Surrounding Habitat

Vernal Pools Present?  Yes  No If yes,

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

Spp: CORNUS, RHACATH, Crafnegos, FRAPENN

\* Very sparse trees: only ~8 mature (2 dead)

old field herbaceous etc





**Stantec**

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

**Wildlife Habitat  
Assessment**

*Hedgerow C*

Project Number *161010624*

Project Name: *Samsung Solar Lands*

Date / Time: *Oct. 13. 2010*

Field Personnel: *GAW*

<b>Weather Conditions:</b>	Temp: <i>16°</i>	Wind: <i>1-2</i>	Cloud: <i>25%</i>	PPT: <i>∅</i>	PPT in last 24 hrs: <i>∅</i>
----------------------------	------------------	------------------	-------------------	---------------	------------------------------

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

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

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

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

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

UTM	Feature type	Photo #	Description	Species observed using feature

**Species Observations**

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

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> <i>/</i>	<i>/</i>	<i>/</i>	<i>/</i>	<i>/</i>

*ploughing + harvesting noise.* →

**Woodland Assessment- complete 1 assessment for each woodland**

**Woodlot # (indicate on map):** HC

**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. <30cm DBH, some loose bark, only 2 snags.

**Trees with cavities present?**  No  Rare  Occasional  Abundant

If present:

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

BAT MAT Roost? Nope.

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

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

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

If yes, describe \_\_\_\_\_

**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

Spp: mainly POPDELTA (mid age) with few FRAPENN up toward woodlot, RHACATH, Crataegus, Cornus.  
 Good tree cover: >50 trees.  
 old field herbaceous sp.





**Stantec**

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

**Wildlife Habitat  
Assessment**

*Hedgerow D*

Project Number *161010624*

Project Name: *Samsung  
Solar Lands*

Date / Time: *Oct. 13. 2010*

Field Personnel: *GAW*

<b>Weather Conditions:</b>	Temp: <i>16°</i>	Wind: <i>1-2</i>	Cloud: <i>25%</i>	PPT: <i>∅</i>	PPT in last 24 hrs: <i>∅</i>
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**Reptile Hibernacula Features** i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

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

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

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

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

UTM	Feature type	Photo #	Description	Species observed using feature

**Species Observations**

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

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> <i>/</i>	<i>/</i>	<i>/</i>	<i>/</i>	<i>/</i>

*Ploughing + harvesting noise →*

**Woodland Assessment- complete 1 assessment for each woodland**

**Woodlot # (indicate on map) :** HD

**Approximate age of stand** young

**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)

Bat Mat Roost? No.

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

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

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

If yes, describe \_\_\_\_\_

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

Seep/Spring #	UTM	Description	Surrounding Habitat

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

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

Spp: young POPDEL  
 Good tree cover: ~ 25 trees  
 old field herbaceous cover.





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Fax: (519) 836-2493

**Wildlife Habitat  
Assessment**

*Hedgerow E*

Project Number <u>161010624</u>	Project Name: <u>Samsung Solar Lands</u>
Date / Time: <u>Oct. 13. 2010</u>	Field Personnel: <u>GAW</u>

<b>Weather Conditions:</b>	Temp: <u>16°</u>	Wind: <u>1-2</u>	Cloud: <u>30%</u>	PPT: <u>∅</u>	PPT in last 24 hrs: <u>∅</u>
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**Reptile Hibernacula Features** i.e. features that would provide a route underground, including buried concrete or rock (e.g. foundations, bridge abutments or culverts with cracks/entry points, exposed rock crevices or inactive animal burrows)

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

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

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

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

UTM	Feature type	Photo #	Description	Species observed using feature

**Species Observations**

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

Birds	Mammals	Herps	Butterflies / Dragonflies	Other
<i>i.e. AMRO/VO</i> <u>AMRO</u>				

**Woodland Assessment- complete 1 assessment for each woodland**

**Woodlot # (indicate on map):** HE

**Approximate age of stand** young

**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)

Bat Mat Roost? No.

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

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

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

If yes, describe \_\_\_\_\_

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

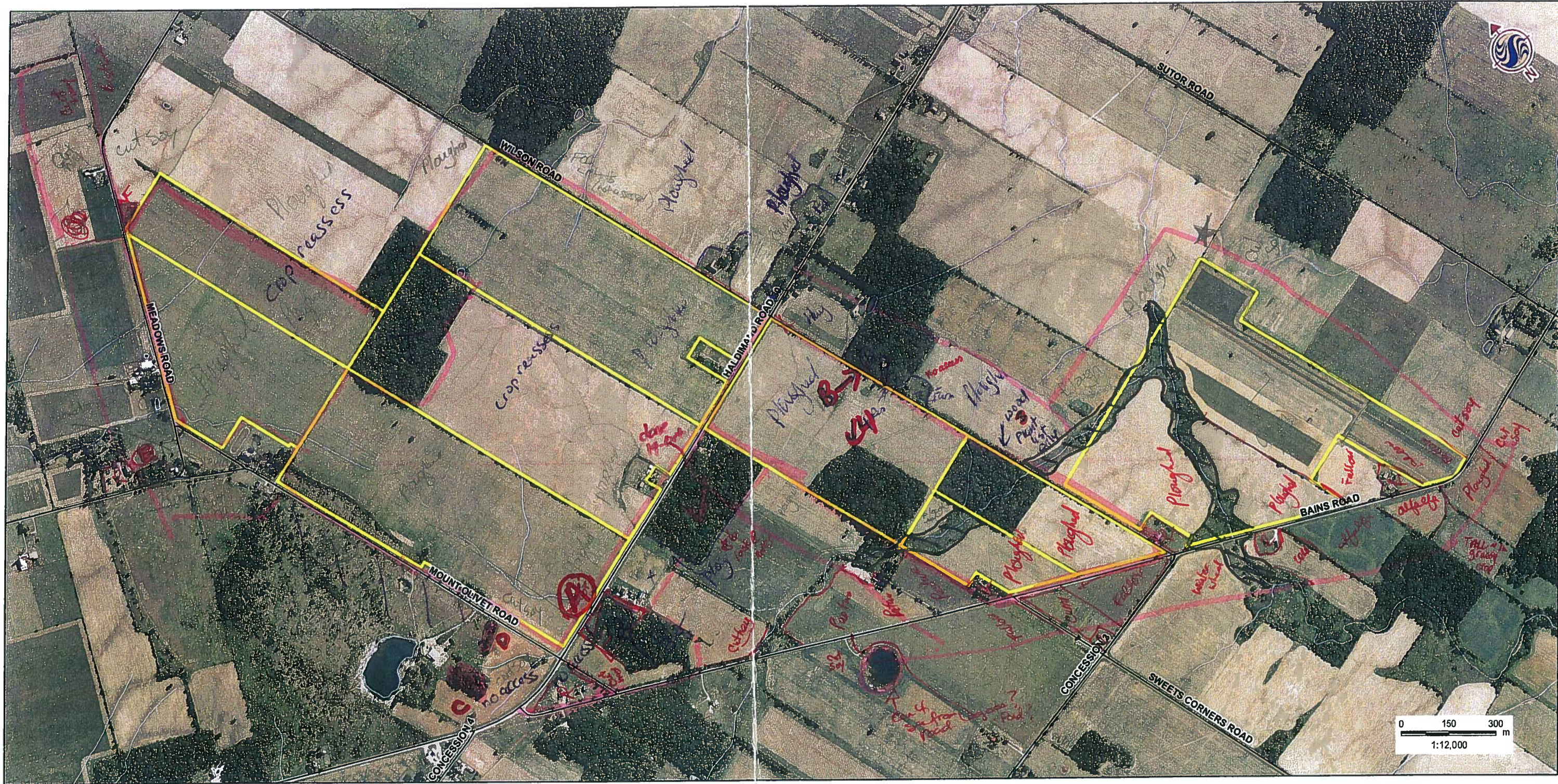
Seep/Spring #	UTM	Description	Surrounding Habitat

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

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

Recently planted (5-10 years)  
 spp: weeping willow, ACEFREE.  
 Good cover: ~40 trees












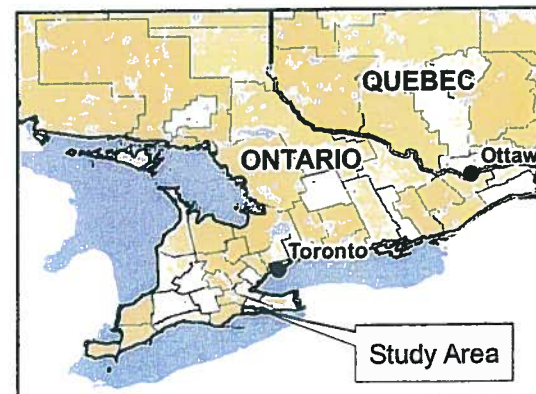
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September 2010  
160960577

**Legend**

-  Project Location
-  Government Lands
-  Road
-  Railway
-  Abandoned Railway
-  Watercourse (OBM)
-  Waterbody (OBM)

*every field in yellow  
reassess to w in 120m  
only some woodlots  
needed. see notes.*



**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. LIDAR IMAGERY SOURCE???

Client/Project

SAMSUNG C&T  
GRAND RENEWABLE ENERGY PARK

Figure No.

DRAFT

Title

**PROJECT LOCATION MAP**



Stantec













