

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	<u>GSH</u>	Map #:	<u>325-GSH1362</u>
Date:	<u>2012-05-01</u>			Time Started:	<u>1:20 P.m.</u>
Field Staff:	<u>Tom Sharkey JESS Pielfo</u>			Time Finished:	<u>3:12 P.m.</u>
Weather Conditions: <u>overcast 10°C Light wind</u>					

Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat
(FET1, FOC, FOM, FOD, SWC, SWM, SWD)

Nest bowls present: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: _____ Number of nests: _____

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present): _____

Description of habitat (note riparian areas if present, evidence of disturbance): _____

Waterfowls Stopover/Nesting, Amphibian Breeding, Turtle Nesting/Over-wintering, Marsh Breeding Birds
(CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2) (FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FEO1)

Standing water present: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: _____ Area of standing water delineated on field map: _____

Water depth (m): _____ % open water: _____ % emergent vegetation: _____

Description of standing water (permanent pool, evidence of annual spring flooding, etc): _____

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

Evidence of disturbance (e.g. cattle grazing): _____

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: _____

Complete Vernal Pool Habitat Description Form

Snake Hibernacula

Fissured rock/foundation or rock/debris pile present: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: _____ Likelihood to extend below frost line: _____

% canopy cover: _____ % slope: _____ Distance to open canopy (m): _____

Description of fissure or stone pile (composition/material, dimensions, etc): _____

Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): _____

Seeps and Springs (FOC, FOM, FOD, SWC, SWM, SWD)

Evidence of seep or spring: ☒ No ☐ Yes (if yes, photograph and complete the following)

UTMs: _____ Description (indicator species, etc): _____

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

(CUM1, CUT1, CUS, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1)

Eroding bank, sandy hill, pits, steep slope or rock face present:

☒ No

☐ Yes (if yes, photograph and complete the following)

UTMs: _____

Location (e.g. aggregate pit, bridge): _____

Evidence of use by bank or cliff swallows (provide number of nests): _____

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

(BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1, MAM2, MAM3, MAM4, MAM5)

Shoreline of lake, large river or large wetland present:

☒ No

☐ Yes (if yes, photograph and complete the following)

UTMs: _____

Rocky island or peninsula present: _____

Mudflat present: _____

Evidence of disturbance (e.g. cattle grazing): _____

Description of habitat (size of rocky outcrop/mudflat, substrate/soil type, type and abundance of cover): _____

Raptor Winter Feeding and Roosting, Open Country or Shrub/Early Successional Bird Breeding Habitat

CUT1, CUS1, >30ha, CUM1 >30ha, FOC, FOD, FOM with a CUM, CUT, CUS, CUW > 20ha, or a CUM, CUS, CUT, CUW>15ha

Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, CUS, CUW) present:

Large open habitat present: ☒ No

☐ Yes (if yes, photograph and complete the following)

UTMs: _____

Evidence of disturbance (e.g. cattle grazing): _____

Description of habitat (abundance of food plants for rodents, abundance of perches, height of vegetation): _____

Old-growth or Mature Forests, Interior Forest Breeding Birds

(FOD, FOC, FOM, SWC, SWM, SWD. Mature forest (>60 years) present)

Mature forest present: ☒ No

☐ Yes (if yes, photograph and complete the following)

UTMs: _____

Age of oldest trees: _____

Evidence of disturbance (e.g. selective cutting): _____

Description of habitat (structural complexity, abundance of snags and/or downed woody debris, etc): _____

Photo #	Location or Subject	Photo #	Location or Subject

Field Staff:

Team Shockey

Time Started:

55 R. 40

Time Finished:

Observed Species List

[illegible]

Note:	Evidence Codes (EV)	Breeding Bird (Possible)	SH=Suitable Habitat, SM=Singing Male:

T-Territory, D=Display, P=Pair, N=Nest Building, V= Visiting Nest, A=Anxiety Behavior.

DD=Distraction NU=Used Nest EV=Eaten Young NE=Eggs NV=Young ES=Eggs/Eaten/sock AE=Not Eaten

Other Wildlife Evidence: OB=observed, VO=Vocalization, CA=Carcass, DP=Distinctive Parts, HO=House/Den, FY=Eggs/young, TK=tracks, FE=Feeding evidence, SC=Scat, SI=Other signs (specify)

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
PLANTS			
FOD7	American Gromwell (<i>Lithospermum latifolium</i>) - S3 <i>Bloom Time - Spring</i>	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y (N) UTM:
ALO, TPO	Muehlenberg's astomum moss (<i>Astomum muehlenbergianum</i>) - S2 Bloom Time - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie	Y (N) UTM:
FOM1, FOM2, CUP3	Autumn Coral-root (<i>Coralorrhiza odonorrhiza</i>) - S2 <i>Bloom Time - summer to fall</i>	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.	Y (N) UTM
FOC, FOM, FOD	Burning Bush (<i>Euonymus atropurpureus</i>) - S3 Bloom <i>Time - April - June</i>	Species occurs in dry to moist deciduous thickets and woods	(Y) N UTM N/O
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (<i>Conioselinum chinense</i>) - S2 <i>Bloom Time - summer to fall</i>	Swampy places with deciduous trees, white cedars, tamarack; springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes	Y (N) UTM
SWC, SWM, SWD, SWT, MAM, MAS	Crowned Beggarticks (<i>Bidens trichosperma</i>) - S2 <i>Bloom Time - late summer</i>	Found in openings in swamps, marshes, along shores & wet fields within the Carolinian zone and southeastern Georgian bay. Bogs, fens, tamarack swamps	Y (N) UTM:
ALT1, FOD7	Eastern Green-violet (<i>Hybanthus concolor</i>) - S2 Bloom <i>Time - mid March to August</i>	Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone Includes floodplains and river banks.	Y (N) UTM
TPS, TPW, FOM1, FOM2	Fogg's Goosefoot (<i>Chenopodium foggii</i>) - S2	Species occurs in sandy areas on limestone under oak or pine-oak forests	Y (N) UTM
TPO2, TPS2, TPW2,	Giant Ironweed (<i>Vernonia gigantea</i>) - S1? Bloom Time-	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y (N) UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM, FOD8, FOD7, FOD9	June – August Green Dragon (<i>Arisaema dracontium</i>) - SCIS3 <u>Bloom Time</u> – May and June	Species found in <u>damp deciduous forest</u> and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	Y N UTM N/O
TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June-August Hairy Bedstraw (<i>Galium pilosum</i>) - S3 <u>Bloom Time</u> – June-August	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y N UTM:
FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	Hairy Valerian (<i>Valeriana edulis</i>) - S1 <u>Bloom Time</u> – June to August	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.	Y N UTM:
FOD6, FOD7, SWM, SWD	Hairy Wood Mint (<i>Blephilia hirsuta</i>) - S1 <u>Bloom Time</u> – Summer	Woodlands, often rocky, especially rivers. <u>Rich woods</u> , swamp forests, floodplains.	Y N UTM N/O
FOD8, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Erigenia bulbosa</i>) - S3 <u>Bloom Time</u> – early to late April	Occurs in <u>rich, moist deciduous woods</u> , especially on floodplains.	Y N UTM N/O
SAS1, SAM1, SAF1	Hill's Pond Weed (<i>Potamogeton hillii</i>) - SCIS2 <u>Bloom Time</u> – summer	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y N UTM:
FOM6, FOM7, FOM8	Large Round-leaved Orchid (<i>Platanthera macrophylla</i>) - S2 <u>Bloom Time</u> – June to August	Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.	Y N UTM:
MAM2, MAM3, MAS2, MAS3, SWD	Lizard's Tail (<i>Saururus cernuus</i>) - S3 <u>Bloom Time</u> – June – September	Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, shallow water and mudflats at the borders of streams and ponds.	Y N UTM:
FOD6, FOD7, FOD9	Pawpaw (<i>Asimina triloba</i>) - S3 <u>Bloom Time</u> – March-May	Occurs in <u>moist, deciduous woods</u> and stream banks.	Y N UTM: N/O
FOM8, FOD9, FOD7, FOD9, CUM1	Pilose Evening Primrose (<i>Oenothera pilosella</i>) - S2 <u>Bloom Time</u> – Late Spring – Early Summer	<u>Moist edges of woods</u> and open, disturbed ground.	Y N UTM: N/O
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostrate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 <u>Bloom Time</u> – July-September	Dry, sandy or rocky woods	Y N UTM:
FOD7, SWD	Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? <u>Bloom Time</u> – March - June	Swamps and floodplains	Y N UTM:
CUM1, ALO, FET1, SWC	Ram's-head Lady's-slipper (<i>Cypripedium arietinum</i>) - S3 <u>Bloom Time</u> – mid May to mid June	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren	Y N UTM:
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, EQM1, FOM5	Rattlesnake Hawkweed (<i>Hieracium venosum</i>) - S2 <u>Bloom Time</u> – April – September	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.	Y N UTM:
FOD6, FOD7, FOD9	Round-leaved Groundsel (<i>Packera obovata</i>) - S3 <u>Bloom Time</u> – May - June	<u>Found in moist woods</u>	Y N UTM:
CUM1, CUT1, CUS1	Round-leaved hawthorn (<i>Crataegus lumaria</i>) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y N UTM:
FOD8, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm (<i>Monarda didyma</i>) - S3 <u>Bloom Time</u> – May to October	Found in <u>moist, rich woods</u> , thicket swamps, banks and floodplains.	Y N UTM: N/O
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star (<i>Liatris cylindracea</i>) - S3	Species occurs in limestone and dolostone pavement, prairies, open woods, alvars and moist sandy meadows.	Y N UTM:
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed (<i>Polygonum tenue</i>) - S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits	Y N UTM:
SDT1, FOD5, FOD9	Slim-flowered Muhly (<i>Muhlenbergia tenuiflora</i>) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y N UTM:
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>Gentianella quinquefolia</i>) - S2 <u>Bloom Time</u> – late summer to mid fall	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides	Y N UTM:
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine (<i>Lupinus perennis</i>) - S3 <u>Bloom Time</u> – mid-March to mid-June	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen	Y N UTM:

Species Conservation Concern Habitat and Incidental Wildlife – Goshen

ACOM

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
TP01, TPS1, TPW1, CUM1	Tall Blazing Star (<i>Liatis aspera</i>) - S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM:
FEO, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>Amorhossium plantagineum</i>) - S3 Bloom Time – mid-March to mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	Y (N) UTM:
FOC1, FOC2, FOC3, FOC4	Woodland Pinedrops (<i>Pterospora andromedea</i>) - S2 Bloom Time – summer	Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.	Y (N) UTM:
CUM1, CUT1, CUW1, RBO1, SBO1	Yellow Ladies' tresses (<i>Spiranthes ochroleuca</i>) - S2 Bloom Time – August to November	Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.	Y (N) UTM:
BIRDS			
-	Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk (<i>Chordeiles minor</i>) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y (N) UTM:
FOD, FOM	Louisiana Waterthrush (<i>Selurus motacilla</i>) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y (N) UTM:
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/ edges (oak savannahs and riparian forest), open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	Y (N) UTM:
-	Short Eared Owl (<i>Asio flammeus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC	Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y (N) UTM:
REPTILES			
-	Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Milksnake (<i>Lampropeltis triangulum</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Snapping Turtle (<i>Chelydra serpentina</i>) - SC	Assessed as SWH. Record species if found.	not required.
INSECTS			
OAO, SA, SWM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) - S3	Species inhabits fishless ponds, lakes and boggy swamps	Y (N) UTM:
TPS, TPW	Sleepy Duskywing (<i>Erynnis brize</i>) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles. Their larvae only feed on milkweeds (<i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y (N) UTM:
CUM1, CUT1, CUW1	Monarch Butterfly (<i>Danaus plexippus</i>) - SC	Usually seen nectaring on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	Y (N) UTM:
TPS, CUW	Mottled Duskywing (<i>Erynnis martialis</i>) - S2	Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant	Y (N) UTM:
SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor (<i>Asterocampa clyten</i>) - S3	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM:
FOD5	West Virginia White (<i>Pieris virginianensis</i>) - SC		Y (N) UTM:



Polygon DescriptionStand Description

HT Codes: 7 <0.2m 8 >0.2-0.5m 9 >0.5-1m 4 >1-2m 3 >2-5m 2 >6-25m 1 >25m
CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 60% 4 > 60%

Com. Age: ☐ Pioneer ☐ Young ☒ Mid-Age ☐ Mature ☐ Old Growth

Community Profile Diagram/Comments

1616 community descriptions 471-481 forms/042004

Soils Ontario and ELC Soils Description

[illegible]

VASCULAR PLANT LIST
PROJECT / LOCATION: Feature 375

SURVEYOR(S): B. Miller, R. Aitken DATE(S): DEC. 12, 2011

POLYGON: 1.

VEGETATION TYPE: SOFT MAPLE SWAMP

NOTES: WHITE-BREA STED N.H., B.C.C. , BLUE JAY, Hairy w.p.

[illegible]

Relative Abundance: D = Dominant; A = Abundant; O = Occasional; R = Rare
Vegetation Height: C = > 20m; SC = 10 - 20m; U = 2 - 10m; QL = < 2m

Site: 375 Polygon: 2.
Surveyor(s): B. Miller Date: Dec. 12, 2011 Time start: 9:30am
R.A. + K.O. finish: 10:15 am
UTM Z: 17 UTM X: 451050 UTM Y: 4804863

Polygons Description

System	Substrate	Topographic Feature	Plant Form	Community
☐ Terrestrial	☐ Organic	☐ Lacustrine	☐ Plantation	☐ Lake
☐ Wetland	☐ Mineral Soil	☐ Riverine	☐ Submerged	☐ Pond
☐ Aquatic	☐ Parent Mtn.	☐ Bottomland	☐ Floating-LVD.	☐ River
Site	☐ Acidic Bedrock	☐ Terrace	☐ Graminoid	☐ Stream
☐ Open Water	☐ Basic Bedrock	☐ Valley Slope	☐ Forb	☐ Marsh
☐ Shallow Water	☐ Carb. Bedrock	☐ Upland	☐ Lichen	☐ Swamp
☐ Surficial Dep.		☐ Roll Upland	☐ Bryophyte	☐ Fen
☐ Bedrock		☐ Cliff	☐ Deciduous	☐ Bog
History		☐ Trails	☐ Coniferous	☐ Barren
☐ Natural		☐ Crevices/Cave	☐ Mixed	☐ Meadow
☐ Cultural		☐ Awar		☐ Prairie
Coastal		☐ Rockland		☐ Thicket
☐ Open		☐ Beach / Bar		☐ Savanna
☐ Shrub		☐ Sand Dune		☐ Woodland
☐ Treed		☐ Bluff		☐ Forest
				☐ Plantation

Stand Description

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp)
1	1	4	ACE SASA > FRAA MEA > TILALAE > PRUSE RO
2	2	3	ACE SASA > FRAA MEA > TSUCANA > EAGGRAV
3	3	3	ACE SASA > PRUVING > CORALTE
4	4-7	2	ACE SASA > MIAHACE

HT Codes: 1 < 0.2m 2 0.2-0.5m 3 0.5-1m 4 1-2m 5 2-3m 6 3-4m 7 > 4m
CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 50 - 75% 5 75 - 90% 6 90 - 100%

Stand Composition:	Size Class Analysis:											
		O	<10	A	10-24	O	25-50	R	>50			
		R	<10	R	10-24	R	25-50	R	>50			
BA:				Deadfall / Logs:	R	<10	R	10-24	O	25-50	R	>50

Abundance Codes: N = None R = Rare O = Occasional A = Abundant

Comm. Age: ☐ Pioneer ☐ Young ☒ Mid-Age ☐ Mature ☐ Old Growth

Ecoster: Fresh-Daist Sugar Maple Deciduous Forest Code: FOD 6
Vegetation Type: Ash Deciduous Forest Code: FOD 6-1
Inclusion: Code:
Complex: Code:

Community Profile Diagram/Comments

Notes:

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Tally 5	Tally 6	Tally 7	Tally 8	Tally 9	Tally 10	Tally 11	Tally 12	Tally 13	Tally 14	Tally 15	Tally 16	Tally 17	Tally 18	Tally 19	Tally 20
Total																				
Basal Area (BA)																				
Dead																				

Soils Ontario and ELC Soils Description

Soil Horizon Description					Depth to...			Site Metrics				Summary	
								UTM				Moisture Regime	
								Slope				Drainage	
								Slope Length					
								Mottles					
								Gley					
								Water Table					
								Carbonates					
								Bedrock				Effective Texture (indicate below)	
1					Depth from zero		% CF		% CF		% CF		
					Texture								
2					Depth from zero		% CF		% CF		% CF		
					Texture								
3					Depth from zero		% CF		% CF		% CF		
					Texture								
4					Depth from zero		% CF		% CF		% CF		
					Texture								
					% Surface Stone/Rock								
					Moisture Regime								
					Drainage								

VASCULAR PLANT LIST
PROJECT / LOCATION: **FEATURE 375**

PROJECT / LOCATION: FEATURE 313

SURVEYOR(S): B. Miller, R. Aitken

DATE(S): DEC. 12, 2011

POLYGON: 2.

NOTES:

Relative Abundance: D = Dominant; A = Abundant; O = Occasional; R = Rare
Vegetation Height: C = > 20m; SC = 10 - 20m; U = 2 - 10m; GL = < 2m

Polygons Description				
System	Substrate	Topographic Feature	Plant Form	Community
☐ Terrestrial	☒ Organic:	☐ Lacustrine	☐ Plankton	☐ Lake
☒ Wetland	☐ Mineral Soil	☐ Riverine	☐ Submerged	☐ Pond
☐ Aquatic	☐ Parent Mtn.	☒ Bottomland	☐ Floating, V.D.	☐ River
☐ Slope	☐ Acidic Bedrk	☐ Terrace	☐ Graminoid	☐ Stream
☐ Open Water	☐ Basic Bedrk	☐ Valley Slope	☐ Forb	☐ Marsh
☒ Shallow Water	☐ Carb. Bedrk	☐ Tidaland	☐ Lichen	☒ Swamp
☐ Surficial Dep.		☐ Roll, Upland	☐ Bryophyte	☐ Fen
☐ Bedrock		☐ Cliff	☐ Bog	☐ Bog
☐ History		☐ Talus	☒ Coniferous	☐ Barren
☒ Natural		☐ Crevice/Cave	☐ Mixed	☐ Meadow
☐ Cultural		☐ Avar		☐ Prairie
☐ Cover		☐ Rockland		☐ Thicket
☐ Open		☐ Beach / Bar		☐ Savannah
☐ Shrub		☐ Sand Dune		☐ Woodland
☒ Tree		☐ Bluff		☐ Forest
				☐ Plantation

HT Codes:	7 <0.2m	8 >0.2-0.5m	5 <0.5-1m	4 >1.2m	3 >2.8m	2 >6-25m	1 >25m
CVR Codes:	0 = none	1 0% - 10%	2 10 - 25%	3 25 - 60%	4 = 60%		

Strand Composition:	Stems Class Analysis:						
	O	<10	Δ	10-24	O	25-50	R
B&S:	Standing / Logs:						
	R	<10	O	10-24	R	25-50	R
Abundance Codes:	Deadfall / Logs:						
	R	<10	O	10-24	R	25-50	R

Abundance Codes: N = None R = Rare O = Occasional A = Abundant

Community Profile Diagram/Comments

Soils Ontario and ELC Soils Description

Soil Horizon Description							Depth to...						Site Metrics								Summary			
													Pit/Auger #											
													UTM				Moisture Regime							
													Slope				Drainage							
													Metres											
													Gley											
													Water Table											
													Carbonates											
													Bedrock											
													Effective Texture (indicate below)											
1							% CF						% CF						% CF					
zero																								
Texture																								
2							% CF						% CF						% CF					
Depth from zero																								
Texture																								
3							% CF						% CF						% CF					
Depth from zero																								
Texture																								
4							% CF						% CF						% CF					
Depth from zero																								
Texture																								
% Surface Stone/Rock																								
Moisture Regime																								
Drainage																								

VASCULAR PLANT LIST

PROJECT / LOCATION: FEATURE 375

POLYGON: 3.

SILVERTOP®

DATE: DEC. 12, 2011

VEGETATION TYPE:

NOTES:

[illegible]

Relative Abundance: D = Dominant; A = Abundant; O = Occasional; R = Rare
Vegetation Height: C = > 20m; SC = 10 - 20m; U = 2 - 10m; GL = < 2m

Page 1 of 1

VASCULAR PLANT CHECKSHEET
Date: Dec 12, 2011
Job Number:

Location: Feature 37S

Observer: B. Miller, B. Arken

Date: Dec 12, 2011

Job Number:

Polygon 1, 2 + 3

[illegible]

- 1: Polygon # 1
- 2: Polygon # 2
- 3: Polygon # 3

4: _____
5: _____
6: _____

SITE LOCATIONS

N. Apple / E. 14.003 (Close to Zortman)

Goshen Feature: 375 GSH1018

(Properties that contain Features within 125m from Collection lines and 171.5m from Turbines) WP# 314

100 Meters

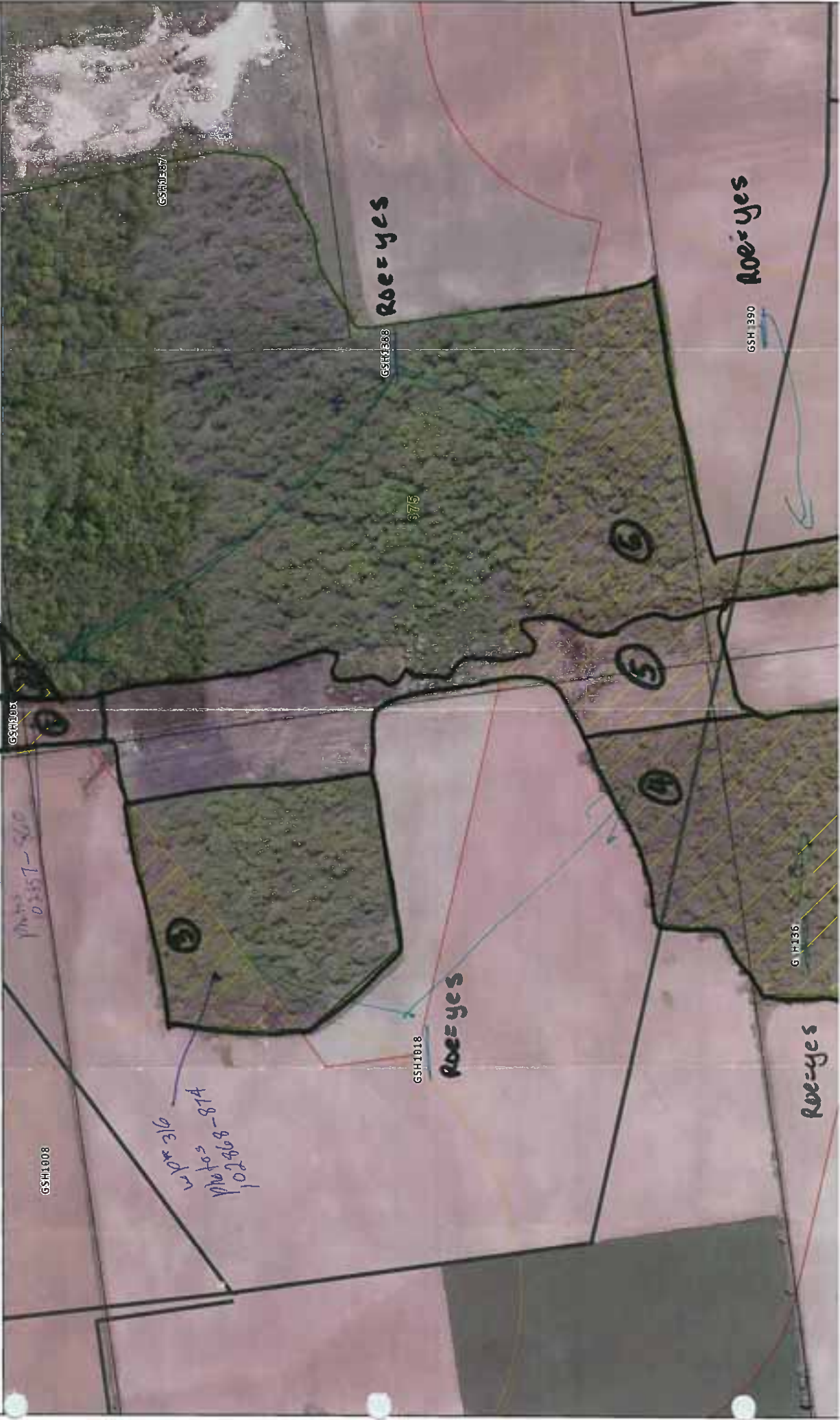
50

25

WP# 315 40901 405096

102800-807 September 1, 2011

- Roads
- Access/Collection Line
- Collection Buffer (125m)
- Turbine Buffer (171.5m)
- Collection/Feature Intersect
- Turbine Buffer/Feature Intersect
- Property Fabric
- Bluewater Wind Energy Centre



VASCULAR PLANT CHECKSHEET

Location: 375 GSH 1018/1388 Date: Oct. 5/11
 Observer: SAM Job Number:

DICOT HERBS	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	MONOCOT HERBS	1	2	3	4	5	6
Achillea millefolium							Erigeron annuus						Plantago lanceolata						Alisma plantago-aquatica						
Actaea pachyphloea							Erigeron philadelphicus						Plantago major						Allium tricoccum						
Actaea rubra							Erigeron strigosus						Plantago rugelii						Allium						
Agalinis							Erysimum cheiranthoides						Podophyllum peltatum						Arisaema triphyllum						
Agrostis gryposepala							Eupatorium maculatum						Polygonum						Asparagus officinalis						
Allaria petiolata							Eupatorium perfoliatum						Polygonum						Celastrus palustris						
Amaranthus retrofractus							Eupatorium rugosum						Polygonum						Clinocentris borealis						
Ambrosia artemisiifolia							Euphorbia						Polygonum lapathifolium						Conoclinium majus						
Amphicarpaea baccata							Euthamia graminifolia						Polygonum persicaria						Cypripedium calceolus						
Anaphalis margaritacea							Fragaria virginiana						Potentilla						Elaeagnus canadensis						
Anemone							Fragaria vesca						Potentilla norvegica						Epipactis helleborine						
Anemone canadensis							Galeopsis tetrahit						Potentilla recta						Erythronium americanum						
Anemone virginiana							Gallium						Prenanthes alba						Hemerocallis fulva						
Arisaema neglecta							Gallium						Prunella vulgaris						Iris versicolor						
Apocynum androsaemifolium							Gallium palustre						Pyrola elliptica						Lemna minor						
Apocynum cannabinum							Gallium triflorum						Ranunculus						Lemna trisulca						
Aquilegia canadensis							Geranium maculatum						Ranunculus abortivus						Lilium						
Aralia nudicaulis							Geranium robertianum						Ranunculus acris						Malanthemum canadense						
Arctium minus							Geum aleppicum						Rudbeckia hirta						Malanthemum racemosum						
Aster							Geum canadense						Rumex acetosella						Malanthemum stellatum						
Aster cordifolius							Geum						Rumex crispus						Plantago						
Aster ericoides							Glechoma hederacea						Rumex						Potentilla cordata						
Aster lanceolatus							Hepatica scutifolia						Sanguinaria canadensis						Polygonatum pubescens						
Aster laevis							Hesperis matronalis						Sanicula marilandica						Potamogeton crispus						
Aster macrophyllus							Hieracium aurantiacum						Saponaria officinalis						Potamogeton pectinatus						
Aster novae-angliae							Hieracium						Satureja vulgaris						Potamogeton						
Aster puniceus							Hydrophyllum virginianum						Scutellaria galericulata						Potamogeton						
Barbarea vulgaris							Hypericum perforatum						Silene vulgaris						Potamogeton						
Bidens cernua							Impatiens capensis						Sium suave						Sagittaria latifolia						
Bidens frondosa							Inula helenium						Solanum dulcamara						Silene montana						
Boehmeria cylindrica							Lactuca						Solidago						Smilax herbacea						
Celastrus palustris							Laportea canadensis						Solidago altissima						Spiranthes cernua						
Calystegia sepium							Laportea communis						Solidago caesia						Spirodela polytricha						
Cardamine diphylla							Leonurus cardiaca						Solidago canadensis						Streptopus roseus						
Cardamine							Lepidium						Solidago flexuosa						Trillium erectum						
Caulophyllum thalictroides							Linaria vulgaris						Solidago gigantea						Trillium grandiflorum						
Cerastium fontanum							Lithospermum officinale						Solidago nemoralis						Urtica grandiflora						
Ceratophyllum demersum							Lobelia						Solidago rugosa						Urtica dioica						
Chelidonium majus							Lobelia inflata						Sonchus oleraceus						Urtica dioica						
Chenopodium album							Lobelia triflora						Sonchus asper						Urtica dioica						
Chrysanth. leucanthemum							Lotus corniculatus						Stellaria						Urtica dioica						
Cichorium intybus							Lycopus americanus						Tanacetum vulgare						Urtica dioica						
Cicuta							Lycopus						Tanacetum officinale						Urtica dioica						
Circaea leutetiana							Lythrum alba						Thalictrum dioicum						Urtica dioica						
Cirsium arvense							Lythrum salicaria						Thalictrum pubescens						Urtica dioica						
Cirsium vulgare							Medicago lupulina						Thalictrum pubescens						Urtica dioica						
Clematis virginiana							Medicago sativum						Thalictrum pubescens						Urtica dioica						
Clinocentris borealis							Melilotus alba						Thalictrum pubescens						Urtica dioica						
Coryza canadensis							Melilotus arvensis						Thalictrum pubescens						Urtica dioica						
Coronilla varia							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Cynanchum rotundifolium							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Cynoglossum officinale							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Daucus carota							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Desmodium canadense							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Dianthus armeria							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Dipsacus fullorum							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Echinops lobata							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Echium vulgare							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Epilobium							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Epilobium ciliatum							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Epilobium hirtum							Mimulus ringens						Thalictrum pubescens						Urtica dioica						
Epilobium parviflorum							Mimulus ringens						Thalictrum pubescens						Urtica dioica						

SITE LOCATIONS

- 1: Polygon #1
 2: poly #2
 3: poly #3
 4:
 5:
 6:

I CONIFERS						I TREES and SHRUBS						I GRAMINOIDS					
1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Abies balsamea						+ Rosa multiflora						Agrostis gigantea					
Juniperus communis						Rosa						Agrostis stolonifera					
Juniperus virginiana						Rubus allegheniensis						Agropyron repens					
Larix laricina						Rubus idaeus						Alopecurus					
Picea abies						Rubus occidentalis						Bromus inermis					
Picea glauca						Rubus odoratus						Calamagrostis canadensis					
Pinus resinosa						Rubus pubescens						Carex arctata				X	
Pinus strobus						Salix alba						Carex aurea					
Pinus sylvestris						Salix amygdaloides						Carex bebbii				X	
Thuja occidentalis						Salix bebbiana						Carex blanda					
Tsuga canadensis		X				+ Salix discolor						Carex gracillima					
						Salix eriocephala						Carex granularis					
						Salix exigua						Carex hystericina					
						Salix lucida						Carex pennsylvanica					
						Salix petiolaris						Carex radiata					
TREES and SHRUBS						+ Salix purpurea						Carex retrorsa					
Acer negundo						Salix x rubens						Carex stipata					
Acer rubrum						+ Salix						Carex stricta					
Acer saccharinum						Sambucus canadensis						Carex vulpinoidea				X	
Acer saccharum		X	X			Sambucus racemosa						Carex lupulina				X	
Acer spicatum						Sorbus aucuparia						Carex					
Alnus rugosa						Spiraea alba						Carex					
Amelanchier						Syringa vulgaris						Carex					
Berberis thunbergii						+ Tilia americana		X	X			Carex					
Betula alleghaniensis						Ulmus americana		X	X			Carex					
Betula papyrifera						Ulmus						Carex					
Carpinus caroliniana		X	X			Vaccinium						Carex					
Carya cordiformis						Viburnum lentago						Carex					
Celastrus scandens						Viburnum opulus						Cyperus					
Cornus alternifolia						Viburnum						Cyperus					
Cornus amomum			X			Vitis riparia				X		Dactylis glomerata					
Cornus rugosa						Carya ovata		X	X			Danthonia spicata					
Cornus stolonifera		X										Echinochloa crus-galli					
Corylus cornuta												Eleocharis erythropoda					
Crataegus monogyna												Eleocharis					
Crataegus punctata												Elymus virginicus					
Crataegus sp.												Elymus					
Crataegus												Festuca arundinacea					
Diervilla lonicera												Glyceria striata					X
Fagus grandifolia			X									Glyceria					
Fraxinus americana		X	X														

Tree Tally by Species

[illegible]

Site Metrics		Pit/Auger #				Summary
UTM	Zone	17				Moisture Regime
	Easting	450857				
	Northing	4805069				
	Position	6				
	Aspect	N				

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp) (>> Much Greater Than; > Greater Than; = About Equal To)
1	3-4	2	<i>Lythrum</i> <i>Althaea</i> <i>Phalaris</i> <i>Phragmites</i>
2	4		<i>Wood Grass</i> <i>Black Bulrush</i> <i>Panicum</i> <i>Aster</i>
3	5-4	3	<i>Water Plantain</i> <i>Juncus effusus</i> <i>N.E. Aster</i>
4	6	2	<i>Fox Sedge</i> <i>Bebb's sedge</i> <i>Pantharum sedifolius</i> <i>Hemp</i>

HT Codes:	7 <0.2m	8 >0.2-0.5m	9 >0.5-1m	4 >1-2m	3 >2-8m	2 >6-25m	1 >25m
CVR Codes:	0 = none	1 0% - 10%	2 10 - 25%	3 25 - 80%	4 >80%		

	Stand' Composition:	Size Class Analysis:			
PA:	VIA	Standing Shags:	<10	10-24	25-50
		Deadfall / Logs:	<10	10-24	25-50
			<10	10-24	25-50

Abundance Codes: N = None R = Rare O = Occasional A = Abundant

Com. Age: ☐ Pioneer ☒ Young ☐ Mid-Age ☐ Mature ☐ Old Growth

Ecosite:	Mineral Meadow Marsh Siosite	Code:	MAN2
Vegetation Type:	Forb Mineral meadowmarsh Type	Code:	MAN2-10
Inclusion:		Code:	
Complex:		Code:	

Community Profile Diagram/Comments

Notes:

WP 3/16

Site: 375-65H 018 Polygon: 3
Surveyor(s): SAM Date: Oct 5/11 Time start: 1700h finish: 1730h
UTMZ: 17T UTMZ: 450748 UTMN: 4804981

Tree Tally by Species

Priority factor: 2

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Avg
Be	32	9	1		3	10
Map	32	9	12		27	70
Red	3	3	1		4	14
Sw	1	1			1	3
HBN	1	1			1	3
Total	10	14			30	100
Basal Area (BA)	32	28			60	30
Dead	2	1			2	2

Polygon Description

System	Substrate	Topographic Feature	Plant Form	Community
☒ Terrestrial	☐ Organic	☐ Lacustrine	☐ Plankton	☐ Lake
☐ Wetland	☒ Mineral Soil	☐ Riverine	☐ Submerged	☐ Pond
☐ Aquatic	☐ Parent Min.	☐ Bottomland	☐ Floating-LVD	☐ River
☐ Site	☐ Acidic Bedrk	☐ Terrace	☐ Graminoid	☐ Stream
☐ Open Water	☐ Basic Bedrk	☐ Valley Slope	☐ Forb	☐ Marsh
☐ Shallow Water	☐ Carb. Bedrk	☒ Stableland	☐ Lichen	☐ Swamp
☒ Surficial Dep.		☐ Roll. Upland	☐ Bryophyte	☐ Fen
☐ Bedrock		☐ Cliff	☒ Deciduous	☐ Bog
☐ History		☐ Talus	☐ Coniferous	☐ Barren
☒ Natural		☐ Crevice/Cave	☐ Mixed	☐ Meadow
☐ Cultural		☐ Alvar		☐ Prairie
☐ Cover		☐ Rockland		☐ Thicket
☐ Open		☐ Beach / Bar		☐ Savannah
☐ Shrub		☐ Sand Dune		☐ Woodland
☒ Treed		☐ Bluff		☒ Forest
				☐ Plantation

Stand Description

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp)
1	2	4	Map > Be > Red
2	3	3	Map > Blue Beech > Red > Aw
3	5	3	Callery Aster > Zig Zag Geranium > Foxglove
4	7-6	2	Polygon Ivy > Yellow Nettle > False Nettle > Christm 95 Fern

HT Codes: 7 < 0.2m 8 > 0.2-0.5m 5 > 0.5-1m 4 > 1-2m 3 > 2-8m 2 > 6-25m 1 > 25m
CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 60% 4 > 60%

Stand Composition:	Size Class Analysis:
Map 70-80 14-20 30	A < 10 0 10-24 0 25-50 0 50-75 0 75-100 0
BA: 30	Standing Snags: 0 10-24 0 25-50 0 50-75 0 75-100 0
	Deadfall / Logs: 0 10-24 0 25-50 0 50-75 0 75-100 0

Abundance Codes: N = None R = Rare O = Occasional A = Abundant

Com. Age:	☐ Pioneer	☐ Young	☒ Mid-Age	☐ Mature	☐ Old Growth
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Ecosite:	Fresh-Haist Sugar Maple Deciduous Forest	Code:	F006
Vegetation Type:	Fresh-Haist Sugar Maple-Hardwood	Code:	F006-5
Inclusion:	Deciduous forest	Code:	
Complex:		Code:	

Community Profile Diagram/Comments

Notes:

Soils Ontario and ELC Soils Description

Site Metrics		Soil Horizon Description		Summary	
Plt/Auger #					
Zone					
Easting					
Northing					
Position					
Aspect					
Percent					
Slope					
Length					
Mottles					
Gley					
Water Table					
Carbonates					
Bedrock					
1	Depth from zero	% CF	% CF	% CF	% CF
Texture					
2	Depth from zero	% CF	% CF	% CF	% CF
Texture					
3	Depth from zero	% CF	% CF	% CF	% CF
Texture					
4	Depth from zero	% CF	% CF	% CF	% CF
Texture					
% Surface Stone/Rock					
Moisture Regime					
Drainage					

SURVEYOR(S): SAM

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTORY 4 = GROUND (GRD.) LAYER

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

SPECIES CODE	LAYER				COLL.
	1	2	3	4	
MA	D	A			
Bd	O				
sens PFA					
lp		O			
Be	O				
Calico					
Fowl Nema					
Aw	R				
Cb	R				
Blue Beech		A			
Pl					
HS					
Ving water lent					
Ew					
Co arct.					
Uio k sp.					
Zig Zag					
Felise Nettle					
Xmas Fern					
ABN					
Grape					
Yell. Avens					
Xmas Fern					

[illegible]

Spring Paper
Down

379-GSH1430

Goshen Feature: 379 GSH1430

(Properties that contain Features within 125m from Collection lines and 171.5m from Turbines)

- Roads
- Access/Collection Line
- Collection Buffer (125m)
- Turbine Buffer (171.5m)
- Collectors/Feature Intersect
- Turbine Buffer/Feature Intersect
- Property Fabric
- Maximum Wood Energy Canopy

h

September 1, 2011

0 25 50 100 Meters



1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
CONIFERS						TREES and SHRUBS						GRAMINOIDS					
Abies balsamea						+ Rosa multiflora						Agrostis gigantea					
Juniperus communis						Rosa						Agrostis stolonifera					
Juniperus virginiana						Rubus allegheniensis						Agropyron repens					
Larix laricina						Rubus idaeus						Alopecurus					
Picea abies						Rubus occidentalis						Bromus inermis					
Picea glauca						Rubus odoratus						Calamagrostis canadensis					
Pinus resinosa						Rubus pubescens						Carex acutata					
Pinus strobus						Salix alba						Carex acuta					
Pinus sylvestris						Salix amygdaloides						Carex bebbii					
Thuja occidentalis						Salix bebbiana						Carex blanda					
Tsuga canadensis						+ Salix discolor						Carex gracillima					
						Salix eriocephala						Carex granularis					
						Salix exigua						Carex hystericina					
						Salix lucida						Carex pennsylvanica					
						Salix petiolaris						Carex radiata					
TREES and SHRUBS						+ Salix purpurea						Carex retrosa					
Acer negundo						Salix x rubens						Carex stipata					
Acer rubrum						+ Salix						Carex stricta					
Acer saccharinum						Sambucus canadensis						Carex vulpinoidea					
Acer saccharum						Sambucus racemosa						Carex					
Acer spicatum						Sorbus aucuparia						Carex					
Alnus rugosa						Spiraea alba						Carex					
Amelanchier <i>sp.</i>						Syringa vulgaris						Carex					
Berberis thunbergii						+ Tilia americana						Carex					
Betula alleghaniensis						Ulmus americana						Carex					
Betula papyrifera						Ulmus						Carex					
Carpinus caroliniana						Vaccinium						Carex					
Carya cordiformis						Viburnum lentago						Carex					
Celastrus scandens						Viburnum opulus						Cyperus					
Cornus alternifolia						Viburnum						Cyperus					
Cornus amomum						Vitis riparia						Dactylis glomerata					
Cornus <i>sp.</i>												Danthonia spicata					
Cornus stolonifera												Echinochloa crus-galli					
Corylus cornuta												Elocharis mythropoda					
Crataegus monogyna												Elocharis					
Crataegus punctata												Elymus virginicus					
Crataegus sp.												Elymus					
Crataegus												Festuca arundinacea					
Diervilla lonicera												Glyceria striata					
Fagus grandifolia												Glyceria					
Fraxinus americana												Juncus dudleyi					
Fraxinus nigra						FERNS						Juncus effusus					
Fraxinus pennsylvanica						Adiantum pedatum											

Goshen Feature: 379 GSH1430

(Properties that contain Features within 125m from Collection lines and 171.5m from Turbines)

- ELC Survey Completed
- Turbine Buffer/Feature Intersect
- Property Fabric
- Goshen Wind Energy Centre
- Roads
- Access/Collection Line
- Survey to be Completed
- Turbine Buffer (171.5m)



October 28, 2011



CONIFERS							TREES and SHRUBS						GRAMINOIDS								
	1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6	
Abies balsamea							+ Rosa multiflora							Agrostis gigantea							
Juniperus communis							Rosa							Agrostis stolonifera							
Juniperus virginiana							Rubus alleghaniensis							Agropyron repens							
Larix laricina							Rubus idaeus		X					Alopecurus							
Picea abies							Rubus occidentalis							Bromus inermis		X					
Picea glauca							Rubus odoratus							Calamagrostis canadensis							
Pinus resinosa		P					Rubus pubescens							Carex arctata							
Pinus strobus		P					Salix alba							Carex aurea							
Pinus sylvestris							Salix amygdaloides			X				Carex bebbii							
Thuja occidentalis		X					Salix babingtonii							Carex blanda							
Tsuga canadensis							+ Salix discolor							Carex gracillima							
							Salix eriocephala							Carex granularis							
							Salix nigra							Carex hystericina							
							Salix lucida							Carex pennsylvanica							
							Salix petiolaris							Carex radiata							
TREES and SHRUBS	-	-	-	-	-	-	+ Salix purpurea							Carex retrorsa							
Acer negundo		X					Salix x rubens							Carex stipata							
Acer rubrum							+ Salix							Carex stricta							
Acer saccharinum							Sambucus canadensis							Carex vulpinoidea							
Acer saccharum		X					Sambucus racemosa							Carex							
Acer spicatum							Sorbus aucuparia							Carex							
Ahorn rugosa							Spiraea alba							Carex							
Amelanchier		X					Syringa vulgaris		X					Carex							
Berberis thunbergii							+ Tibia americana							Carex							
Betula alleghaniensis							Ulmus americana							Carex							
Betula papyrifera							Ulmus							Carex							
Carpinus caroliniana							Vaccinium							Carex							
Carya cordiformis		X					Viburnum lentago							Carex							
Celastrus scandens							Viburnum opulus		X					Cyperus							
Cornus alternifolia							Viburnum							Cyperus							
Cornus amomum			X				Vitis riparia		X					Dactylis glomerata			X				
Cornus rugosa		X												Danthonia spicata							
Cornus stolonifera														Echinochloa crus-galli							
Corylus cornuta														Eleocharis acicularis							
Crataegus mollis																					

Site: 370 GSH 430	Polygon: P2 (NAME2)
Surveyor(s): Jessi Settle + Tom Stoney	Date: April 23, 2012
UTMZ: 451950	UTMN: 4804676
	Time start: 8:30 AM finish: 10:00 AM

Polygon Description

System	Substrate	Topographic Feature	Plant Form	Community
☐ Terrestrial	☐ Organic	☐ Lacustrine	☐ Plankton	☐ Lake
☒ Wetland	☒ Mineral Soil	☐ Riverine	☐ Submerged	☐ Pond
☒ Aquatic	☐ Parent Min.	☐ Bottomland	☐ Floating-LVD.	☐ River
Site	☐ Acidic Bedrk	☐ Terrace	☒ Graminoid	☐ Stream
☐ Open Water	☐ Basic Bedrk	☐ Valley Slope	☐ Forb	☒ Marsh
☐ Shallow Water	☐ Carb. Bedrk	☒ Tableland	☐ Lichen	☐ Swamp
☒ Surficial Dep.		☐ Roll. Upland	☐ Bryophyte	☐ Fen
☐ Bedrock		☐ Cliff	☐ Deciduous	☐ Bog
History		☐ Talus	☐ Coniferous	☐ Barren
☒ Natural		☐ Crevice/Cave	☐ Mixed	☐ Meadow
☐ Cultural		☒ Alluvial		☐ Prairie
Cover		☐ Rockland		☐ Thicket
☒ Open		☐ Beach / Bar		☐ Savannah
☐ Shrub		☐ Sand Dune		☐ Woodland
☐ Treed		☐ Bluff		☐ Forest
				☐ Plantation

Stand Description

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (>= Much Greater Than; > Greater Than; = About Equal To)
1	1	1	SALEPINE > ACE NEGR
2			
3	5	3	COR SER
4	6	4	DRACALIN > IMPATIENS CRASSIS > ALLPETI > CORYXOP

HT Codes: 7 <0.2m 8 >0.2-0.5m 9 >0.5-1m 4 >1-2m 3 >2-5m 2 >5-25m 1 >25m

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

Com. Age:	☐ Pioneer	☒ Young	☐ Mid-Age	☐ Mature	☐ Old Growth

Ecosite:		Code:	
Vegetation Type:	Wet canopy grass Minced Meadow Marsh	Code:	MAWZ-Z
Initiation:		Code:	
Complex:		Code:	

Community Profile Diagram/Comments

[illegible]

Notes:

Tree Tally by Species

[illegible]

Soils Ontario and ELC Soils Description

Site Metrics		Soil Horizon Description		Depth to ...		Summary	
UTM	Zone	17					Moisture Regime
	Easting	451983					
	Northing	4804678					
	Position	-					
	Aspect	-					
	Percent	-					
Slope	Slope	-					Drainage
	Length						
Depth to ...	Mottles	-					Effective Texture (Indicate below)
	Gley	-					
	Water Table	-					
	Carbonates	-					
	Bedrock	-					
Soil Horizon Description	1	Depth from zero	% CF	% CF	% CF	% CF	
		Texture					
	2	Depth from zero	% CF	% CF	% CF	% CF	
		Texture					
	3	Depth from zero	% CF	% CF	% CF	% CF	
		Texture					
	4	Depth from zero	% CF	% CF	% CF	% CF	
		Texture					
		% Surface Stone/Rock					
		Moisture Regime	2				
		Drainage					

- could not hit second layer

Page 1 of 3

Trees & Shrubs	1	2	3	4	5	Tree & Shrubs	1	2	3	4	5	Graminoids	1	2	3	4	5
Conifers						Deciduous						Grasses					
Balsam Fir (<i>Abies balsamea</i>)						White Oak (<i>Quercus alba</i>)						Giant Redtop (<i>Agrostis cana</i>)					
Common Juniper (<i>Juniperus communis</i>)						Bur Oak (<i>Quercus macrocarpa</i>)						Redtop (<i>Agrostis stolonifera</i>)					
Eastern Red Cedar (<i>Juniperus virginiana</i>)						Red Oak (<i>Quercus rubra</i>)						Awless Brome (<i>Bromus nemis</i>)					
Tamarack (<i>Larix laricina</i>)						Alder Buckthorn (<i>Rhamnus alnifolia</i>)						<i>Bromus</i>					
Norway Spruce (<i>Picea abies</i>)						Common Buckthorn (<i>Rhamnus cathartica</i>)						Blue Joint Grass (<i>Calamagrostis canadensis</i>)					
White Spruce (<i>Picea glauca</i>)						Smooth Sumac (<i>Rhus glabra</i>)						Orchard Grass (<i>Dactylis glomerata</i>)					
Black Spruce (<i>Picea mariana</i>)						Staghorn Sumac (<i>Rhus hirta</i>)						Poverty Oat Grass (<i>Danthonia spicata</i>)					
Jack Pine (<i>Pinus banksiana</i>)						Wild Black Currant (<i>Ribes americanum</i>)						Quack Grass (<i>Elymus repens</i>)					
Red Pine (<i>Pinus resinosa</i>)						Prickly Gooseberry (<i>Ribes coccineum</i>)						Virginia Wild Rye (<i>Elymus virginicus</i>)					
Eastern White Pine (<i>Pinus strobus</i>)						Swamp Black Currant (<i>Ribes lacustre</i>)						<i>Elymus</i>					
Scotch Pine (<i>Pinus sylvestris</i>)						Red Currant (<i>Ribes rubrum</i>)						Fowl Manna Grass (<i>Glyceria striata</i>)					
Canada Yew (<i>Taxus canadensis</i>)						<i>Ribes</i>						<i>Glyceria</i>					
Eastern White Cedar (<i>Thuja occidentalis</i>)						Black Locust (<i>Robinia pseudo-acacia</i>)						Rice Cut Grass (<i>Leersia oryzoides</i>)					
Eastern Hemlock (<i>Tsuga canadensis</i>)						Prickly Rose (<i>Rosa acicularis</i>)						Tall Fescue (<i>Lolium arundinaceum</i>)					
						Smooth Rose (<i>Rosa blanda</i>)						<i>Muhlenbergia</i>					
Deciduous						Multiflora Rose (<i>Rosa multiflora</i>)						Witch Grass (<i>Panicum capillare</i>)					
Manitoba Maple (<i>Acer nudum</i>)						Rose						<i>Panicum</i>					
Black Maple (<i>Acer nigrum</i>)						Com. Blackberry (<i>Rubus allegheniensis</i>)						Reed Canary Grass (<i>Phalaris arundinacea</i>)					
Norway Maple (<i>Acer platanoides</i>)						Wild Red Raspberry (<i>Rubus idaeus</i>)						Timothy (<i>Phleum pratense</i>)					
Red Maple (<i>Acer rubrum</i>)						Black Raspberry (<i>Rubus occidentalis</i>)						Common Reed (<i>Phragmites australis</i>)					
Silver Maple (<i>Acer saccharum</i>)						Purple-fl. Raspberry (<i>Rubus odoratus</i>)						Canada Blue Grass (<i>Poa compressa</i>)					
Freeman's Maple (<i>Acer X freemanii</i>)						Dwarf Raspberry (<i>Rubus rubescens</i>)						Fowl Meadow Grass (<i>Poa pulstris</i>)					
Sugar Maple (<i>Acer saccharum</i>)						<i>Rubus</i>						Kentucky Bluegrass (<i>Poa pratensis</i>)					
Mountain Maple (<i>Acer spicatum</i>)						Peach-leaved Willow (<i>Salix amygdaloides</i>)						Yellow Foxtail (<i>Setaria pumila</i>)					
Spotted Alder (<i>Alnus incana</i>)						Bebb's Willow (<i>Salix bebbiana</i>)						Green Foxtail (<i>Setaria viridis</i>)					
Downy Serviceberry (<i>Amelanchier arborea</i>)						Pussy Willow (<i>Salix discolor</i>)											
Serviceberry (<i>Amelanchier sanguinea</i>)						Missouri Willow (<i>Salix eriocephala</i>)											
Yellow Birch (<i>Betula alleghaniensis</i>)						Sandbar Willow (<i>Salix eximia</i>)											
White Birch (<i>Betula papyrifera</i>)						Shining Willow (<i>Salix lucida</i>)											
European Birch (<i>Betula pendula</i>)						Black Willow (<i>Salix nigra</i>)											
Blue Beech (<i>Carpinus caroliniana</i>)						Slender Willow (<i>Salix petiolaris</i>)											
Bitternut Hickory (<i>Carya cordiformis</i>)						<i>Salix</i>											