

PRE-SURVEY COMMENT: tbd if turbine is sufficient

**ELC**

Community Description and Classification

Site: 366\_GSH1038 Polygon: 10  
 Surveyor(s): SAM Date: Sept. 23/11 Time start: 1300h finish: 1320h  
 UTMZ: 177 UTMZ: 448549 UTMN: 4803926

**Polygon Description**

System	Substrate	Topographic Features	Plant Form	Community
<input checked="" type="checkbox"/> Terrestrial <input type="checkbox"/> Wetland <input type="checkbox"/> Aquatic <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input checked="" type="checkbox"/> Surface Dep. <input type="checkbox"/> Bedrock	<input type="checkbox"/> Organic <input checked="" type="checkbox"/> Mineral Soil <input type="checkbox"/> Parent Min. <input type="checkbox"/> Acidic Bedrk <input type="checkbox"/> Basic Bedrk <input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Bottomland <input type="checkbox"/> Terrace <input type="checkbox"/> Valley Slope <input type="checkbox"/> Tableland <input checked="" type="checkbox"/> Roll. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Alvar <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> 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 checked="" type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> Plantation

**Stand Description**

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp)
1	2-3	2	White Elm > Basswood > White Ash
2	3-2	3	Sour Cherry > White Ash > White Elm
3	4-2	3	New England Aster > Frost Aster > Gothic Mustard
4	7-6	3	Wild Strawberry > Poison Ivy

HT Codes: 7 <0.2m 8 >0.2-0.5m 5 >0.5-1m 4 >1-2m 3 >2-6m 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:  <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

Ecotype: Mineral Cultural Woodland Ecotype Code: Cuwl  
 Vegetation Type: Sour Cherry - White Elm Mineral Cultural woodland Type Code: Cuwl  
 Inclusion:  Code:   
 Complex:  Code:   
 Community Profile Diagram/Comments

**Community Profile Diagram/Comments**

Notes:

**Tree Tally by Species**

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Prism Factor	2
N/A							
Total							100
Basal Area (BA)							
Dead							

**Soils Ontario and ELC Soils Description**

Site Metrics	PIVAuger #	Summary
Zone		
Easting		
Northing		
Position		
Aspect		
Percent		
Slope		
Length		
Mottles		
Gley		
Water Table		
Carbonates		
Bedrock		
Depth from zero		
Texture		
Depth from zero		
Texture		
Depth from zero		
Texture		
Depth from zero		
Texture		
% Surface Stone/Rock		
Moisture Regime		
Drainage		

VASCULAR PLANT CHECK SHEET

Location:  
Observer:

366 GSH 1038

Date: Sept 23/11

SAM

Job Number:

Table with columns for plant families (Dicot Herbs, Monocot Herbs) and six numbered sites (1-6). The table lists various plant species with checkmarks indicating their presence at the sites.

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

SITE LOCATIONS



<b>ELC</b>  Plant Species List	SITE: 366 GSH 1038
	POLYGON: <del>366 GSH</del> ① WP# 292
	DATE: <del>Sept. 23/1</del> Sept. 23/1
	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	
B <sub>0</sub>	D				
NE Aster			D		
EW	D				
FRS Aster			D		
Tall Grass					
Crataegus punctata					
BLK Rasp.					
QA Lee					
Sour cherry		D			
Pine compressor					
MH					
Fresh Compost					
Burdock					
Strombony				D	
Garlic Mustard			A		
Virg Creeper					
w/oak					
Apple					
Fresh Compost					
Timothy					
AW	O				
A				A	
SH Sunac					

SPECIES CODE	LAYER				COLL.
	1	2	3	4	

Photos III  
102608 - 614

<b>ELC</b>  <b>WILDLIFE</b>	<b>SITE:</b> 3066 GSH 1038	
	<b>POLYGON:</b> ①	
	<b>DATE:</b> Sept. 23/11	
	<b>SURVEYORS:</b> SAM	
	<b>START TIME:</b> 1301h	<b>END TIME:</b> 1320h

<b>TEMP (°C):</b> 12	<b>CLOUD (10th):</b> 10	<b>WIND:</b> 2-3	<b>PRECIPITATION:</b> lots
<b>CONDITIONS:</b>			

**POTENTIAL WILDLIFE HABITAT:**

<input type="checkbox"/>	VERNAL POOLS	<input checked="" type="checkbox"/>	SNAGS
<input type="checkbox"/>	HIBERNACULA	<input checked="" type="checkbox"/>	FALLEN LOGS

**SPECIES LIST:**

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#

**FAUNAL TYPE CODES (TY):**

B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

**EVIDENCE CODES (EV):**

**BREEDING BIRD - POSSIBLE:**

SH = SUITABLE HABITAT SM = SINGING MALE

**BREEDING BIRD - PROBABLE:**

T = TERRITORY D = DISPLAY P = PAIR  
A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

**BREEDING BIRD - CONFIRMED:**

DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG  
NE = EGGS NY = YOUNG FS = FOOD/FECAL SACK  
AE = NEST ENTRY

**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)









Plant Species List  
2012

Dicot Herbs - Asteraceae					Dicot Herbs					Dicot Herbs				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Common Yarrow ( <i>Achillea millefolium</i> )					Shepherd's Purse ( <i>Capsella bursa-pastoris</i> )					Kidney-leaf Buttercup ( <i>Ranunculus abortivus</i> )				
White Snakeroot ( <i>Ageratina altissima</i> )					Cutleaf Toothwort ( <i>Cardamine concatenata</i> )					Tall Buttercup ( <i>Ranunculus acris</i> )				
Com. Ragweed ( <i>Ambrosia artemisiifolia</i> )					Toothwort ( <i>Cardamine diphylla</i> )					Hooked Buttercup ( <i>Ranunculus recurvatus</i> )				
Giant Ragweed ( <i>Ambrosia trifida</i> )					Penn. Bitter-cress ( <i>Cardamine pennsylvanica</i> )					<i>Ranunculus</i>				
Field Pussytoes ( <i>Antennaria neglecta</i> )					<i>Cardamine</i>					Sheep Sorrel ( <i>Rumex acetosella</i> )				
<i>Artemisia</i>					Blue Cohosh ( <i>Caulophyllum thalictroides</i> )					Curly-leaf Dock ( <i>Rumex crispus</i> )				
Common Burdock ( <i>Arctium minus</i> )					Mouse-ear Chickweed ( <i>Cerastium fontanum</i> )					Bitter Dock ( <i>Rumex obtusifolius</i> )				
Nodding Beggar-ticks ( <i>Bidens cernua</i> )					Turtlehead ( <i>Chelone glabra</i> )					Bloodroot ( <i>Sanguinaria canadense</i> )				
Devil's Beggar-ticks ( <i>Bidens frondosa</i> )					Spotted Water-hemlock ( <i>Cicuta maculata</i> )					Black Snakeroot ( <i>Sanicula marilandica</i> )				
Spotted Knapweed ( <i>Centaurea biabersteinii</i> )					Water-hemlock ( <i>Cicuta virosa</i> )					Bouncing Bet ( <i>Saponaria officinalis</i> )				
Brown Knapweed ( <i>Centaurea jacea</i> )					Enchanter's Nightshade ( <i>Circaea lutetiana</i> )					Marsh Skullcap ( <i>Scutellaria galericulata</i> )				
Chicory ( <i>Cichorium intybus</i> )					Carolina Spring Beauty ( <i>Claytonia caroliniana</i> )					Mad Dog Skullcap ( <i>Scutellaria lateriflora</i> )				
Canada Thistle ( <i>Cirsium arvense</i> )					Virginia Spring Beauty ( <i>Claytonia virginica</i> )					White Champion ( <i>Silene latifolia</i> )				
Bull Thistle ( <i>Cirsium vulgare</i> )					Virgin's-bower ( <i>Clematis virginiana</i> )					Bladder Champion ( <i>Silene vulgaris</i> )				
Horseweed ( <i>Conyza canadensis</i> )					Field Bindweed ( <i>Convolvulus arvensis</i> )					Hemlock Water-parsnip ( <i>Sium suave</i> )				
Daisy Fleabane ( <i>Erigeron annuus</i> )					Dog-strangling Vine ( <i>Cynanchum rossicum</i> )					Bitter Nightshade ( <i>Solanum dulcamara</i> )				
Philadelphia Fleabane ( <i>Erg. philadelphicus</i> )					Wild Carrot ( <i>Daucus carota</i> )					Black Nightshade ( <i>Solanum ptychanthum</i> )				
<i>Erigeron</i>					Deptford Pink ( <i>Dianthus armeria</i> )					Grassleaf Stitchwort ( <i>Stellaria graminea</i> )				
Joe-pye-weed ( <i>Eupatorium maculatum</i> )					Squirrel-corn ( <i>Dicentra canadensis</i> )					Common Chickweed ( <i>Stellaria media</i> )				
Boneset ( <i>Eupatorium perfoliatum</i> )					Dutchman's-breeches ( <i>Dicentra cucullaria</i> )					Early Meadow-rue ( <i>Thalictrum dioicum</i> )				
Large-leaved Aster ( <i>Eurybia macrophylla</i> )					Wild Teasel ( <i>Dipsacus fullosum</i> )					Tall Meadow-rue ( <i>Thalictrum pubescens</i> )				
Flat-top Goldenrod ( <i>Euthamia graminifolia</i> )					Wild Cucumber ( <i>Echinocystis lobata</i> )					Field Penny-cress ( <i>Thlaspi arvense</i> )				
Orange Hawkweed ( <i>Hieracium aurantiacum</i> )					Viper's Bugloss ( <i>Echium vulgare</i> )					Foamflower ( <i>Tiarella cordifolia</i> )				
Field Hawkweed ( <i>Hieracium caespitosum</i> )					Northern Willow-herb ( <i>Epilobium ciliatum</i> )					Star-flower ( <i>Trientalis borealis</i> )				
<i>Hieracium</i>					Hairy Willow-herb ( <i>Epilobium hirsutum</i> )					Red Clover ( <i>Trifolium pratense</i> )				
Elecampane ( <i>Inula helenium</i> )					Small-fl. Willow-herb ( <i>Epilobium parviflorum</i> )					White Clover ( <i>Trifolium repens</i> )				
Prickly Lettuce ( <i>Lactuca scariola</i> )					<i>Epilobium</i>					<i>Trifolium</i>				
<i>Lactuca</i>					Worm Mustard ( <i>Erysimum cheiranthoides</i> )					Stinging Nettle ( <i>Urtica dioica</i> )				
Ox-eye Daisy ( <i>Leucanthemum vulgare</i> )					<i>Euphorbia</i>					Greater Bladderwort ( <i>Utricularia vulgaris</i> )				
Pineapple-weed ( <i>Matricaria discoides</i> )					Hemp Nettle ( <i>Galeopsis tetrahit</i> )					Common Mullein ( <i>Verbascum thapsus</i> )				
Tall White Lettuce ( <i>Prenanthes altissima</i> )					Wild Madder ( <i>Galium mollugo</i> )					Blue Vervain ( <i>Verbena hastata</i> )				
Black-eyed Susan ( <i>Rudbeckia hirta</i> )					Marsh Bedstraw ( <i>Galium palustre</i> )					White Vervain ( <i>Verbena urticifolia</i> )				
Tall Goldenrod ( <i>Solidago altissima</i> )					Sweet-scented Bedstraw ( <i>Galium triflorum</i> )					Water Speedwell ( <i>Veron. anagallis-aquatica</i> )				
Blue-stem Goldenrod ( <i>Solidago caesia</i> )					<i>Galium</i>					Common Speedwell ( <i>Veronica officinalis</i> )				
Canada Goldenrod ( <i>Solidago canadensis</i> )					Spotted Geranium ( <i>Geranium maculatum</i> )					Veronica				
Zig-zag Goldenrod ( <i>Solidago flexicaulis</i> )					Herb-robert ( <i>Geranium robertianum</i> )					Cow Vetch ( <i>Vicia cracca</i> )				
Giant Goldenrod ( <i>Solidago gigantea</i> )					Yellow Avens ( <i>Geum aleppicum</i> )					<i>Vicia</i>				
Early Goldenrod ( <i>Solidago juncea</i> )					White Avens ( <i>Geum canadense</i> )					Periwinkle ( <i>Vinca minor</i> )				
Gray Goldenrod ( <i>Solidago nemoralis</i> )					Urban Avens ( <i>Geum urbanum</i> )					Dog Violet ( <i>Viola conspersa</i> )				
<i>Solidago</i>					Dame's Rocket ( <i>Hesperis matronalis</i> )					Yellow Violet ( <i>Viola pubescens</i> )				
Field Sow-thistle ( <i>Sonchus arvensis</i> )					Virg. Water-leaf ( <i>Hydrophyllum virginianum</i> )					Com. Blue Violet ( <i>Viola sororia</i> )				
<i>Sonchus</i>					Com. St. John's-wort ( <i>Hypericum perforatum</i> )					<i>Viola</i>				
Heart-leaf Aster ( <i>Symph. cordifolium</i> )					Spotted Jewelweed ( <i>Impatiens capensis</i> )									
Heath Aster ( <i>Symphyotrichum ericoides</i> )					Wood Nettle ( <i>Laportea canadensis</i> )									
Tall White Aster ( <i>Symph. lanceolatum</i> )					Motherwort ( <i>Leonurus cardiaca</i> )									
Calico Aster ( <i>Symphyotrichum lateriflorum</i> )					Field Peppergrass ( <i>Lepidium campestre</i> )									
New England Aster ( <i>Symph. novae-angliae</i> )					Eur. Gromwell ( <i>Lithospermum officinale</i> )									
Purple-stem Aster ( <i>Symph. puniceus</i> )					Butter & Eggs ( <i>Linaria vulgaris</i> )									
Common Tansy ( <i>Tanacetum vulgare</i> )					Great Lobelia ( <i>Lobelia siphilitica</i> )									
Common Dandelion ( <i>Taraxacum officinale</i> )					<i>Lobelia</i>									
Com. Goatsbeard ( <i>Tragopogon pratensis</i> )					Cut-leaf Bugleweed ( <i>Lycopus americanus</i> )					<b>Monocot Herbs</b>				
Cott'sfoot ( <i>Tussilago farfara</i> )					Northern Bugleweed ( <i>Lycopus uniflorus</i> )					Water-plantain ( <i>Alisma plantago-aquatica</i> )				
					Fringed Loosestrife ( <i>Lysimachia ciliata</i> )					Wild Leek ( <i>Allium tricoccum</i> )				
					Moneywort ( <i>Lysimachia nummularia</i> )					Jack-in-the-pulpit ( <i>Arisaema triphyllum</i> )				
					<i>Lysimachia</i>					Asparagus ( <i>Asparagus officinalis</i> )				
					Purple Loosestrife ( <i>Lythrum salicaria</i> )					Wild Calla ( <i>Calla palustris</i> )				
					Black Medick ( <i>Medicago lupulina</i> )					Bluebeard-lily ( <i>Clintonia borealis</i> )				
					Alfalfa ( <i>Medicago sativa</i> )					Garden Lily-of-valley ( <i>Convallaria majalis</i> )				
					White Sweet-clover ( <i>Melilotus alba</i> )					Yel. Lady's Slipper ( <i>Cypripedium parviflorum</i> )				
					Yellow Sweet-clover ( <i>Melilotus officinalis</i> )					Canada Waterweed ( <i>Eloдея canadensis</i> )				
					Wild Mint ( <i>Mentha arvensis</i> )					Helleborine ( <i>Epipactis helleborine</i> )				
<b>Other Dicot Herbs</b>					Wild Bergamot ( <i>Monarda fistulosa</i> )					Yellow Trout Lily ( <i>Erythronium americanum</i> )				
White Baneberry ( <i>Actaea pachypoda</i> )					Small Forget-me-not ( <i>Myosotis laxa</i> )					Blue-flag Iris ( <i>Iris versicolor</i> )				
Red Baneberry ( <i>Actaea rubra</i> )					Forget-me-not ( <i>Myosotis scorpioides</i> )					Orange Day Lily ( <i>Heemerocallis fulva</i> )				
Tall Agrimony ( <i>Agrimonia gryposepala</i> )					Water-cress ( <i>Nasturtium officinale</i> )					Lesser Duckweed ( <i>Lemna minor</i> )				
Garlic Mustard ( <i>Alliaria petiolata</i> )					Com. Evening-primrose ( <i>Oenothera biennis</i> )					Starry Duckweed ( <i>Lemna trisulca</i> )				
Green Amaranth ( <i>Amaranthus retroflexus</i> )					Sweet-cicely ( <i>Osmorhiza berterii</i> )					Wild Lily-of-valley ( <i>Maianthemum canadense</i> )				
Hog-peanut ( <i>Amphicarpa bracteata</i> )					Yellow Wood-sorrel ( <i>Oxalis stricta</i> )					False Solom Seal ( <i>Maianthemum racemosum</i> )				
Pearly Everlasting ( <i>Anaphalis margaritacea</i> )					Wild Parsnip ( <i>Pastinaca sativa</i> )					Star False Solomon ( <i>Maianthemum stellatum</i> )				
Canada Anemone ( <i>Anemone canadensis</i> )					English Plantain ( <i>Plantago lanceolata</i> )					True Solomon Seal ( <i>Polygonatum pubescens</i> )				
Ivy Hepatica ( <i>Anemone acutiloba</i> )					Common Plantain ( <i>Plantago major</i> )					Pickering-weed ( <i>Pontederia cordata</i> )				
Thimbleweed ( <i>Anemone virginiana</i> )					Rugel's Plantain ( <i>Plantago rugelii</i> )					Curly-leaf Pondweed ( <i>Potamogeton crispus</i> )				
Purple Angelica ( <i>Angelica atropurpurea</i> )					May-apple ( <i>Podophyllum peltatum</i> )					Sago Pondweed ( <i>Potamogeton pectinatus</i> )				
Indian Hemp ( <i>Apocynum cannabinum</i> )					Pale Smartweed ( <i>Polygonum lapathifolium</i> )					<i>Potamogeton</i>				
Wild Sarsaparilla ( <i>Aralia nudicaulis</i> )					Lady's-thumb ( <i>Polygonum persicaria</i> )					<i>Potamogeton</i>				
Spikenard ( <i>Aralia racemosa</i> )					Virginia Knotweed ( <i>Polygonum virginianum</i> )					Broad-leaved Arrowhead ( <i>Sagittaria latifolia</i> )				
Wild Ginger ( <i>Asarum canadense</i> )					<i>Polygonum</i>					Blue-eyed-grass ( <i>Sisyrinchium montanum</i> )				
Swamp Milkweed ( <i>Asclepias incarnata</i> )					<i>Polygonum</i>					Herb. Carrion Flower ( <i>Smilax herbacea</i> )				
Common Milkweed ( <i>Asclepias syriaca</i> )					Rough Cinquefoil ( <i>Potentilla norvegica</i> )					Bristly Greenbrier ( <i>Smilax hispida</i> )				
Yellow Rocket ( <i>Barbarea vulgaris</i> )					Rough-fruited Cinquefoil ( <i>Potentilla recta</i> )					Nodding Ladies' Tresses ( <i>Spiranthes cernua</i> )				
False Nettle ( <i>Boehmeria cylindrica</i> )					Common Cinquefoil ( <i>Potentilla simplex</i> )					Rose Twisted-stalk ( <i>Streptopus lanceolatus</i> )				
Black Mustard ( <i>Brassica nigra</i> )					<i>Potentilla</i>					Skunk-cabbage ( <i>Symplocarpus foetidus</i> )				
Marsh-marigold ( <i>Caltha palustris</i> )					Heal-all ( <i>Prunella vulgaris</i> )					Purple Trillium ( <i>Trillium erectum</i> )				
Creeping Bellflower ( <i>Campanula rapunculoides</i> )					Shinleaf ( <i>Pyrola elliptica</i> )					White Trillium ( <i>Trillium grandiflorum</i> )				
										Large-flowered Bellwort ( <i>Uvularia grandiflora</i> )				

D - Dominant: represented by large numbers; generally forming >10% ground cover or >25% vegetation cover in any one stratum  
 F - Fairly common (Abundant in ELC): generally widespread represented by fairly large numbers of individual clumps; usually forming >10% ground cover  
 U - Uncommon (Occasional in ELC): present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category)  
 R - Rare: represented in the polygon by less than about five individuals or small clumps

Map Number: 1  
 Date: 2  
 Surveyors: 3

\* fence line ASA

# Significant Wildlife Habitat Form

AZCOM

Study Area:	BLW	JER	<u>GSH</u>	Map #:	<u>370-GSH1142</u>
Date:	<u>June 11/12</u>			Time Started:	<u>10:45h</u>
Field Staff:	<u>S.A.M.</u>			Time Finished:	<u>1:05h</u>
Weather Conditions:	<u>overcast, warm, humid</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: \_\_\_\_\_

Potential to hold water until at least July in most years: Yes / No

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

AZCOM

**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

# Species of Conservation Concern Habitat and Incidental Wildlife - Goshen

Map No: 370-GSH 1142

Field Staff: S.A.M.

Time Started: 1648h

Date (yyyy-mm-dd): 2012-06-11

Time Finished: 1705h



## Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes

**Note: Evidence Codes (EV)** SH=Suitable Habitat, SM=Singling Male;  
 T=Territory, D=Display, P=Pair, N=Nest Building, V=Visiting Nest, A=Anxiety Behavior;  
 DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foos/Faecal sack, AE=Nest Entry  
 DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foos/Faecal sack, AE=Nest Entry  
**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 (Lithospermum latifolium) - S3 <u>Bloom Time</u> - Spring	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y <input checked="" type="checkbox"/> UTM:
ALO, TPO	Muehlenberg's astomum moss (Astomum muehlenbergianum) - S2 <u>Bloom Time</u> - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie	Y <input checked="" type="checkbox"/> UTM:
FOM1, FOM2, CUP3	Autumn Coral-root (Corallorhiza odontorhiza) - S2 <u>Bloom Time</u> - summer to fall	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.	Y <input checked="" type="checkbox"/> UTM:
FOC, FOM, FOD	Burning Bush (Euonymus atropurpureus) - S3 <u>Bloom Time</u> - April - June	Species occurs in dry to moist deciduous thickets and woods	Y <input checked="" type="checkbox"/> UTM:
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (Corioselinum chinense) - S2 <u>Bloom Time</u> - summer to fall	Swampy places with deciduous trees, white cedars, tamarack; springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes.	Y <input checked="" type="checkbox"/> UTM:
MAM, MAS	Crowned Beggarticks (Bidens trichosperma) - S2 <u>Bloom Time</u> - late summer	Found in openings in swamps, marshes, along shores & wet fields within the Carolinian zone and southeastern Georgian bay.	Y <input checked="" type="checkbox"/> UTM:
ALT1, FOD7	Eastern Green-violet (Hybanthus concolor) - S2 <u>Bloom Time</u> - mid March to August	Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone. Includes floodplains and river banks.	Y <input checked="" type="checkbox"/> UTM:
TPS, TPW, FOM1, FOM2	Fogg's Goosefoot (Chenopodium foggii) - S2	Species occurs in sandy areas on limestone under oak or pine-oak forests	Y <input checked="" type="checkbox"/> UTM:
TPO2, TPS2, TPW2,	Giant Ironweed (Vernonia gigantea) - S1? <u>Bloom Time</u> -	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y <input checked="" type="checkbox"/> UTM:

# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

AECOM

Species	Habitat Description	UTM	UTM	UTM	UTM	UTM
CUM1, MAM, June - August						
FOD6, FOD7, FOD8	Green Dragon ( <i>Arisaema dracontium</i> ) - S3 <u>Bloom Time</u> - May and June	Y	N	UTM:		
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Hairy Bedstraw ( <i>Galium pilosum</i> ) - S3 <u>Bloom Time</u> - June-August	Y	N	UTM:		
FEO1, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	Hairy Valerian ( <i>Valeriana edulis</i> ) - S1 <u>Bloom Time</u> - June to August	Y	N	UTM:		
FOD6, FOD7, SWM, SWD	Hairy Wood Mint ( <i>Blephilia hirsuta</i> ) - S1 <u>Bloom Time</u> - Summer	Y	N	UTM:		
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring ( <i>Erigenia bulbosa</i> ) - S3 <u>Bloom Time</u> - early to late April	Y	N	UTM:		
SAS1, SAM1, SAF1	Hill's Pond Weed ( <i>Potamogeton hillii</i> ) - SC/S2 <u>Bloom Time</u> - summer	Y	N	UTM:		
FOM6, FOM7, FOM8	Large Round-leaved Orchid ( <i>Platanthera macrophylla</i> ) - S2 <u>Bloom Time</u> - June to August	Y	N	UTM:		
MAM2, MAM3, MAS2, MAS3, SWD	Lizard's Tail ( <i>Saururus cernuus</i> ) - S3 <u>Bloom Time</u> - June - September	Y	N	UTM:		
FOD6, FOD7, FOD9	Pawpaw ( <i>Asimina triloba</i> ) - S3 <u>Bloom Time</u> - March-May	Y	N	UTM:		
FOM6, FOD6, FOD7, FOD8, CUM1	Pilose Evening Primrose ( <i>Oenothera pilosella</i> ) - S2 <u>Bloom Time</u> - Late Spring - Early Summer	Y	N	UTM:		
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostrate Tick-trefoil ( <i>Desmodium rotundifolium</i> ) - S2 <u>Bloom Time</u> - July-September	Y	N	UTM:		
FOD7, SWD	Pumpkin Ash ( <i>Fraxinus profunda</i> ) - S2? <u>Bloom Time</u> - March - June	Y	N	UTM:		
CUW1, ALO, FET1, SWC	Ram's-head Lady's-slipper ( <i>Cypripedium arietinum</i> ) - S3 <u>Bloom Time</u> - mid May to mid June	Y	N	UTM:		
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5	Rattlesnake Hawkweed ( <i>Hieracium venosum</i> ) - S2 <u>Bloom Time</u> - April - September	Y	N	UTM:		
FOD6, FOD7, FOD9	Round-leaved Groundsel ( <i>Packera obovata</i> ) - S3 <u>Bloom Time</u> - May - June	Y	N	UTM:		
CUM1, CUT1, CUS1	Round-leaved hawthorn ( <i>Crataegus lumaria</i> ) - S3?	Y	N	UTM:		
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm ( <i>Monarda didyma</i> ) - S3 <u>Bloom Time</u> - May to October	Y	N	UTM:		
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star ( <i>Liatris cylindracea</i> ) - S3	Y	N	UTM:		
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed ( <i>Polygonum tenue</i> ) - S2	Y	N	UTM:		
SDT1, FOD5, FOD6	Slim-flowered Mully ( <i>Muhlenbergia tenuiflora</i> ) - S2	Y	N	UTM:		
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian ( <i>Gentiana quinquefolia</i> ) - S2 <u>Bloom Time</u> - late summer to mid fall	Y	N	UTM:		
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine ( <i>Lupinus perennis</i> ) - S3 <u>Bloom Time</u> - mid-March to mid-June	Y	N	UTM:		

# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen



ILC	Species	Habitat Description	Habitat Present (Y/N); UTM: description of habitat if present
TPO1, TPS1, TPW1, CUM1	Tail Blazing Star ( <i>Liatris aspera</i> )-S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y <input checked="" type="radio"/> UTM:
FE0, FES, FET, MAM2, MAM3	Tuberous Indian Plantain ( <i>Arnoglossum 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 <input checked="" type="radio"/> UTM:
FOC1, FOC2, FOC3, FOC4	Woodland Pinedrops ( <i>Pinus strobus</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 <input checked="" type="radio"/> 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 <input checked="" type="radio"/> UTM:
<b>BIRDS</b>			
-	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	Units insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open areas or riparian habitats.	Y <input checked="" type="radio"/> UTM:
FOD, FOM	Louisiana Waterthrush ( <i>Melurus motacilla</i> ) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Rees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration.	Y <input checked="" type="radio"/> 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 <input checked="" type="radio"/> UTM:
-	Short Eared Owl ( <i>Nyctaleus vociferans</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 <input checked="" type="radio"/> UTM:
<b>REPTILES</b>			
-	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.
<b>INSECTS</b>			
OAO, SA, SWM, SWD	Azure Bluet ( <i>Enallagma aspersum</i> ) -S3	Species inhabits fishless ponds, lakes and boggy swamps	Y <input checked="" type="radio"/> 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	Y <input checked="" type="radio"/> UTM:
CUM1, CUT1, CUW1	Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC	Their larvae only feed on milkweeds ( <i>Asclepias</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y <input checked="" type="radio"/> UTM:
TPS, CUW	Mottled Duskywing ( <i>Erynnis martialis</i> ) -S2	Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	Y <input checked="" type="radio"/> UTM:
SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor ( <i>Asterocampa clytem</i> ) - S3	Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant	Y <input checked="" type="radio"/> UTM:
FOD5	West Virginia White ( <i>Pieris virginiana</i> ) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y <input checked="" type="radio"/> UTM:



- Property Boundary
- GE Turbine
- ELC Completed 2011
- Natural Feature and ID
- ELC Polygon Boundary
- Disturbance Areas
- Area of Disturbance, plus 10m ANSI
- Evaluated Wetlands - PSW
- ABCA Watercourse



Basemap from Ontario Ministry of Natural Resources  
Orthophotography 2010

UTM Zone 17N, MAD 83  
1:2,500

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**AECOM**

Goshen Amphibian Survey  
372\_GSH1115  
April 2012  
Project 80155032

Figure 1

**ELC** Community Description and Classification

Map #: 372\_G5A115 Polygon: ~~372\_G5A115~~

Surveyor(s): KA Date: 11/30/08 Time start: 11:30 AM finish: 1:30 PM

UTMZ: UTMZ: UTMZ: UTMZ:

**Polygon Description**

System	Substrate	Topographic Feature	Plant Form	Community
<input type="checkbox"/> Terrestrial <input type="checkbox"/> Wetland <input type="checkbox"/> Aquatic <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock	<input type="checkbox"/> Organic <input 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"/> Plankton <input type="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
History	<input type="checkbox"/> Natural <input type="checkbox"/> Cultural			
Cover	<input type="checkbox"/> Open <input type="checkbox"/> Shrub <input checked="" type="checkbox"/> Tree			

**Stand Description**

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (P > Much Greater Than; > Greater Than; = About Equal To)
1	4	4	TILANDER > FRAXINUS > ACESAC
2	3	3	ACE SAC
3	4	4	(R) VITIS > VITIS
4	3	3	SPERMATOPHYTES

HT Codes: 7 < 0.2m 6 > 0.2-0.5m 5 > 0.5-1m 4 > 1-2m 3 > 2-6m 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:**

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:** Dry-Fresh Sugar maple Deciduous Code: F0D5

**Vegetation Type:** Dry-Fresh Sugar maple - Basswood Code: F0D5-6

**Inclusion:** Code:

**Complex:** Code:

**Community Profile Diagram/Comments**

Notes:

0.24 280 4.80456 → 1000

**Tree Tally by Species**

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Prism Factor	2
lost prism	1						
Total					100		
Basal Area (BA)							
Dead							

**Soils Ontario and ELC Soils Description**

Site Metrics	Pit/Auger #	Zone	Easting	Northing	Position	Aspect	Slope	Slope Length	Mottles	Gley	Water Table	Carbonates	Bedrock	Depth from zero	Texture	Depth from zero	Texture	Depth from zero	Texture	Depth from zero	Texture	% Surface Stone/Rock	Moisture Regime	Drainage	Summary
UTM		0448915	4604546		Top																				
Moisture Regime																									
Drainage																									

**Soil Horizon Description**

Depth to ...	1	2	3	4
Depth from zero	0-18			
Texture	Silt/loam			
Depth from zero	18			
Texture	Sand/loam			
Depth from zero				
Texture	Sand/loam			
Depth from zero				
Texture				
% Surface Stone/Rock				
Moisture Regime				
Drainage				





Plant Species List  
2012

Marsh  
Battercup

Dicot Herbs - Asteraceae					Dicot Herbs					Dicot Herbs				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Common Yarrow ( <i>Achillea millefolium</i> )					Shepherd's Purse ( <i>Capsella bursa-pastoris</i> )					Kidney-leaf Buttercup ( <i>Ranunculus abortivus</i> )				
White Snakeroot ( <i>Ageratina altissima</i> )					Cutleaf Toothwort ( <i>Cardamine concatenata</i> )					Tall Buttercup ( <i>Ranunculus acris</i> )				
Com. Ragweed ( <i>Ambrosia artemisiifolia</i> )					Toothwort ( <i>Cardamine diphylla</i> )					Hooked Buttercup ( <i>Ranunculus recurvatus</i> )				
Giant Ragweed ( <i>Ambrosia trifida</i> )					Penn. Bitter-cress ( <i>Cardamine pennsylvanica</i> )					<i>Ranunculus fluitans</i>				R
Field Pussytoes ( <i>Antennaria neglecta</i> )					<i>Cardamine hirsuta</i>					Sheep Sorrel ( <i>Rumex acetosella</i> )				
<i>Artemisia</i>					Blue Cohosh ( <i>Caulophyllum thalictroides</i> )					Curly-leaf Dock ( <i>Rumex crispus</i> )				
Common Burdock ( <i>Arctium minus</i> )					Mouse-ear Chickweed ( <i>Cerastium fontanum</i> )					Bitter Dock ( <i>Rumex obtusifolius</i> )				
Nodding Beggar-ticks ( <i>Bidens cernua</i> )					Turtlehead ( <i>Chelone glabra</i> )					Bloodroot ( <i>Sanguinaria canadense</i> )				
Devil's Beggar-ticks ( <i>Bidens frondosa</i> )					Spotted Water-hemlock ( <i>Cicuta maculata</i> )					Black Snakeroot ( <i>Sanicula marilandica</i> )				
Spotted Knapweed ( <i>Centaurea biebersteinii</i> )					Water-hemlock ( <i>Cicuta virosa</i> )					Bouncing Bet ( <i>Saponaria officinalis</i> )				
Brown Knapweed ( <i>Centaurea jacea</i> )					Enchanter's Nightshade ( <i>Circaea lutetiana</i> )					Marsh Skullcap ( <i>Scutellaria gaericulata</i> )				
Chicory ( <i>Cichorium intybus</i> )					Carolina Spring Beauty ( <i>Claytonia caroliniana</i> )					Mad Dog Skullcap ( <i>Scutellaria lateriflora</i> )				
Canada Thistle ( <i>Cirsium arvense</i> )					Virginia Spring Beauty ( <i>Claytonia virginica</i> )					White Campion ( <i>Silene latifolia</i> )				
Bull Thistle ( <i>Cirsium vulgare</i> )					Virgin's-bower ( <i>Clematis virginiana</i> )					Bladder Campion ( <i>Silene vulgaris</i> )				
Horseweed ( <i>Conyza canadensis</i> )					Field Bindweed ( <i>Convolvulus arvensis</i> )					Hemlock Water-parsnip ( <i>Sium suave</i> )				
Daisy Fleabane ( <i>Erigeron annuus</i> )					Dog-strangling Vine ( <i>Cynanchum rossicum</i> )					Bitter Nightshade ( <i>Solanum dulcamara</i> )				
Philadelphia Fleabane ( <i>Erig. philadelphicus</i> )					Wild Carrot ( <i>Daucus carota</i> )					Black Nightshade ( <i>Solanum ptychanthum</i> )				
<i>Erigeron</i>					Deptford Pink ( <i>Dianthus armeria</i> )					Grassleaf Stitchwort ( <i>Stellaria graminea</i> )				
Joe-pye-weed ( <i>Eupatorium maculatum</i> )					Squirrel-com ( <i>Dicentra canadensis</i> )					Common Chickweed ( <i>Stellaria media</i> )				
Boneset ( <i>Eupatorium perforatum</i> )					Dutchman's-breaches ( <i>Dicentra cucullaria</i> )					Early Meadow-rue ( <i>Thalictrum dioicum</i> )				
Large-leaved Aster ( <i>Eurybia macrophylla</i> )					Wild Teasel ( <i>Dipsacus fulvonum</i> )					Tall Meadow-rue ( <i>Thalictrum pubescens</i> )				
Flat-top Goldenrod ( <i>Euthamia graminifolia</i> )					Wild Cucumber ( <i>Echinocystis lobata</i> )					Field Penny-cress ( <i>Thlaspi arvense</i> )				
Orange Hawkweed ( <i>Hieracium aurantiacum</i> )					Viper's Bugloss ( <i>Echium vulgare</i> )					Foamflower ( <i>Tiarella cordifolia</i> )				
Field Hawkweed ( <i>Hieracium caespitosum</i> )					Northern Willow-herb ( <i>Epilobium ciliatum</i> )					Star-flower ( <i>Trientalis borealis</i> )				
<i>Hieracium</i>					Hairy Willow-herb ( <i>Epilobium hirsutum</i> )					Red Clover ( <i>Trifolium pratense</i> )				
Elecampane ( <i>Inula helenium</i> )					Small-fl. Willow-herb ( <i>Epilobium parviflorum</i> )					White Clover ( <i>Trifolium repens</i> )				
Prickly Lettuce ( <i>Lactuca serriola</i> )					<i>Epilobium</i>					<i>Trifolium</i>				
<i>Lactuca</i>					Worm Mustard ( <i>Erysimum cheiranthoides</i> )					Stinging Nettle ( <i>Urtica dioica</i> )				
Ox-eye Daisy ( <i>Leucanthemum vulgare</i> )					<i>Euphorbia</i>					Greater Bladderwort ( <i>Utricularia vulgaris</i> )				
Pineapple-weed ( <i>Matricaria discoidea</i> )					Hemp Nettle ( <i>Galeopsis tetrahit</i> )					Common Mullein ( <i>Verbascum thapsus</i> )				
Tall White Lettuce ( <i>Prenanthes altissima</i> )					Wild Madder ( <i>Galium mollugo</i> )					Blue Vervain ( <i>Verbena hastata</i> )				
Black-eyed Susan ( <i>Rudbeckia hirta</i> )					Marsh Bedstraw ( <i>Galium palustre</i> )					White Vervain ( <i>Verbena urticifolia</i> )				
Tall Goldenrod ( <i>Solidago altissima</i> )					Sweet-scented Bedstraw ( <i>Galium triflorum</i> )					Water Speedwell ( <i>Veron. anagallis-aquatica</i> )				
Blue-stem Goldenrod ( <i>Solidago caesia</i> )					<i>Galium</i>					Common Speedwell ( <i>Veronica officinalis</i> )				
Canada Goldenrod ( <i>Solidago canadensis</i> )					Spotted Geranium ( <i>Geranium maculatum</i> )					<i>Veronica</i>				
Zig-zag Goldenrod ( <i>Solidago flexicaulis</i> )		U			Herb-robert ( <i>Geranium robertianum</i> )				R	Cow Vetch ( <i>Vicia cracca</i> )				
Giant Goldenrod ( <i>Solidago gigantea</i> )					Yellow Avens ( <i>Geum alepPICUM</i> )					<i>Vicia</i>				
Early Goldenrod ( <i>Solidago juncea</i> )					White Avens ( <i>Geum canadense</i> )					Penwinkle ( <i>Vinca minor</i> )				
Gray Goldenrod ( <i>Solidago nemoralis</i> )					Urban Avens ( <i>Geum urbanum</i> )					Dog Violet ( <i>Viola conspersa</i> )				
<i>Solidago</i>					Dame's Rocket ( <i>Hesperis matronalis</i> )					Yellow Violet ( <i>Viola pubescens</i> )				
Field Sow-thistle ( <i>Sonchus arvensis</i> )					Virg. Water-leaf ( <i>Hydrophyllum virginianum</i> )				U	Com. Blue Violet ( <i>Viola sororia</i> )				U
<i>Sonchus</i>					Com. St. John's-wort ( <i>Hypericum perforatum</i> )					<i>Viola</i>				
Heart-leaf Aster ( <i>Symph. cordifolium</i> )					Spotted Jewelweed ( <i>Impatiens capensis</i> )				R	FR VIRG				U
Heath Aster ( <i>Symphotrichum ericoides</i> )					Wood Nettle ( <i>Laportea canadensis</i> )					<i>Geum</i> sp.				U
Tall White Aster ( <i>Symph. lanceolatum</i> )					Motherwort ( <i>Leonurus cardiaca</i> )									
Calico Aster ( <i>Symphotrichum lateriflorum</i> )					Field Peppergrass ( <i>Lepidium campestre</i> )									
New England Aster ( <i>Symph. novae-angliae</i> )					Eur. Gromwell ( <i>Lithospermum officinale</i> )									
Purple-stem Aster ( <i>Symph. purpureus</i> )					Butter & Eggs ( <i>Linaria vulgaris</i> )									
Common Tansy ( <i>Tanacetum vulgare</i> )					Great Lobelia ( <i>Lobelia siphilitica</i> )									
Common Dandelion ( <i>Taraxacum officinale</i> )					<i>Lobelia</i>									
Com. Goatsbeard ( <i>Tragopogon pratensis</i> )					Cut-leaf Bugleweed ( <i>Lycopus americanus</i> )									
Coltsfoot ( <i>Tussilago farfara</i> )					Northern Bugleweed ( <i>Lycopus uniflorus</i> )									
					Fringed Loosestrife ( <i>Lysimachia ciliata</i> )									
					Moneywort ( <i>Lysimachia nummularia</i> )									
					<i>Lysimachia</i>									
					Purple Loosestrife ( <i>Lythrum salicaria</i> )									
					Black Medick ( <i>Medicago lupulina</i> )									
					Alfalfa ( <i>Medicago sativa</i> )									
					White Sweet-clover ( <i>Melilotus alba</i> )									
					Yellow Sweet-clover ( <i>Melilotus officinalis</i> )									
					Wild Mint ( <i>Mentha arvensis</i> )									
					Wild Bergamot ( <i>Monarda fistulosa</i> )									
					Small Forget-me-not ( <i>Myosotis laxa</i> )									
					Forget-me-not ( <i>Myosotis scorpioides</i> )									
					Water-cress ( <i>Nasturtium officinale</i> )									
					Com. Evening-primrose ( <i>Oenothera biennis</i> )									
					Sweet-cicely ( <i>Osmorhiza berterii</i> )									
					Yellow Wood-sorrel ( <i>Oxalis stricta</i> )									
					Wild Parsnip ( <i>Pastinaca sativa</i> )									
					English Plantain ( <i>Plantago lanceolata</i> )									
					Common Plantain ( <i>Plantago major</i> )									
					Rugel's Plantain ( <i>Plantago rugelii</i> )									
					May-apple ( <i>Podophyllum peltatum</i> )				R					
					Pale Smartweed ( <i>Polygonum lapathifolium</i> )									
					Lady's-thumb ( <i>Polygonum persicaria</i> )									
					Virginia Knotweed ( <i>Polygonum virginianum</i> )									
					<i>Polygonum</i>									
					Swamp Milkweed ( <i>Asclepias incarnata</i> )									
					Common Milkweed ( <i>Asclepias syriaca</i> )									
					Yellow Rocket ( <i>Barbarea vulgaris</i> )									
					False Nettle ( <i>Boehmeria cylindrica</i> )									
					Black Mustard ( <i>Brassica nigra</i> )									
					Marsh-marigold ( <i>Caltha palustris</i> )									
					Creeping Bellflower ( <i>Campanula rapunculoides</i> )									
					Shinleaf ( <i>Pyrola elliptica</i> )									

D - Dominant: represented by large numbers; generally forming >10% ground cover or >25% vegetation cover in any one stratum  
 F - Fairly common (=Abundant in ELC): generally widespread represented by fairly large numbers of individual clumps; usually forming >10% ground cover  
 U - Uncommon (=Occasional in ELC): present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category)  
 R - Rare: represented in the polygon by less than about five individuals or small clumps

Map Number: 372-GSH1115  
 Date: Apr. 12, 2012  
 Surveyors: RA, SG

# Significant Wildlife Habitat Form

AECOM

Study Area:	BLW JER <b>GSH</b>	Map #:	372-GSH 1115
Date:	April 26/12	Time Started:	11:00 am
Field Staff:	S.G. RA	Time Finished:	1:30 pm
Weather Conditions:	Windy, raining slightly, overcast, cold.		

**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)  
 UTM: \_\_\_\_\_ 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, MAMS)  
 Shoreline of lake, large river or large wetland present:  
 No  Yes (if yes, photograph and complete the following)  
 UTM: \_\_\_\_\_ 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 > 1Sha  
 Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, CUW) present:  
 Large open habitat present:  No  Yes (if yes, photograph and complete the following)  
 UTM: \_\_\_\_\_ 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)  
 UTM: \_\_\_\_\_ 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

# Species Conservation Concern Habitat and Incidental Wildlife - Goshen



Map No: 372-GSH115  
 Date (yyyy-mm-dd): 2012-04-26  
 Field Staff: AA, SG  
 Time Started: 11:30 AM  
 Time Finished: 1:30 PM

## Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Galaxy Bluebird		NO					
Purple-crowned-cuckoo		VO					
vesper sparrow		VO					
			wispy rainy dot				
			ideal for wildlife				
			survive				

Note: Evidence Codes (EV) Breeding Bird (Possible) SH=Suitable Habitat, SM=Singing Male; Breeding Bird (Probable) T-Territory, D=Display, P=Pair, N=Nest Building, V= Visiting Nest; A=Anxiety Behavior, Breeding Bird (Confirmed) DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foos/Faecal sack, AE=Nest Entry

Other Wildlife Evidence: OB=observed, VO=Vocalization, CA=Carass, DP=Distinctive Parts, HO=House/Den, FY=Eggs/young, TK=tracks, FE=Feeding evidence, SC= Scat, SI=Other signs (specify) **NO= not observed**

ELC	Species	Habitat Description	Habitat Present (Y/N); UTM; description of habitat if present)
PLANTS			
FOD7	American Gromwell (Lithospermum latifolium) - S3 Bloom Time - Spring	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y (N) UTM:
ALO, TPO	Muehlenberg's astomum moss (Astomum muehlenbergianum) - 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 (Coralorrhiza odoriflora) - S2 Bloom Time - summer to fall	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.	Y (N) UTM:
FOC, FOM, FOD	Burning Bush (Euonymus alatus) - S3 Bloom Time - April - June	Species occurs in dry to moist deciduous thickets and woods	Y (N) UTM: NO
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (Conioselinum chinense) - S2 Bloom Time - summer to fall	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 (Bidens trichosperma) -S2 Bloom Time - late summer	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 (Hybanthus concolor) - S2 Bloom Time - mid March to August	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 (Chenopodium foggii) -S2	Species occurs in sandy areas on limestone under oak or pine-oak forests	Y (N) UTM:
TPO2, TPS2, TPW2,	Giant Ironweed (Vernonia gigantea)-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,	June - August		
FOD6, FOD7, FOD9	Green Dragon ( <i>Arisaema dracontium</i> ) - S2/S3 <u>Bloom Time</u> - May and June	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	Y (N) UTM:
TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	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. Rich woods, swamp forests, floodplains.	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring ( <i>Eriogonum bulbosum</i> ) - S3 <u>Bloom Time</u> - early to late April	Occurs in rich, moist deciduous woods, especially on floodplains.	Y (N) UTM:
SAS1, SAM1, SAF1	Hill's Pond Weed ( <i>Potamogeton hillii</i> ) - S2/S3 <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 moist deciduous woods and stream banks.	Y (N) UTM:
FOM8, FOD6, FOD7, FOD8, CUM1	Pilose Evening Primrose ( <i>Oenothera pilosella</i> ) - S2 <u>Bloom Time</u> - Late Spring - Early Summer	Moist edges of woods and open, disturbed ground.	Y (N) UTM:
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:
CUW1, 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, FOM1, 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	Found in moist woods	Y (N) UTM: NO
CUM1, CUT1, CUS1	Round-leaved hawthorn ( <i>Crataegus lumarina</i> ) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm ( <i>Monarda didyma</i> ) - S3 <u>Bloom Time</u> - May to October	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y (N) UTM:
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star ( <i>Liatris cylindracea</i> ) - S3	Species occurs in limestone and dolostone pavement, prairies, open woods, always 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 <u>deciduous forest</u> , often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	(Y) N UTM: NO
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian ( <i>Gentiana 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:

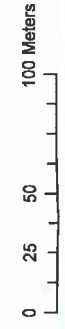
# Species Conservation Concern Habitat and Incidental Wildlife - Goshen

ACOM

ELC	Species	Habitat Description	Habitat Present (Y/N); UTM; description of habitat if present
TPO1, TPS1, TPW1, CUM1	Tall Blazing Star ( <i>Liatris aspera</i> )-S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM: NO
FE0, FES, FET, MAM2, MAM3	Tuberous Indian Plantain ( <i>Arnoglossum 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: NA
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: NO
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: NO
<b>BIRDS</b>			
-	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: NO
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 understorey, 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: NO
-	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:
<b>REPTILES</b>			
-	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.
<b>INSECTS</b>			
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	Y (N) UTM:
CUM1, CUT1, CUW1	Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC	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:
TPS, CUW	Mottled Duskywing ( <i>Erynnis martialis</i> ) -S2	Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	Y (N) UTM:
SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor ( <i>Asterocampa clytem</i> ) - S3	Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant	Y (N) UTM:
FOD5	West Virginia White ( <i>Pieris virginensis</i> ) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM: 17T 0448864, 4804566 - toothwort located throughout stand

373 - GSH1059

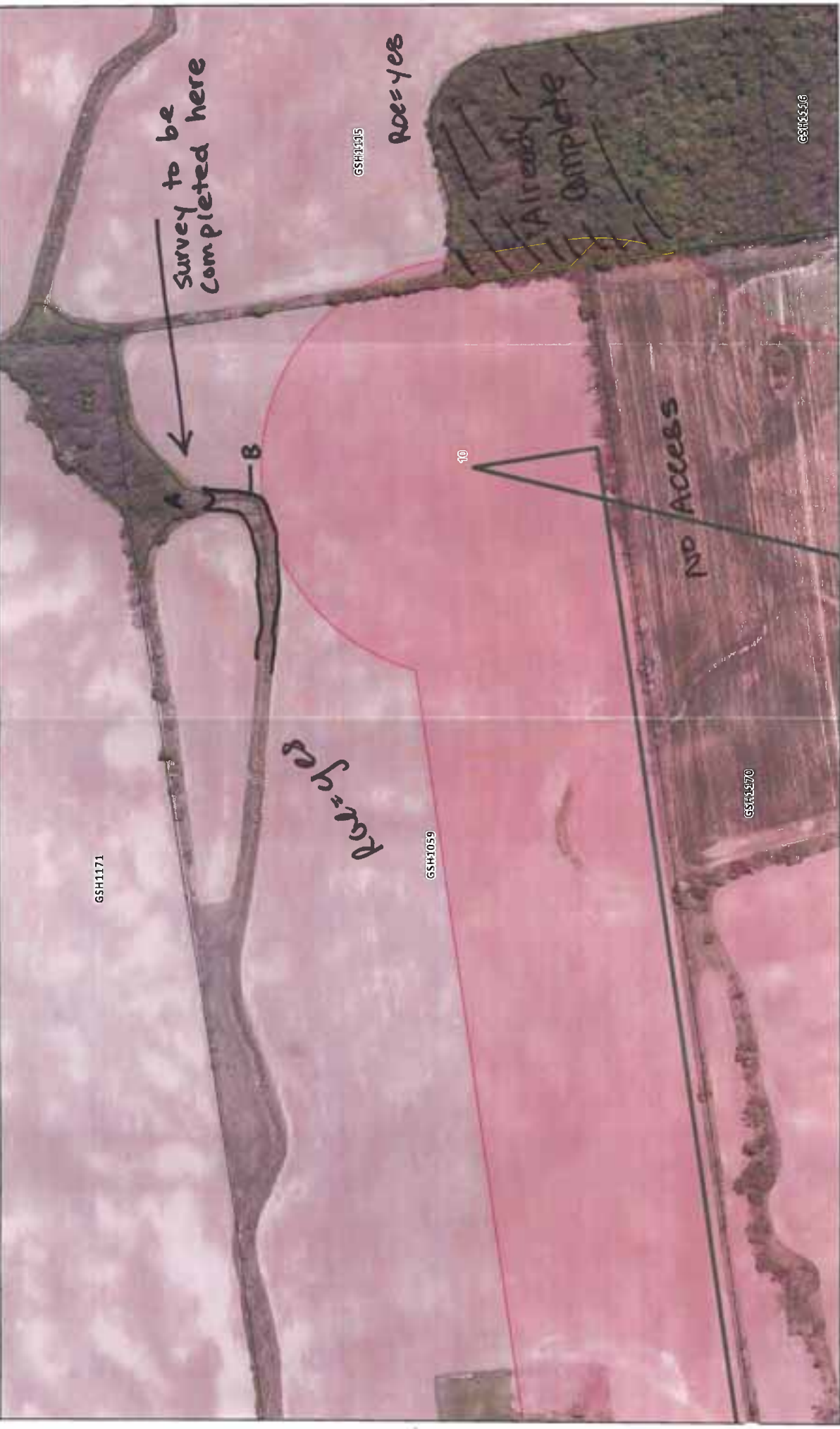
- Roads
- Access/Collection Line
- Collection Buffer (125m)
- Turbine Buffer (171.5m)
- Collection/Feature Intersect
- Turbine Buffer/Feature Intersect
- Property Fabric
- Bluewater Wind Energy Centre



September 1, 2011

Goshen Feature: 373 GSH1059

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







⑧ Narrow Band of Cultural Meadow along dredged stream  
surrounded by Cornfield. currently fast flowing water 1m wide  
through ditch

5-4 Dactyloctenium - Solcava - Astatum > Pharus - Daucus

Veg Type CUMI

VASCULAR PLANT CHECKSHEET

Location: 373 GSM 1059  
 Observer:

Date:  
 Job Number:

DICOT HERBS												MONOCOT HERBS					
1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
<i>Adiantum millifolium</i>	X					<i>Eriogonum annuum</i>						<i>Plantago lanceolata</i>					<i>Allium triococum</i>
<i>Adiantum petryanum</i>						<i>Eriogonum philadelphicum</i>						<i>Plantago major</i>	X				<i>Allium</i>
<i>Adiantum rubrum</i>						<i>Eriogonum strigosum</i>						<i>Plantago rugelii</i>					<i>Arisema triphyllum</i>
<i>Agalinis</i>						<i>Erysimum cheiranthoides</i>						<i>Podophyllum peltatum</i>					<i>Asparagus officinalis</i>
<i>Agrostis gryposepala</i>						<i>Eupatorium maculatum</i>						<i>Polygonum aconitifolium</i>	X				<i>Calla palustris</i>
<i>Allaria petiolaris</i>						<i>Eupatorium perfoliatum</i>						<i>Polygonum</i>					<i>Cicuta borealis</i>
<i>Amaranthus retrofractus</i>						<i>Eupatorium rugosum</i>						<i>Polygonum lapathifolium</i>					<i>Covillea major</i>
<i>Ambrosia artemisiifolia</i>	X					<i>Euphorbia</i>						<i>Polygonum persicaria</i>	X				<i>Cypripedium calceolus</i>
<i>Ampelopsis</i>						<i>Euthamia graminifolia</i>	X					<i>Polygonum</i>					<i>Echinochloa canadensis</i>
<i>Ampelopsis</i>						<i>Fragaria virginiana</i>	X					<i>Potentilla</i>					<i>Equisetum laevecornis</i>
<i>Ampelopsis</i>						<i>Fragaria vesca</i>	X					<i>Potentilla norvegica</i>					<i>Erythronium americanum</i>
<i>Anemone</i>						<i>Galeopsis tetrahit</i>						<i>Potentilla recta</i>					<i>Fernoxonia lutea</i>
<i>Anemone canadensis</i>						<i>Galium</i>						<i>Prunella sibirica</i>					<i>Isis vesicatoria</i>
<i>Anemone virginiana</i>						<i>Galium</i>						<i>Prunella vulgaris</i>					<i>Laurus nobilis</i>
<i>Androsace repens</i>						<i>Galium palustre</i>						<i>Pyrola elliptica</i>					<i>Luzula triticea</i>
<i>Apocynum androsaemifolium</i>						<i>Galium triflorum</i>						<i>Ranunculus</i>					<i>Lilium</i>
<i>Apocynum cannabinum</i>						<i>Geranium maculatum</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium canadense</i>						<i>Geranium robertianum</i>						<i>Ranunculus acris</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium nidus</i>						<i>Geranium sanguineum</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>	X					<i>Geranium canadense</i>	X					<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Geum</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Gilchristia hederacea</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Hepatica acutiloba</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Hepatica marmorata</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Hieracium aurantiacum</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Hieracium cespitosum</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Hieracium</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Hydrophyllum virginianum</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Hypericum perforatum</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Impatiens capensis</i>	X					<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Irula helenium</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Lactuca scariola</i>	X					<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Lapsana communis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Leonurus cardiaca</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Lepidium</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Liveria vulgaris</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Lithospermum officinale</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Lobelia</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Lobelia tatarica</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Lolium corniculatum</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Lycopus americanus</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Lycopus</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Lythrum salicaria</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Medicago lupulina</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Medicago sativum</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus alba</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i>					<i>Mitella pentstemonifolia</i>
<i>Asplenium platyneuron</i>						<i>Melilotus ervealis</i>						<i>Ranunculus abortivus</i> </					

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 allegheniensis						Agropyron repens					
Larix laricina						Rubus idaeus		X				Alopecurus					
Picea abies						Rubus occidentalis		X				Bromus inermis		X			
Picea glauca						Rubus odoratus						Calamagrostis canadensis					
Pinus resinosa						Rubus pubescens						Carex acutata					
Pinus strobus						Salix alba						Carex aurea					
Pinus sylvestris						Salix amygdaloides						Carex bebbii					
Thuja occidentalis						Salix bebbiana						Carex blanda					
Tsuga canadensis						+ Salix discolor						Carex gracillima					
						Salix eriocephala						Carex granulata					
						Salix exigua						Carex hystericina					
						Salix lucida						Carex pennsylvanica					
						Salix petiolaris						Carex radicata					
						+ Salix purpurea						Carex retrosa					
TREES and SHRUBS						Salix x rubens						Carex stipata					
Acer negundo	X					+ Salix						Carex stricta					
Acer rubrum						Sambucus canadensis						Carex vulpinoidea					
Acer saccharinum						Sambucus racemosa						Carex					
Acer saccharum						Sorbus aucuparia						Carex					
Acer spicatum						Spiraea alba						Carex					
Alnus rugosa						Syringa vulgaris						Carex					
Amelanchier						+ Tilia americana		X				Carex					
Berberis thunbergii						Ulmus americana		X				Carex					
Betula alleghaniensis						Ulmus						Carex					
Betula papyrifera						Vaccinium						Carex					
Carpinus caroliniana						Viburnum lentago						Carex					
Carya cordiformis						Viburnum opulus						Cyperus					
Celastrus scandens						Viburnum						Cyperus					
Cornus alternifolia						Vitis riparia		X				Dactylis glomerata		X			
Cornus amomum												Danthonia spicata					
Cornus rugosa												Echinochloa crus-galli					
Cornus stolonifera	X											Eleocharis erythropoda					
Corylus cornuta												Eleocharis					
Crataegus monogyna												Elymus virginicus					
Crataegus punctata												Elymus					
Crataegus sp.												Festuca arundinacea		X			
Crataegus												Glyceria striata		X			
Diervilla lonicera												Glyceria					
Fagus grandifolia												Juncus dudleyi					
Fraxinus americana						FERNS						Juncus effusus					
Fraxinus nigra						Adiantum pedatum						Juncus tenuis					
Fraxinus pennsylvanica	X					Athyrium filix-femina						Juncus					
Ilex verticillata						Botrychium multifidum						Juncus					
Juglans cinerea						Botrychium virginianum						Leersia oryzoides					
Juglans nigra						Cyathea bulbifera						Muhlenbergia					
Lonicera morrowi						Dryopteris caroliniana		X				Oryzopsis asperifolia					
Lonicera styraciflua						Dryopteris cristata						Panicum					
Lonicera						Dryopteris marginalis						Panicum					
Morus nigra	X					Dryopteris						Phalaris arundinacea		X			
Ostrya virginiana						Equisetum arvense						Phlox pilularis		X			
Parthenocissus vitacea	X					Equisetum hyemale						Plataginis australis					
Papaver balsamifera						Equisetum variegatum						Poa compressa					
Papaver grandifolium						Equisetum						Poa pratensis				X	
Papaver heterophyllum						Gymnocarpium dryopteris						Poa					
Papaver						Lycopodium digitatum						Scirpus atrovirens					
Prunus pennsylvanica						Lycopodium obscurum						Scirpus cyperinus					
Prunus serotina						Lycopodium						Scirpus validus					
Prunus virginiana						Lycopodium						Scirpus					
Prunus						Melicopestris struthiopteris						Scirpus					
Quercus macrocarpa						Oncoclea sensibilis						Setaria					
Quercus rubra						Osmunda cinnamomea						Spartanum					
Quercus						Osmunda regalis						Typha angustifolia					
Rhus cathartica						Polytaichum acrostichoides						Typha latifolia					
Rhus radicans						Panicum aquilinum						Typha glauca					
Rhus typhina						Thelypteris palustris											
Ribes americana																	
Ribes cynosbati	X																
Ribes x rubrum																	
Robinia pseudo-acacia																	
Pyrus comuta	X																



Feature 375



Road

GSH1350

375

Roe = yes

120m buffer  
(Sunway here)

Access from Pepper Rd.

GSH1360

271

Roe = yes

0 30 60 120 Meters









CONIFERS	1	2	3	4	5	6	TREES and SHRUBS	1	2	3	4	5	6	GRAMINOIDS	1	2	3	4	5	6
<i>Abies balsamea</i>							+ <i>Rosa multiflora</i>							<i>Agrostis gigantea</i>						
<i>Juniperus communis</i>							<i>Rosa</i>							<i>Agrostis stolonifera</i>						
<i>Juniperus virginiana</i>							<i>Rubus allegheniensis</i>							<i>Agropyron repens</i>						
<i>Larix laricina</i>							<i>Rubus idaeus</i>							<i>Alopecurus</i>						
<i>Picea abies</i>							<i>Rubus occidentalis</i>							<i>Bromus inermis</i>						
<i>Picea glauca</i>							<i>Rubus odoratus</i>							<i>Calamagrostis canadensis</i>						
<i>Pinus resinosa</i>							<i>Rubus pubescens</i>							<i>Carex arctata</i>						
<i>Pinus strobus</i>							<i>Salix alba</i>							<i>Carex aurea</i>						
<i>Pinus sylvestris</i>							<i>Salix amygdaloides</i>							<i>Carex bebbii</i>						
<i>Thuja occidentalis</i>							<i>Salix bebbiana</i>							<i>Carex blanda</i>						
<i>Tsuga canadensis</i>							+ <i>Salix discolor</i>							<i>Carex gracillima</i>						
							<i>Salix erioccephala</i>							<i>Carex granulata</i>						
							<i>Salix exigua</i>							<i>Carex hystericina</i>						
							<i>Salix lucida</i>							<i>Carex pennsylvanica</i>						
							<i>Salix petiolaris</i>							<i>Carex radiata</i>						
							+ <i>Salix purpurea</i>							<i>Carex retrosa</i>						
<b>TREES and SHRUBS</b>							<i>Salix x rubens</i>							<i>Carex stipata</i>						
<i>Acer negundo</i>							+ <i>Salix</i>							<i>Carex stricta</i>						
<i>Acer rubrum</i>							<i>Sambucus canadensis</i>							<i>Carex vulpinoidea</i>						
<i>Acer saccharinum</i>							<i>Sambucus racemosa</i>							<i>Carex</i>						
<i>Acer saccharum</i>		X					<i>Sorbus aucuparia</i>							<i>Carex</i>						
<i>Acer spicatum</i>							<i>Spiraea alba</i>							<i>Carex</i>						
<i>Alnus rugosa</i>							<i>Syringa vulgaris</i>							<i>Carex</i>						
<i>Amelanchier</i>							+ <i>Tilia americana</i>		X					<i>Carex</i>						
<i>Berberis thunbergii</i>							<i>Ulmus americana</i>							<i>Carex</i>						
<i>Betula alleghaniensis</i>							<i>Ulmus</i>							<i>Carex</i>						
<i>Betula papyrifera</i>							<i>Vaccinium</i>							<i>Carex</i>						
<i>Carpinus caroliniana</i>							<i>Viburnum lentago</i>							<i>Carex</i>						
<i>Carya cordiformis</i>							<i>Viburnum opulus</i>							<i>Cyperus</i>						
<i>Celastrus scandens</i>							<i>Viburnum</i>							<i>Cyperus</i>						
<i>Cornus alternifolia</i>							<i>Vitis riparia</i>							<i>Dactylis glomerata</i>						
<i>Cornus amomum</i>														<i>Danthonia spicata</i>						
<i>Cornus rugosa</i>														<i>Echinochloa crus-galli</i>						
<i>Cornus stolonifera</i>														<i>Eleocharis erythropoda</i>						
<i>Corylus cornuta</i>														<i>Eleocharis</i>						
<i>Crataegus amoegyna</i>														<i>Elymus virginicus</i>						
<i>Crataegus punctata</i>														<i>Elymus</i>						
<i>Crataegus sp.</i>														<i>Festuca arundinacea</i>						
<i>Crataegus</i>														<i>Glyceria striata</i>						
<i>Dierilla lonicera</i>														<i>Glyceria</i>						
<i>Fagus grandifolia</i>		X												<i>Juncus dudleyi</i>						
<i>Fraxinus americana</i>							<b>FERNS</b>							<i>Juncus effusus</i>						
<i>Fraxinus nigra</i>							<i>Adiantum pedatum</i>							<i>Juncus tenuis</i>						
<i>Fraxinus pennsylvanica</i>							<i>Athyrium filix-femina</i>							<i>Juncus</i>						
<i>Ilex verticillata</i>							<i>Botrychium matrifidum</i>							<i>Juncus</i>						
<i>Inglans cinerea</i>							<i>Botrychium virginianum</i>							<i>Leersia oryzoides</i>						
<i>Inglans nigra</i>							<i>Cystopteris bulbifera</i>							<i>Menyanthes</i>						
<i>Lonicera marowii</i>							<i>Dryopteris caroliniana</i>							<i>Oryzopsis asperifolia</i>						
<i>Lonicera tatarica</i>							<i>Dryopteris cristata</i>							<i>Panicum</i>						
<i>Lonicera</i>							<i>Dryopteris marginalis</i>							<i>Panicum</i>						
<i>Malus pumila</i>							<i>Hypopteris</i>							<i>Panicum arundinacea</i>						
<i>Ostrya virginiana</i>							<i>Equisetum arvense</i>							<i>Panicum pratense</i>						
<i>Parthenocissus integrifolia</i>							<i>Equisetum hyemale</i>							<i>Panicum compressus</i>						
<i>Populus balsamifera</i>							<i>Equisetum variegatum</i>							<i>Poa compressus</i>						
<i>Populus grandidentata</i>							<i>Equisetum</i>							<i>Poa pratensis</i>						
<i>Populus tremuloides</i>							<i>Gymnocarpium dryopteris</i>							<i>Poa</i>						
<i>Populus SA</i>		X					<i>Lycopodium digitatum</i>							<i>Scirpus atrovirens</i>						
<i>Prunus pennsylvanica</i>							<i>Lycopodium obscurum</i>							<i>Scirpus cyperinus</i>						
<i>Prunus serotina</i>							<i>Lycopodium</i>							<i>Scirpus validus</i>						
<i>Prunus virginiana</i>							<i>Lycopodium</i>							<i>Scirpus</i>						
<i>Prunus</i>							<i>Mitella struthiopteris</i>							<i>Scirpus</i>						
<i>Quercus macrocarpa</i>							<i>Onoclea sensibilis</i>							<i>Setaria</i>						
<i>Quercus rubra</i>							<i>Osmunda cinnamomum</i>							<i>Sparganium</i>						
<i>Quercus</i>							<i>Osmunda regalis</i>							<i>Typha angustifolia</i>						
<i>Rhamnus cathartica</i>							<i>Polystichum acrostichoides</i>							<i>Typha latifolia</i>						
<i>Rhus radicans</i>							<i>Pteridium aquilinum</i>							<i>Typha glauca</i>						
<i>Rhus typhina</i>							<i>Thelypteris palustris</i>													
<i>Ribes americana</i>																				
<i>Ribes cynosbati</i>																				
<i>Ribes x rubrum</i>																				
<i>Robinia pseudo-acacia</i>																				

**Goshen Feature: 375 GSH1362/1388/1390**

(Properties that contain Features within 25m from Collection lines and 171.5m from Turbine)

h  
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



Site: 375-GSH1367 Polygon: 4  
 Surveyor(s): SAM Date: 18 Oct 5/11 start: 1800h finish: 1836h  
 UTMZ: 17T UTMZ: 450807 UTMN: 4804651  
 w.p.\*319

**Polygon Description**

System	Substrate	Topographic Feature	Plant Form	Community
<input checked="" type="checkbox"/> Terrestrial <input type="checkbox"/> Wetland <input type="checkbox"/> Aquatic <input type="checkbox"/> Site <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input checked="" type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock <input type="checkbox"/> History <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Cultural <input type="checkbox"/> Cover <input type="checkbox"/> Open <input type="checkbox"/> Shrub <input checked="" type="checkbox"/> Tree	<input type="checkbox"/> 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"/> Roli. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Aivar <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> Plankton <input type="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 (up to 4-sp) (>> Much Greater Than; > Greater Than; = About Equal To)
1	2	4	MH > Bb = Aw > Bc
2	3	3	Blue Beech >> Spicebush > chokecherry
3	5-4	2-3	MH > Calice Aster > false Solomon's seal > Rub. occid.
4	7	3	poison ivy >> wild rose

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

Stand Composition: Size Class Analysis:

Standing Snags:	0	<10	10-24	A	25-50	R	>50
Deadfall / Logs:	0	<10	10-24	0	25-50	R	>50

BA: MH 36 Bb 29 Aw 20  
 28

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

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

Ecolite:	Fresh-Moist Sugar Maple Deciduous forest	Code:	F0D6
Vegetation Type:	Fresh-Moist sugar Maple-Hardwood Deciduous forest Type	Code:	F0D6-5
Incisions:		Code:	
Complex:		Code:	

**Community Profile Diagram/Comments**

Notes:

**Tree Tally by Species**

Species	Tally 1	Tally 2	Tally 3	Tally 4	Tally 5	Total
Bb	1	4	7	1	5	18
Aw	1	7	1	1	3	11
MH	5	5	4	2	6	15
Bc	2	1	1	2	2	4
Total		14	12	16	16	42
Basal Area (BA)	28	24	32			84
Dead						28

**Soils Ontario and ELC Soils Description**

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

**ELC**  
Community  
Description and  
Classification

Site: 375-G5H 018/1362/1988 Polygon: 5  
 Surveyor(s): SAN Date: Oct. 5/11 Time start: 1735 finish: 1755  
 UTMZ: 17T UTMZ: 450904 UTMN: 4904739  
 w p 317

**Polygon Description**

System	Substrate	Topographic Feature	Plant Form	Community
<input type="checkbox"/> Terrestrial <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Aquatic <input type="checkbox"/> Site <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input checked="" type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock	<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"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD. <input checked="" type="checkbox"/> Graminoid <input checked="" type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Mixed	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input checked="" type="checkbox"/> Marsh <input type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> Plantation

**Stand Description**

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	3	1	Salix erioceph. > Salix bebb.
2	3-4	4	Phragmites > Broad Cattail > Reed Canary
3	4	3	Panicled Aster > Euth. gramin. > M.E. Aster > Black Bulrush
4	5	2	Juncus effusus > Marsh Fern > Lycopus with. = Mead. Horsetail

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

Stand Composition:	Size Class Analysis:	Standing Snags:	Deadfall / Logs:
N/A	<10 <10 <10	10-24 10-24 10-24	>50 >50 >50

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

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

Ecosite: Mineral Meadow Marsh Ecosite Code: MAM2  
 Vegetation Type: Phragmites - Forb Mixed Meadow Marsh Code: MAM2  
 Inclusion: Mineral Type Code: /  
 Complex: /

**Community Profile Diagram/Comments**

Notes:

**Tree Tally by Species**

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Prism Factor
						2
Total					100	
Basal Area (BA)						
Dead						

**Soils Ontario and ELC Soils Description**

Site Metrics	PI/Auger #	Moisture Regime	Drainage	Effective Texture (Indicate below)	% CF
UTM	17T	450904			
Northing	4804739				
Position	low				
Aspect					
Percent					
Slope					
Length					
Mottles	46				
Gley	107				
Water Table	>120				
Carbonates	>120				
Bedrock					
1	45				
Texture	0 <sub>h/m</sub>				
2	0				
Texture	vfSCL				
3	13				
Texture	vfSC				
4	47				
Texture	C				
% Surface Stone/Rock					
Moisture Regime	6				
Drainage	6				

# ELC

Site: 375-65A 1388  
 Surveyor(s): SAN  
 UTMZ: 177

Polygon: 6  
 Date: Oct 5/11  
 UTMZ: 450978

Time start: 1755 h  
 finish: 1820 h  
 UTMN: 480 4730

## Polygon Description

System	Substrate	Topographic Feature	Plant Form	Community
<input checked="" type="checkbox"/> Terrestrial	<input type="checkbox"/> Organic	<input type="checkbox"/> Lacustrine	<input type="checkbox"/> Plankton	<input type="checkbox"/> Lake
<input type="checkbox"/> Wetland	<input checked="" type="checkbox"/> Mineral Soil	<input type="checkbox"/> Riverine	<input type="checkbox"/> Submerged	<input type="checkbox"/> Pond
<input type="checkbox"/> Aquatic	<input type="checkbox"/> Parent Min.	<input type="checkbox"/> Bottomland	<input type="checkbox"/> Floating-LVD.	<input type="checkbox"/> River
<b>Site</b>	<input type="checkbox"/> Acidic Bedrk	<input type="checkbox"/> Terrace	<input type="checkbox"/> Graminoid	<input type="checkbox"/> Stream
<input type="checkbox"/> Open Water	<input type="checkbox"/> Basic Bedrk	<input type="checkbox"/> Valley Slope	<input type="checkbox"/> Forb	<input type="checkbox"/> Marsh
<input type="checkbox"/> Shallow Water	<input type="checkbox"/> Carb. Bedrk	<input checked="" type="checkbox"/> Tableland	<input type="checkbox"/> Lichen	<input type="checkbox"/> Swamp
<input checked="" type="checkbox"/> Surficial Dep.		<input type="checkbox"/> Roll. Upland	<input type="checkbox"/> Bryophyte	<input type="checkbox"/> Fen
<input type="checkbox"/> Bedrock		<input type="checkbox"/> Cliff	<input type="checkbox"/> Deciduous	<input type="checkbox"/> Bog
<b>History</b>		<input type="checkbox"/> Talus	<input type="checkbox"/> Coniferous	<input type="checkbox"/> Barren
<input checked="" type="checkbox"/> Natural		<input type="checkbox"/> Crevice/Cave	<input checked="" type="checkbox"/> Mixed	<input type="checkbox"/> Meadow
<input type="checkbox"/> Cultural		<input type="checkbox"/> Alvar		<input type="checkbox"/> Prairie
<b>Cover</b>		<input type="checkbox"/> Rockland		<input type="checkbox"/> Thicket
<input type="checkbox"/> Open		<input type="checkbox"/> Beach / Bar		<input type="checkbox"/> Savannah
<input type="checkbox"/> Shrub		<input type="checkbox"/> Sand Dune		<input type="checkbox"/> Woodland
<input checked="" type="checkbox"/> Treed		<input type="checkbox"/> Bluff		<input checked="" type="checkbox"/> Forest
				<input type="checkbox"/> 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	2	4	MH > He > Be > Bd
2	3-4	3	Spice bush > Blue Beech > MH > Black Elder
3			Wood Nettle > N. Lady Fern = Int. w. Fern
4			False Sol. Seal > Int. Baneberry > Xmas Fern > Calico Aster

HT Codes: 7 < 0.2m 6 > 0.2-0.5m 5 > 0.5-1m 4 > 1-2m 3 > 2-8m 2 > 8-25m 1 > 25m  
 CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 > 50%

Stand Composition	Size Class Analysis	Standing Snags	Deadfall / Logs
MH 33-He 30-Be 11-Bd 13	<10: 0 10-24: A 25-50: A	<10: R 10-24: O 25-50: R	<10: R 10-24: O 25-50: R
BA: 30			

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

Corr. Age:	<input type="checkbox"/> Pioneer	<input type="checkbox"/> Young	<input type="checkbox"/> Mid-Age	<input checked="" type="checkbox"/> Mature	<input type="checkbox"/> Old Growth
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Ecotope:	Fresh-Moist Hemlock Mixed Forest	Code:	FOM6
Vegetation Type:	Fresh-Moist Sugar Maple-Hemlock Mixed Forest Type	Code:	FOM6-1
Inclusion:		Code:	
Complex:		Code:	

## Community Profile Diagram/Comments


Notes:

## Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Tally 5	Total
He	1	5	1	4		9
MH	1	3	1	7		10
Bd	1	3	1	1		4
Aw	1	3	1	1		2
Be	1	3	1	2		5
Total	15	30	15	30		30
Basal Area (BA)						60
Dead						30

## Soils Ontario and ELC Soils Description

Site Metrics	PIVAuger #	Soils Description				Summary
Zone						Moisture Regime
Easting						
Northing						
Position						
Aspect						Drainage
Percent						
Slope						Effective Texture (Indicate below)
Length						
Mottles						% CF
Gley						
Water Table						% CF
Carbonates						
Bedrock						% CF
Depth from zero						
Texture						% CF
Depth from zero						
Texture						% CF
Depth from zero						
Texture						% CF
Depth from zero						
Texture						% CF
Depth from zero						
Texture						% CF
Depth from zero						
Texture						% CF
Depth from zero						
Texture						% CF
Depth from zero						
% Surface Stone/Rock						% CF
Moisture Regime						
Drainage						

**ELC** Community Description and Classification

Site: 375-GSA/388/1390 Polygon: ①

Surveyor(s): SAH Date: Oct-5/11 Time start: 1750h finish: 1820h

UTMZ: 17T UTMZ: No UTM UTMN: No UTM point

**Polygon Description**

System	Substrate	Topographic Feature	Plant Form	Community
<input checked="" type="checkbox"/> Terrestrial <input type="checkbox"/> Wetland <input type="checkbox"/> Aquatic <input type="checkbox"/> Site <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input checked="" type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock	<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"/> Plankton <input type="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 (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	2	4	HA >> Be > HS > Aw
2	3	3	Blue Beech > HA > Spicebush > Black Elder
3	5	3	2lg zig Goldenrod > Fowl Nanna > M. Lady Fern > Rib. americ.
4	2-4	3-2	Fals. Nettle > False Solomon's Seal > Callio Aster > Xmas fern

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

**Stand Composition:** Size Class Analysis:

HA	42	Be	25	HS	17	Aw	11
BA:	24						

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

**Com. Age:**  Pioneer  Young  Mid-Age  Mature  Old Growth

**Ecosite:** Fresh-Moist Sugar Maple Deciduous forest Code: F006

**Vegetation Type:** Fresh-Moist sugar maple-Hardwood Deciduous forest Type Code: F006-5

**Inclusion:**

**Complex:**

**Community Profile Diagram/Comments**

Notes:

**Tree Tally by Species**

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Pct. Avg.
Aw	1	2			3	12
HA	6	4			10	42
Be	3	3			6	25
HS	2	2			4	17
CB	1				1	4
Total	13	11			24	100
Basal Area (BA)	26	22			48	24
Dead	1				1	4

**Soils Ontario and ELC Soils Description**

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

Location: 375\_GSA1362/1390  
 Observer: SAM 1018/1388  
 Date: Oct. 5/11  
 Job Number:

DICOT HERBS						MONOCOT HERBS															
1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6				
Viola mirabilis						Erigeron annuus						Plantago lanceolata					Alisma plantago-aquatica				
Viola pauciflora	X		X			Erigeron philadelphicus						Plantago major					Allium triococum	X			X
Viola rubra						Erigeron strigosus						Plantago rugellii					Allium				
Agrimonia						Erysimum cheiranthoides						Podophyllum peltatum					Arisaema triphyllum				
Agrimonia gryposepala						Eupatorium maculatum						Polygonum					Asparagus officinalis				
Alliaria petiolata						Eupatorium perfoliatum			X			Polygonum					Calla palustris				
Amaranthus retrofractus						Eupatorium rugosum						Polygonum					Clinacis borealis				
Ambrosia artemisiifolia						Euphorbia						Polygonum lapathifolium					Conoclinium nutans				
Amphispiza bilineata						Euthamia graminifolia			X			Polygonum pensilvanicum					Cryptanthus canadensis				
Anaphalis margaritacea						Fragaria virginiana						Rubus					Eleocharis canadensis				
Anemone						Fragaria vesca						Patella					Equisetum hyemale				
Anemone canadensis						Galeopsis tetrahit						Patella norvegica					Erythronium americanum				
Anemone virginiana						Gallium						Patella recta					Hymenocallis fulva				
Antennaria neglecta						Gallium palustre						Prunella alba					Iris versicolor				
Apocynum androsaemifolium						Gallium triflorum						Prunella vulgaris			X		Lamium minor				
Apocynum cannabinum						Gentiana maculata						Pyrola elliptica					Lamium strigosum				
Asplenium adnigrum						Geum aleppicum				X		Ranunculus abortivus					Lilium				
Asplenium platyneuron						Geum canadense						Ranunculus acris					Malvastrum canadense				
Aster						Geum triflorum						Ranunculus abortivus					Malvastrum racemosum				
Aster cordifolius						Geranium robertianum						Ranunculus acris					Malvastrum strigosum			X	X
Aster ericoides						Geum obtusum						Ranunculus acris					Malvastrum strigosum			X	X
Aster lanceolatus						Geum spicatum						Ranunculus abortivus					Malvastrum strigosum			X	X
Aster lateriflorus	X		X			Hemlock						Ranunculus acris					Malvastrum strigosum			X	X
Aster macrophyllus						Hesperis matronalis						Ranunculus abortivus					Malvastrum strigosum			X	X
Aster novae-angliae						Hieracium aurantiacum						Ranunculus acris					Malvastrum strigosum			X	X
Aster purpureus						Hieracium canadense						Ranunculus abortivus					Malvastrum strigosum			X	X
Barbarea vulgaris						Hieracium spicatum						Ranunculus abortivus					Malvastrum strigosum			X	X
Bidens cernua						Hieracium spicatum						Ranunculus abortivus					Malvastrum strigosum			X	X
Bidens frondosa						Hieracium spicatum						Ranunculus abortivus					Malvastrum strigosum			X	X
Bismaria cylindrica						Hieracium spicatum						Ranunculus abortivus					Malvastrum strigosum			X	X
Calla palustris						Hieracium spicatum						Ranunculus abortivus					Malvastrum strigosum			X	X
Calluna palustris						Hieracium spicatum						Ranunculus abortivus					Malvastrum strigosum			X	X
Calluna palustris						Hieracium spicatum						Ranunculus abortivus					Malvastrum strigosum			X	X
Cardamine hirsuta						Hieracium spicatum						Ranunculus abortivus					Malvastrum strigosum			X	X
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