

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

A vertical scale bar with markings at 0, 30, 60, and 120 Meters.

October 28, 2011

 ELC Survey Completed
 Turbine Buffer/Feature Intersect
 Property Fabric
 Goshen Wind Energy Centre

NEW SITE
(1st survey)



ELC ELECTRONIC CORPORATION 10000 WILSON BLVD CANTON, OHIO 44705	Site:	291	Polygon:	B
	Surveyor(s):	JK	Date:	Nov 7
	UTMZ:	17T	UTMZ:	452220
			Time start:	14:30
			Time finish:	
			UTMN:	4796845

Polygon Description

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

Stand Description

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp) (>> Much Greater Than; > Greater Than; = About Equal To)
1	2	3-4	Eragrostis - Acetifer
2	3	3	Utricularia - Eragrostis - Acetifer
3	4	2	Ceratophyllum - Acetifer
4	6	3	Cyperus - Cyx spp. - Ast. lance

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

Stand Composition:	Size Class Analysis:				
	<10	10-24	25-50	>50	
Standing Snags:	0	10-24	25-50	>50	
Deadfall / Logs:	0	10-24	25-50	>50	

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

Comm. Age:	☐ Pioneer	☐ Young	☒ Mid-Age	☐ Mature	☐ Old Growth
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EcoSite:		Code:	
Vegetation Type:	Green Ash - Freesia Maple Swamp	Code:	SWD
Inclusion:		Code:	
Complex:		Code:	

Community Profile Diagram/Comments

Seasonally flooded prairie: Variable canopy opening
Entry of temper Stamp Eagles within last few years

Notes:

Tree Tally by Species

[illegible]

Soils Ontario and ELC Soils Description

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

VASCULAR PLANT CHECKSHEET

Location:

Date:

November 7, 2011

Observer:

J. Krumholz

Job Number:

DICOT HERBS	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	MONOCOT HERBS	1	2	3	4	5	6
Achillea millefolium							Erigeron annuus						Plantago lanceolata						Alisma plantago-aquatica						
Actaea pachypoda							Erigeron philadelphicus						Plantago major						Allium tricoccum						
Actaea rubra							Erigeron strigosus						Plantago rugelii						Allium						
Agalinus							Erysimum cheiranthoides						Podophyllum peltatum						Artemisia triphyllum						
Agrimonia gryposepala							Eupatorium maculatum						Polygonum						Asparagus officinalis						
Alliaria petiolaris							Eupatorium perfoliatum						Polygonum						Calla palustris						
Amaranthus retrofractus							Eupatorium rugosum						Polygonum						Clintonia borealis						
Ambrosia artemisiifolia							Euphorbia						Polygonum lapathifolium						Conwallaria majus						
Amphicarpaea bracteata							Euthamia graminifolia						Polygonum persicaria						Cypripedium calceolus						
Anaphalis margaritacea							Fragaria virginiana						Potentilla						Elodea canadensis						
Anemone							Fragaria vesca						Potentilla norvegica						Epipactis helleborine						
Anemone canadensis							Galeopsis tetrahit						Potentilla recta						Erythronium americanum						
Anemone virginiana							Galium						Prenanthes alba						Hemerocallis fulva						
Antennaria neglecta							Galium						Prunella vulgaris						Iris versicolor						
Apocynum androsaemifolium							Galium palustre						Pyrola elliptica						Lemna minor						
Apocynum cannabinum							Galium triflorum						Ranunculus						Lemna trisulca						
Aquilegia canadensis							Geranium maculatum						Ranunculus abortivus						Lilium						
Aralia nudicaulis							Geranium robertianum						Ranunculus acris						Maianthemum canadense						
Arctium minus							Geum aleppicum						Rudbeckia hirta						Maianthemum racemosa						
Artemisia							Geum canadense						Rumex acetosella						Maianthemum stellata						
Asarum canadense							Geum urticaria						Rumex crispus						Platanthera						
Asclepias incarnata							Glechoma hederacea						Rumex						Portulaca oleraceae						
Asclepias syriaca							Hepatica acutiloba						Sanguinaria canadensis						Polygonatum pubescens						
Aster							Heperis matronalis						Sanicula marilandica						Potamogeton crispus						
Aster cordifolius							Hieracium aurantiacum						Saponaria officinalis						Potamogeton pectinatus						
Aster ericoides							Hieracium caespitosum						Satureja vulgaris						Potamogeton						
Aster lanceolatus							Hieracium						Scutellaria galericulata						Potamogeton						
Aster lateriflorus							Hydrophyllum virginianum						Silene vulgaris						Potamogeton						
Aster macrophyllus							Hypericum perforatum						Sium suave						Sagittaria latifolia						
Aster novae-angliae							Impatiens capensis						Solanum dulcamara						Sisyrinchium montanum						
Aster puniceus							Inula helenium						Solidago						Smitax herbacea						
Barbarea vulgaris							Lactuca						Solidago altissima						Spiranthes cernua						
Bidens cernua							Lapsana canadensis						Solidago caesia						Spirodela polyrriza						
Bidens frondosa							Lapsana communis						Solidago canadensis						Streptopus roseus						
Boehmeria cylindrica							Leonurus cardiaca						Solidago flexicaulis						Trillium erectum						
Callitriche palustris							Lepidium						Solidago gigantea						Trillium grandiflorum						
Calystegia sepium							Linaria vulgaris						Solidago nemoralis						Uvularia grandiflora						
Cardamine diphylla							Lithospermum officinale						Solidago rugosa												
Cardamine							Lobelia						Sonchus arvensis												
Caulophyllum thalictroides							Lobelia inflata						Sonchus asper												
Cerastium fontanum							Lolium corniculatus						Stellaria												
Ceratophyllum demersum							Lycopus americanus						Tanacetum vulgare												
Chelidonium majus							Lycopus						Tanacetum officinale												
Chenopodium album							Lysimachia ciliata						Thalictrum dioicum												
Chrysanth. leucanthemum							Lythrum salicaria						Thalictrum pubescens												
Cichorium intybus							Medicago lupulina						Tiarella cordifolia												
Cicuta							Medicago sativum						Tragopogon pratensis												
Circaea leutetiana							Metilolus alba						Trientalis borealis												
Cirsium arvense							Mentha arvensis						Trifolium												
Cirsium vulgare							Mimulus ringens						Trifolium pratense												
Clematis virginiana							Mimulus ringens						Trifolium repens												
Clintonia borealis							Mitella diphylla						Tussilago farfara												
Coryza canadensis							Morinda fistulosa						Urtica dioica												
Coronilla varia							Myosotis						Utricularia vulgaris												
Cynanchum roscicum							Nasturtium officinale						Verbascum thapsus												
Cynoglossum officinale							Nepeta calaria						Verbena hastata												
Daucus carota							Nuphar variegatum						Verbena urticifolia												
Desmodium canadense							Nymphaea odorata						Veronica												
Dianthus armeria							Oenothera biennis						Veronica officinalis												
Dipsacus fulviorum							Oenothera						Vicia cracca												
Echinocystis lobata							Oxalis stricta						Vicia tetrasperma												
Echium vulgare							Phytolacca heterophylla						Vicia												
Epilobium							Phytolacca						Vicia pubescens												
Epilobium ciliatum							Phytolacca americana						Vicia sororia												
Epilobium hirsutum													Scutellaria later												
Epilobium parviflorum													Sium nigrum												
Chaloke glabrum																									

SITE LOCATIONS

1: 291 Woodlot
2: 300 Woodlot
3: 300 Old Field

4: _____
5: _____
6: _____

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

ELC WILDLIFE	SITE: Goshen 291 & 300	
	POLYGON:	
	DATE: Nov 7, 2011	
	SURVEYORS: Kohnstra	
START TIME: 13:45		END TIME:

TEMP (°C): 13	CLOUD (10th): 9	WIND: 1-2	PRECIPITATION: 0
CONDITIONS:			

POTENTIAL WILDLIFE HABITAT:

VERNAL POOLS	SNAGS
HIBERNACULA	FALLEN LOGS

SPECIES LIST: Feature 291

TY	SP. CODE	EV	NOTES	#
B	HAWO	OB		
	BCCH			
	DOWO			
	NOFL	VO		
M	WT Deer	TK	finders between 291 and 300	
	Coyote	TK	" "	
	Turkey	TK	" "	
Potential Amphibian Breeding Areas				

Feature 300

TY	SP. CODE	EV	NOTES	#
B	BLJA	OB		
	DOWO			
	AMGO	VO		
	HAWO			
	W. Turkey		Feather	
M	Raccoon	SC		
H	Wood Frog	OB	forest floor	photo
H	Spring Peeper	VO		
Deep Pool suitable for Amphibian at -				

451945
4797095

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)



Page 1 of 2

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 sample by less than five individuals or small clumps

Map Number:	2916 SH 2109	1	FOO 8-
Date:	Aug 26, 201	2	WD 4A
Survivors:	10 + 15	3	

Plant Species List 2012

Page 2 of 2

Dicot Herbs - Asteraceae						Dicot Herbs						Dicot Herbs					
Common Yarrow	<i>Achillea millefolium</i>					Shepherd's Purse	<i>Cardamine 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. Ragwort	<i>Ambrosia artemisiifolia</i>					Toothwort	<i>Cardamine diphylla</i>					Hooked Buttercup	<i>Ranunculus recurvatus</i>				
Giant Ragwort	<i>Ambrosia trifida</i>					Penn. Bitter-cress	<i>Cardamine pennsylvanica</i>					Ranunculus					
Field Pussies	<i>Antennaria neglecta</i>					Cardamine						Sheep Sorrel	<i>Rumex acetosella</i>				
Artemisia						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 lutetiana</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 Camion	<i>Silene latifolia</i>				
Bull Thistle	<i>Cirsium vulgare</i>					Virginia-bower	<i>Clematis virginiana</i>					Bladder Camion	<i>Silene vulgaris</i>				
Horseweed	<i>Conyza canadensis</i>					Field Bindweed	<i>Convolvulus arvensis</i>					Hemlock Water-hemlock	<i>Sium suave</i>				
Daisy Fleabane	<i>Euphorbia annuus</i>					Doan's Strawberry Vine	<i>Cynanchum rossicum</i>					Bitter Nightshade	<i>Solanum dulcamara</i>				
Philadelphica Fleabane	<i>Euphorbia philadelphicus</i>					Wild Carrot	<i>Daucus carota</i>					Black Nightshade	<i>Solanum nigrum</i>				
Euphorbia						Devil's Pink	<i>Dianthus amurensis</i>					Grassleaf Stitchwort	<i>Stellaria graminea</i>				
Joe-Pye-weed	<i>Eupatorium maculatum</i>					Squirrel-corn	<i>Dicentra canadensis</i>					Common Chickweed	<i>Stellaria media</i>				
Boneset	<i>Eupatorium purpureum</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 fulorum</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>					Viola's Burdock	<i>Echium vulgare</i>					Foamflower	<i>Tiarella cordifolia</i>				
Field Hawkweed	<i>Hieracium caespitosum</i>					Northern Willow-herb	<i>Eriophorum ciliatum</i>					Star-flower	<i>Trientalis borealis</i>				
Hieracium						Harry Willow-herb	<i>Eriobolus hirsutus</i>					Red Clover	<i>Trifolium pratense</i>				
Elecampane	<i>Inula helenium</i>					Small-fl. Willow-herb	<i>Eriobolus parviflorus</i>					White Clover	<i>Trifolium repens</i>				
Prickly Lettuce	<i>Lactuca serotina</i>					Eriobolus						Trifolium					
Lactuca						Worm Mustard	<i>Erysimum cheiranthoides</i>					Stinging Nettle	<i>Urtica dioica</i>				
Ox-eye Daisy	<i>Leucanthemum vulgare</i>					Erythorbia						Greater Bladderwort	<i>Utricularia vulgaris</i>				
Pineapple-weed	<i>Matricaria discoidea</i>					Henry Nettle	<i>Galeopsis tetrahit</i>					Common Mullen	<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>Veronica anagallis-aquatica</i>				
Blue-stem Goldenrod	<i>Solidago caesia</i>					Galium						Common Speedwell	<i>Veronica officinalis</i>				
Canada Goldenrod	<i>Solidago canadensis</i>					Spotted Geranium	<i>Geranium maculatum</i>					Veronica					
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 aleaicum</i>					Vicia					
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>				
Solidago						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>				
Sonchus						Com. St. John's-wort	<i>Hypericum perforatum</i>					Viola					
Heart-leaf Aster	<i>Symphoricarpos cordifolius</i>					Spotted Jewelweed	<i>Impatiens capensis</i>										
Heath Aster	<i>Symphoricarpos encoides</i>					Wood Nettle	<i>Laportea canadensis</i>										
Tall White Aster	<i>Symphoricarpos lanceolatus</i>					Motherwort	<i>Leonurus cardiaca</i>										
Calico Aster	<i>Symphoricarpos lateriflorus</i>					Field Peppercorn	<i>Leptocarpus campestris</i>										
New England Aster	<i>Symphoricarpos novae-angliae</i>					Eur. Gromwell	<i>Lithospermum officinale</i>										
Purple-stem Aster	<i>Symphoricarpos purpureus</i>					Butter & Eggs	<i>Linaria vulgaris</i>										
Common Tansy	<i>Tanacetum vulgare</i>					Great Lobelia	<i>Lobelia siphilitica</i>										
Common Dandelion	<i>Taraxacum officinale</i>					Lobelia											
Com. Goatsbeard	<i>Trigonotis pratensis</i>					Cut-leaf Bugweed	<i>Lythrum americanus</i>										
Coltsfoot	<i>Tussilago farfara</i>					Northern Bugweed	<i>Lythrum uniflorus</i>										
						Fringed Loosestrife	<i>Lythrum ciliata</i>										
						Monarda	<i>Lythrum nummularia</i>										
						Lythrum											
						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 Benjamin	<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>										
						Polygonum											
						Polygonum											
						Rough Cin. ufoil	<i>Potentilla norvegica</i>										
						Rough-fruited Cin. ufoil	<i>Potentilla recta</i>										
						Common Cin. ufoil	<i>Potentilla simplex</i>										
						Potentilla											
						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 if 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: 2012-2013
 Date: 26.12.2012
 Surveyors: K. J. R.

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	GSH	Map #:	291-GSH-208
Date:	2012-04-26			Time Started:	9:30
Field Staff:	Tom Stoney Jess Piette			Time Finished:	11:30
Weather Conditions: overcast, light rain, 6°C, 40 km/h wind					

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): _____

** Found Potential VP - Water too low for breeding Amphibians **

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

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

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

Complete Vernal Pool Habitat Description Form

Snake Hibernacula

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

UTMs: _____ Likelihood to extend below frost line: _____

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

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

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

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

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

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

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

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

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

☒ No

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

UTMs:

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

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

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

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

Shoreline of lake, large river or large wetland present:

☒ No

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

UTMs:

Rocky island or peninsula present:

Mudflat present:

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

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

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

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

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

Large open habitat present: ☒ No

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

UTMs:

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

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

Old-growth or Mature Forests, Interior Forest Breeding Birds

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

Mature forest present: ☒ No

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

UTMs:

Age of oldest trees:

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

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

Photo #	Location or Subject	Photo #	Location or Subject

A-Z

Time Started: 9:30
Time Finished: 11:30

Field Staff:

Map No: 291-65H 2/08
Date (yyyy-mm-dd): 2012-04-26

Observed Species List

[illegible]

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

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

Breeding Bird (Confirmed)

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

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
PLANTS			
FOD7	American Gromwell (<i>Lithospermum latifolium</i>) - S3 <i>Bloom Time</i> - Spring	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y (N) UTM:
ALO, TPO	Muehlenberg's astorum moss (<i>Astorum muehlenbergianum</i>) - S2 <i>Bloom Time</i> - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie	Y (N) UTM:
FOM1, FOM2, CUP3	Autumn Coral-root (<i>Corallorhiza odontorhiza</i>) - S2 <i>Bloom Time</i> - summer to fall	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.	Y (N) UTM:
FOC, FOM, FOD)	Burning Bush (<i>Euonymus atropurpureus</i>) - S3 <i>Bloom Time</i> - April - June	Species occurs in dry to moist deciduous thickets and woods	(Y) N UTM: N/O
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (<i>Corioselinum chinense</i>) - S2 <i>Bloom Time</i> - 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 (<i>Bidens trichosperma</i>) - S2 <i>Bloom Time</i> - 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: N/O
ALT1, FOD7	Eastern Green-violet (<i>Hybanthus concolor</i>) - S2 <i>Bloom Time</i> - mid March to August	Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone floodplains and river banks	Y (N) UTM
TPS, TPW, FOM1, FOM2	Fogg's Goosefoot (<i>Chenopodium foggii</i>) -S2	Species occurs in sandy areas on limestone under oak or pine-oak forests	Y (N) UTM
TPO2, TPS2, TPW2,	Giant Ironweed (<i>Vernonia gigantea</i>) -S1? <i>Bloom Time</i> -	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y (N) UTM

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

AZCOM

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>) - S3/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:
TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June-August Hairy Bedstraw (<i>Galium pilosum</i>) - S3 Bloom Time – June-August	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y (N) UTM:
FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPW	June to August Hairy Valerian (<i>Valeriana edulis</i>) - 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	Summer Hairy Wood Mint (<i>Blephilia hirsuta</i>) - S1 Bloom Time – Summer	Woodlands, often rocky, especially rivers. Rich woods, <u>swamp forests</u> floodplains.	Y (N) UTM: N/O
FOD6, FOD7, FOD8, FOD9	Time – early to late April Harbinger-of-spring (<i>Eriogon bulbosa</i>) - S3 Bloom Time – early to late April	Occurs in rich, moist deciduous woods, especially on floodplains.	Y (N) UTM: N/O
SAS1, SAM1, SAF1	Time – summer Hill's Pond Weed (<i>Potamogeton hillii</i>) - 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:
FOM6, FOM7, FOM8	S2 Bloom Time – June to August Large Round-leaved Orchid (<i>Platanthera macrophylla</i>) - 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	June – September Lizard's Tail (<i>Saururus cernuus</i>) - 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: N/O
FOD6, FOD7, FOD9, FOD8	March-May Pawpaw (<i>Asimina triloba</i>) - S3 Bloom Time – March-May	Occurs in moist deciduous woods and stream banks.	Y (N) UTM: N/O
FOM8, FOD6, FOD7, FOD9, CUM1, FOD8	Bloom Time – Late Spring – Early Summer Pileose Evening Primrose (<i>Oenothera pilosella</i>) - S2 Bloom Time – Late Spring – Early Summer	Moist edges of woods and open, disturbed ground.	Y (N) UTM: N/O
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Bloom Time – July-September Prostrate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 Bloom Time – July-September	Dry, sandy or rocky woods	Y (N) UTM:
FOD7, SWD	March – June Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? Bloom Time – March – June	Swamps and floodplains	Y (N) UTM: N/O
CUM1, ALO, FET1, SWC	Bloom Time – mid May to mid June Ram's-head Lady's-slipper (<i>Cypripedium arietinum</i>) - 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, FOD5, FOC1, FOM1, FOM5	Bloom Time – April – September Rattlesnake Hawkweed (<i>Hieracium venosum</i>) - S2 Bloom Time – April – September	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.	Y (N) UTM:
FOD6, FOD7, FOD9, FOD8	Time – May – June Round-leaved Groundsel (<i>Packera obovata</i>) - S3 Bloom Time – May – June	Found in moist woods	Y (N) UTM: N/O
CUM1, CUT1, CUS1	- S3? Round-leaved hawthorn (<i>Crataegus lumarie</i>) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	May to October Scarlet Beebalm (<i>Monarda didyma</i>) - S3 Bloom Time – May to October	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y (N) UTM: N/O
ALO, ALS, ALT, TPO, TPS, TPW	- S3 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, TP01, TP51, TPW1, FOD1, FOD2	- S2 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	- S2 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:
BL01, BLS1, BLT1, TP02, TPS2, TPW2, MAM2, FOD7	Time – late summer to mid fall Stiff Gentian (<i>Gentianella quinquefolia</i>) - 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	mid-March to mid-June Sundial Lupine (<i>Lupinus perennis</i>) - 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

A. OM

ELC	Species	Habitat Description	Habitat Present (Y/N); UTM; description of habitat if present
TP01, TPS1, TPW1, CUM1	Tail Blazing Star (<i>Liatris aspera</i>)-S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM:
FE0, 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, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.	Y (N) UTM:
BIRDS			
-	Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk (<i>Chordeiles minor</i>) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y (N) UTM:
FOD, FOM	Louisiana Waterthrush (<i>Seturus 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 brizo</i>) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles	Y (N) UTM:
CUM1, CUT1, CUW1	Monarch Butterfly (<i>Danaus plexippus</i>) - SC	Their larvae only feed on milkweeds (<i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y (N) UTM:
TPS, CUW	Mottled Duskywing (<i>Erynnis martialis</i>) –S2	Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	Y (N) UTM:
SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor (<i>Asterocampa 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>Plaris virginianensis</i>) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM:

Sept 21/11 - 5PM

Goshen Feature: 300 GSH2106

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

h

300 - GSH2106

September 1, 2011

0 25 50 100 Meters

Roads
Access/Collection Line
Collection Buffer (125m)
Turbine Buffer (171.5m)
Collection/Feature Interval
Turbine Buffer Feature Interval
Property Fabric
Goshen Wind Energy Centre

ASA Roadside survey from Huron St.

2 photos
102514 & 515
WP 2-75

POE denied
GSH2106

no access



ELC Community Description and Classification	Site: 300_GSH2106		Polygon: 	
	Surveyor(s): SAM	Date: sept 21/11	Time start: 1349A finish: 1408h	
	UTMZ: 17	UTMZ: 451503	UTMIN: 1797743	

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

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (p > Much Greater Than; > Greater Than; = About Equal To)
1	2	4	Silver Maple >>> E ₂
2			
3	4	2	Jewelweed > Horned Aster > Orchard Grass
4			

Stand Composition:		Size Class Analysis:									
		Standing Snags:									
		Deadfall / Logs:									
BA:	N/A										
Abundance Codes:		N = None	R = Rare	O = Occasional	A = Abundant						

Com. Age:	☐ Pioneer	☐ Young	☐ Mid-Age	☒ Mature	☐ Old Growth
Ecosite:	Haplo Natural Deciduous Swamp Ecosite				
Vegetation Type:	Silver Maple H. Natural Deciduous Swamp Type				
Inclusion:	/				
Complex:	/				

姓名	性别	年龄	民族	籍贯	职业	文化程度	政治面貌	婚姻状况	健康状况	兴趣爱好	特长	其他
张三	男	35	汉族	山东	教师	本科	党员	已婚	良好	阅读	书法	
李四	女	28	汉族	河南	医生	大专	团员	未婚	良好	运动	舞蹈	
王五	男	42	汉族	广东	工程师	硕士	党员	已婚	良好	旅游	摄影	
赵六	女	31	汉族	四川	会计	本科	团员	已婚	良好	烹饪	唱歌	
孙七	男	25	汉族	浙江	程序员	本科	党员	未婚	良好	编程	篮球	
周八	女	38	汉族	湖南	护士	大专	团员	已婚	良好	园艺	绘画	
吴九	男	45	汉族	湖北	公务员	本科	党员	已婚	良好	象棋	围棋	
郑十	女	22	汉族	福建	大学生	本科	团员	未婚	良好	学习	钢琴	
冯十一	男	33	汉族	广西	记者	本科	党员	已婚	良好	写作	足球	
陈十二	女	27	汉族	江西	设计师	大专	团员	未婚	良好	创意	瑜伽	
林十三	男	40	汉族	安徽	律师	硕士	党员	已婚	良好	辩论	台球	
黄十四	女	36	汉族	山西	研究员	博士	党员	已婚	良好	科研	古筝	
周十五	男	29	汉族	陕西	产品经理	本科	党员	未婚	良好	管理	拳击	
吴十六	女	34	汉族	甘肃	培训师	本科	团员	已婚	良好	演讲	健美操	
郑十七	男	41	汉族	宁夏	销售经理	大专	党员	已婚	良好	销售	羽毛球	
冯十八	女	26	汉族	青海	数据分析师	本科	团员	未婚	良好	分析	攀岩	
陈十九	男	37	汉族	内蒙古	项目经理	硕士	党员	已婚	良好	项目	游泳	
林二十	女	32	汉族	海南	人力资源	本科	团员	已婚	良好	招聘	太极拳	
黄二十一	男	43	汉族	贵州	财务总监	本科	党员	已婚	良好	财务	高尔夫	
周二十二	女	24	汉族	云南	市场专员	大专	团员	未婚	良好	市场	射箭	
吴二十三	男	39	汉族	四川	运营经理	本科	党员	已婚	良好	运营	击剑	
郑二十四	女	30	汉族	重庆	产品经理	本科	团员	已婚	良好	产品	跆拳道	
冯二十五	男	23	汉族	湖北	软件开发	本科	党员	未婚	良好	编程	柔道	
陈二十六	女	35	汉族	湖南	品牌经理	本科	团员	已婚	良好	品牌	摔跤	
林二十七	男	44	汉族	广东	销售总监	本科	党员	已婚	良好	销售	拳击	
黄二十八	女	21	汉族	广西	实习生	大专	团员	未婚	良好	学习	空手道	
周二十九	男	36	汉族	江西	项目经理	本科	党员	已婚	良好	项目	跆拳道	
吴三十	女	29	汉族	安徽	市场经理	本科	团员	已婚	良好	市场	摔跤	
郑三十一	男	46	汉族	山西	财务总监	本科	党员	已婚	良好	财务	高尔夫	
冯三十二	女	25	汉族	陕西	数据分析师	本科	团员	未婚	良好	分析	攀岩	
陈三十三	男	38	汉族	甘肃	产品经理	本科	党员	已婚	良好	产品	游泳	
林三十四	女	31	汉族	宁夏	人力资源	本科	团员	已婚	良好	招聘	太极拳	
黄三十五	男	42	汉族	青海	销售经理	大专	党员	已婚	良好	销售	羽毛球	
周三十六	女	27	汉族	内蒙古	数据分析师	本科	团员	未婚	良好	分析	射箭	
吴三十七	男	33	汉族	海南	运营经理	本科	党员	已婚	良好	运营	击剑	
郑三十八	女	34	汉族	贵州	产品经理	本科	团员	已婚	良好	产品	跆拳道	
冯三十九	男	22	汉族	云南	软件开发	本科	党员	未婚	良好	编程	柔道	
陈四十	女	37	汉族	四川	品牌经理	本科	团员	已婚	良好	品牌	摔跤	
林四十一	男	47	汉族	重庆	销售总监	本科	党员	已婚	良好	销售	拳击	
黄四十二	女	20	汉族	湖北	实习生	大专	团员	未婚	良好	学习	空手道	
周四十三	男	32	汉族									

Public Community Description: [REDACTED] form J0420041

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
Not Available						
Roadside						
Total						100
Basal Area (BA)						
Dood						

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

Observer

300 GSH 2106
SAM

VASCULAR PLANT CHECKSHEET

Date: Sept. 21/11

Job Number:

* Roadside only
(through 10x binoculars)

[illegible]

Bridges Sp

12

2

3

4:

5

6

SITE LOCATIONS

[illegible]

ELC

Plant Species List

SITE: 300 GSH 2106

POLYGON: ①

1349h - 1408h

DATE: Sept. 21/11

SURVEYOR(S): SAM

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

[illegible][illegible]



- 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
 - Station

April 26, 2012



Base Mapping from Ontario Ministry of Natural Resources
Orthophotography 2010



UTM Zone 17N NAD 83
12,500
0 25 50 100
Meters

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Goshen Amphibian Survey
300_GSH2109/GSH2110
April 2012
Project 80155032

AECOM

Figure 1

Page 1 of 2

**Plant Species List
2012**

Page 2 of 2

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 pensylvanica</i>)					<i>Ranunculus</i>				
Field Pussytoes (<i>Antennaria neglecta</i>)					Cardamine					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-parsnip (<i>Sium suave</i>)				
Daisy Fleabane (<i>Erigeron annuus</i>)					Dog-strangling Vine (<i>Cynanchum rossicum</i>)					Bitter Nightshade (<i>Solanum dulcamara</i>)				
Philadelphia Fleabane (<i>Erig. philadelphicus</i>)					Wild Carrot (<i>Daucus carota</i>)					Black Nightshade (<i>Solanum ptychanthum</i>)				
<i>Erigeron</i>					Deptford Pink (<i>Dianthus armeria</i>)					Grassleaf Stitchwort (<i>Stellaria graminea</i>)				
Joe-pye-weed (<i>Eupatorium maculatum</i>)					Squirrel-corn (<i>Dicentra canadensis</i>)					Common Chickweed (<i>Stellaria media</i>)				
Boneset (<i>Eupatorium perfoliatum</i>)					Dutchman's-breeches (<i>Dicentra cucullaria</i>)					Early Meadow-rue (<i>Thalictrum dioicum</i>)				
Large-leaved Aster (<i>Eurybia macrophylla</i>)					Wild Teasel (<i>Dipsacus fullonum</i>)					Tall Meadow-rue (<i>Thalictrum pubescens</i>)				
Flat-top Goldenrod (<i>Euthamia graminifolia</i>)					Wild Cucumber (<i>Echinocystis lobata</i>)					Field Penny-cress (<i>Thlaspi arvense</i>)				
Orange Hawkweed (<i>Hieracium aurantiacum</i>)					Viper's Bugloss (<i>Echium vulgare</i>)					Foamflower (<i>Tiarella cordifolia</i>)				
Field Hawkweed (<i>Hieracium caespitosum</i>)					Northern Willow-herb (<i>Epilobium ciliatum</i>)					Star-flower (<i>Trientalis borealis</i>)				
<i>Hieracium</i>					Hairy Willow-herb (<i>Epilobium hirsutum</i>)					Red Clover (<i>Trifolium pratense</i>)				
Elecampane (<i>Inula helenium</i>)					Small-fl. Willow-herb (<i>Epilobium parviflorum</i>)					White Clover (<i>Trifolium repens</i>)				
Prickly Lettuce (<i>Lactuca serriola</i>)					<i>Epilobium</i>					<i>Trifolium</i>				
<i>Lactuca</i>					Worm Mustard (<i>Erysimum cheiranthoides</i>)					Stinging Nettle (<i>Urtica dioica</i>)				
Ox-eye Daisy (<i>Leucanthemum vulgare</i>)					<i>Euphorbia</i>					Greater Bladderwort (<i>Utricularia vulgaris</i>)				
Pineapple-weed (<i>Matricaria discoidea</i>)					Hemp Nettle (<i>Galeopsis tetrahit</i>)					Common Mullein (<i>Verbascum thapsus</i>)				
Tall White Lettuce (<i>Prenanthes altissima</i>)					Wild Madder (<i>Galium mollugo</i>)					Blue Vervain (<i>Verbena hastata</i>)				
Black-eyed Susan (<i>Rudbeckia hirta</i>)					Marsh Bedstraw (<i>Galium palustre</i>)					White Vervain (<i>Verbena urticifolia</i>)				
Tall Goldenrod (<i>Solidago altissima</i>)					Sweet-scented Bedstraw (<i>Galium triflorum</i>)					Water Speedwell (<i>Veron. anagallis-aquatica</i>)				
Blue-stem Goldenrod (<i>Solidago caesia</i>)					<i>Galium</i>					Common Speedwell (<i>Veronica officinalis</i>)				
Canada Goldenrod (<i>Solidago canadensis</i>)					Spotted Geranium (<i>Geranium maculatum</i>)					<i>Veronica</i>				
Zig-zag Goldenrod (<i>Solidago flexicaulis</i>)					Herb-robert (<i>Geranium robertianum</i>)					Cow Vetch (<i>Vicia cracca</i>)				
Giant Goldenrod (<i>Solidago gigantea</i>)					Yellow Avens (<i>Geum aleppicum</i>)					<i>Vicia</i>				
Early Goldenrod (<i>Solidago juncea</i>)					White Avens (<i>Geum canadense</i>)					Periwinkle (<i>Vinca minor</i>)				
Gray Goldenrod (<i>Solidago nemoralis</i>)					Urban Avens (<i>Geum urbanum</i>)					Dog Violet (<i>Viola conspersa</i>)				
<i>Solidago</i>					Dame's Rocket (<i>Hesperis matronalis</i>)					Yellow Violet (<i>Viola pubescens</i>)				
Field Sow-thistle (<i>Sonchus arvensis</i>)					Virg. Water-leaf (<i>Hydrophyllum virginianum</i>)					Com. Blue Violet (<i>Viola sororia</i>)				
<i>Sonchus</i>					Com. St. John's-wort (<i>Hypericum perforatum</i>)					<i>Viola</i>				
Heart-leaf Aster (<i>Symph. cordifolium</i>)					Spotted Jewelweed (<i>Impatiens capensis</i>)									
Heath Aster (<i>Symph. yotrichum ericoides</i>)					Wood Nettle (<i>Laportea canadensis</i>)									
Tall White Aster (<i>Symph. lanceolatum</i>)					Motherwort (<i>Leonurus cardiaca</i>)									
Calico Aster (<i>Symph. yotrichum 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>)					Water-plantain (<i>Alisma plantago-aquatica</i>)				
Cotfoot (<i>Tussilago farfara</i>)					Northern Bugleweed (<i>Lycopus uniflorus</i>)					Wild Leek (<i>Allium tricoccum</i>)				
					Fringed Loosestrife (<i>Lysimachia ciliata</i>)					Jack-in-the-pulpit (<i>Arisaema triphyllum</i>)				
					Moneywort (<i>Lysimachia nummularia</i>)					Asparagus (<i>Asparagus officinalis</i>)				
					<i>Lysimachia</i>					Wild Calla (<i>Calla palustris</i>)				
					Purple Loosestrife (<i>Lythrum salicaria</i>)					Bluebead-lily (<i>Clintonia borealis</i>)				
					Black Medick (<i>Medicago lupulina</i>)					Garden Lily-of-the-valley (<i>Convallaria majalis</i>)				
					Alfalfa (<i>Medicago sativa</i>)					Yel. Lady's Slipper (<i>Cypripedium parviflorum</i>)				
					White Sweet-clover (<i>Melilotus alba</i>)					Canada Waterweed (<i>Elodea canadensis</i>)				
					Yellow Sweet-clover (<i>Melilotus officinalis</i>)					Helleborine (<i>Epipactis helleborine</i>)				
					Wild Mint (<i>Mentha arvensis</i>)					Yellow Trout Lily (<i>Erythronium americanum</i>)				
					Wild Bergamot (<i>Monarda fistulosa</i>)					Blue-flag Iris (<i>Iris versicolor</i>)				
					Small Forget-me-not (<i>Myosotis laxa</i>)					Orange Day Lily (<i>Heemerocallis fulva</i>)				
					Forget-me-not (<i>Myosotis scorpioides</i>)					Lesser Duckweed (<i>Lemna minor</i>)				
					Water-cress (<i>Nasturtium officinale</i>)					Starry Duckweed (<i>Lemna trisulca</i>)				
					Com. Evening-primrose (<i>Oenothera biennis</i>)					Wild Lily-of-the-valley (<i>Maianthemum canadense</i>)				
					Sweet-cicely (<i>Osmorhiza berterii</i>)					False Solomon Seal (<i>Maianthemum racemosum</i>)				
					Yellow Wood-sorrel (<i>Oxalis stricta</i>)					Star False Solomon (<i>Maianthemum stellatum</i>)				
					Wild Parsnip (<i>Pastinaca sativa</i>)					True Solomon Seal (<i>Polygonatum pubescens</i>)				
					English Plantain (<i>Plantago lanceolata</i>)					Pickarel-weed (<i>Pontederia cordata</i>)				
					Common Plantain (<i>Plantago major</i>)					Curly-leaf Pondweed (<i>Potamogeton crispus</i>)				
					Rugel's Plantain (<i>Plantago rugelii</i>)					Sago Pondweed (<i>Potamogeton pectinatus</i>)				
					May-apple (<i>Podophyllum peltatum</i>)					<i>Potamogeton</i>				
					Pale Smartweed (<i>Polygonum lapathifolium</i>)					<i>Potamogeton</i>				
					Lady's-thumb (<i>Polygonum persicaria</i>)					Broad-leaved Arrowhead (<i>Sagittaria latifolia</i>)				
					Virginia Knotweed (<i>Polygonum virginianum</i>)					Blue-eyed-grass (<i>Sisyrinchium montanum</i>)				
					<i>Polygonum</i>					Herb. Carrion Flower (<i>Smilax herbacea</i>)				
					<i>Polygonum</i>					Bristly Greenbrier (<i>Smilax hispida</i>)				
					Rough Cinquefoil (<i>Potentilla norvegica</i>)					Nodding Ladies' Tresses (<i>Spiranthes cernua</i>)				
					Rough-fruited Cinquefoil (<i>Potentilla recta</i>)					Rose Twisted-stalk (<i>Streptopus lanceolatus</i>)				
					Common Cinquefoil (<i>Potentilla simplex</i>)					Skunk-cabbage (<i>Symplocarpus foetidus</i>)				
					<i>Potentilla</i>					Purple Trillium (<i>Trillium erectum</i>)				
					Heal-all (<i>Prunella vulgaris</i>)					White Trillium (<i>Trillium grandiflorum</i>)				
					Shinleaf (<i>Pyrola elliptica</i>)					Large-flowered Bellwort (<i>Uvularia grandiflora</i>)				

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

Map Number: 300FSH2108/2110
 Date: Apr 26, 2012
 Surveyors: JP-TS

1 SWD3-3
 2 FOD6-5 (inclusion)
 3 Cam-1

4 FOD3-2
 5

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	<u>(GSH)</u>	Map #:	<u>300-GSH2108/2110</u>
Date:	<u>2012-04-26</u>			Time Started:	<u>11:35</u>
Field Staff:	<u>Tom Stornery Jess Piette</u>			Time Finished:	<u>12:56</u>
Weather Conditions: <u>Overcast, 52, 40km/h winds</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: 451888 4797076 Number of nests: 1

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present):
medium-large ring stick nest - approx 20m high in crotch of Sugar maple.

Description of habitat (note riparian areas if present, evidence of disturbance): FOD6-5 inclusion
pic 48

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: VPI+VP2 avg ☐ No ☒ Yes (if yes, photograph and complete the following)

UTMs: 451863 4797137 ☒ Area of standing water delineated on field map

Water depth (m): 30cm % open water: 80 % emergent vegetation: 5%

Description of standing water (permanent pool, evidence of annual spring flooding, etc): vernal
Pool along skidder trail.

Area and soil/substrate of shoreline habitat: Mineral soil surrounding

Type and abundance of cover in open water habitat: Carex sp.

Type and abundance of cover in surrounding habitat: Deciduous Forest ^{Swamp} → SWD3-3

Evidence of disturbance (e.g. cattle grazing): Forest Management - Active logging roads

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: one Broken egg - no Evidence of other activity, is turtles, 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: See Snake hibernacula Form 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, MAMS)

Shoreline of lake, large river or large wetland present:

☒ No

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

UTMs:

Rocky island or peninsula present:

Mudflat present:

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

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

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

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

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

Large open habitat present: ☒ No

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

UTMs:

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

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

Old-growth or Mature Forests, Interior Forest Breeding Birds

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

Mature forest present: ☒ No

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

UTMs:

Age of oldest trees:

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

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

Photo #	Location or Subject	Photo #	Location or Subject

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

AECOM

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM, FOD6, FOD7, FOD9	June – August <u>Green Dragon (Arisaema dracontium) - SCIS3 Bloom Time – May and June</u>	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 N/O
TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June-August <u>Hairy Bedstraw (Galium pilosum) - S3 Bloom Time – June-August</u>	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y N UTM:
FE01, FE51, FET1, SWC, SWM, SWD, SWT, TPO, TPW	June to August <u>Hairy Valerian (Valeriana edulis) - S1 Bloom Time – June to August</u>	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.	Y N UTM:
FOD6, FOD7, SWM, SWD	Summer <u>Hairy Wood Mint (Blephilia hirsuta) - S1 Bloom Time – Summer</u>	Woodlands often rocky, especially rivers. Rich woods swamp forests, floodplains.	Y N UTM: N/O
FOD6, FOD7, FOD8, FOD9	Time – early to late April <u>Harbinger-of-spring (Ergenia bulbosa) - S3 Bloom Time – early to late April</u>	Occurs in rich, moist deciduous woods, especially on floodplains.	Y N UTM: N/O
SAS1, SAM1, SAF1	Time – summer <u>Hill's Pond Weed (Potamogeton hillii) - SC/S2 Bloom Time – summer</u>	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y N UTM: N/O
FOM6, FOM7, FOM8	S2 Bloom Time – June to August <u>Large Round-leaved Orchid (Platanthera macrophylla) - S2 Bloom Time – June to August</u>	Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.	Y N UTM:
MAM2, MAM3, MAS2, MAS3, SWD	June – September <u>Lizard's Tail (Saururus cernuus) - S3 Bloom Time – June – September</u>	Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, and on water and mudflats at the borders of streams and ponds.	Y N UTM:
FOD6, FOD7, FOD9	March-May <u>Pawpaw (Asimina triloba) - S3 Bloom Time – March-May</u>	Occurs in moist deciduous woods and stream banks.	Y N UTM: N/O
FOM8, FOD6, FOD7, FOD9, CUM1	Bloom Time – Late Spring – Early Summer <u>Pilose Evening Primrose (Oenothera pilosella) - S2 Bloom Time – Late Spring – Early Summer</u>	Moist edges of woods and open, disturbed ground.	Y N UTM: N/O
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Bloom Time – July-September <u>Prostrate Tick-trefoil (Desmodium rotundifolium) - S2 Bloom Time – July-September</u>	Dry, sandy or rocky woods	Y N UTM:
FOD7, SWD	March – June <u>Pumpkin Ash (Fraxinus profunda) - S2? Bloom Time – March – June</u>	Swamps and floodplains	Y N UTM: N/O
CUM1, ALO, FET1, SWC	Bloom Time – mid May to mid June <u>Ram's-head Lady's-slipper (Cypripedium arietinum) - S3 Bloom Time – mid May to mid June</u>	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	Bloom Time – April – September <u>Rattlesnake Hawkweed (Hieracium venosum) - S2 Bloom Time – April – September</u>	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.	Y N UTM:
FOD6, FOD7, FOD9	Time – May – June <u>Round-leaved Groundsel (Packera obovata) - S3 Bloom Time – May – June</u>	Found in moist woods	Y N UTM: N/O
CUM1, CUT1, CUS1	<u>Round-leaved hawthorn (Crataegus lumaria) - S3?</u>	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y N UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	May to October <u>Scarlet Beebalm (Monarda didyma) - S3 Bloom Time – May to October</u>	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y N UTM: N/O
ALO, ALS, ALT, TPO, TPW	<u>Slender Blazing Star (Liatris cylindracea) - S3</u>	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	<u>Slender Knotweed (Polygonum tenue) - S2</u>	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits	Y N UTM:
SDT1, FOD5, FOD9	<u>Slim-flowered Muhly (Muhlenbergia tenuiflora) - S2</u>	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:
BL01, BLS1, BLT1, TP02, TPS2, TPW2, MAM2, FOD7	Time – late summer to mid fall <u>Stiff Gentian (Gentiana quinquefolia) - S2 Bloom Time – late summer to mid fall</u>	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	Y N UTM: N/O
TPS1, TPW1, CUW1, RBO, SBO	mid-March to mid-June <u>Sundial Lupine (Lupinus perennis) - S3 Bloom Time – mid-March to mid-June</u>	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

A OM

ELC	Species	Habitat Description	Habitat Present (Y/N): UTM: description of habitat if present
TP01, TPS1, TPW1, CUM1	Tail Blazing Star (<i>Liatris aspera</i>) - S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM:
FEO, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>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, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.	Y (N) UTM:
BIRDS			
-	Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk (<i>Chordeiles minor</i>) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y (N) UTM:
FOD, FOM	Louisiana Waterthrush (<i>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 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 brizo</i>) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles.	Y (N) UTM:
CUM1, CUT1, CUW1	Monarch Butterfly (<i>Danaus plexippus</i>) - SC	Their larvae only feed on milkweeds (<i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y (N) UTM:
TPS, CUW	Mottled Duskywing (<i>Erynnis martialis</i>) - S2	Usually seen reclining 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 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:
FOD5	West Virginia White (<i>Pieris virginianensis</i>) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM:

Species at Risk Threatened and Endangered Habitat Assessment - Goshen

Map No.: 300GSH2108/2110
Date (yyyy-mm-dd): 2008-08-26

Field Staff: JESSICA Peltz
TOM SHANNON

Assessment - Goshen

Time Started: 11:35am
Time Finished: 12:56pm

A. 3M

Species	Habitat Description	Potential Habitat / Species Present (Y/N; UTM; description if present)
Acadian Flycatcher (<i>Empidonax virens</i>)	Occurs in understory of closed-canopy woods and heavily wooded swamps and ravines; often hangs nest over water but can occupy dry woods; requires large areas of mature undisturbed forests (>40 ha); preferred forest types include: maple-beech, oak-maple, beech-hemlock. FOD5-2, FOD2-4, FOM3, SWD	Habitat: Yes / No Species: Yes / No UTM (if required):
American Badger (<i>Taxidea taxus</i>)	Remnant tallgrass prairie, sand barrens, farmland, old fields, hedgerows, woodland edges. Requires sandy or friable soils to create dens. Soils should be coarse enough to resist collapse when wet but contain enough organic matter and be sufficiently adhesive to prevent collapse when dry. Look for wide burrows in hedgerows, tracks and hair collect if found. TPO, TPS1, CUM1, CUS, SBO Soil: dry sandy (MR = 0, 1, 2).	Habitat: Yes / No Species: Yes / No UTM (if required):
American Chestnut (<i>Castanea dentata</i>)	Deciduous forest communities; prefers forests with moist to well-drained, acid and sandy soils. If present individuals likely to be planted. Planted individuals are protected under the ESA. Blooms early summer; fruits mature late summer. FOD1, FOD2, FOD4, FOD5 Soil: dry sandy (MR = 0, 1, 2).	Habitat: Yes / No Species: Yes / No UTM (if required):
American Ginseng (<i>Panax quinquefolius</i>)	In relatively mature deciduous forests, often near the bottom of south-facing slopes, where the microhabitat is warm and well-drained. Deep leaf litter in undisturbed areas of neutral soil (such as over limestone or marble bedrock). Flowers May to August; fruits late summer. FOD5, FOD6, FOD7, FOD9 Soil: Moist (4, 5, 6) to fresh (2, 3).	Habitat: Yes / No Species: Yes / No UTM (if required):
Barn Owl (<i>Tyto alba</i>)	Open country; often associated with agricultural lands, especially pasture, old fields, woodland edges, buildings, orchards; grasslands, and marshes; In Ontario mainly nests in barns and abandoned buildings but also nests in hollow trees >46 cm dbh. forages in TPO, TPS, CUM1, CUS1, MAM2, MAM3.	Habitat: Yes / No Species: Yes / No UTM (if required):
Barn Swallow (<i>Hirundo rustica</i>)	Nearly all nests are made on man-made structures such as barns, garages, sheds, boat houses, bridges, road culverts, eaves and warfs. Farmlands or rural areas; forages over open country especially near bodies of water. Where Barn Swallows observed foraging only, is not Significant habitat. Forages in TPO, CUM1, MAM, MAS, OAO, SAS1, SAM1, SAF1; nest on suitable structures.	Habitat: Yes / No Species: Yes / No UTM (if required):
Blanding's Turtle (<i>Emydonidea blandingii</i>)	Freshwater lakes, permanent or temporary pools, slow-flowing streams, marshes, swamps; prefers shallow water, organic soil & dense vegetation; nest in loose substrates, including sand, gravel, cobblestone; overwinter in permanent pools ~ 1 m deep, or in slow-flowing streams or in bogs; basks on logs, stumps, or banks. SWT2, SWT3, SWD, SWM, MAS2, SAS1, SAM1, where open water present.	Habitat: Yes / No Species: Yes / No UTM (if required):
Bobolink (<i>Dolichonyx oryzivorus</i>)	Nests primarily in forage crops, particularly hayfields and pastures, dominated by a variety of species such as clover, tall grasses and broadleaved plants; also occurs in wet prairie, graminoid peatlands and abandoned fields; generally requires tracts of grassland >5 ha. Also nests in lightly grazed pastures, fallow and abandoned fields and shallow grassy marshes. TPO, TPS, CUM1, MAM2	Habitat: Yes / No Species: Yes / No UTM (if required):
Butternut (<i>Juglans cinerea</i>)	Deciduous forests in rich, moist, & well-drained soils often found along streams; may also be found on well-drained gravel sites, especially in limestone areas. Grows alone or in small groups. Shade intolerant, usually occurs along or near edge of deciduous woodlots and hedgerows. Flowers in May; fruits mature late summer. FOD2, FOD5, FOD6, FOD7; mature hedgerows; Soil: dry rocky or moist (4, 5, 6) to fresh (2, 3).	Habitat: Yes / No Species: Yes / No UTM (if required):
Cerulean Warbler (<i>Dendroica cerulea</i>)	Large tracts of mature deciduous forests with tall trees and an open understory; forests may be in wet bottomland areas or upland locations; also nests in older, second-growth deciduous forests and mature deciduous swamps. FOD2, FOD5, FOD6, FOD7	Habitat: Yes / No Species: Yes / No UTM (if required):
Chimney Swift (<i>Chaetura pelagica</i>)	Formerly nested in the trunks of large, hollow trees. Today, mainly use chimneys or abandoned buildings as nesting sites. May forage over wide variety of habitats. It requires dead trees >30 cm for roosting and possibly nesting. Where swifts observed foraging only, is not Significant habitat. Forages in TPO, CUM1, MAM, MAS, OAO, SAS1, SAM1, SAF1; nest in any communities where buildings with chimneys present.	Habitat: Yes / No Species: Yes / No UTM (if required):
Eastern Flowering Dogwood (<i>Cornus florida</i>)	Borders of woodlands & sunny openings; grows around edges and hedgerows. Understory species in semi open dry oak-hickory to mesic maple-beech deciduous or mixed forests. Grows in sandy soil, more or less clayey. If present, likely to be planted specimens. Planted individuals are protected by the ESA. Flowers May; fruits mature fall. FOM1, FOM2; FOM3; FOD1, FOD2, FOD5, FOD6; Soil: dry (0) to fresh (1, 2, 3).	Habitat: Yes / No Species: Yes / No UTM (if required):
Eastern Prairie Fringed-orchid (<i>Platanthera leucophaea</i>)	May occur in: (1) fens dominated by Wire Sedge (<i>Carex lasiocarpa</i>), (2) fens dominated by Common Reed (native form) & sedges, (3) poor fen mats around lakes dominated by sphagnum moss & ericaceous shrubs, (4) highly diverse wet mesic prairie with bluestem and other grasses. Flowers in June to July, Fruits in mid-summer. FEO1-2, FES1, FET1; Soil: Fresh (2, 3) to Moist (4, 5) deep, black calcareous silt loams, organic silty clay loams, muck.	Habitat: Yes / No Species: Yes / No UTM (if required):
Eastern Hognose Snake (Heterodon platirhinos)	Prefers habitats with sandy, well-drained soil and open vegetative cover, such as open woods, thickets, upland fields, pastures, forest edges, savannahs, sandy beaches; dry open mixed or deciduous forest prefer forest areas > 5ha, often found near water.. BB, SD, SB, TP, FOD1; potentially in any suitable habitat with sandy soils.	Habitat: Yes / No Species: Yes / No UTM (if required):

Species at Risk Threatened and Endangered Habitat Assessment – Goshen

AECOM

Species	Habitat Description	Potential Habitat Species Present (Y/N; UTM; description if present)
Eastern Meadowlark (<i>Sturnella magna</i>)	Most common in native grasslands, savannah, old fields, hayfields, lightly grazed pastures, weedy meadows, fields with occasional shrubs. Minimum area of grassland required is about 5 ha. TPO, TPS, CUM1, MAM2, MAS2	Habitat: Yes / No Species: Yes (No) n/o UTM (if required):
Eastern Musk Turtle (<i>Stemotherus odoratus</i>)	Requires permanent shallow, slow moving water of lakes, streams, marshes, and ponds and soft earth to bury into; resting habitat close to water and exposed to direct sunlight; eggs laid in debris or under stumps or fallen logs at water's edge. MAM3, MAS2, MAS3, OAO, SA	Habitat: Yes (No) Species: Yes / No UTM (if required):
Goldeneye (<i>Hydrastis Canadensis</i>)	Rich moist areas of mature deciduous forests dominated by sugar maple, or in moist floodplain forests dominated by maples and oaks. Individuals of this species have been planted but planted individuals are not protected by the ESA. Blooming & fruiting: April to May. FOD5, FOD6, FOD7, FOD9; Soil: Moist (4, 5, 6)-Fresh (2, 3).	Habitat: Yes / No Species: Yes (No) not observed UTM (if required):
Five-lined Skink (<i>Plestiodon fasciatus</i>)	Inhabits shorelines of Lakes Erie and Huron; found under woody debris in open areas or edges associated with stabilized dune habitat, open forested areas or savanna with sandy substrate. Look for open woodlands with logs and slash piles; damp spots under logs, leaf litter, or sawdust piles. SD, TPS, open FOM, open FOD soil: Sandy sites	Habitat: Yes (No) Species: Yes / No UTM (if required):
Goldeneye (<i>Hydrastis Canadensis</i>)	Rich moist areas of mature deciduous forests dominated by sugar maple, or in moist floodplain forests dominated by red maples and white oaks. Individuals of this species have been planted but planted individuals are not protected from kill and harm by the ESA. Blooming & fruiting: April to May. FOD5, FOD6, FOD7, FOD9; Soil: Moist (4, 5, 6)-Fresh (2, 3).	Habitat: Yes / No Species: Yes (No) not observed UTM (if required):
Grey Fox (<i>Urocyon cinereoargenteus</i>)	Considered a habitat generalist. Habitats include deciduous forests, meadows, thickets, swamps and marshes; dens in many different kinds of substrate (rock outcrops, hollow trees, underground burrows dug by other animals, or in piles of brush), often close to a water source. Individual has numerous winter dens throughout its range which is > 40 ha. TPO, TPS, FOD, SWD, MAM, CUM, CUT.	Habitat: Yes / No Species: Yes (No) not observed UTM (if required):
Kentucky Coffeetree (<i>Gymnocladus dioica</i>)	Generally inhabits open woodlands on floodplains, near edges of wetlands, and shallow soil over limestone; shade-intolerant; prefers sunny locales in rich woodlands and at the edges of marshes. Flowers in late spring; fruits mature mid-summer. If present, likely to be have been planted, which are protected by the ESA. FOD4, FOD7; Soil: Moist (4, 5, 6)	Habitat: Yes (No) Species: Yes / No UTM (if required):
Least Bittern (<i>Ixobrychus exilis</i>)	Occurs in large marshes (especially cattail) with good interspersed of emergents and open water. Nests sit on platforms of stiff stems; nests within 10m of open water. Prefers large marshes that have relatively stable water levels throughout the nesting period. MAS2-1, MAS3-1, SA, OAO.	Habitat: Yes (No) Species: Yes / No UTM (if required):
Northern Bobwhite (<i>Colinus virginianus</i>)	Requires open edge habitats that provide a mixture of grasslands, croplands and thickets. In summer, uses grasslands to nests and feed. From summer to fall, requires croplands for feeding, dusting and roosting. Uses dense thickets for shelter and rest throughout the year, and for feeding during fall and winter. These three habitat types must be sufficiently interspersed to be in close proximity to the others. CUM1, CUT1, TPO, TPS, CUS1	Habitat: Yes / No Species: Yes / No UTM (if required):
Queensnake (<i>Regina septemvittata</i>)	Highly specialized habitat requirements: aquatic species, seldom found > 3 m from water. (1) permanent water, flowing or still, with temp ≥ 18°C throughout most of the active season; (2) abundant cover, e.g. flat rock, (3) abundant crayfish, rocky, gravelly, or stone stream-bed substrates, swift to moderate current, and woodland surroundings. OAO; adjacent terrestrial habitat. SA, MAS, MAM2, MAM3, SWT2-2, SWT3-2.	Habitat: Yes / No Species: Yes / No UTM (if required):
Spotted Turtle (<i>Clemmys guttata</i>)	Inhabits streams, ponds, wet meadows, marshes or swamps with aquatic vegetation, logs or clumps of vegetation or basking with soft, muddy soil, sphagnum moss, sedge tussocks, cattails, water lilies and water-loving shrubs. Nests in groups near man-made dykes, muskrat nests, base of grass tussocks. SWD, SWM, MAM3, MAS2, MAS3, OAO, SA.	Habitat: Yes (No) Species: Yes / No UTM (if required): no aquatic veg
Whip-poor-will (<i>Caprimulgus vociferus</i>)	Generally prefer semi-open deciduous or mixed forests or patchy forests with clearings; areas with little ground cover also preferred. Generally associated with >100 ha forests. CUW, FOD, FOM, FOD1.	Habitat: Yes / No Species: Yes / No UTM (if required): n/o

Additional Species at Risk Presence Observed:

Species Code	UTM	EV	Notes

Evidence Codes (EV)

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

SH=Suitable Habitat, SM=Singing Male;
T-Territory, D=Display, P=Pair, N=Nest Building, V= Visiting Nest, A=Anxiety Behavior,
DD=Distractor, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foss/Faecal sack, AE=Nest Entry

Significant Wildlife Habitat Form

Re-visit Stick Nest

AECOM

Study Area:	BLW JER <u>(GSH)</u>	Map #:	300-GSH2/08/2110
Date:	May 17-2012	Time Started:	5:20 pm
Field Staff:	J. Kamstra, A. Doh	Time Finished:	5:40 pm
Weather Conditions:	Sunny, 18°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: 451888, 4797076 Number of nests: 1

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present):
Fresh nest round in good shape, 20 m in Sagar Maple, NO sign of adult -

Description of habitat (note riparian areas if present, evidence of disturbance):
broken canopy - moist forest Ace sacu - Acefied - Frapam

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):

⊕ Additional Bird calls heard are noted on back

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
RBGR	callin		
WOTI	"		
SOSP	"		
HOWR	"		
NOFL	"		
EAST			
BAOR	"		

Goshen Feature: 291/300 GSH2108/2110

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



October 28, 2011



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



CKSHEET
November 7, 2010

Date:

Job Number:

1:	291	Waxlot	4:	
2:	300	Waxlot	5:	
3:	300	Old tree	6:	

SITE LOCATIONS

I CONIFERS							II TREES and SHRUBS							III GRAMINIDS						
1	2	3	4	5	6		1	2	3	4	5	6	1	2	3	4	5	6		
Abies balsamea						+ Rosa multiflora							Agrostis gigantea							
Juniperus communis						Rosa							Agrostis stolonifera							
Juniperus virginiana						Rubus allegheniensis	X						Agropyron repens							
Larix laricina						Rubus idaeus	X	X					Alopecurus							
Picea abies						Rubus occidentalis	X	X					Bromus inermis				X			
Picea glauca						Rubus odoratus							Calamagrostis canadensis							
Pinus resinosa						Rubus pubescens							Carex arctata							
Pinus strobus						Salix alba							Carex aurea							
Pinus sylvestris						Salix amygdaloides							Carex bebbii							
Thuja occidentalis	X	X				Salix bebbiana							Carex blanda							
Tsuga canadensis	X	X				+ Salix discolor							Carex gracillima	X	X					
						Salix eriocephala							Carex granularis							
						Salix eximia							Carex hystrix							
						Salix lucida							Carex pennsylvanica							
						Salix perfoliaris							Carex radiata			X				
TREES and SHRUBS						+ Salix purpurea							Carex retrorsa			X				
Acer negundo						Salix x rubens							Carex stricta							
Acer rubrum	X	X				+ Salix							Carex vulpinoidea							
Acer saccharinum	X	X				Sambucus canadensis	X						Carex							
Acer saccharum	X	X				Sambucus racemosa							Carex							
Acer spicatum						Sorbus aucuparia							Carex							
Alnus incana						Spiraea alba							Carex							
Amelanchier						Syringa vulgaris							Carex							
Berberis thunbergii						+ Tilia americana		X					Carex							
Betula alleghaniensis	X					Ulmus americana	X	X					Carex							
Betula papyrifera						Ulmus							Carex							
Carpinus caroliniana						Vaccinium							Carex							
Carya cordiformis						Viburnum lentago	X	X					Carex							
Celastrus scandens						Viburnum opulus	X	X					Cyperus							
Cornus alternifolia	X	X				Viburnum							Cyperus							
Cornus amomum	X	X				Vitis riparia	X						Dactylis glomerata				X			
Cornus rugosa	X					Lindera benz		X					Danthonia spicata							
Cornus stolonifera													Echinochloa crus-galli	X	X					
Corylus cornuta													Eleocharis erythropoda							
Crataegus monogyna													Eleocharis							
Crataegus punctata													Elymus virginicus	X						
Crataegus sp.	X												Elymus							
Crataegus													Festuca arundinacea							
Diervilla lonicera													Glyceria striata	X	X					
Fagus grandifolia													Glyceria							
Fraxinus americana													Juncus dudleyi							
Fraxinus nigra						FERNS							Juncus effusus							
Fraxinus pennsylvanica	X	X	X			Adiantum pedatum							Juncus tenuis							
Ilex verticillata						Athyrium filix-femina							Juncus							
Juglans cinerea						Botrychium multifidum							Juncus							
Juglans nigra						Botrychium virginianum							Leersia oryzoides							
Lonicera morrowi						Cystopteris bulbifera							Muhlenbergia							
Lonicera tatarica						Dryopteris carthusiana		X					Oryzopsis asperifolia							
Lonicera						Dryopteris cristata							Panicum							
Malus pomila	X			X		Dryopteris marginalis							Panicum							
Ostrya virginiana	X					Dryopteris							Phalaris arundinacea			X				
Parthenocissus inserta						Equisetum arvense	X						Phleum pratense				X			
Populus balsamifera	X					Equisetum hyemale							Phragmites australis							
Populus grandidentata						Equisetum variegatum							Poa compressa							
Populus tremuloides	X					Equisetum							Poa pratensis				X			
Populus						Gymnocarpium dryopteris							Poa							
Prunus pennsylvanica						Lycopodium digitatum							Scirpus atrovirens							
Prunus serotina	X	X				Lycopodium obscurum							Scirpus cypripedus							
Prunus virginiana	X	X				Lycopodium							Scirpus validus							
Prunus						Lycopodium							Scirpus							
Quercus macrocarpa						Mattucia struthiopteris							Scirpus							
Quercus rubra						Onoclea sensibilis	X						Setaria glauca	X						
Quercus						Osmunda cinnamomina							Spartanum							
Rhamnus cathartica	X	X				Osmunda regalis							Typha angustifolia							
Rhus radicans	X	X				Polytrichum acrostichoides							Typha latifolia							
Rhus typhina						Pteridium aquilinum							Typha x glauca							
Ribes americana	X					Thelypteris palustris														
Ribes cynosbati																				
Ribes x rubrum				X																
Robinia pseudo-acacia																				
Eucalyptus obor	X																			
Pyrus cornifolia	X																			
Platanus occidentalis				X																
Chamaecyparis thyrsifolia	X																			

ELC WILDLIFE	SITE: <u>Goshen 291 & 300</u>	
	POLYGON:	
	DATE: <u>Nov 7, 2011</u>	
	SURVEYORS: <u>Kohnstra</u>	
	START TIME: <u>13:45</u>	END TIME:

TEMP (°C): <u>13</u>	CLOUD (10th): <u>9</u>	WIND: <u>1-2</u>	PRECIPITATION: <u>0</u>
CONDITIONS:			

POTENTIAL WILDLIFE HABITAT:

VERNAL POOLS	SNAGS
HIBERNACULA	FALLEN LOGS

SPECIES LIST: Feature 291

TY	SP. CODE	EV	NOTES	#
B	HAWO	OB		
	BCCH			
	DOWO			
	NOFL	VO		
M	WT Deer	TK	finders between 291 and 300	
	Coyote	TK	" "	
	Turkey	TK	" "	
	Potential Amphibian	Breeding Anom		

Feature 300

TY	SP. CODE	EV	NOTES	#
B	BLJA	OB		
	DOWO			
	AMGO	VO		
	HAWO			
	W. Turkey		Feather	
M	Raccoon	SC		

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)