

Incident **al Wildlife – Goshen**
Field Staff:

Map No:

Date (yyyy-mm-dd):

502-65H510
2017-03-30

Field Staff:

ai viridite -
Tom

Goshen

A



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Observed Species List

[illegible]

Other Wildlife Evidence: OR=Observed, VC=Visitation, V=Visiting Nest, A=Anxiety Behavior, DD=Distraction, NU=Used Nest, FY=Feeding Young, N=Noisy, N-Nest Building, V=Visiting Nest, A=Anxiety Behavior;

Other Wildlife Evidence: OB=observed, VO=Vocalization, CA=Carcass, DP=Distinctive Parts, HO=House/Den, FY=Eggs/young, TK=tracks, FE=Feeding site, Breeding Bird (Confirmed) DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foss/Faecal sack, AE=Nest Entry

Leading evidence, SC= Scat, SI=Other signs (specify)

LANTS	ELC	Species	Habitat Description	Habitat Present (Y/N; UTM); description of habitat if present;
COD7		American Gromwell (<i>Lithospermum latifolium</i>) - S3 <u>Bloom Time - Spring</u>	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y (N) UTM:
	-O, TPO	Muehlenberg's astorum moss (<i>Astorum muehlenbergianum</i>) - S2 Bloom Time - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie	Y (N) UTM:
	JM1, FOM2, CUP3	Autumn Coral-root (<i>Corallorhiza odontorhiza</i>) - S2 <u>Bloom Time - summer to fall</u>	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.	Y (N) UTM:
	OC, FOM, FOD	Burning Bush (<i>Euronymus atropurpureus</i>) - S3 Bloom <u>Time - April - June</u>	Species occurs in dry to moist deciduous thickets and woods	Y (N) UTM:
	WC1, SWC3, SWC4, JM1, SVM2, SVM4, JM5, SVM6	Chinese Hemlock Parsley (<i>Conioselinum chinense</i>) - S2 <u>Bloom Time - Summer to fall</u>	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:
	IC, SAS, SWD, SWT, M, MAM	Crowned Beggarticks (<i>Bidens trichosperma</i>) -S2 <u>Bloom Time - late summer</u>	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:
	T1, FOD7	Eastern Green-violet (<i>Hybanthus concolor</i>) - S2 Bloom <u>Time -mid March to August</u>	Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone. Includes floodplains and river banks.	Y (N) UTM:
	3, TPW, FOM1, FOM2	Fogg's Goosefoot (<i>Chenopodium foggi</i>) -S2	Species occurs in sandy areas on limestone under oak or pine-oak forests	Y (N) UTM:
	J2, TPS2, TPW2,	Giant Ironweed (<i>Vernonia gigantean</i>)-S1? Bloom Time-	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y (N) UTM

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM: description of habitat if present)
JM1, MAM, OD6, 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: N/A
PO1, TPS1, TPW1, JM1, FOM2, FOD1, DD2, 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:
EO1, FES1, FET1, SWC, WM, SWD, SWT, TPO, PS, 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:
OD6, FOD7, SWM, SWD	Summer Hairy Wood Mint (<i>Blephilia hirsuta</i>) - S1 Bloom Time – Summer	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.	Y (N) UTM:
OD6, FOD7, FOD8, OD9	Time – early to late April Harbinger-of-spring (<i>Erigenia bulbosa</i>) - S3 Bloom Time – early to late April	Occurs in rich, moist deciduous woods, especially on floodplains.	Y N UTM: N/A
AS1, 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:
OM6, 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:
AM2, 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:
OD6, FOD7, FOD9	March-May Pawpaw (<i>Asimina triloba</i>) - S3 Bloom Time – March-May	Occurs in moist deciduous woods and stream banks.	Y N UTM: N/A
OM8, FOD6, FOD7, OD9, CUM1	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/A
PW1, FOM1, FOM2, OD1, FOD2, FOD3	July-September Prostrate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 Bloom Time – July-September	Dry, sandy or rocky woods	Y (N) UTM:
OD7, SWD	March – June Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? Bloom Time – March – June	Swamps and floodplains	Y (N) UTM:
CUM1, ALO, FET1, SWC	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	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	June Round-leaved Groundsel (<i>Packera obovata</i>) - S3 Bloom Time – May – June	Found in moist woods	Y (N) UTM: N/A
CUM1, CUT1, CUS1	S3? Round-leaved hawthorn (<i>Crataegus lumaria</i>) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y (N) UTM:
FOD9, FOD7, FOD8, FOD9, TW2, 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/A
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, TPO1, TPS1, 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: N/A
BLO1, BLS1, BLT1, TPO2, 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 savannas, 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

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ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
TP01, TPS1, TPW1, CUM1	Tall Blazing Star (<i>Liatris aspera</i>) - S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM:
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>Selurus motacilla</i>) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y (N) UTM:
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/ edges (oak savannahs and riparian forest), open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	Y (N) UTM:
-	Short Eared Owl (<i>Asio flammeus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC	Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y (N) UTM:
REPTILES			
-	Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Milksnake (<i>Lampropeltis triangulum</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Snapping Turtle (<i>Chelydra serpentina</i>) - SC	Assessed as SWH. Record species if found.	not required.
INSECTS			
QAO, SA, SWM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) - S3	Species inhabits fishless ponds, lakes and boggy swamps	Y (N) UTM:
TPS, TPW	Sleepy Duskywing (<i>Erynnis brize</i>) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles	Y (N) UTM:
CUM1, CUT1, CUW1	Monarch Butterfly (<i>Danaus plexippus</i>) - SC	Their larvae only feed on milkweeds (<i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y (N) UTM:
TPS, CUW	Mottled Duskywing (<i>Erynnis martialis</i>) - S2	Usually seen nectaring on or wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	Y (N) UTM:
SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor (<i>Asterocampa clyton</i>) - S3	Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant	Y (N) UTM:
FOD5	West Virginia White (<i>Pteris virginiana</i>) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM:



- 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



Basemapping from Ontario Ministry of Natural Resources
Orthophotography 2010



UTM Zone 17N NAD 83
0 25 50 100
Metres

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ELC
Geospatial Amphibian Survey
204_GSH1535/GSH1536

April 2012
Project 80155032

AECOM

Figure 1

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Map Number: 204-GSH1535/1536

Date: April 23, 2012

Surveyors: B.C. P.A.

Plant Species List 2012

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Dicot Herbs - Asteraceae					Dicot Herbs					Dicot Herbs				
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>)					<i>Cardamine</i>					Sheep Sorrel (<i>Rumex acetosella</i>)				
<i>Artemisia</i>					Blue Cohosh (<i>Caulophyllum thalictroides</i>)					Curly-leaf Dock (<i>Rumex crispus</i>)				
Common Burdock (<i>Arctium minus</i>)					Mouse-ear Chickweed (<i>Cerastium fontanum</i>)					Bitter Dock (<i>Rumex obtusifolius</i>)				
Nodding Beggar-ticks (<i>Bidens cernua</i>)					Turtlehead (<i>Chelone glabra</i>)					Bloodroot (<i>Sanguinaria canadensis</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 scariola</i>)					<i>Epilobium</i>					<i>Trifolium</i>				
<i>Lactuca</i>					Worm Mustard (<i>Erysimum cheiranthoides</i>)					Stinging Nettle (<i>Urtica dioica</i>)				
Ox-eye Daisy (<i>Leucanthemum vulgare</i>)					<i>Euphorbia</i>					Greater Bladderwort (<i>Utricularia vulgaris</i>)				
Pineapple-weed (<i>Matricaria discolor</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 Avena (<i>Geum alepicum</i>)					<i>Vicia</i>				
Early Goldenrod (<i>Solidago juncea</i>)					White Avena (<i>Geum canadense</i>)					Periwinkle (<i>Vinca minor</i>)				
Gray Goldenrod (<i>Solidago nemoralis</i>)					Urban Avena (<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. ericoides</i>)					Wood Nettle (<i>Laportea canadensis</i>)									
Tall White Aster (<i>Symph. lanceolatum</i>)					Motherwort (<i>Leonurus cardiaca</i>)									
Calico Aster (<i>Symph. 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>Lineria 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>)				
Coltsfoot (<i>Tussilago farfara</i>)					Northern Bugleweed (<i>Lycopus uniflorus</i>)					Wild Leek (<i>Allium tricoccum</i>)				
					Fringed Loosetrife (<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 Loosetrife (<i>Lythrum salicaria</i>)					Bluebead-lily (<i>Clintonia borealis</i>)				
					Black Medick (<i>Medicago lupulina</i>)					Garden Lily-of-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>Heremodallus 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-valley (<i>Maianthemum canadense</i>)				
					Sweet-cicely (<i>Osmorhiza berterii</i>)					False Solom 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>)					Pickering-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 five individuals or small clumps

Map Number:	1	4
Date:	2	8
Surveyors:	3	

Significant Wildlife Habitat Form

AECOM

Study Area:	<u>BLW</u> JER <u>GSH</u>	Map #:	<u>204-GSH 1535/1536</u>
Date:	<u>April 23, 2012</u>	Time Started:	<u>4:00 pm</u>
Field Staff:	<u>SG, RA</u>	Time Finished:	<u>4:30 pm</u>
Weather Conditions:	<u>overcast, very windy</u>		

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

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

UTMs: _____ Number of nests: _____

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

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

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

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

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

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

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

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

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

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

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

Snake Hibernacula

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

UTMs: _____ Likelihood to extend below frost line: _____

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

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

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

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

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

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

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

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

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

☒ No

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

UTMs: _____

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

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

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

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

Shoreline of lake, large river or large wetland present:

☒ No

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

UTMs: _____

Rocky island or peninsula present: _____

Mudflat present: _____

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

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

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

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

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

Large open habitat present: ☒ No

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

UTMs: _____

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

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

Old-growth or Mature Forests, Interior Forest Breeding Birds

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

Mature forest present:

☒ No

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

UTMs: _____

Age of oldest trees: _____

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

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

Photo #	Location or Subject	Photo #	Location or Subject

Field Staff:

Time Started:

Date (yyyy-mm-dd):

Time Started: 11:00 AM
Time Finished: 11:30 AM

Observed Species List

[illegible]

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

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

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

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

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

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM, FOD6, FOD7, FOD8	June – August Green Dragon (<i>Arisaema dracontium</i>) - S3/S3 <u>Bloom Time</u> – May and June	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	Y ☒ UTM:
TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June – August Hairy Bedstraw (<i>Galium pilosum</i>) - S3 <u>Bloom Time</u> – June – August	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y ☒ UTM:
FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	June to August Hairy Valerian (<i>Valeriana edulis</i>) - S1 <u>Bloom Time</u> – June to August	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.	Y ☒ UTM:
FOD6, FOD7, SWM, SWD	Summer Hairy Wood Mint (<i>Blephilia hirsuta</i>) - S1 <u>Bloom Time</u> – Summer	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.	Y ☒ UTM:
FOD6, FOD7, FOD8, FOD9	Time – early to late April Harbinger-of-spring (<i>Erigenia bulbosa</i>) - S3 <u>Bloom Time</u> – early to late April	Occurs in rich, moist deciduous woods, especially on floodplains.	Y ☒ UTM:
SAS1, SAM1, SAF1	Time – summer Hill's Pond Weed (<i>Potamogeton hillii</i>) - SC/S2 <u>Bloom Time</u> – summer	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y ☒ UTM:
FOM6, FOM7, FOM8	S2 <u>Bloom Time</u> – June to August Large Round-leaved Orchid (<i>Platanthera macrophylla</i>) - S2 <u>Bloom Time</u> – June to August	Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.	Y ☒ UTM:
MAM2, MAM3, MAS2, MAS3, SWD	June – September Lizard's Tail (<i>Saururus cernuus</i>) - S3 <u>Bloom Time</u> – June – September	Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, shallow water and mudflats at the borders of streams and ponds.	Y ☒ UTM:
FOD6, FOD7, FOD9	S3 <u>Bloom Time</u> – March-May Pawpaw (<i>Asimina triloba</i>) - S3 <u>Bloom Time</u> – March-May	Occurs in moist deciduous woods and stream banks.	Y ☒ UTM:
FOM8, FOD8, FOD7, FOD9 (CUM1)	Early Summer Pillose Evening Primrose (<i>Oenothera pilosella</i>) - S2 <u>Bloom Time</u> – Late Spring – Early Summer	Moist edges of woods and open, disturbed ground.	Y ☒ N UTM: 11/0
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	July-September Prostrate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 <u>Bloom Time</u> – July-September	Dry, sandy or rocky woods	Y ☒ UTM:
FOD7, SWD	March – June Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? <u>Bloom Time</u> – March – June	Swamps and floodplains	Y ☒ UTM:
CUW1, ALO, FET1, SWC	Mid May to mid June Ram's-head Lady's-slipper (<i>Cypripedium arietinum</i>) - S3 <u>Bloom Time</u> – mid May to mid June	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.	Y ☒ UTM:
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5	September Rattlesnake Hawkweed (<i>Hieracium venosum</i>) - S2 <u>Bloom Time</u> – April – September	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.	Y ☒ UTM:
FOD6, FOD7, FOD9	June – June Round-leaved Groundsel (<i>Packera obovata</i>) - S3 <u>Bloom Time</u> – June	Found in moist woods	Y ☒ UTM:
(CUM1), CUT1, CUS1	S3? Round-leaved hawthorn (<i>Crataegus lumaria</i>) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y ☒ N UTM: 11/0
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	May to October Scarlet Beebalm (<i>Monarda didyma</i>) - S3 <u>Bloom Time</u> – May to October	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y ☒ UTM:
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 ☒ UTM:
SBO, SBS, SBT, TPO1, TPS1, 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 ☒ 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 ☒ UTM:
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	S2 <u>Bloom Time</u> – late summer to mid fall Stiff Gentian (<i>Gentianella quinquefolia</i>) - S2 <u>Bloom Time</u> – late summer to mid fall	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	Y ☒ UTM:
TPS1, TPW1, CUW1, RBO, SBO	S3 <u>Bloom Time</u> – mid-March to mid-June Sundial Lupine (<i>Lupinus perennis</i>) - S3 <u>Bloom Time</u> – mid-March to mid-June	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	Y ☒ UTM:

Species Conservation Concern Habitat and Incidental Wildlife – Goshen

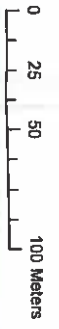
ACOM

ELC	Species	Habitat Description	Habitat Present (Y/N); UTM; description of habitat if present
TP01, TPS1, TPW1, CUM1	Tall Blazing Star (<i>Liatris aspera</i>) - S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM: n/a
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: n/a
BIRDS			
-	Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk (<i>Chordeiles minor</i>) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y (N) UTM:
FOD, FOM	Louisiana Waterthrush (<i>Selurus motacilla</i>) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y (N) UTM:
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/edges (oak savannahs and riparian forest), open, deciduous forest with little understory, fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	Y (N) UTM:
-	Short Eared Owl (<i>Asio flammeus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC	Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y (N) UTM:
REPTILES			
-	Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Milksnake (<i>Lampropeltis triangulum</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Snapping Turtle (<i>Chelydra serpentina</i>) - SC	Assessed as SWH. Record species if found.	not required.
INSECTS			
OAO, SA, SWM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) - S3	Species inhabits fishless ponds, lakes and boggy swamps	Y (N) UTM:
TPS, TPW	Sleepy Duskywing (<i>Erynnis brize</i>) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles	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: n/a
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 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: n/a
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:



Goshen Feature: 206 GSH1062 / G542

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



September 1, 2011



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



ELC Community Description and Classification	Site: 206_GSH1062	Polygon: VI	
	Surveyor(s): JPCB	Date: Sep 8, 2011	Time start: 7:58am
UTMZ:	UTMZ:	UTMN:	

Polygon Description

14C, Overcast - slight drizzle

☐ Terrestrial ☐ Wetland ☐ Aquatic	☐ Organic ☐ Mineral Soil ☐ Parent Mtn. ☐ Acidic Bedrk ☐ Basic Bedrk ☐ Shallow Water ☐ Surficial Dep. ☐ Bedrock	☐ Lacustrine ☐ Riverine ☐ Bottomland ☐ Terrace ☐ Valley Slope ☐ Tableland ☒ Roll, Upland ☐ Cliff ☐ Talus ☐ Crevice/Cave ☐ Alvar ☐ Rockland ☐ Beach / Bar ☐ Sand Dune ☐ Bluff	☐ Plankton ☐ Submerged ☐ Floating-LVD. ☐ Graminoid ☐ Forb ☐ Lichen ☐ Bryophyte ☒ Deciduous ☐ Coniferous ☐ Mixed	☐ Lake ☐ Pond ☐ River ☐ Stream ☐ Marsh ☐ Swamp ☐ Fen ☐ Bog ☐ Barren ☐ Meadow ☐ Prairie ☐ Thicket ☐ Savanna ☐ Woodland ☐ Forest ☐ Plantation
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Stand Description

Layer	HT	CVR	Function In Order of Decreasing Dominance (up to 4 sp)
1	2	3	FRAXEN > MAHUNI > SARACIN CRUS
2	3	4	FRAXEN > MAHUNI > SARACIN CRUS
3	4	5	FRAXEN > MAHUNI > SARACIN CRUS
4	5	6	FRAXEN > MAHUNI > SARACIN CRUS

HT Codes: 7 < 0.2m 8 > 0.2-0.5m 5 > 0.5-1m 4 > 1-2m 3 > 2-8m 2 > 8-25m 1 > 25m
CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 50 - 75% 5 75 - 90% 6 90 - 100%

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

Com. Age:	☐ Pioneer	☐ Young	☒ Mid-Age	☐ Mature	☐ Old Growth
Ecotype:	Cultural Wetland				Code: CUB1
Vegetation Type:	Mineral cultural wetland				Code: CUB1C
Inclusion:					Code:
Comp. No.:					Code:

Community Profile Diagram/Comments

Notes: *Very hilly
Cultural wetland with open meadow areas

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Prism Factor	2
FRAXEN	111						
FRAXEN	11						
Total							100
Basal Area (BA)							
Dead							

Soils Ontario and ELC Soils Description

Soil Horizon Description				Depth to...		Site Metrics				Summary	
Plu/Auger #	Zone		17					Moisture Regime	Drainage	Effective Texture (indicate below)	
	Easting		448822								
	Northing		4390810								
	Position		Mid Slope								
	Aspect										
	Percent										
	Slope										
	Length										
	Mottles		0.1cm								
	Gley										
Water Table											
Carbonates											
Bedrock											
1	Depth from zero		30cm	% CF		% CF		% CF			
	Texture		SIC								
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											



Job Number:

1: $V = \frac{1}{\mu_0} \frac{Q}{r}$ 4: _____
2: _____ 5: _____
3: _____ 6: _____

SITE LOCATIONS

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



202-GSH 1062

ELC
Community
Description and
Classification

Site: 608/6A
Surveyor(s): JKS/ky
UTMZ: UTM12
Date: July 20, 2011
Time start: 10:13 am
finish: 12:30 pm
UTMZ: UTM12
Polygon: CE 47

Polygon Description 26°C - full sun 34°C, moist to wet

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
☐ Tree		☐ Bluff		☐ Forest
				☐ Plantation

Stand Description

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	1	4	CARONAT > FRAPEN > QURMACE > CARCORA
2	3	3	CARONAT > FRAPEN
3	4	3	FRAPEN
4	6	3	FRAPEN > FRAPEN > EUDODV

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

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

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

Com. Age:	☐ Pioneer ☐ Young ☒ Mid-Age ☐ Mature ☐ Old Growth
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Ecosite:	Code: <u>F02</u>
Vegetation Type:	Code: <u>F509-4</u>
Inclusion:	Code: <u>WUM</u>
Complex:	Code:

Community Profile Diagram/Comments

inclination with ridges from west to east
very moist forest

Notes:

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
CARONAT	111					
QURMACE	1					
CARCORA	11					
POTDET	1					
Total	16					100
Basal Area (BA)	32					
Dead						

Soils Ontario and ELC Soils Description

Site Metrics		Pit/Auger #	Soils Description				Summary
UTM	Zone	17					Moisture Regime
	Easting	448933					
	Northing	4790572					
	Position	Mid					
	Aspect	NW					
Slope	Percent	5%					Drainage
	Slope	50m					
	Length	22cm					
Depth to...	Mottles						Effective Texture (Indicate below)
	Gley						
	Water Table						
	Carbonates						
	Bedrock						
Soil Horizon Description	1	Depth from zero	0	% CF		% CF	% CF
		Texture	loam (s&s)				
	2	Depth from zero	19cm	% CF		% CF	% CF
		Texture	Clay				
	3	Depth from zero		% CF		% CF	% CF
		Texture					
	4	Depth from zero		% CF		% CF	% CF
		Texture					
		% Surface Stone/Rock					
		Moisture Regime	5 moist				
	Drainage	1/P					

42 cm total

Location: Freshen GEL-17
Observer: JESS + JAC

Date: July 20, 2011

Job Number:

6:

SITE LOCATIONS

[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

0.5 ha

Resurveying from Ontario Ministry of Natural Resources
Orthophotography: 2010

N
W E
S

Metres

0 25 50 100

UTM Zone 17N, NAD 83

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Coastal ELC Survey

209_GSH1066

April 2012

Project 60155832

AECOM

Figure 1

ELC

Community Description and Classification

Map #: 20965H1066

Polygon: F009

Surveyor(s): KSK: ksk + Tom Sturges

Date: May 1st 2012

Time start: 8:35am

finish: 11:15am

UTMZ: 448168

UTMN: 4790949

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		☐ Avar		☐ Prairie
Cover		☐ Rockland		☐ Thicket
☐ Open		☐ Beach / Bar		☐ Savannah
☐ Shrub		☐ Sand Dune		☐ Woodland
☒ Treed		☐ Bluff		☐ Forest
				☐ Plantation

Stand Description

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	1	4	CAROVAT - ALBESACC - FRAGRAN - ALERUCC
2	2	3	FAGGRAN - CARCARO -
3	3	3	LUNIBENZ2 CARCARO - CORRACE - PRALVIG
4	6	3	GIARAME - gerMACU - aritrip - mIARACE

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

Stand Composition:	Size Class Analysis:	Standing Snags:	Deadfall / Logs:																								
BA:	<table><tr><td><10</td><td>10-24</td><td>25-50</td><td>>50</td></tr><tr><td>R</td><td>A</td><td>A</td><td>R</td></tr></table>	<10	10-24	25-50	>50	R	A	A	R	<table><tr><td><10</td><td>10-24</td><td>25-50</td><td>>50</td></tr><tr><td>N</td><td>R</td><td>R</td><td>N</td></tr></table>	<10	10-24	25-50	>50	N	R	R	N	<table><tr><td><10</td><td>10-24</td><td>25-50</td><td>>50</td></tr><tr><td>O</td><td>A</td><td>O</td><td>N</td></tr></table>	<10	10-24	25-50	>50	O	A	O	N
<10	10-24	25-50	>50																								
R	A	A	R																								
<10	10-24	25-50	>50																								
N	R	R	N																								
<10	10-24	25-50	>50																								
O	A	O	N																								

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

Com. Age:	☐ Pioneer	☐ Young	☒ Mid-Age	☐ Mature	☐ Old Growth
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Ecosite:	Code:
Vegetation Type:	Code: F009
Inclusion:	Code: SWT2
Complex:	Code:

Community Profile Diagram/Comments

Notes:

Tree Tally by Species

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

Soils Ontario and ELC Soils Description

PH/Auger #		1 (SWT)		Summary			
Site Metrics	Zone	17		Moisture Regime			
	Easting	448168					
	Northing	4790949					
	Position	—					
Slope	Aspect	—		Drainage			
	Percent	—					
	Slope	—					
	Length	—					
Depth to...	Mottles	70cm		Effective Texture (Indicate below)			
	Gley	—					
	Water Table	20cm					
	Carbonates	—					
Soil Horizon Description	Bedrock	—		% CF			
	1	Depth from zero	40				
	Texture	SCL					
	2	Depth from zero	% CF				
Soil Horizon Description	Texture			% CF			
	3	Depth from zero	% CF				
	Texture						
	4	Depth from zero	% CF				
Soil Horizon Description	Texture			% CF			
	% Surface Stone/Rock						
	Moisture Regime						
	Drainage						

ELC

Community Description and Classification

Map #: 20965H1066

Polygon: F009

Surveyor(s):

Date:

Time

start

finish

UTMZ: 448168

UTMN: 4790949

UTMN:

Plant Species List 2012

Page 1 of 2

Trees & Shrubs					Tree & Shrubs					Graminoids				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Conifers					Deciduous					Grasses				
Balsam Fir (<i>Abies balsamea</i>)					White Oak (<i>Quercus alba</i>)					Giant Redtop (<i>Agrostis gigantea</i>)				
Common Juniper (<i>Juniperus communis</i>)					Bur Oak (<i>Quercus macrocarpa</i>)					Redtop (<i>Agrostis stolonifera</i>)				
Eastern Red Cedar (<i>Juniperus virginiana</i>)					Red Oak (<i>Quercus rubra</i>)					Awnless Brome (<i>Bromus inermis</i>)				
Tamarack (<i>Larix laricina</i>)					Alder Buckthorn (<i>Rhamnus alnifolia</i>)					Bromus				
Norway Spruce (<i>Picea abies</i>)					Common Buckthorn (<i>Rhamnus cathartica</i>)					Blue-joint Grass (<i>Calamagrostis canadensis</i>)				
White Spruce (<i>Picea glauca</i>)					Smooth Sumac (<i>Rhus glabra</i>)					Orchard Grass (<i>Dactylis glomerata</i>)				
Black Spruce (<i>Picea mariana</i>)					Staghorn Sumac (<i>Rhus hirta</i>)					Poverty Oat Grass (<i>Danthonia spicata</i>)				
Jack Pine (<i>Pinus banksiana</i>)					Wild Black Currant (<i>Ribes americanum</i>)					Quack Grass (<i>Elymus repens</i>)				
Red Pine (<i>Pinus resinosa</i>)					Prickly Gooseberry (<i>Ribes cynosbati</i>)					Virginia Wild Rye (<i>Elymus virginicus</i>)				
Eastern White Pine (<i>Pinus strobus</i>)					Swamp Black Currant (<i>Ribes lacustre</i>)					<i>Elymus</i>				
Scotch Pine (<i>Pinus sylvestris</i>)					Red Currant (<i>Ribes rubrum</i>)									
Canada Yew (<i>Taxus canadensis</i>)					<i>Ribes</i>					Fowl Manna Grass (<i>Glyceria striata</i>)				
Eastern White Cedar (<i>Thuja occidentalis</i>)					Black Locust (<i>Robinia pseudo-acacia</i>)					<i>Glyceria</i>				
Eastern Hemlock (<i>Tsuga canadensis</i>)					Prickly Rose (<i>Rosa acicularis</i>)					Rice Cut Grass (<i>Leersia oryzoides</i>)				
					Smooth Rose (<i>Rosa blanda</i>)					Tall Fescue (<i>Lolium arundinaceum</i>)				
					Multiflora Rose (<i>Rosa multiflora</i>)					<i>Muhlenbergia</i>				
					<i>Rosa</i>					Witch-grass (<i>Panicum capillare</i>)				
Deciduous					Com. Blackberry (<i>Rubus allegheniensis</i>)					<i>Panicum</i>				
Manitoba Maple (<i>Acer negundo</i>)					Wild Red Raspberry (<i>Rubus idaeus</i>)					Reed Canary Grass (<i>Phalaris arundinacea</i>)				
Black Maple (<i>Acer nigrum</i>)					Black Raspberry (<i>Rubus occidentalis</i>)					Timothy (<i>Phleum pratense</i>)				
Norway Maple (<i>Acer platanoides</i>)					Purple-fl. Raspberry (<i>Rubus odoratus</i>)					Common Reed (<i>Phragmites australis</i>)				
Red Maple (<i>Acer rubrum</i>)					Dwarf Raspberry (<i>Rubus pubescens</i>)					Canada Blue Grass (<i>Poa compressa</i>)				
Silver Maple (<i>Acer saccharinum</i>)					<i>Rubus</i>					Fowl Meadow Grass (<i>Poa palustris</i>)				
Freeman's Maple (<i>Acer X freemanii</i>)					Peach-leaved Willow (<i>Salix amygdaloides</i>)					Kentucky Bluegrass (<i>Poa pratensis</i>)				
Sugar Maple (<i>Acer saccharum</i>)					Bebb's Willow (<i>Salix bebbiana</i>)					Yellow Foxtail (<i>Setaria pumila</i>)				
Mountain Maple (<i>Acer spicatum</i>)					Pussy Willow (<i>Salix discolor</i>)					Green Foxtail (<i>Setaria viridis</i>)				
Speckled Alder (<i>Alnus incana</i>)					Missouri Willow (<i>Salix eriocephala</i>)									
Downy Serviceberry (<i>Amelanchier arborea</i>)					Sandbar Willow (<i>Salix exigua</i>)									
Serviceberry (<i>Amelanchier sanguinea</i>)					Shining Willow (<i>Salix lucida</i>)									
Yellow Birch (<i>Betula alleghaniensis</i>)					Black Willow (<i>Salix nigra</i>)									
White Birch (<i>Betula papyrifera</i>)					Slender Willow (<i>Salix petiolaris</i>)									
European Birch (<i>Betula pendula</i>)					<i>Salix</i>									
Blue Beech (<i>Carpinus caroliniana</i>)					Hybrid Crack Willow (<i>Salix X rubens</i>)									
Bitternut hickory (<i>Carya cordiformis</i>)					Black-berried Elder (<i>Sambucus nigra</i>)									
Shagbark Hickory (<i>Carya ovata</i>)					Red-berried Elder (<i>Sambucus racemosa</i>)									
Climbing Bittersweet (<i>Celastrus scandens</i>)					Buffaloberry (<i>Shepherdia canadensis</i>)									
Common Hackberry (<i>Celtis occidentalis</i>)					Eur. Mountain Ash (<i>Sorbus aucuparia</i>)									
Buttonbush (<i>Cephalanthus occidentalis</i>)					Narrow Meadow-sweet (<i>Spiraea alba</i>)									
Alt.-leaved Dogwood (<i>Cornus alternifolia</i>)					Common Lilac (<i>Syringa vulgaris</i>)									
Silky Dogwood (<i>Cornus amomum</i>)					Poison-ivy (<i>Toxicodendron rydbergii</i>)									
Bunchberry (<i>Cornus canadensis</i>)					Climbing Poison-ivy (<i>Toxicodendron radicans</i>)									
Gray dogwood (<i>Cornus racemosa</i>)					White Elm (<i>Ulmus americana</i>)									
Round-leaved Dogwood (<i>Cornus rugosa</i>)					Siberian Elm (<i>Ulmus pumila</i>)									
Red-osier Dogwood (<i>Cornus sericea</i>)					Slippery Elm (<i>Ulmus rubra</i>)									
American Hazel (<i>Corylus americana</i>)					Low Blueberry (<i>Vaccinium angustifolium</i>)									
Beaked Hazel (<i>Corylus cornuta</i>)					Maple-leaf Viburnum (<i>Viburnum acerifolium</i>)									
Cockspur Thorn (<i>Crataegus crus-galli</i>)					Hobblebush (<i>Viburnum lentago</i>)									
English Hawthorn (<i>Crataegus monogyna</i>)					Nannyberry (<i>Viburnum lentago</i>)									
Large-fruited Thorn (<i>Crataegus punctata</i>)					Guelder-Rose (<i>Viburnum opulus</i>)									
<i>Crataegus mollis</i>					Downy Arrow-wood (<i>Vib. rafinesquianum</i>)									
<i>Crataegus</i>					Riverbank Grape (<i>Vitis riparia</i>)									
Bush Honeysuckle (<i>Lonicera linearis</i>)					Am. Prickly-ash (<i>Zanthoxylum americanum</i>)									
Russian Olive (<i>Elaeagnus angustifolia</i>)					<i>FRAGARIA VIRG</i>									
Autumn Olive (<i>Elaeagnus umbellata</i>)														
Run. Strawberry-bush (<i>Euonymus obovata</i>)														
American Beech (<i>Fagus grandifolia</i>)														
Glossy Buckthorn (<i>Frangula alnus</i>)														
White Ash (<i>Fraxinus americana</i>)														
Black Ash (<i>Fraxinus nigra</i>)														
Green Ash (<i>Fraxinus pennsylvanica</i>)														
Witch-hazel (<i>Hamamelis virginiana</i>)														
Winterberry (<i>Ilex verticillata</i>)														
Butternut (<i>Juglans cinerea</i>)														
Black Walnut (<i>Juglans nigra</i>)														
Common Privet (<i>Ligustrum vulgare</i>)														
Spicebush (<i>Lindera benzoin</i>)														
Fly Honeysuckle (<i>Lonicera canadensis</i>)														
Glaucous Honeysuckle (<i>Lonicera dioica</i>)														
Morrow's Honeysuckle (<i>Lonicera morrowii</i>)														
Tartarian Honeysuckle (<i>Lonicera tatarica</i>)														
Common Apple (<i>Malus pumila</i>)														
White Mulberry (<i>Morus alba</i>)														
Sweet Gale (<i>Myrica gale</i>)														
Ironwood (<i>Ostrya virginiana</i>)														
Thicket-creep-er (<i>Parthenocissus inserta</i>)														
Ninebark (<i>Physocarpus opulifolius</i>)														
Balsam Poplar (<i>Populus balsamifera</i>)														
Eastern Cottonwood (<i>Populus deltoides</i>)														
Large-tooth Aspen (<i>Populus grandidentata</i>)														
Trembling Aspen (<i>Populus tremuloides</i>)														
Sweet Cherry (<i>Prunus avium</i>)														
Pin Cherry (<i>Prunus pensylvanica</i>)														
Black Cherry (<i>Prunus serotina</i>)														
Choke Cherry (<i>Prunus virginiana</i>)														
<i>Prunus</i>														

D - Dominant - represented by large numbers generally forming >10% ground cover or >25% vegetation cover in any one stratum

F - Fairly common (=Abundant in ELC) generally widespread represented by fairly large numbers of individual clumps, usually forming >10% ground cover

U - Uncommon (=Occasional in ELC) present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category)

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

Map Number:	2012SH1066	1	F002-1	4	Cup3-2
Date:	May 1st 2012	2	F009/R/L (inclusion)	5	same OAD
Surveyors:	JP + TS	3	Cup3 & 4 (inclusion)		

Page 2 of 2

Map Number: 209 G 81 066	1	F002-1	4	Cup 3-2					
Date: May 1 2012	2	F009	5	OAO					
Surveyors: SP TS	3	Cup 3							

Significant Wildlife Habitat Form

A=COM

Study Area:	BLW	JER	(GSH)	Map #:	209-6SH1066
Date:	2012-05-01			Time Started:	8:36 AM
Field Staff:	Tom Sharney JESS Pielle			Time Finished:	11:15 AM
Weather Conditions: overcast, 8°C, light breeze					

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

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

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): unknown % open water: 90% % emergent vegetation: 5%

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

Area and soil/substrate of shoreline habitat: Little exposed soil along pond edge.
mineral → Sandy Soil → Thick shrub cover

Type and abundance of cover in open water habitat: 0% veg cover.
Fallen woody debris in portions pond would contribute to habitat structure

Type and abundance of cover in surrounding habitat: 80% Shrub / Noe cover
Species include Populus, betula, Acer Nigrum, Fraxinus

Evidence of disturbance (e.g. cattle grazing): Active management → driveway

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs, marsh breeding birds): Spotted
two Amphibians → (too fast to identify) → Canada Goose Scat on driveway

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

A=COM

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: 448233 4791039

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

over dam which is located on large green pond
Evidence of use by bank or cliff swallows (provide number of nests): No Evidence
of use by bank/cliff swallows

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
12, 13	Large pond		
15	Bridge structure		

A=COM

Field Staff: Tom Shoney
Jess Piette

Time Started: 8:36 AM
Time Finished: 11:15 AM

Observed Species List

[illegible]

Note:	Evidence Codes (EV)	<u>Breeding Bird (Possible)</u>	SH=Suitable Habitat, SM=Singing Male;

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

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

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

~~#~~ Not observed

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
PLANTS			
FOD7	American Gromwell (<i>Lithospermum latifolium</i>) - S3 Bloom Time - Spring	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y (N) UTM: 1
ALO, TPO	Muehlenberg's astomum moss (<i>Astomum muehlenbergianum</i>) - S2 Bloom Time - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie	Y (N) UTM:
FOM1, FOM2, CUP3	Autumn Coral-root (<i>Corallorhiza odoratior</i>) - S2 Bloom Time - summer to fall	Oak (pine wood) or occasionally in open, red pine or white pine plantations Dry, sand, woods	Y (N) UTM: N/O
FOC, FOM, FOD	Burning Bush (<i>Euronymus atropurpureus</i>) - S3 Bloom Time - April - June	Species occurs in dry to moist deciduous thickets in woods	Y (N) UTM: N/O
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (<i>Conioselinum chinense</i>) - S2 Bloom Time - summer to fall	Swampy places with deciduous trees, white cedars, tamarack; springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes.	Y (N) UTM:
MAM, MAS	Growned Beggarticks (<i>Bidens trichosperma</i>) - S2 Bloom Time - late summer	Found in openings in swamps, marshes, along shores & wet fields within the Carolinian zone and southeastern Georgian Bay. Bog, fens, tamarack swamps.	Y (N) UTM:
ALT1, FOD7	Eastern Green-violet (<i>Hybanthus concolor</i>) - S2 Bloom Time - mild March to August	Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone. Includes floodplains and river banks.	Y (N) UTM:
TPS, TPW, FOM1, FOM2	Foggy's Goodenot (<i>Chenopodium foggi</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>) - S17 Bloom Time -	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y (N) UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

AECOM

ELC	Species	Habitat Description	Habitat Present (Y/N); UTM description of habitat if present
CUM1, MAM, FOD6, FOD7, FOD8	June – August Green Dragon (<i>Arisaema dracontium</i>) - SC/S3 Bloom Time – May and June	Species found in damp deciduous forestland along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	Y N UTM: N/O
TP01, TP51, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June-August Hairy Bedstraw (<i>Gelium pilosum</i>) - S3 Bloom Time – June-August	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y N UTM: N/O
FE01, FE51, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	Hairy Valerian (<i>Valeriana edulis</i>) - S1 Bloom Time – June to August	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky herbaceous and fens.	Y N UTM:
FOD6, FOD7, SWM, SWD	Hairy Wood Mint (<i>Blephilia hirsuta</i>) - S1 Bloom Time – Summer	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.	Y N UTM:
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Erigenia 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	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:
FOM8, FOM7, FOM8	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	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:
FOD6, FOD7, FOD8	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	Pilose 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	Prostrate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 Bloom Time – July-September	Dry, sandy or rocky woods	Y N UTM:
FOD7, SWD	Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? Bloom Time – March – June	Swamps and floodplains	Y N UTM:
CUW1, ALO, FET1, SWC	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	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: N/O
FOD6, FOD7, FOD8	Round-leaved Groundsel (<i>Packera obovata</i>) - S3 Bloom Time – May – June	Found in moist woods	Y N UTM: N/O
CUM1, CUT1, CUS1	Round-leaved Hawthorn (<i>Crataegus lumarla</i>) - S3?	Species occurs in old fields, poorly managed pastures, fence lines and roadsides	Y N UTM: N/O
FOD4, FOD7, FOD8, FOD9, FOT2, FOT3	Scarlet Beebalm (<i>Monarda didyma</i>) - S3 Bloom Time – May to October	Found in moist, rich woods, pocket swamps, banks and floodplains.	Y N UTM: N/O
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star (<i>Liatris cylindracea</i>) - S3	Species occurs in limestone and dolostone pavement, prairies, open woods; alvars and moist sandy meadows.	Y N UTM:
SBO, SBS, SBT, TPO1, TP51, TPW1, FOD1, FOD2	Slender Knotweed (<i>Polygonum tenue</i>) - S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows; edges of sand pits	Y N UTM: N/O
SDT1, FOD5, FOD8	Slim-flowered Muhly (<i>Muhlenbergia tenuiflora</i>) - S2	Found in rich deciduous forests, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y N UTM: N/O
BLO1, BLS1, BLT1, TPO2, TFS2, TPW2, MAM2, FOD7	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:
TP51, TPW1, CUW1, RBO, SBO	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 of Conservation Concern Habitat and Incidental Wildlife – Goshen

AECOM

ELC	Species	Habitat Description	Habitat Present (Y/N) UTM: description of habitat if present
LEQ1, 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: N/A
FEQ, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>Arnoglossum plantaginifolium</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:
CUM4, 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 woods and thickets, meadows, barrens, ledges, outcrops, banks and old fields.	Y N UTM: N/A
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 areas or wooded areas.	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 sites. Riparian woodlands are preferred stopover sites during migration.	Y N UTM:
FOD, CUW, CUT	Red-headed Woodpecker (<i>Meianerpes 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>Aio 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. 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: N/A
CUM, CUT1, CUW1	Monarch Butterfly (<i>Danaus plexippus</i>) - SC	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:
TPS, CUW	Mottled Duskywing (<i>Erynnis martialis</i>) - S2	Species inhabits densely wooded riparian areas, dry woods, open woods, barrens and parks. Usually occurs near Hackberry, the larval foodplant	Y N UTM: N/A
SWT, SWD, SWM, FOM, FOD, 3, TPW, TPS, CUM1	Tawny Emperor (<i>Asterocampa clyton</i>) - S3	This species is restricted to rich, moist, deciduous woods, where its foodplant toothwort occur	Y N UTM:
FOD5	West Virginia White (<i>Pieris virginianensis</i>) - SC		Y N UTM:

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Surveyors: JK+TS

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 inventory by less than about five individuals or small clumps