

⑤ Sugar Maple - Black Cherry -

UTM 450390
4794120

2-4 Aceraceae > Prusero

3-4 Aceraceae

4-2 Rubidae

6-2 Eucobov > Crxgrac

Veg Type - FOD 5-7

Stand.	A < 10	A < 25	R < 50
Swag	R	R	
dead	A	A	R 25

⑥ Sugar Maple

UTM - 450420
4794185

2-4 Aceraceae >> Carcord

3-4 Aceraceae

6-3 Eucobov > Allpeti

matric

Veg Type FOD 5-1

⑦ Basswood

UTM 450410
4794250

2-4 Tiliaceae > Ulmaceae >> Fraxin.

3-3 Ulmaceae > Aceraceae

4-3 Aceraceae >> Prunif

6-4 Astilbe - Rhuradi - Geurba

Veg Type FOD 46
midday to matric irregular canopy

Stand	A < 10	A < 25	0 < 50
Swag	R	R	0
dead	A	A	0

ELC WILDLIFE	SITE: 251 GSH	
	POLYGON:	
	DATE: Oct 14	
	SURVEYORS:	
START TIME: 12:00	END TIME: 14:50	

TEMP (°C): 13	CLOUD (10th): 10	WIND: 3-4	PRECIPITATION: slight drizzle
CONDITIONS: very windy from W			

POTENTIAL WILDLIFE HABITAT:

<input checked="" type="checkbox"/> VERNAL POOLS	<input checked="" type="checkbox"/> SNAGS <i>few</i>
<input checked="" type="checkbox"/> HIBERNACULA <i>rockpile at NE</i>	<input checked="" type="checkbox"/> FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#
B	NOFL	OB		1					
	RBWO			1					
	BLJA			2					
	AMCP			10					
	DEJU		edge of cover	1					
	AMPI	OB	in plane field	4					

- 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)

VASCULAR PLANT CHECKSHEET

Location: **251 GSH 1733**
 Observer: **Kamsten**

Date: **Oct 14 1981**

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>Vilfa multifida</i>						<i>Erigeron annuus</i>						<i>Plantago lanceolata</i>						<i>Allium plantago-aquatica</i>					
<i>Aca pachypoda</i>						<i>Erigeron philadelphicus</i>						<i>Plantago major</i>						<i>Allium tricoccum</i>					
<i>Asa rubra</i>						<i>Erigeron strigosus</i>						<i>Plantago rugelii</i>						<i>Allium</i>					
<i>Agalinus</i>						<i>Erysimum cheiranthoides</i>						<i>Podophyllum peltatum</i>						<i>Arisaema triphyllum</i>					
<i>Agrostis gryposepala</i>						<i>Eupatorium maculatum</i>						<i>Polygonum</i>						<i>Asparagus officinalis</i>					
<i>Allaria petiolata</i>		X				<i>Eupatorium perfoliatum</i>						<i>Polygonum</i>						<i>Cala palustris</i>					
<i>Anemone ranunculoides</i>						<i>Eupatorium rugosum</i>						<i>Polygonum</i>						<i>Cirsium boreale</i>					
<i>Ambrosia artemisiifolia</i>						<i>Euphorbia</i>						<i>Polygonum lapathifolium</i>						<i>Conoclinium majus</i>					
<i>Ampelopsis quinquefolia</i>						<i>Euthamia granifolia</i>						<i>Polygonum persicaria</i>						<i>Cyperidium rotundifolium</i>					
<i>Anaphalis margaritacea</i>						<i>Fragaria virginiana</i>		X				<i>Potentilla</i>						<i>Echinochloa canadensis</i>					
<i>Anemone</i>						<i>Fragaria vesca</i>						<i>Potentilla norvegica</i>		X				<i>Ephedra heliophora</i>			X		
<i>Anemone canadensis</i>						<i>Galatella tetrahit</i>						<i>Potentilla recta</i>						<i>Eryngium americanum</i>					
<i>Anemone virginiana</i>						<i>Galium</i>						<i>Pranthes alba</i>						<i>Hemerocallis filiva</i>					
<i>Andropogon scoparius</i>						<i>Galium</i>						<i>Prunella vulgaris</i>						<i>Iris versicolor</i>					
<i>Apocynum androsaemifolium</i>						<i>Galium palustre</i>						<i>Pyrola elliptica</i>						<i>Lemna minor</i>					
<i>Apocynum cannabinum</i>						<i>Galium triflorum</i>						<i>Ranunculus</i>						<i>Lemna tritica</i>					
<i>Aquilegia canadensis</i>						<i>Geranium maculatum</i>		X				<i>Ranunculus abortivus</i>						<i>Lilium</i>					
<i>Aquila nodiflora</i>						<i>Geranium robertianum</i>						<i>Ranunculus acris</i>						<i>Melilotus canadensis</i>					
<i>Aquilaria</i>						<i>Geum album</i>						<i>Rubus idaeus</i>						<i>Melilotus racemosus</i>					
<i>Actinidia</i>						<i>Geum canadense</i>						<i>Rumex acetosella</i>						<i>Melilotus strobilata</i>					
<i>Asarum canadense</i>						<i>Geum triflorum</i>		X				<i>Rumex crispus</i>			X			<i>Polypodium</i>					
<i>Asclepias incarnata</i>						<i>Glaucium hederacea</i>						<i>Rumex</i>						<i>Potentilla cordata</i>					
<i>Asclepias syriaca</i>						<i>Hepatica acutiloba</i>						<i>Sanguinaria canadensis</i>						<i>Polygonatum pubescens</i>					
<i>Aster</i>						<i>Hesperis matronalis</i>						<i>Sanicula marilandica</i>						<i>Polygonatum crispum</i>					
<i>Aster cordifolius</i>						<i>Hieracium aurantiacum</i>						<i>Saponaria officinalis</i>						<i>Polygonatum pectinatum</i>					
<i>Aster ericoides</i>						<i>Hieracium cespitosum</i>						<i>Satureja vulgaris</i>						<i>Polygonatum</i>					
<i>Aster lanceolatus</i>		X				<i>Hieracium</i>						<i>Scutellaria palcutata</i>						<i>Polygonatum</i>					
<i>Aster lateriflorus</i>						<i>Hydrophyllum virginianum</i>		X				<i>Silene vulgaris</i>						<i>Polygonatum</i>					
<i>Aster macrophyllus</i>						<i>Hypericum perforatum</i>						<i>Stem suave</i>						<i>Sagittaria latifolia</i>					
<i>Aster novae-angliae</i>						<i>Impatiens capensis</i>						<i>Solanum dulcamara</i>						<i>Strychnium montanum</i>					
<i>Aster purpureus</i>						<i>Inula helenium</i>						<i>Solidago</i>						<i>Smilax herbacea</i>					
<i>Barbarea vulgaris</i>						<i>Lactuca</i>						<i>Solidago altissima</i>						<i>Spiranthes cernua</i>					
<i>Bidens cernua</i>						<i>Lapsortia canadensis</i>						<i>Solidago canadensis</i>						<i>Spiranthes polyrrhiza</i>					
<i>Bidens frondosa</i>						<i>Lapsortia commutata</i>						<i>Solidago canadensis</i>						<i>Streptopus roseus</i>					
<i>Bombacis cylindrica</i>						<i>Leontodon</i>						<i>Solidago flexilis</i>			X			<i>Trillium erectum</i>					
<i>Calla palustris</i>						<i>Lepidium</i>						<i>Solidago gigantea</i>						<i>Trillium grandiflorum</i>					
<i>Callitriche aquatica</i>						<i>Lithospermum officinale</i>						<i>Solidago nemoralis</i>						<i>Urtica grandiflora</i>					
<i>Cardamine</i>						<i>Lobelia</i>						<i>Solidago rugosa</i>											
<i>Cardiophyllum tridactyloides</i>						<i>Lobelia inflata</i>						<i>Sonchus oleraceus</i>											
<i>Carex lasiocarpa</i>						<i>Lobelia spicata</i>						<i>Sonchus asper</i>			X								
<i>Carex lasiocarpa</i>						<i>Lycopus americanus</i>						<i>Stellaria</i>											
<i>Carex lasiocarpa</i>						<i>Lycopus lucidus</i>						<i>Tanacetum vulgare</i>											
<i>Carex lasiocarpa</i>						<i>Lycopus obscurus</i>						<i>Tanacetum officinale</i>											
<i>Carex lasiocarpa</i>						<i>Lycopus radiatus</i>						<i>Thalictrum dioicum</i>											
<i>Carex lasiocarpa</i>						<i>Lythrum salicaria</i>						<i>Thalictrum pubescens</i>											
<i>Carex lasiocarpa</i>						<i>Medicago lupulina</i>						<i>Thlaspi cordifolia</i>											
<i>Carex lasiocarpa</i>						<i>Medicago sativum</i>						<i>Thlaspi pinnatifidum</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus alba</i>						<i>Trifolium boreale</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus arvensis</i>						<i>Trifolium</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus repens</i>						<i>Trifolium pratense</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus nigra</i>						<i>Trifolium repens</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus spicata</i>						<i>Tussilago farfara</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Urtica dioica</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Urtica vulgaris</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Verbascum thapsus</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Verbena hastata</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Verbena urticifolia</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Veronica</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Veronica officinalis</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Viola cracca</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Viola latipetala</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Viola</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Viola canadensis</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Viola pubescens</i>											
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>						<i>Viola sororia</i>			X								
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>																	
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>																	
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<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>																	
<i>Carex lasiocarpa</i>						<i>Melilotus virginica</i>					</												



- Legend**
- 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

*Completed
By SG, RA
May 9, 2012*



Basemapping from Ontario, Ministry of Natural Resources
Orthophotography, 2010

UTM Zone 17N, NAD 83

Scale: 0, 25, 50, 100 Meters

Compass rose showing North (N), South (S), East (E), and West (W).

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Goshen ELC Survey
255_GSH1606
April 2012
Project 601558032

AECOM
Figure 1

ASA

ELC
 Community Description and Classification

Map #: 255 GSH 1606 Polygon: 1
 Surveyor(s): SGR/RA Date: May 9, 2012 Time start: 8:15 am
 UTMZ: UTMN: finish: 10:00 am

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"/> 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"/> Bedrock	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Bottomland <input type="checkbox"/> Terrace <input type="checkbox"/> Valley Slope <input type="checkbox"/> Tableland <input type="checkbox"/> Roll. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Alvar <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD. <input type="checkbox"/> Graminoid <input type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input checked="" type="checkbox"/> Mixed	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Marsh <input type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> Plantation
<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Cultural				
<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)
1	2	3	Poptem = PINSYLIV
2	2	2	Poptem = PINSYLIV
3	2	2	Viburnum = VIBURNUM
4	2	2	grassy species (ASA)

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

Stand Composition: Size Class Analysis:

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

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

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

Ecosite:	Dry-Fresh White Birch - Paper-Cornifer	Code: FOM5
Vegetation Type:	Dry-Fresh Paper mixed Forest	Code: FOM5-2
Inclusion:	Emersed cultural meadow	Code: COM1-1
Complex:		Code:

Community Profile Diagram/Comments

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
Total						100
Basal Area (BA)						
Dead						

Prism Factor 2

Soils Ontario and ELC Soils Description

Pit/Auger #	Soil Metrics		Moisture Regime		Drainage		Effective Texture (Indicate below)	
	Zone	Easting	Position	Aspect	Slope	Length	Depth from zero	Texture
1	UTM						% CF	% CF
2							% CF	% CF
3							% CF	% CF
4							% CF	% CF
							% Surface Stone/Rock	
							Moisture Regime	
							Drainage	

Soil Horizon Description

Depth to...

Site Metrics

ASA

Plant Species List
2012

Table with columns for plant groups (Trees & Shrubs, Conifers, Deciduous, Graminoids, Grasses, Sedges, Other Graminoids) and five columns for field data (1-5). Includes species names and their corresponding field codes.

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 - Uncommmon (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 five individuals or small clumps
Map Number: 255 GSH 1606
Date: May 9, 2012
Surveyors: SG, RA

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 Pusstoes (<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 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 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 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-parnsip (<i>Siium 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 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 fullonum</i>)					Tall Meadow-rue (<i>Thalictrum pubescens</i>)				
Fiat-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>)				
Elecampagne (<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 discoidea</i>)					Hemp Nettle (<i>Galeopsis tetrahit</i>)					Common Mullein (<i>Verbascum thapsus</i>)				
Tall White Lettuce (<i>Frenanthes 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>)					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>)					<i>Fragaria virg.</i>				
Heath Aster (<i>Symphytichum ericoides</i>)					Wood Nettle (<i>Laportea canadensis</i>)					<i>Avens sp.</i>				
Tall White Aster (<i>Symph. lanceolatum</i>)					Motherwort (<i>Leonurus cardiae</i>)									
Calico Aster (<i>Symphytichum 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>)									
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>)									
					Pale Smartweed (<i>Polygonum lapathifolium</i>)									
					Lady's-thumb (<i>Polygonum persicaria</i>)									
					Virginia Knotweed (<i>Polygonum virginianum</i>)									
					<i>Polygonum</i>									
					<i>Polygonum</i>									
					Rough Cinquefoil (<i>Potentilla norvegica</i>)									
					Rough-fruited Cinquefoil (<i>Potentilla recta</i>)									
					Common Cinquefoil (<i>Potentilla simplex</i>)									
					<i>Potentilla</i>									
					Heal-all (<i>Prunella vulgaris</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:	1	2	3	4	5
Date:	2				
Surveyors:	3				

ASA

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	<input checked="" type="checkbox"/> GSH	Map #:	255-GSH/1606
Date:	May 9, 2012			Time Started:	8:15am
Field Staff:	BA, SG			Time Finished:	10:00am
Weather Conditions:	Sunny, ~50% Cloud Cover, Light Breeze, ~12°C				

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: see vernal pool form Area of standing water delineated on field map

Water depth (m): 1m % open water: 80% % emergent vegetation: 0%

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

Open water pool, very few fringing shrubs/trees

Area and soil/substrate of shoreline habitat: Mud

Type and abundance of cover in open water habitat: None

Type and abundance of cover in surrounding habitat: TYPLATI-10%, CAREX SP.-10%, PINSTR-10%, PODTREM-10%

Evidence of disturbance (e.g. cattle grazing): Pond was dug

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

Maybe suitable for waterfowl stop over, no turtle or Marsh Breeding Bird Habitat observed.

*****Complete Vernal Pool Habitat Description Form*****

Snake Hibernacula

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

UTMs: _____ Likelihood to extend below frost line: _____

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

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

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

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

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

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

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

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

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

No

Yes (if yes, photograph and complete the following)

UTMs: _____

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

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

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

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

Shoreline of lake, large river or large wetland present:

No

Yes (if yes, photograph and complete the following)

UTMs: _____

Rocky island or peninsula present: _____

Mudflat present: _____

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

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

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

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

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

Large open habitat present: No

Yes (if yes, photograph and complete the following)

UTMs: _____

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

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

Old-growth or Mature Forests, Interior Forest Breeding Birds

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

Mature forest present: No

Yes (if yes, photograph and complete the following)

UTMs: _____

Age of oldest trees: _____

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

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

Photo #	Location or Subject	Photo #	Location or Subject

Species Conservation Concern Habitat and Incidence al Wildlife - Goshen

ASA

Map No: 255-GST1606
Date (yyyy-mm-dd): 2017-05-09

Field Staff: R.A.S.G.

Time Started: 8:15am
Time Finished: 10:00am



Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Spring Peeper		VO		Red Admiral		OB	
Common Yellowthroat		VO		Brown-headed Cowbird		VO	
Race-Bronzed Grackle		VO		Blue Jay		VO	
Red-winged Blackbird		VO		Blue-winged Warbler		VO	
Black-capped Chickadee		VO		Chipping Sparrow		VO	
American Crow		VO		Ruby-throated Hummingbird		VO	
Black Squirrel		VO		Baltimore Oriole		OB	
Horned Lark		VO		American Goldfinch		VO	
Field Sparrow		VO					
Savanna Sparrow		VO					
Crowed Goose		OB					
Northern Flicker		VO					
Song Sparrow		VO					
Wood Thrush		VO					

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=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
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 (Corallorhiza odorifera) - 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:
FOD, FOM2	Burning Bush (Euonymus atropurpureus) - 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, IMAM, 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, FOD6, FOD7, FOD9	June - August Green Dragon (Arisaema dracontium) - S1/S3 Bloom Time - 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:
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June-August Hairy Bedstraw (Galium pilosum) -S3 Bloom Time - June-August	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y (N) UTM:
FEO1, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	Hairy Valerian (Valeriana edulis) -S1 Bloom Time - 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 (Blephilia hirsuta) -S1 Bloom Time - Summer	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (Erigenia bulbosa) - S3 Bloom Time - early to late April	Occurs in rich, moist deciduous woods, especially on floodplains.	Y (N) UTM:
SAS1, SAM1, SAF1	Hill's Pond Weed (Potamogeton hillii) - SC/S2 Bloom Time - summer	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y (N) UTM:
FOM8, FOM7, FOM8	Large Round-leaved Orchid (Platanthera macrophylla) - S2 Bloom Time - 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 (Saururus cernuus) - S3 Bloom Time - 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 (Asimina triloba) -S3 Bloom Time - March-May	Occurs in moist deciduous woods and stream banks.	Y (N) UTM:
FOM8, FOD6, FOD7, FOD9, CUM1	Pilose Evening Primrose (Oenothera pilosella) -S2 Bloom Time - Late Spring - Early Summer	Moist edges of woods and open, disturbed ground.	Y (N) UTM:
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostate Tick-trefoil (Desmodium rotundifolium) -S2 Bloom Time - July-September	Dry, sandy or rocky woods	Y (N) UTM:
FOD7, SWD	Pumpkin Ash (Fraxinus profunda)-S2? Bloom Time - March - June	Swamps and floodplains	Y (N) UTM:
CUW1, ALO, FET1, SWC	Ram's-head Lady's-slipper (Cypripedium arietinum) -S3 Bloom Time -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, FOD6, FOC1, FOM1, FOM5	Rattlesnake Hawkweed (Hieracium venesum) - S2 Bloom Time - April - September	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.	Y (N) UTM: NO
FOD6, FOD7, FOD9	Round-leaved Groundsel (Packera ebovata) -S3 Bloom Time - May - June	Found in moist woods	Y (N) UTM:
CUM1, CUT1, CUS1	Round-leaved hawthorn (Crataegus lumaris) -S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm (Monarda didyma) - S3 Bloom Time - 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 (Liatris cylindracea) -S3	Species occurs in limestone and dolostone pavement, prairies, open woods, alvars and moist sandy meadows.	Y (N) UTM:
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed (Polygonum tenue)-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 (Muhlenbergia tenuiflora) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y (N) UTM:
BLO1, BLS1, BLT1, TPO2, TP-S2, TPW2, MAM2, FOD7	Stiff Gentian (Gentianella quinquefolia) - S2 Bloom Time - 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 (Lupinus perennis) - S3 Bloom Time - 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



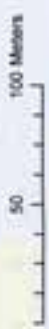
ELC		Species	Habitat Description	Habitat Present (Y/N); UTM; description of habitat if present
TP01, TPS1, TPW1, CUM1	Tall Blazing Star (<i>Liatis aspera</i>) - S2/SC		Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM: Toe Wet
FEO, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>Amoglossum plantagineum</i>) - S3 Bloom Time - mid-March to mid-June		Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	Y (N) UTM:
FOC1, FOC2, FOC3, FOC4	Woodland Pinedrops (<i>Pterospora andromedea</i>) - S2 Bloom Time - summer		Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar in dry or rocky soil, often with common juniper and sometimes aspen or birch	Y (N) UTM:
(CUM) 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 woodlands, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.	Y (N) UTM: NO
BIRDS				
-	Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC		Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk (<i>Chordeiles minor</i>) - SC		Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y (N) UTM:
FOD, FOM	Louisiana Waterthrush (<i>Seiurus motacilla</i>) - SC		Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y (N) UTM:
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC		Species inhabits open woodland/edges (oak savannahs and riparian forest), open, deciduous forest with little 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:
-	Short Eared Owl (<i>Asio flammeus</i>) - SC		Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC		Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y (N) UTM:
REPTILES				
-	Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC		Assessed as SWH. Record species if found.	not required.
-	Milksnake (<i>Lampropeltis triangulum</i>) - SC		Assessed as SWH. Record species if found.	not required.
-	Snapping Turtle (<i>Chelydra serpentina</i>) - SC		Assessed as SWH. Record species if found.	not required.
INSECTS				
OAO, SA, SWM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) - S3		Species inhabits fishless ponds, lakes and boggy swamps	Y (N) UTM:
TPS, TPW	Sleepy Duskywing (<i>Erynnis brizeo</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: No Milkweed Observed
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 clyton</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>Pteris virginianensis</i>) - SC		This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM:

- Collection/Feature Intersect
- Turbine Buffer/Feature Intersect
- Property Buffer
- Stonewall Wood Energy Centre

- Routes
- Access/Collection Line
- Collection Buffer (125m)
- Turbine Buffer (171.5m)

h

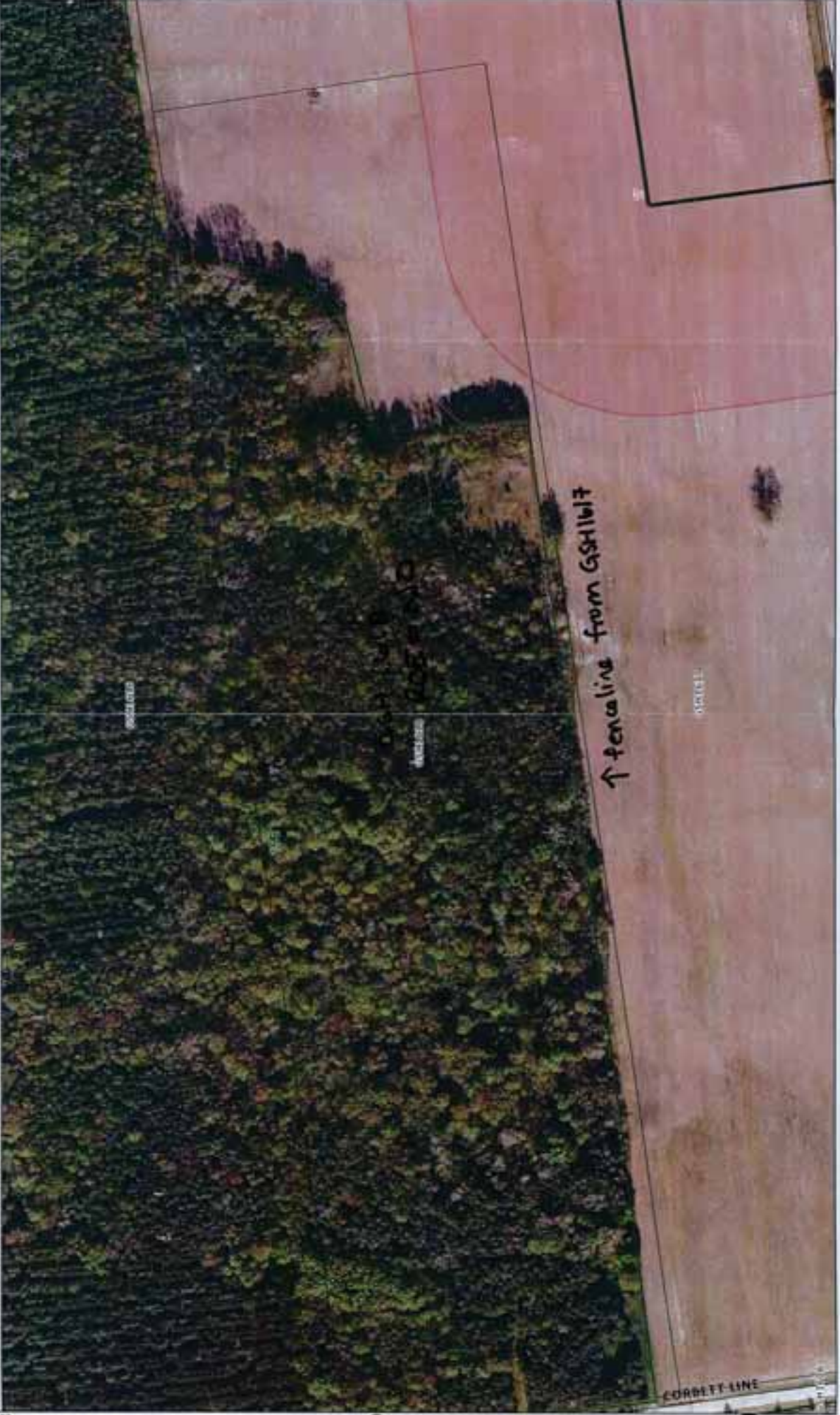
September 1, 2011



no planting
no wildlife
Sheet

Goshen Feature: 258 GSH1618 | GE-17

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



CORBETT LINE

ELC

Community Description and Classification

Site: 258_GSH1618 Polygon: Prism Factor 2

Surveyor(s): Kawada Date: Sept 9/11 Time start: 8:30 finish: 8:45

UTMZ: 44 38 35 UTMN: 4792745

Polygon Description

System	Substrate	Topographic Feature	Plant Form	Community
<input type="checkbox"/> Terrestrial <input type="checkbox"/> Wetland <input type="checkbox"/> Aquatic <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 checked="" 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"/> 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 checked="" type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> Plantation

X Swamp Deposits

Stand Description

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) <i>p</i> -> Much Greater Than; > Greater Than; = About Equal To
1	2	2	<i>Asplen</i>
2	3	3	<i>Asplen</i>
3			
4	6	3	<i>Asplen</i>

HT Codes: 7 < 0.2m 8 > 0.2-0.5m 9 > 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:

<10	A	10-24		25-50		>50
Standing Snags:	R	10-24		25-50		>50
Deadfall / Log:	A	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:
 Vegetation Type: SWP 3-3
 Inclusion:
 Complex:

Community Profile Diagram/Comments

Swamp west of Swamp Maple Swamp at Corn of Woodlot

Notes:

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
Total						100
Basal Area (BA)						
Dead						

Soils Ontario and ELC Soils Description

Site Metrics		Soils Ontario and ELC Soils Description				Summary			
PU/Auger #	Zone	Easting	Northing	Position	Aspect	Percent	Slope	Length	Moisture Regime
UTM									
Slope									
Mottles									
Gley									
Water Table									
Carbonates									
Bedrock									
Depth to...	1					% CF			% CF
	Texture								
Soil Horizon Description	2					% CF			% CF
	Texture								
	3					% CF			% CF
	Texture								
	4					% CF			% CF
	Texture								
Moisture Regime	% Surface Stone/Rock								
	Moisture Regime								
Drainage									

Feature 258

6541616

241

6541618

Roe = yes

Nov. 29, 201

6541617

Leased

120 Meters

60

30

0

17



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

ELC WILDLIFE	SITE: 258 GSH 1618	
	POLYGON:	
	DATE: Nov 29 / 2011	
	SURVEYORS: Jan, JS	
START TIME:		END TIME:

TEMP (°C): 32	CLOUD (10th): over	WIND: 30km	PRECIPITATION: Rain
CONDITIONS: cold, wind rain			

POTENTIAL WILDLIFE HABITAT:

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

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)

ELC
Community Description and Classification

Map #: 258 - GST/16/18 Polygon: 1
 Surveyor(s): BA, SG Date: May 1, 2012 Time start: 8:15am finish: 9:00am
 UTMZ: UTMN:

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"/> Organic <input checked="" type="checkbox"/> Mineral Soil <input type="checkbox"/> Parent Min. <input type="checkbox"/> Acidic Bedrk <input type="checkbox"/> Basic Bedrk <input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Bottomland <input type="checkbox"/> Terrace <input checked="" type="checkbox"/> Valley Slope <input 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 type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Mixed	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Marsh <input type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input checked="" type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> Plantation
Site	<input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input checked="" type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock			
History	<input type="checkbox"/> Natural <input checked="" type="checkbox"/> Cultural			
Cover	<input checked="" type="checkbox"/> Open <input type="checkbox"/> Shrub <input type="checkbox"/> Tree			

Stand Description

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	-	0	-
2	-	0	-
3	4	1	CORSEBIR > RAB CC1 > VIR
4	6	4	SOLALTI > PHAAR N > PCA OMP

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:	R < 10	N 10-24	N 10-24	N 10-24	N 25-50	N 25-50	N 25-50
Deadfall / Logs:	N < 10	N 10-24	N 10-24	N 10-24	N 25-50	N 25-50	N 25-50

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

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

Ecosite: Mineral Cultural Field Meadow
Vegetation Type: Dry - Moist Old Field Meadow
Inclusion:
Complex:

Code: CUM1
 Code: CUM1-1
 Code: -
 Code: -

Community Profile Diagram/Comments

Notes:

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
Total					100	
Basal Area (BA)						
Dead						

Soils Ontario and ELC Soils Description

PI/Auger #	Zone	Easting	Northing	Position	Aspect	Percent	Slope	Length	Summary
Site Metrics									
Depth to ...									
Soil Horizon Description									
1	Depth from zero								% CF
Texture									% CF
2	Depth from zero								% CF
Texture									% CF
3	Depth from zero								% CF
Texture									% CF
4	Depth from zero								% CF
Texture									% CF
% Surface Stone/Rock									% CF
Moisture Regime									% CF
Drainage									% CF

ELC
Community Description and Classification

Map #: 258 GSH 1618 Polygon: 3

Surveyor(s): SB, RA Date: May 4, 2012 Time start: 8:15am finish: 9:00am

UTMZ: UTMZ: UTMN:

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"/> Organic <input type="checkbox"/> Mineral Soil <input type="checkbox"/> Parent Min. <input type="checkbox"/> Acidic Bedrk <input type="checkbox"/> Basic Bedrk <input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Bottomland <input type="checkbox"/> Terrace <input checked="" type="checkbox"/> Valley Slope <input type="checkbox"/> Tableland <input type="checkbox"/> Roll. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Alvar <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD. <input type="checkbox"/> Graminoid <input type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input checked="" type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Mixed	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Marsh <input type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input checked="" type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> Plantation
Site <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input checked="" type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock				
History <input type="checkbox"/> Natural <input checked="" 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) (>> Much Greater Than; > Greater Than; = About Equal To)
1	2	4	Ac. Free > Frax. pm.
2	2	3	Ac. Free
3	2	2	Car. Ses. = Pru. Vig = Rho. Cath
4	2	2	Car. Ses.

HT Codes: 7 <0.2m 6 >0.2-0.4m 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%

BA:	Size Class Analysis:			
	<10	10-24	25-50	>50
Standing Snags:	R	R	R	R
Deadfall / Logs:	R	R	R	R

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

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

Ecosite: Maple Mixed Deciduous Swamp
 Vegetation Type: Swamp Maple Mixed Deciduous
 Inclusion: Swamp
 Complex: -

Code: SWD3
 Code: SWD3-3
 Code: -
 Code: -

Community Profile Diagram/Comments

Notes:

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
Total						100
Basal Area (BA)						
Dead						

Soils Ontario and ELC Soils Description

PIVAuger #	Zone	Easting	Northing	Position	Aspect	Percent	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	Moisture Regime	Drainage	Effective Texture (indicate below)	% CF
1																													
2																													
3																													
4																													

Plant Species List
2012

Trees & Shrubs					Tree & Shrubs					Graminoids					
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Conifers					Deciduous					Grasses					
Balsam Fir (<i>Abies balsamea</i>)					White Oak (<i>Quercus alba</i>)					Giant Redtop (<i>Agrostis gigantea</i>)					
Common Juniper (<i>Juniperus communis</i>)	R				Bur Oak (<i>Quercus macrocarpa</i>)					Redtop (<i>Agrostis stolonifera</i>)					
Eastern Red Cedar (<i>Juniperus virginiana</i>)					Red Oak (<i>Quercus rubra</i>)					Awnless Brome (<i>Bromus inermis</i>)					
Tamarack (<i>Larix laricina</i>)					Alder Buckthorn (<i>Rhamnus alnifolia</i>)					<i>Bromus</i>					
Norway Spruce (<i>Picea abies</i>)					Common Buckthorn (<i>Rhamnus cathartica</i>)			R	R	Blue-joint Grass (<i>Calamagrostis canadensis</i>)					
White Spruce (<i>Picea glauca</i>)		F			Smooth Sumac (<i>Rhus glabra</i>)					Orchard Grass (<i>Dactylis glomerata</i>)				U	
Black Spruce (<i>Picea mariana</i>)					Staghorn Sumac (<i>Rhus hirta</i>)					Poverty Oat Grass (<i>Danthonia spicata</i>)					
Jack Pine (<i>Pinus banksiana</i>)					Wild Black Currant (<i>Ribes americanum</i>)					Quack Grass (<i>Elymus repens</i>)					
Red Pine (<i>Pinus resinosa</i>)					Prickly Gooseberry (<i>Ribes cynosbati</i>)			R		Virginia Wild Rye (<i>Elymus virginicus</i>)					
Eastern White Pine (<i>Pinus strobus</i>)		U			Swamp Black Currant (<i>Ribes lacustre</i>)			R		<i>Elymus</i>					
Scotch Pine (<i>Pinus sylvestris</i>)		R	F		Red Currant (<i>Ribes rubrum</i>)					Fowl Manna Grass (<i>Glyceria striata</i>)					
Canada Yew (<i>Taxus canadensis</i>)					<i>Ribes</i>					<i>Glyceria</i>					
Eastern White Cedar (<i>Thuja occidentalis</i>)					Black Locust (<i>Robinia pseudo-acacia</i>)					Rice Cut Grass (<i>Leersia oryzoides</i>)					
Eastern Hemlock (<i>Tsuga canadensis</i>)					Prickly Rose (<i>Rosa acicularis</i>)					Tall Fescue (<i>Lolium arundinaceum</i>)					
					Smooth Rose (<i>Rosa blanda</i>)					<i>Muhlenbergia</i>					
					Multiflora Rose (<i>Rosa multiflora</i>)					Witch-grass (<i>Panicum capillare</i>)					
					<i>Rosa</i>					<i>Panicum</i>					
Deciduous					Com. Blackberry (<i>Rubus allegheniensis</i>)					Reed Canary Grass (<i>Phalaris arundinacea</i>)			F		
Manitoba Maple (<i>Acer negundo</i>)					Wild Red Raspberry (<i>Rubus idaeus</i>)					Timothy (<i>Phleum pratense</i>)			R		
Black Maple (<i>Acer nigrum</i>)					Black Raspberry (<i>Rubus occidentalis</i>)			U	R	Common Reed (<i>Phragmites australis</i>)					
Norway Maple (<i>Acer platanoides</i>)					Purple-fl. Raspberry (<i>Rubus odoratus</i>)					Canada Blue Grass (<i>Poa compressa</i>)				U	
Red Maple (<i>Acer rubrum</i>)					Dwarf Raspberry (<i>Rubus pubescens</i>)					Fowl Meadow Grass (<i>Poa palustris</i>)					
Silver Maple (<i>Acer saccharinum</i>)					<i>Rubus</i>					Kentucky Bluegrass (<i>Poa pratensis</i>)					
Freeman's Maple (<i>Acer X freemanii</i>)			D		Peach-leaved Willow (<i>Salix amygdaloides</i>)					Yellow Foxtail (<i>Setaria pumila</i>)					
Sugar Maple (<i>Acer saccharum</i>)	R				Bebb's Willow (<i>Salix bebbiana</i>)					Green Foxtail (<i>Setaria viridis</i>)					
Mountain Maple (<i>Acer spicatum</i>)					Pussy Willow (<i>Salix discolor</i>)										
Speckled Alder (<i>Alnus incana</i>)					Missouri Willow (<i>Salix eriocephala</i>)										
Downy Serviceberry (<i>Amelanchier arborea</i>)					Sandbar Willow (<i>Salix exigua</i>)										
Serviceberry (<i>Amelanchier sanguinea</i>)					Shining Willow (<i>Salix lucida</i>)										
Yellow Birch (<i>Betula alleghaniensis</i>)					Black Willow (<i>Salix nigra</i>)										
White Birch (<i>Betula papyrifera</i>)					Slender Willow (<i>Salix petiolaris</i>)										
European Birch (<i>Betula pendula</i>)					<i>Salix</i>										
Blue Beech (<i>Carpinus caroliniana</i>)					Hybrid Crack Willow (<i>Salix X rubens</i>)										
Bitternut hickory (<i>Carya cordiformis</i>)					Black-berried Elder (<i>Sambucus nigra</i>)										
Shagbark Hickory (<i>Carya ovata</i>)					Red-berried Elder (<i>Sambucus racemosa</i>)										
Climbing Bittersweet (<i>Celastrus scandens</i>)					Buffaloberry (<i>Shepherdia canadensis</i>)										
Common Hackberry (<i>Celtis occidentalis</i>)					Eur. Mountain Ash (<i>Sorbus aucuparia</i>)					Sedges					
Buttonbush (<i>Cephalanthus occidentalis</i>)					Narrow Meadow-sweet (<i>Spiraea alba</i>)					Drooping Wood Sedge (<i>Carex arctata</i>)					
Alt.-leaved Dogwood (<i>Cornus alternifolia</i>)					Common Lilac (<i>Syringa vulgaris</i>)					Golden-fruited Sedge (<i>Carex aurea</i>)					
Silky Dogwood (<i>Cornus amomum</i>)					Poison-ivy (<i>Toxicodendron rydbergii</i>)					Graceful Sedge (<i>Carex gracillima</i>)					
Bunchberry (<i>Cornus canadensis</i>)					Climbing Poison-ivy (<i>Toxicodendron radicans</i>)					Inland Sedge (<i>Carex interior</i>)					
Gray dogwood (<i>Cornus racemosa</i>)					White Elm (<i>Ulmus americana</i>)				R	Bladder Sedge (<i>Carex intumescens</i>)					
Round-leaved Dogwood (<i>Cornus rugosa</i>)					Siberian Elm (<i>Ulmus pumila</i>)					Lake-bank Sedge (<i>Carex lacustris</i>)					
Red-osier Dogwood (<i>Cornus sericea</i>)	U		R		Slippery Elm (<i>Ulmus rubra</i>)					Hop Sedge (<i>Carex lupulina</i>)					
American Hazel (<i>Corylus americana</i>)					Low Blueberry (<i>Vaccinium angustifolium</i>)					Pennsylvania Sedge (<i>Carex pensylvanica</i>)					
Beaked Hazel (<i>Corylus cornuta</i>)					Maple-leaf Viburnum (<i>Viburnum acerifolium</i>)					Awl-fruited Sedge (<i>Carex stipata</i>)					
Cockspur Thorn (<i>Crataegus crus-galli</i>)					Hobblebush (<i>Viburnum lantanoides</i>)					Fox Sedge (<i>Carex vulpinoidea</i>)					
English Hawthorn (<i>Crataegus monogyna</i>)					Nannyberry (<i>Viburnum lentago</i>)				U	R	<i>Carex pedunculata</i>				U
Large-fruited Thorn (<i>Crataegus punctata</i>)	R				Guelder-Rose (<i>Viburnum opulus</i>)					<i>Carex</i>					
<i>Crataegus</i>					Downy Arrow-wood (<i>Vib. rafinesquianum</i>)					<i>Carex</i>					
<i>Crataegus</i>					Riverbank Grape (<i>Vitis riparia</i>)			R		<i>Carex</i>					
Bush Honeysuckle (<i>Diervilla lonicera</i>)					Am. Prickly-ash (<i>Zanthoxylum americanum</i>)					<i>Carex</i>					
Russian Olive (<i>Elaeagnus angustifolia</i>)	R				<i>Pear</i>				R	<i>Carex</i>					
Autumn Olive (<i>Elaeagnus umbellata</i>)										<i>Carex</i>					
Run. Strawberry-bush (<i>Euonymus obovata</i>)										<i>Carex</i>					
American Beech (<i>Fagus grandifolia</i>)										<i>Carex</i>					
Glossy Buckthorn (<i>Fragula alnus</i>)										<i>Carex</i>					
White Ash (<i>Fraxinus americana</i>)										<i>Carex</i>					
Black Ash (<i>Fraxinus nigra</i>)					Ferns & Allies					<i>Carex</i>					
Green Ash (<i>Fraxinus pennsylvanica</i>)	R		U		Lady Fern (<i>Athyrium filix-femina</i>)					<i>Cyperus</i>					
Witch-hazel (<i>Hamamelis virginiana</i>)					Rattlesnake Fern (<i>Botrychium virginianum</i>)					Redroot Spike-rush (<i>Eleocharis erythropoda</i>)					
Winterberry (<i>Ilex verticillata</i>)					Bulbet Bladder Fern (<i>Cystopteris bulbifera</i>)					<i>Eleocharis</i>					
Butternut (<i>Juglans cinerea</i>)					Spin. Wood Fern (<i>Dryopteris carthusiana</i>)					Hard-stem Bulrush (<i>Schoenoplectus acutus</i>)					
Black Walnut (<i>Juglans nigra</i>)					Crested Wood Fern (<i>Dryopteris cristata</i>)					Three-square Bulrush (<i>Sch. pungens</i>)					
Common Privet (<i>Ligustrum vulgare</i>)					Marginal Wood Fern (<i>Dryopteris marginalis</i>)					Soft-stem Bulrush (<i>Sch. tabernaemontani</i>)					
Spicebush (<i>Lindera benzoin</i>)					<i>Dryopteris</i>					Dark-green Bulrush (<i>Scirpus atrovirens</i>)					
Fly Honeysuckle (<i>Lonicera canadensis</i>)					Ostrich Fern (<i>Matteuccia struthiopteris</i>)					Wool-grass (<i>Scirpus cyperinus</i>)					
Glaucous Honeysuckle (<i>Lonicera dioica</i>)					Sensitive Fern (<i>Onoclea sensibilis</i>)										
Morrow's Honeysuckle (<i>Lonicera morrowii</i>)					Cinnamon Fern (<i>Osmunda cinnamomea</i>)										
Tartarian Honeysuckle (<i>Lonicera tatarica</i>)	R		R		Interrupted Fern (<i>Osmunda claytoniana</i>)										
Common Apple (<i>Malus pumila</i>)					Royal Fern (<i>Osmunda regalis</i>)										
White Mulberry (<i>Morus alba</i>)					Christmas Fern (<i>Polystichum acrostichoides</i>)										
Sweet Gale (<i>Myrica gale</i>)					Eastern Bracken-fern (<i>Pteridium aquilinum</i>)										
Ironwood (<i>Ostrya virginiana</i>)					Marsh Fern (<i>Thelypteris palustris</i>)					Other Graminoids					
Thicket-creeper (<i>Parthenocissus inserta</i>)										Broad Bur-reed (<i>Sparganium eurycarpum</i>)					
Ninebark (<i>Physocarpus opulifolius</i>)					Field Horsetail (<i>Equisetum arvense</i>)					Narrow-leaved Cattail (<i>Typha angustifolia</i>)					
Balsam Poplar (<i>Populus balsamifera</i>)					Scouring-rush (<i>Equisetum hyemale</i>)					Broad-leaved Cattail (<i>Typha X glauca</i>)					
Eastern Cottonwood (<i>Populus deltoides</i>)			R		Variiegated Horsetail (<i>Equisetum variegatum</i>)					Articulated Rush (<i>Juncus articulatus</i>)					
Large-tooth Aspen (<i>Populus grandidentata</i>)					<i>Equisetum</i>					Soft Rush (<i>Juncus effusus</i>)					
Trembling Aspen (<i>Populus tremuloides</i>)					Ground-cedar (<i>Lyco podium digitatum</i>)					Path Rush (<i>Juncus tenuis</i>)					
Sweet Cherry (<i>Prunus avium</i>)					Shining Clubmoss (<i>Lyco podium lucidulum</i>)					<i>Juncus</i>					
Pin Cherry (<i>Prunus pensylvanica</i>)					Ground-pine (<i>Lyco podium obscurum</i>)					<i>Juncus</i>					
Black Cherry (<i>Prunus serotina</i>)															
Choke Cherry (<i>Prunus virginiana</i>)			R	R											
<i>Prunus</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: 258-GST11618
 Date: May 1, 2012
 Surveyors: BA, SG

CWP1-1
 CWP3-
 SWD3-3

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	<u>GSH</u>	Map #:	<u>258-65H1618</u>
Date:	<u>May 1, 2012</u>			Time Started:	<u>8:15am</u>
Field Staff:	<u>BA, SG</u>			Time Finished:	<u>9:00am</u>
Weather Conditions:	<u>Overcast, -5-10°C, rained last night</u>				

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

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

UTMs: _____ Number of nests: _____

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

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

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

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

UTMs: _____ Area of standing water delineated on field map

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

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

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

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

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

*****Complete Vernal Pool Habitat Description Form*****

Snake Hibernacula

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

UTMs: _____ Likelihood to extend below frost line: _____

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

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

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

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

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

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

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

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

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

No

Yes (if yes, photograph and complete the following)

UTMs: _____

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

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

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

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

Shoreline of lake, large river or large wetland present:

No

Yes (if yes, photograph and complete the following)

UTMs: _____

Rocky island or peninsula present: _____

Mudflat present: _____

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

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

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

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

Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, 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 Conservation Concern Habitat and Incidental Wildlife - Goshen



Map No: 258 GSH 1618
 Date (yyyy-mm-dd): 2012, May 1

Field Staff: S.B. RA

Time Started: 8:15 am
 Time Finished: 9:00 am

Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Field Sparrow		VO		Chipping Sparrow		VO	
Turkey vulture		OB					
Red tail hawk		OB					
American Robin		VO					
Inden lack		VO					
Scare Sparrow		VO					
Mourning dove		VO					
Am. Goldfinch		VO					
Scour wailed crow		VO					
Black cap chickadee		VO					
Western flicker		VO					
White Throated Sparrow		VO					
Savanna Sparrow		VO					
American Crow		VO					

Note: Evidence Codes (EV) SH=Suitable Habitat, SM=Singing Male;

Breeding Bird (Possible) T-Territory, D=Display, P=Pair, N=Nest Building, V= Visiting Nest, A=Anxiety Behavior;

Breeding Bird (Probable) DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foos/Faecal sack, AE=Nest Entry

Breeding Bird (Confirmed) DP=Distinctive Parts, HO=House/Den, FY=Eggs/young, TK=tracks, FE=Feeding evidence, SC= Scat, SI=Other signs (specify)

Other Wildlife Evidence: OB=observed, VO=observed, CA=Carass, 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 Bloom Time - Spring	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y (N) UTM:
ALO, TPO	Muehlenberg's astomum moss (Astorum 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 (Corallorhiza odontorhiza) - 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: NU
FOC, FOM, FOD	Burning Bush (Elyonimus atropurpureus) - S3 Bloom Time - April - June	Species occurs in dry to moist deciduous thickets and woods	Y (N) UTM:
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: not open
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, FOD6, FOD7, FOD9	June - August Green Dragon (<i>Arisaema dracontium</i>) - SC/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:
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June-August Hairy Bedstraw (<i>Gallium pilosum</i>) - S3 <u>Bloom Time</u> - June to August	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y (N) UTM:
FEO1, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	June to August Hairy Valerian (<i>Valeriana edulis</i>) - S1 <u>Bloom Time</u> - Summer	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.	Y (N) UTM:
FOD6, FOD7, SWM, SWD	Summer 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: n/o
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Erigenia bulbosa</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>) - SC/S2 <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: n/o
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, FOD9, CUM1	Pliose 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: n/o
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 <u>Bloom Time</u> - July-September	Dry, sandy or rocky woods	Y (N) UTM:
FOD7, SWD	Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? <u>Bloom Time</u> - March - June	Swamps and floodplains	Y (N) UTM:
CUM1, ALO, FET1, SWC	Ram's-head Lady's-slipper (<i>Cypripedium arietinum</i>) - S3 <u>Bloom Time</u> - mid May to mid June	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.	Y (N) UTM:
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, 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:
CUM1, CUT1, CUS1	Round-leaved hawthorn (<i>Crataegus lumaria</i>) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	(Y) N UTM: n/o
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, alvars and moist sandy meadows.	Y (N) UTM:
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed (<i>Polygonum tenue</i>) - S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits	Y (N) UTM:
SDT1, FOD5, FOD9	Slim-flowered Muhly (<i>Muhlenbergia tenuiflora</i>) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y (N) UTM:
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>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

ATM

ELC	Species	Habitat Description	Habitat Present (Y/N); UTM; description or habitat if present
TP01, 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: <i>n/a</i>
FEO, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>Amoglossum plantagineum</i>) - S3 Bloom Time - mid-March to mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	(Y) N UTM:
FOC1, FOC2, FOC3, FOC4	Woodland Pinedrops (<i>Pterospora andromedea</i>) - S2 Bloom Time - summer	Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.	(Y) N UTM:
CUM1, CUT1, CUW1, RBO1, SBO1	Yellow Ladies'-tresses (<i>Spiranthes ochroleuca</i>) - S2 Bloom Time - August to November	Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, barrens, ledges, outcrops, banks and roadsides, old fields.	(Y) N UTM: <i>n/a</i>
BIRDS			
-	Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk (<i>Chordeiles minor</i>) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	(Y) N UTM:
FOD, FOM	Louisiana Waterthrush (<i>Seiurus motacilla</i>) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration.	(Y) N UTM:
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/edges (oak savannahs and riparian forest), open, deciduous forest with little understory, fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	(Y) N UTM:
-	Short Eared Owl (<i>Asio flammeus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC	Inhabits thickets, tall tangles of shrubby beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	(Y) N UTM:
REPTILES			
-	Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Milksnake (<i>Lampropeltis triangulum</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Snapping Turtle (<i>Chelydra serpentina</i>) - SC	Assessed as SWH. Record species if found.	not required.
INSECTS			
OAO, SA, SMM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) - S3	Species inhabits fishless ponds, lakes and boggy swamps	(Y) N UTM: <i>n/a</i>
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: <i>no milkweed</i>
TPS, CUW	Mottled Duskywing (<i>Erynnis martialis</i>) - S2	Usually seen nectaring on or wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	(Y) N UTM:
SWT, SWD, SMM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor (<i>Asterocampa clyten</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: <i>no hackberry</i>
FOD5	West Virginia White (<i>Pteris virginensis</i>) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	(Y) N UTM:

Wetland Data Collection Sheet



Study area: <i>258 GSH 1618</i> Date (yyyy-mm-dd): <i>2012, may 1</i> Field Staff: <i>SG, RA</i>	Map No: <i>←</i> Time Started: <i>8:15 am</i> Time Finished: <i>9:00 am</i>
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Presence of Groundwater No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> bank seepage <input type="checkbox"/> iron staining <input type="checkbox"/> groundwater indicator

Site Type Lacustrine <input type="checkbox"/> (associated with lakes) Isolated <input checked="" type="checkbox"/> Riverine <input type="checkbox"/> (associated with rivers) Palustrine <input type="checkbox"/> absent or intermittent inflow and either intermittent or permanent outflow what are the water inputs and outputs? _____
--

Soils refer to ELC card for soils information <i>refer to previously completed ELC cards.</i>

% open Water	
Type 1 - <5% <input checked="" type="checkbox"/>	Type 5 - 26-75% <input type="checkbox"/> (water occurring in a small pattern)
Type 2 - 5-25% <input type="checkbox"/> (water occurring in one central location)	Type 6 - 76-95% <input type="checkbox"/> (occurring in a central location, vegetation is peripheral)
Type 3 - 5-25% <input type="checkbox"/> (water occurring in ponds of various sizes)	Type 7 - 76-95% <input type="checkbox"/> (vegetation occurs in patches or diffuse, open stands)
Type 4 - 26-75% <input type="checkbox"/> (water occurring in a central location)	Type 8 - >95% <input type="checkbox"/> (water occupies over 95% of the area)

Community Descriptions			
Vegetation forms			
h (deciduous trees)	ne (narrow leaved emergents)	ts (tall shrubs 1-6m)	f (aquatic with floating leaf)
c (coniferous trees)	be (broad leaved emergents)	ls (low shrubs up to 1m)	ff (free floating)
dh (dead deciduous trees)	gc (ground cover)	ds (dead shrubs)	su (all under water)
dc (dead coniferous trees)	m (mosses)	re (robust emergents)	u (unvegetated)

Map Code/ ELC Code	Community Description - list at least four dominant species for each form
<i>SWD3-3</i>	<i>h - Acer Freemanii, *</i>

Wetland Data Collection Sheet



Notes on Ecological Functions or features

should include notes on: furbearer, cranberries, wild rice, baitfish, bullfrogs, winter cover for wildlife, suitability for waterfowl breeding staging, moulting, evidence of recreational activities, disturbance, surrounding topography (flat, rolling, hilly, steep), and surrounding habitat diversity

- Very small swamp depression.
- lowdowner has drain → i. not hydrologically natural.

Plant Species List
2012

Trees & Shrubs						Tree & Shrubs						Graminoids					
1	2	3	4	5		1	2	3	4	5		1	2	3	4	5	
Conifers						Deciduous						Grasses					
Balsam Fir (<i>Abies balsamea</i>)						White Oak (<i>Quercus alba</i>)						Giant Redtop (<i>Agrostis gigantea</i>)					
Common Juniper (<i>Juniperus communis</i>)						Bur Oak (<i>Quercus macrocarpa</i>)						Redtop (<i>Agrostis stolonifera</i>)					
Eastern Red Cedar (<i>Juniperus virginiana</i>)						Red Oak (<i>Quercus rubra</i>)						Awnless Brome (<i>Bromus nemris</i>)					
Lamarack (<i>Larix laricina</i>)						Alder Buckthorn (<i>Rhamnus alnifolia</i>)						Brome					
Norway Spruce (<i>Picea abies</i>)						Common Buckthorn (<i>Rhamnus cathartica</i>)						Blue Joint Grass (<i>Calamagrostis canadensis</i>)					
White Spruce (<i>Picea glauca</i>)						Smooth Sumac (<i>Rhus glabra</i>)						Orchard Grass (<i>Dactylis glomerata</i>)					
Black Spruce (<i>Picea mariana</i>)						Starhorn Sumac (<i>Rhus hirta</i>)						Poverty Oat Grass (<i>Danthonia spicata</i>)					
Jack Pine (<i>Pinus banksiana</i>)						Wild Black Currant (<i>Ribes americanum</i>)						Quack Grass (<i>Elymus repens</i>)					
Red Pine (<i>Pinus resinosa</i>)						Prickly Gooseberry (<i>Ribes cynosbati</i>)						Virginia Wild Rye (<i>Elymus virginicus</i>)					
Eastern White Pine (<i>Pinus strobus</i>)						Swamp Black Currant (<i>Ribes lacustre</i>)						Elymus					
Scotch Pine (<i>Pinus strobus</i>)						Red Currant (<i>Ribes rubrum</i>)						Fowl Manna Grass (<i>Glyceria striata</i>)					
Canada Yew (<i>Taxus canadensis</i>)						Ribes						Glyceria					
Eastern White Cedar (<i>Thuja occidentalis</i>)						Black Locust (<i>Robinia pseudo-acacia</i>)						Rice Cut Grass (<i>Leersia oryzooides</i>)					
Eastern Hemlock (<i>Tsuga canadensis</i>)						Prickly Rose (<i>Rosa acicularis</i>)						Tall Fescue (<i>Lolium arundinaceum</i>)					
						Smooth Rose (<i>Rosa blanda</i>)						Muhlenbergia					
						Multiflora Rose (<i>Rosa multiflora</i>)						Witch Grass (<i>Panicum capillare</i>)					
						Rosa						Panicum					
Deciduous						Rosa						Reed Canary Grass (<i>Phalaris arundinacea</i>)					
Manitoba Maple (<i>Acer nigrundo</i>)						Corn. Blackberry (<i>Rubus allegheniensis</i>)						Timothy (<i>Phleum pratense</i>)					
Black Maple (<i>Acer nigrum</i>)						Wild Red Raspberry (<i>Rubus idaeus</i>)						Common Reed (<i>Phragmites australis</i>)					
Norway Maple (<i>Acer platanoides</i>)						Black Raspberry (<i>Rubus occidentalis</i>)						Canada Blue Grass (<i>Poa compressa</i>)					
Red Maple (<i>Acer rubrum</i>)						Purple-fl. Raspberry (<i>Rubus odoratus</i>)						Fowl Meadow Grass (<i>Poa pulstris</i>)					
Silver Maple (<i>Acer saccharinum</i>)						Dwarf Raspberry (<i>Rubus pubescens</i>)						Kentucky Bluegrass (<i>Poa pratensis</i>)					
Freeman's Maple (<i>Acer X freemanii</i>)						<i>Rubus</i>						Yellow Foxtail (<i>Setaria pumila</i>)					
Sugar Maple (<i>Acer saccharum</i>)						Peach-leaved Willow (<i>Salix amygdaloides</i>)						Green Foxtail (<i>Setaria viridis</i>)					
Mountain Maple (<i>Acer spicatum</i>)						Bebb's Willow (<i>Salix bebbiana</i>)											
Spotted Alder (<i>Alnus incana</i>)						Pussy Willow (<i>Salix discolor</i>)											
Downy Serviceberry (<i>Amelanchier arborea</i>)						Missouri Willow (<i>Salix eriocha</i>)											
Serviceberry (<i>Amelanchier sanguinea</i>)						Sandbar Willow (<i>Salix eximia</i>)											
Yellow Birch (<i>Betula alleghaniensis</i>)						Shining Willow (<i>Salix lucida</i>)											
White Birch (<i>Betula papyrifera</i>)						Black Willow (<i>Salix nigra</i>)											
European Birch (<i>Betula pendula</i>)						Slender Willow (<i>Salix petiolaris</i>)											
Blue Beech (<i>Carynus caroliniana</i>)						<i>Salix</i>											
Bitternut hickory (<i>Carya cordiformis</i>)						Hybrid Crack Willow (<i>Salix X rubens</i>)											
Shagbark Hickory (<i>Carya ovata</i>)						Black-berried Elder (<i>Sambucus nigra</i>)											
Climbing Bittersweet (<i>Celastrus scandens</i>)						Red-berried Elder (<i>Sambucus racemosa</i>)											
Common Hackberry (<i>Celtis occidentalis</i>)						Buffaloberry (<i>Shepherdia canadensis</i>)											
Buttonbush (<i>Cephalanthus occidentalis</i>)						Eur. Mountain Ash (<i>Sorbus aucuparia</i>)						Sedges					
Alt-leaved Dogwood (<i>Cornus alternifolia</i>)						Narrow Meadow-sweet (<i>Spiraea alba</i>)						Drooping Wood Sedge (<i>Carex arctata</i>)					
Silky Dogwood (<i>Cornus amomum</i>)						Common Lilac (<i>Syringa vulgaris</i>)						Golden-fruited Sedge (<i>Carex aurea</i>)					
Bunchberry (<i>Cornus canadensis</i>)						Poison-ivy (<i>Toxicodendron radicans</i>)						Graceful Sedge (<i>Carex gracillima</i>)					
Gray Dogwood (<i>Cornus racemosa</i>)						Climbing Poison-ivy (<i>Toxicodendron radicans</i>)						Inland Sedge (<i>Carex intena</i>)					
Round-leaved Dogwood (<i>Cornus rugosa</i>)						White Elm (<i>Ulmus americana</i>)						Bladder Sedge (<i>Carex intumescens</i>)					
Red-osier Dogwood (<i>Cornus sericea</i>)						Siberian Elm (<i>Ulmus pumila</i>)						Lake-bank Sedge (<i>Carex lacustris</i>)					
American Hazel (<i>Corylus americana</i>)						Slippery Elm (<i>Ulmus rubra</i>)						Hoop Sedge (<i>Carex lupulina</i>)					
Beaked Hazel (<i>Corylus cornuta</i>)						Low Blueberry (<i>Vaccinium angustifolium</i>)						Pennsylvania Sedge (<i>Carex pennsylvanica</i>)					
Cockspur Thorn (<i>Crataegus crus-galli</i>)						Maple-leaf Viburnum (<i>Viburnum acerifolium</i>)						Awn-fruited Sedge (<i>Carex stipitata</i>)					
English Hawthorn (<i>Crataegus monogyna</i>)						Hobblebush (<i>Viburnum lantanoides</i>)						Fox Sedge (<i>Carex vulpinoidea</i>)					
Large-fruited Thorn (<i>Crataegus punctata</i>)						Nannyberry (<i>Viburnum lentago</i>)						Carex					
Crataegus						Guelder-Rose (<i>Viburnum opulus</i>)						Carex					
Crataegus						Downy Arrow-wood (<i>Vib. rafinesquianum</i>)						Carex					
Bush Honeysuckle (<i>Diervilla lonicera</i>)						Riverbank Grape (<i>Vitis riparia</i>)						Carex					
Russian Olive (<i>Elaeagnus angustifolia</i>)						Am. Prickly-ash (<i>Zanthoxylum americanum</i>)						Carex					
Autumn Olive (<i>Elaeagnus umbellata</i>)												Carex					
Run. Strawberry-bush (<i>Euonymus obovata</i>)												Carex					
American Beech (<i>Fagus grandifolia</i>)												Carex					
Glossy Buckthorn (<i>Fraxinus alnus</i>)												Carex					
White Ash (<i>Fraxinus americana</i>)												Carex					
Black Ash (<i>Fraxinus nigra</i>)						Ferns & Allies						Carex					
Green Ash (<i>Fraxinus pennsylvanica</i>)						Lady Fern (<i>Athyrium filix-femina</i>)						Carex					
Witch-hazel (<i>Hamamelis virginiana</i>)						Rattlesnake Fern (<i>Botrychium virginianum</i>)						Cyperus					
Winterberry (<i>Ilex verticillata</i>)						Burbet Bladder Fern (<i>Cyathea bulbifera</i>)						Redroot Spike-rush (<i>Eleocharis erythropoda</i>)					
Butternut (<i>Juglans cinerea</i>)						Spin. Wood Fern (<i>Dryopteris carthusiana</i>)						Eleocharis					
Black Walnut (<i>Juglans nigra</i>)						Crested Wood Fern (<i>Dryopteris cristata</i>)						Hard-stem Bulrush (<i>Schoenoplectus acutus</i>)					
Common Privet (<i>Ligustrum vulgare</i>)						Marginal Wood Fern (<i>Dryopteris marginalis</i>)						Three-square Bulrush (<i>Schizanthus</i>)					
Spicebush (<i>Lindera benzoin</i>)						<i>Dryopteris</i>						Soft-stem Bulrush (<i>Schizanthus montana</i>)					
Fly Honey-suckle (<i>Lonicera canadensis</i>)						Ostrich Fern (<i>Matteuccia struthiopteris</i>)						Dark Green Bulrush (<i>Scirpus atrovirens</i>)					
Glaucous Honey-suckle (<i>Lonicera dioica</i>)						Sensitive Fern (<i>Oncoclea sensibilis</i>)						Woolgrass (<i>Scirpus cyperinus</i>)					
Morrow's Honey-suckle (<i>Lonicera morrowii</i>)						Cinnamon Fern (<i>Osmunda cinnamomea</i>)											
Tartarian Honey-suckle (<i>Lonicera tatarica</i>)						Interrupted Fern (<i>Osmunda claytoniana</i>)											
Common Apple (<i>Malus pumila</i>)						Royal Fern (<i>Osmunda regalis</i>)											
White Mulberry (<i>Morus alba</i>)						Christmas Fern (<i>Polystichum acrostichoides</i>)											
Sweet Gale (<i>Myrica gale</i>)						Eastern Bracken-fern (<i>Pteridium aquilinum</i>)											
Ironwood (<i>Ostrya virginiana</i>)						Marsh Fern (<i>Thelypteris palustris</i>)											
Thicket-creeper (<i>Parthenocissus inserta</i>)												Other Graminoids					
Ninebark (<i>Physocarpus opulifolius</i>)						Field Horsetail (<i>Equisetum arvense</i>)						Broad Bur-reed (<i>Sagittaria europaea</i>)					
Balsam Poplar (<i>Populus balsamifera</i>)						Scouring-rush (<i>Equisetum hyemale</i>)						Narrow-leaved Cattail (<i>Typha angustifolia</i>)					
Eastern Cottonwood (<i>Populus deltoides</i>)						Varnegated Horsetail (<i>Equisetum variegatum</i>)						Broad-leaved Cattail (<i>Typha latifolia</i>)					
Large-tooth Aspen (<i>Populus grandidentata</i>)						<i>Equisetum</i>						Broad-leaved Cattail (<i>Typha X glauca</i>)					
Trembling Aspen (<i>Populus tremuloides</i>)						Ground-cedar (<i>Lycopodium obscurum</i>)						Articulated Rush (<i>Juncus articulatus</i>)					
Sweet Cherry (<i>Prunus avium</i>)						Shining Clubmoss (<i>Lycopodium lucidulum</i>)						Soft Rush (<i>Juncus effusus</i>)					
Pin Cherry (<i>Prunus pennsylvanica</i>)						Ground-pine (<i>Lycopodium obscurum</i>)						Path Rush (<i>Juncus tenuis</i>)					
Black Cherry (<i>Prunus serotina</i>)												Juncus					
Choke Cherry (<i>Prunus virginiana</i>)												Juncus					
Prunus																	

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 by the number 1) less than about five individuals or small clumps

Map Number:	258 (SH1658/167)	1	RD-4	4	1007-2
Date:	Apr 25 2012	2	5-10 2-2 (inch)	5	
Surveyors:	ADITS	3	CWO 5-3 (inch)		

**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>A. racemosa</i>)						Cutleaf Toothwort (<i>Cardamine concatenata</i>)						Tall Buttercup (<i>Ranunculus acris</i>)					
Com. Ragwort (<i>Ambrosia artemisiifolia</i>)						Toothwort (<i>Cardamine dielsii</i>)						Hooked Buttercup (<i>Ranunculus recurvatus</i>)					
Giant Ragwort (<i>Ambrosia trifida</i>)						Penn. Bitter-cress (<i>Cardamine pensylvanica</i>)						<i>Ranunculus</i>					
Field Puss-toes (<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 biebersteinii</i>)						Water-hemlock (<i>Cicuta virosa</i>)						Bouncing Bet (<i>Saxifraga officinalis</i>)					
Brown Knapweed (<i>Centaurea jacea</i>)						Enchanter's Nightshade (<i>Circaea utetiana</i>)						Marsh Skullcap (<i>Scutellaria perfoliata</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 Camphor (<i>Silene latifolia</i>)					
Bull Thistle (<i>Cirsium vulgare</i>)						Virginia's-bower (<i>Clematis virginiana</i>)						Bladder Camphor (<i>Silene vulgaris</i>)					
Horseweed (<i>Conyza canadensis</i>)						Field Bindweed (<i>Convolvulus arvensis</i>)						Hemlock Waterparsnip (<i>Sium suave</i>)					
Daisy Fleabane (<i>Eryngium annuus</i>)						Dog-strangling Vine (<i>Cynanchum rossicum</i>)						Bitter Nightshade (<i>Solanum dulcamara</i>)					
Philadelphia Fleabane (<i>Eryngium philadelphicum</i>)						Wild Carrot (<i>Daucus carota</i>)						Black Nightshade (<i>Solanum nigrum</i>)					
<i>Eryngium</i>						Deerfoot Pink (<i>Dianthus armeria</i>)						Grassleaf Stitchwort (<i>Stellaria raminea</i>)					
Joe-pye-weed (<i>Eupatorium maculatum</i>)						Squirrel-corn (<i>Dicentra canadensis</i>)						Common Chickweed (<i>Stellaria media</i>)					
Boneset (<i>Eupatorium perforatum</i>)						Dutchman's-breeches (<i>Dicentra cucullaria</i>)						Earl Meadow-rue (<i>Thalictrum dioicum</i>)					
Large-leaved Aster (<i>Eupobia macrophylla</i>)						Wild Teasel (<i>Dipsacus fullonum</i>)						Tall Meadow-rue (<i>Thalictrum pubescens</i>)					
Flat-top Goldenrod (<i>Euthamia graminifolia</i>)						Wild Cucumber (<i>Echinocystis lobata</i>)						Field Pennycress (<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>Eriobium ciliatum</i>)						Star-flower (<i>Trenitalia borealis</i>)					
<i>Hieracium</i>						Heavy Willow-herb (<i>Eriobium hirsutum</i>)						Red Clover (<i>Trifolium pratense</i>)					
Elecampane (<i>Inula helenium</i>)						Small-fl Willow-herb (<i>Eriobium parviflorum</i>)						White Clover (<i>Trifolium repens</i>)					
Prickly Lettuce (<i>Lactuca serriola</i>)						<i>Eriobium</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>Euryhorbia</i>						Greater Bladderwort (<i>Utricularia vulgaris</i>)					
Pineapple-weed (<i>Matricaria discoidea</i>)						Hen's 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>Veronaeae aquaticae</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>					
Zinnia 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 album</i>)						<i>Vicia</i>					
Early Goldenrod (<i>Solidago juncea</i>)						White Avens (<i>Geum canadense</i>)						Periwinkle (<i>Viola minor</i>)					
Gray Goldenrod (<i>Solidago nemoralis</i>)						Urban Avens (<i>Geum urbanum</i>)						Cow 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>)						Virginia 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>Symphoricarpos cordifolium</i>)						Spotted Jewelweed (<i>Impatiens capensis</i>)											
Heath Aster (<i>Symphoricarpos ericoides</i>)						Wood Nettle (<i>Laportea canadensis</i>)											
Tall White Aster (<i>Symphoricarpos lanceolatum</i>)						Motherwort (<i>Leonurus cardiaca</i>)											
Calico Aster (<i>Symphoricarpos lateriflorum</i>)						Field Peppergrass (<i>Leptidium campylostre</i>)											
New England Aster (<i>Symphoricarpos novae-angliae</i>)						Eur. Gromwell (<i>Lithospermum officinale</i>)											
Purple-stem Aster (<i>Symphoricarpos uniceus</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>Trigonotis arvensis</i>)						Cut-leaf Bugleweed (<i>Lycopus americanus</i>)											
Cocksfoot (<i>Tussilago farfara</i>)						Northern Bugleweed (<i>Lycopus uniflorus</i>)											
<i>Symphoricarpos</i>						Fringed Loosetrife (<i>Lymachia ciliata</i>)											
						Moneywort (<i>Lymachia nummularia</i>)											
						<i>Lymachia</i>											
						Purple Loosetrife (<i>Lymachia 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 Bearnot (<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>)											
						Pale Smartweed (<i>Polygonum lapathifolium</i>)											
						Lady's-thumb (<i>Polygonum persicaria</i>)											
						Virginia Knotweed (<i>Polygonum virginianum</i>)											
						<i>Polygonum</i>											
						<i>Polygonum</i>											
						Rough Cinquefoil (<i>Potentilla norvegica</i>)											
						Rough-fruited Cinquefoil (<i>Potentilla recta</i>)											
						Common Cinquefoil (<i>Potentilla simplex</i>)											
						<i>Potentilla</i>											
						Heal-all (<i>Prunella vulgaris</i>)											
						Shinleaf (<i>Prunella elliptica</i>)											

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 R - Rare represented in the polygon by less than about five individuals or small clumps

Map Number: 1 F007-4 4 F007-2
 Date: 2 SW02.2 (Imbolum) 6
 Surveyors: 3 SW03.3 (Imbolum)

Significant Wildlife Habitat Form

AECOM

Study Area: BLW JER GSH Map #: 258-65H1658-1659
 Date: 2012-04-25 Time Started: 7:21
 Field Staff: Tom Sharkey Jess Piette Time Finished: 11:30
 Weather Conditions: Sunny, 50°C. light breeze

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)
 UTM: _____ 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) avg. vpl, 2+3

Standing water present: No Yes (if yes, photograph and complete the following)
 UTM: See Vernal Pools Form Area of standing water delineated on field map
 Water depth (m): Avg. 20cm % open water: Avg. 70% % emergent vegetation: Avg. 30%
 Description of standing water (permanent pool, evidence of annual spring flooding, etc): All Pools -> vernal
 Area and soil/substrate of shoreline habitat: Mineral Soils along shoreline, some shrub cover.
 Type and abundance of cover in open water habitat: Avg. 50% cover -> Tree / shrub cover.
 Type and abundance of cover in surrounding habitat: Surrounding habitat, comprised of Deciduous Forest type 80% - 90% cover.
 Evidence of disturbance (e.g. cattle grazing): _____
 Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: For approx. values check vernal pool Form

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)
 UTM: _____ 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)
 UTM: _____ 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, MAM5)
 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 > 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)
 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
4, 5, 6	Vernal Pool #1		
8	Vernal Pool #2		
10	Vernal Pool #3		

Species Conservation Concern Habitat and Incidental Wildlife - Goshen

Map No: 258 GSH/658/1659
 Date (yyyy-mm-dd): 2012-04-25

Field Staff: Tom Slotney
 Jess Pritchard

Time Started: 8:21
 Time Finished: 11:30

AE 3M

Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Killdeer		VO					
Blue Jay		VO					
Downy Woodpecker		VO	calling in forest				
Black-capped Chickadee		VO					
Sapsucker		VO					
Red-shouldered Hawk		OB					
Chimney Swift		HO					
Red-winged Blackbird		OB					
Deer		TKs	All over				
Brown-headed Cowbird		VO	calling				
Goldfinch		VO					
Collared Pigeon		OB					

Note: Evidence Codes (EV)

Breeding Bird (Possible)
 Breeding Bird (Probable)
 Breeding Bird (Confirmed)

SH=Suitable Habitat, SM=Singing Male;
 T-Territory, D=Display, P=Pair, N=Nest Building, V=Visiting Nest; A=Anxiety Behavior;

DD=Distraction, NU=Used Nest, 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)

* Not observed = N/O

ELC	Species	Habitat Description	Habitat Present (Y/N)	UTM
FOD7	American Gromwell (Lithospermum latifolium) - S3 Bloom Time - Spring	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y	N/O
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/O
FOM1, FOM2, CUP3	Autumn Coral-root (Corallorhiza odontorhiza) - S2 Bloom Time - summer to fall	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods	Y	N/O
FOC, FOM, FOD	Burning Bush (Euonymus atropurpureus) - S3 Bloom Time - April - June	Species occurs in dry to moist deciduous thickets and woods	Y	N/O
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/O
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/O
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/O
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/O
TPO2, TPS2, TPW2,	Giant Ironweed (Vernonia gigantea) - S1? Bloom Time -	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y	N/O