

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

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW JER <u>GSH</u>	Map #:	<u>739 GSH 2914</u>
Date:	<u>July 5, 2012</u>	Time Started:	<u>1:00 pm</u>
Field Staff:	<u>SG</u>	Time Finished:	<u>3:30 pm</u>
Weather Conditions:	<u>31°C, 95% clouds, light breeze</u>		

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

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

UTMs: _____ Number of nests: _____

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

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

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

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

UTMs: _____ Area of standing water delineated on field map

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

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

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

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

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

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

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

Snake Hibernacula

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

UTMs: _____ Likelihood to extend below frost line: _____

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

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

Species of Conservation Concern Habitat and Incidental Wildlife - Goshen

AECOM

Time Started: 1:00 pm
Time Finished: 3:30 pm

Field Staff: SG

Map No: 739 6542914
Date (yyyy-mm-dd): 2012-07-03

Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Green Heron		VD					
White Cabbeg		OB					
Flare		OB					
Murrelet		OB					

Notes: Evidence Codes (EV) **SH=Suitable Habitat, SM=Singing Male, T=Territory, D=Display, P=Pair, N=Nest Building, V= Visiting Nest, A=Anxiety Behavior, DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foos/Faecal sack, AE=Nest Entry**
Other Wildlife Evidence: OB=Observed, VO=Vocalization, CA=Carass, DP=Distinctive Parts, HO=House/Den, FY=Eggs/young, TK=Tracks, FE=Feeding evidence, SC= Scat, SI=Other signs (specify)

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
PLANTS			
FOD7	American Gromwell (Lithospermum latifolium) - S3 Bloom Time - Spring	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y N UTM:
ALO, TPO	Muehlenberg's astorum moss (Astorum muehlenbergianum) - S2 Bloom Time - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie	Y N UTM:
FOM1, FOM2, CUP3	Autumn Coral-root (Corallorhiza odontorhiza) - S2 Bloom Time - summer to fall	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.	Y N UTM:
FOD1, FOD2	Burning Bush (Eurohymnus atropurpureus) - S3 Bloom Time - April - June	Species occurs in dry to moist deciduous thickets and woods	Y N UTM: 4/0
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (Conioselinum chinense) - S2 Bloom Time - summer to fall	Swampy places with deciduous trees, white cedars, tamarack; springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes.	Y N UTM:
SWC, SWM, SWD, SWT, MAR, MAS	Crowned Beggardicks (Bidens trichosperma) - S2 Bloom Time - late summer	Found in openings in swamps, marshes, along shores & wet fields within the Carolinian zone and southeastern Georgian bay. Bogs, fens, tamarack swamps.	Y N UTM: 4/0
ACT1, FOD7	Eastern Green-Violet (Hybanthus concolor) - S2 Bloom Time - mid March to August	Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone. Includes floodplains and river banks.	Y N UTM:
TPS, TPW, FOM1, FOM2	Fogg's Goosefoot (Chenopodium foggii) - S2	Species occurs in sandy areas on limestone under oak or pine-oak forests	Y N UTM:
TPO2, TPS2, TPW2,	Giant Ironweed (Vernonia gigantea) - S1? Bloom Time -	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y N UTM: 4/0

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen



ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, (MAM1)	June - August		
FOD6, FOD7, FOD9	Green Dragon (<i>Arisaema dracontium</i>) - SC/S3 Bloom Time - May and June	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	Y (N) UTM:
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	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:
FEO1, FET1, 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 riverbanks and fens.	Y (N) UTM:
FOD6, FOD7, SWM, SWD	Hairy Wood Mint (<i>Blepharista hirsuta</i>) - S1 Bloom Time - Summer	Woodlands, often rocky, especially rivers, swamp forests, floodplains.	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Engenia bulbosa</i>) - S3 Bloom Time - early to late April	Occurs in rich, moist deciduous woods, especially on floodplains	Y (N) UTM:
SAS1, SAM1, SAF1	Hill's Pond Weed (<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	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: n/o.
FOD6, FOD7, FOD9	Pawpaw (<i>Asimina triloba</i>) - S3 Bloom Time - March-May	Occurs in moist deciduous woods and stream banks	Y (N) UTM:
FOM8, FOD6, FOD7, FOD9, CUM1	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:
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:
FOD6, FOD7, FOD9	Round-leaved Groundsel (<i>Packera obovata</i>) - S3 Bloom Time - May - June	Found in moist woods	Y (N) UTM:
CUM1, CUT1, CUS1	Round-leaved hawthorn (<i>Crataegus lumarina</i>) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm (<i>Monarda didyma</i>) - S3 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	Slender Blazing Star (<i>Liatris cylindracea</i>) - S3	Species occurs in limestone and dolostone pavement, prairies, open woods, alvars and moist sandy meadows.	Y (N) UTM:
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed (<i>Polygonum tenue</i>) - S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits	Y (N) UTM:
SOT1, FOD8, FOD9	Slim-flowered Muhly (<i>Muhlenbergia tenuiflora</i>) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y (N) UTM n/o.
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>Gentiana 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: n/o.
TPS1, TPW1, CUW1, RBO, SBO	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 of Conservation Concern Habitat and Incidental Wildlife – Goshen



ELC	Species	Habitat Description	Habitat Present (Y/N); UTM; description of habitat if present)
TP01, TPW1, CUM1	Tail Blazing Star (<i>Liatrix aspera</i>) - S2/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; n/a.
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; not venture
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/edges (oak savannahs and riparian forests), 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; n/a.
-	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; n/a.
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			
OAC, 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, CUM4	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
FOD3	West Virginia White (<i>Pieris virginiana</i>) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM; n/a.

Done May 3, 2012
SG/RA

- Legend**
- Transmission Line
 - Waterbodies
 - Watercourse
 - PSW
 - ABCA Regulation Limit
 - Properties
 - ELC
 - Valleylands
 - Disturbance Area (180m Buffer)

Base Mapping from Ontario Ministry of Natural Resources
Orthorectification 2010
Datum Impact April 4, 2012



This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by other parties without the express written consent of AECOM. AECOM does not assume any responsibility for any errors or omissions, or for any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent.

ELC Survey
Goshen ELC Survey -
Transmission Line
739_GSH2914
April 2012
Project 80155032



Figure 1



Plant Species List
2012

Trees & Shrubs						Tree & Shrubs						Graminoids					
1	2	3	4	5		1	2	3	4	5		1	2	3	4	5	
Conifers						Deciduous						Grasses					
Balsam Fir (<i>Abies balsamea</i>)						White Oak (<i>Quercus alba</i>)						Giant Redtop (<i>Agrostis gigantea</i>)					
Common Juniper (<i>Juniperus communis</i>)						Bur Oak (<i>Quercus macrocarpa</i>)						Redtop (<i>Agrostis stolonifera</i>)					
Eastern Red Cedar (<i>Juniperus virginiana</i>)						Red Oak (<i>Quercus rubra</i>)						Awnless Brome (<i>Bromus 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>)						Elymus					
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>)						Muhlenbergia					
						<i>Rosa</i>						Witch-grass (<i>Panicum capillare</i>)					
Deciduous												Panicum					
Manitoba Maple (<i>Acer negundo</i>)						Com. Blackberry (<i>Rubus allegheniensis</i>)						Reed Canary Grass (<i>Phalaris arundinacea</i>)					
Black Maple (<i>Acer nigrum</i>)						Wild Red Raspberry (<i>Rubus idaeus</i>)						Timothy (<i>Phleum pratense</i>)					
Norway Maple (<i>Acer platanoides</i>)						Black Raspberry (<i>Rubus occidentalis</i>)						Common Reed (<i>Phragmites australis</i>)					
Red Maple (<i>Acer rubrum</i>)						Purple-fl. Raspberry (<i>Rubus odoratus</i>)						Canada Blue Grass (<i>Poa compressa</i>)					
Silver Maple (<i>Acer saccharinum</i>)						Dwarf Raspberry (<i>Rubus pubescens</i>)						Fowl Meadow Grass (<i>Poa palustris</i>)					
Freeman's Maple (<i>Acer X freemanii</i>)						<i>Rubus</i>						Kentucky Bluegrass (<i>Poa pratensis</i>)					
Sugar Maple (<i>Acer saccharum</i>)						Peach-leaved Willow (<i>Salix amygdaloides</i>)						Yellow Foxtail (<i>Setaria pumila</i>)					
Mountain Maple (<i>Acer spicatum</i>)						Bebb's Willow (<i>Salix bebbiana</i>)						Green Foxtail (<i>Setaria viridis</i>)					
Speckled Alder (<i>Ainus incana</i>)						Pussy Willow (<i>Salix discolor</i>)											
Downy Serviceberry (<i>Amelanchier arborea</i>)						Missouri Willow (<i>Salix eriocephala</i>)											
Serviceberry (<i>Amelanchier sanguinea</i>)						Sandbar Willow (<i>Salix exigua</i>)											
Yellow Birch (<i>Betula alleghaniensis</i>)						Shining Willow (<i>Salix lucida</i>)											
White Birch (<i>Betula papyrifera</i>)						Black Willow (<i>Salix nigra</i>)											
European Birch (<i>Betula pendula</i>)						Slender Willow (<i>Salix petiolaris</i>)											
Blue Beech (<i>Carpinus caroliniana</i>)						<i>Salix</i>											
Bitternut hickory (<i>Carya cordiformis</i>)						Hybrid Crack Willow (<i>Salix X rubens</i>)											
Shagbark Hickory (<i>Carya ovata</i>)						Black-berried Elder (<i>Sambucus nigra</i>)											
Climbing Bittersweet (<i>Celastrus scandens</i>)						Red-berried Elder (<i>Sambucus racemosa</i>)											
Common Hackberry (<i>Celtis occidentalis</i>)						Buffaloberry (<i>Shepherdia canadensis</i>)											
Buttonbush (<i>Cephalanthus occidentalis</i>)						Eur. Mountain Ash (<i>Sorbus aucuparia</i>)						Sedges					
Alt.-leaved Dogwood (<i>Cornus alternifolia</i>)						Narrow Meadow-sweet (<i>Spiraea alba</i>)						Drooping Wood Sedge (<i>Carex arctata</i>)					
Silky Dogwood (<i>Cornus amomum</i>)						Common Lilac (<i>Syringa vulgaris</i>)						Golden-fruited Sedge (<i>Carex aurea</i>)					
Bunchberry (<i>Cornus canadensis</i>)						Poison-ivy (<i>Toxicodendron rydbergii</i>)						Graceful Sedge (<i>Carex gracillima</i>)					
Gray dogwood (<i>Cornus racemosa</i>)						Climbing Poison-ivy (<i>Toxicodendron radicans</i>)						Inland Sedge (<i>Carex interior</i>)					
Round-leaved Dogwood (<i>Cornus rugosa</i>)						White Elm (<i>Ulmus americana</i>)						Bladder Sedge (<i>Carex intumescens</i>)					
Red-osier Dogwood (<i>Cornus sericea</i>)						Siberian Elm (<i>Ulmus pumila</i>)						Lake-bank Sedge (<i>Carex lacustris</i>)					
American Hazel (<i>Corylus americana</i>)						Slippery Elm (<i>Ulmus rubra</i>)						Hop Sedge (<i>Carex lupulina</i>)					
Beaked Hazel (<i>Corylus cornuta</i>)						Low Blueberry (<i>Vaccinium angustifolium</i>)						Pennsylvania Sedge (<i>Carex pensylvanica</i>)					
Cockspur Thorn (<i>Crataegus crus-galli</i>)						Maple-leaf Viburnum (<i>Viburnum acerifolium</i>)						Awi-fruited Sedge (<i>Carex stipata</i>)					
English Hawthorn (<i>Crataegus monogyna</i>)						Hobblebush (<i>Viburnum lantanoideis</i>)						Fox Sedge (<i>Carex vulpinoidea</i>)					
Large-fruited Thorn (<i>Crataegus punctata</i>)						Nannyberry (<i>Viburnum lentago</i>)						Carex					
<i>Crataegus</i>						Guelder-Rose (<i>Viburnum opulus</i>)						Carex					
<i>Crataegus</i>						Downy Arrow-wood (<i>Vib. rafinesquianum</i>)						Carex					
Bush Honeysuckle (<i>Dierilla lonicera</i>)						Riverbank Grape (<i>Vitis riparia</i>)						Carex					
Russian Olive (<i>Elaeagnus angustifolia</i>)						Am. Prickly-ash (<i>Zanthoxylum americanum</i>)						Carex					
Autumn Olive (<i>Elaeagnus umbellata</i>)						<i>MALUS PUMILA</i>						Carex					
Run. Strawberry-bush (<i>Euonymus obovata</i>)												Carex					
American Beech (<i>Fagus grandifolia</i>)												Carex					
Glossy Buckthorn (<i>Frangula alnus</i>)												Carex					
White Ash (<i>Fraxinus americana</i>)						Ferns & Allies						Carex					
Black Ash (<i>Fraxinus nigra</i>)						Lady Fern (<i>Athyrium filix-femina</i>)						Carex					
Green Ash (<i>Fraxinus pennsylvanica</i>)						Rattlesnake Fern (<i>Botrychium virginianum</i>)						Cyperus					
Witch-hazel (<i>Hamamelis virginiana</i>)						Bulbet Bladder Fern (<i>Cystopteris bulbifera</i>)						Redroot Spike-rush (<i>Eleocharis erythropoda</i>)					
Winterberry (<i>Ilex verticillata</i>)						Spin. Wood Fern (<i>Dryopteris carthusiana</i>)						Eleocharis					
Butternut (<i>Juglans cinerea</i>)						Crested Wood Fern (<i>Dryopteris cristata</i>)						Hard-stem Bulrush (<i>Schoenoplectus acutus</i>)					
Black Walnut (<i>Juglans nigra</i>)						Marginal Wood Fern (<i>Dryopteris marginalis</i>)						Three-square Bulrush (<i>Sch. pungens</i>)					
Common Privet (<i>Ligustrum vulgare</i>)						<i>Dryopteris</i>						Soft-stem Bulrush (<i>Sch. tabernaemontani</i>)					
Spicebush (<i>Lindera benzoin</i>)						Ostrich Fern (<i>Matteuccia struthiopteris</i>)						Dark-green Bulrush (<i>Scirpus atrovirens</i>)					
Fly Honeysuckle (<i>Lonicera canadensis</i>)						Sensitive Fern (<i>Onoclea sensibilis</i>)						Wool-grass (<i>Scirpus cyperinus</i>)					
Glaucous Honeysuckle (<i>Lonicera dioica</i>)						Cinnamon Fern (<i>Osmunda cinnamomea</i>)											
Morrow's Honeysuckle (<i>Lonicera morrowii</i>)						Interrupted Fern (<i>Osmunda claytoniana</i>)											
Tartarian Honeysuckle (<i>Lonicera tatarica</i>)						Royal Fern (<i>Osmunda regalis</i>)											
Common Apple (<i>Malus pumila</i>)						Christmas Fern (<i>Polystichum acrostichoides</i>)											
White Mulberry (<i>Morus alba</i>)						Eastern Bracken-fern (<i>Pteridium aquilinum</i>)											
Sweet Gale (<i>Myrica gale</i>)						Marsh Fern (<i>Thelypteris palustris</i>)						Other Graminoids					
Ironwood (<i>Ostrya virginiana</i>)												Broad Bur-reed (<i>Sparganium eurycarpum</i>)					
Thicket-creepers (<i>Parthenocissus inserta</i>)												Narrow-leaved Cattail (<i>Typha angustifolia</i>)					
Ninebark (<i>Physocarpus opulifolius</i>)						Field Horsetail (<i>Equisetum arvense</i>)						Broad-leaved Cattail (<i>Typha latifolia</i>)					
Balsam Poplar (<i>Populus balsamifera</i>)						Scouring-rush (<i>Equisetum hyemale</i>)						Broad-leaved Cattail (<i>Typha X glauca</i>)					
Eastern Cottonwood (<i>Populus deltoides</i>)						Variegated Horsetail (<i>Equisetum variegatum</i>)						Articulated Rush (<i>Juncus articulatus</i>)					
Large-tooth Aspen (<i>Populus grandidentata</i>)						<i>Equisetum</i>						Soft Rush (<i>Juncus effusus</i>)					
Trembling Aspen (<i>Populus tremuloides</i>)						Ground-cedar (<i>Lycopodium digitatum</i>)						Path Rush (<i>Juncus tenuis</i>)					
Sweet Cherry (<i>Prunus avium</i>)						Shining Clubmoss (<i>Lycopodium lucidulum</i>)						Juncus					
Pin Cherry (<i>Prunus pennsylvanica</i>)						Ground-pine (<i>Lycopodium obscurum</i>)						Juncus					
Black Cherry (<i>Prunus serotina</i>)																	
Choke Cherry (<i>Prunus virginiana</i>)																	
Prunus																	
D - Dominant: represented by large numbers, generally forming >10% ground cover or >25% vegetation cover in any one stratum																	
F - Fairly common (=Abundant in ELC): generally widespread represented by fairly large numbers of individual clumps; usually forming >10% ground cover																	
U - Uncommon (=Occasional in ELC): present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category)																	
R - Rare: represented in the polygon by less than about five individuals or small clumps																	
Map Number: 739 GSH 2910						MAM 2-2											
Date: May 3, 2012																	
Surveyors: RA SG																	

Plant Species List
2012

Table with 3 main columns: Dicot Herbs - Asteraceae, Dicot Herbs, and Dicot Herbs. Each column has 5 sub-columns for abundance (1-5). Lists various plant species like Common Yarrow, White Snakeroot, and Shepherd's Purse with their respective abundance counts.

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: 739-GSH-2914
Date: May 3, 2012
Surveyors: RA, SG

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	<u>(GSH)</u>	Map #:	<u>739-GSH-2914</u>
Date:	<u>May 3, 2012</u>			Time Started:	<u>10:15 am</u>
Field Staff:	<u>SF, AA</u>			Time Finished:	<u>11:15 am</u>
Weather Conditions:	<u>humid, 16°C, little wind.</u>				

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

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

UTMs: _____ Number of nests: _____

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

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

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

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

UTMs: _____ Area of standing water delineated on field map

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

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

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

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

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds:
frogs observed, but not standing water

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

Snake Hibernacula

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

UTMs: _____ Likelihood to extend below frost line: _____

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

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

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

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

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

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

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)
 (CUM1, CUT1, CUS, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1)
 Eroding bank, sandy hill, pits, steep slope or rock face present:
 No Yes (if yes, photograph and complete the following)
 UTM: _____ Location (e.g. aggregate pit, bridge): _____
 Evidence of use by bank or cliff swallows (provide number of nests): _____

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas
 (BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1, MAM2, MAM3, MAM4, MAM5)
 Shoreline of lake, large river or large wetland present:
 No Yes (if yes, photograph and complete the following)
 UTM: _____ Rocky island or peninsula present: _____
 Mudflat present: _____ Evidence of disturbance (e.g. cattle grazing): _____
 Description of habitat (size of rocky outcrop/mudflat, substrate/soil type, type and abundance of cover): _____

Raptor Winter Feeding and Roosting, Open Country or Shrub/Early Successional Bird Breeding Habitat
 CUT1, CUS1, >30ha, CUM1 >30ha, FOC, FOD, FOM with a CUM, CUT, CUS, CUW > 20ha, or a CUM, CUS, CUT, CUW >15ha
 Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, CUS, CUW) present:
 Large open habitat present: No Yes (if yes, photograph and complete the following)
 UTM: _____ Evidence of disturbance (e.g. cattle grazing): _____
 Description of habitat (abundance of food plants for rodents, abundance of perches, height of vegetation): _____

Old-growth or Mature Forests, Interior Forest Breeding Birds
 (FOD, FOC, FOM, SWC, SWM, SWD. Mature forest (>60 years) present)
 Mature forest present: No Yes (if yes, photograph and complete the following)
 UTM: _____ Age of oldest trees: _____
 Evidence of disturbance (e.g. selective cutting): _____
 Description of habitat (structural complexity, abundance of snags and/or downed woody debris, etc): _____

Photo #	Location or Subject	Photo #	Location or Subject

Species Conservation Concern Habitat and Incidental Wildlife - Goshen

Map No: 739-GSH 2014

Field Staff: SG, RA

Time Started: 10:15 AM

Date (yyyy-mm-dd): 2012, Nov 3

Time Finished: 11:15 AM



Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Brown headed cowbird		VO					
horned lark		VO					
white collared		OB					
tufted titmouse		OB					
red bellied woodpecker		VO					
American robin		VO					
Downy Woodpecker		HO	PIC 100 - 608				
Red cardinal		OB					

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

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

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

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM,	June - August		
FOD6, FOD7, FOD9	Green Dragon (<i>Arisaema dracontium</i>) - S1/S3 <u>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
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Hairy Bedstraw (<i>Galium pilosum</i>) - S3 <u>Bloom Time - June-August</u>	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y (N) UTM
FEO1, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	Hairy Valerian (<i>Valeriana edulis</i>) - S1 <u>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	Hairy Wood Mint (<i>Blephilia hirsuta</i>) - S1 <u>Bloom Time - Summer</u>	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains	Y (N) UTM
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Eigenia bulbosa</i>) - S3 <u>Bloom Time - early to late April</u>	Occurs in rich, moist deciduous woods, especially on floodplains	Y (N) UTM
SAS1, SAM1, SAF1	Hill's Pond Weed (<i>Potamogeton hillii</i>) - SC/S2 <u>Bloom Time - summer</u>	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y (N) UTM
FOM6, FOM7, FOM8	Large Round-leaved Orchid (<i>Platanthera macrophylla</i>) - S2 <u>Bloom Time - 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	Lizard's Tail (<i>Saururus cernuus</i>) - S3 <u>Bloom Time - June - September</u>	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: NO (not observed)
FOD6, FOD7, FOD9	Pawpaw (<i>Asimina triloba</i>) - S3 <u>Bloom Time - March-May</u>	Occurs in moist deciduous woods and stream banks	Y (N) UTM
FOM6, FOD6, FOD7, FOD9, CUM1	Pilose Evening Primrose (<i>Oenothera pilosella</i>) - S2 <u>Bloom Time - Late Spring - Early Summer</u>	Moist edges of woods and open, disturbed ground	Y (N) UTM
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostrate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 <u>Bloom Time - July-September</u>	Dry, sandy or rocky woods	Y (N) UTM
FOD7, SWD	Pumpkin Ash (<i>Fraxinus profunda</i>)-S2? <u>Bloom Time - March - June</u>	Swamps and floodplains	Y (N) UTM
CUW1, ALO, FET1, SWC	Ram's-head Lady's-slipper (<i>Cypripedium arietinum</i>) - S3 <u>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	Rattlesnake Hawkweed (<i>Hieracium venosum</i>) - S2 <u>Bloom Time - April - September</u>	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands	Y (N) UTM
FOD6, FOD7, FOD9	Round-leaved Groundsel (<i>Packera obovata</i>) - S3 <u>Bloom Time - May - June</u>	Found in moist woods	Y (N) UTM
CUM1, CUT1, CUS1	Round-leaved hawthorn (<i>Crataegus lumaria</i>) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y (N) UTM
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm (<i>Monarda didyma</i>) - S3 <u>Bloom Time - May to October</u>	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y (N) UTM
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star (<i>Liatris cylindracea</i>) - S3	Species occurs in limestone and dolostone pavement, prairies, open woods; always and moist sandy meadows.	Y (N) UTM
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed (<i>Polygonum tenue</i>)-S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits	Y (N) UTM
SDT1, FOD5, FOD9	Slim-flowered Muhly (<i>Muhlenbergia tenuiflora</i>) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y (N) UTM
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>Gentiana quinquefolia</i>) - S2 <u>Bloom Time - 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
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine (<i>Lupinus perennis</i>) - S3 <u>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



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:
FE0, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>Arnoglossum plantagineum</i>) - S3	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	Y (N) UTM: Not sandy soils to wet
FOC1, FOC2, FOC3, FOC4	Woodland Pinedrops (<i>Pterospora andromedea</i>) - S2	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	Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.	Y (N) UTM:
BIRDS			
-	Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk (<i>Chordeiles minor</i>) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y (N) UTM:
FOD, FOM	Louisiana Waterthrush (<i>Selurus motacilla</i>) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y (N) UTM:
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/ edges (oak savannahs and riparian forest), open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	Y (N) UTM:
-	Short Eared Owl (<i>Asio flammeus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC	Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y (N) UTM:
REPTILES			
-	Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Milksnake (<i>Lampropeltis triangulum</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Snapping Turtle (<i>Chelydra serpentina</i>) - SC	Assessed as SWH. Record species if found.	not required.
INSECTS			
OAO, SA, SWM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) -S3	Species inhabits fishless ponds, lakes and boggy swamps	Y (N) UTM:
TPS, TPW	Sleepy Duskywing (<i>Erynnis brize</i>) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles	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 clyfen</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 virginiensis</i>) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM:

Wetland Data Collection Sheet



Study area: 739 GSH 214 GSH	Map No: 739 GSH 214
Date (yyyy-mm-dd): 2012, May 3	Time Started: 10:15am
Field Staff: SG, RA	Time Finished: 11:15am

Presence of Groundwater No Yes

bank seepage iron staining groundwater indicator

Site Type

Lacustrine (associated with lakes) Isolated

Riverine (associated with rivers)

Palustrine absent or intermittent inflow and either intermittent or permanent outflow

what are the water inputs and outputs? _____

Soils refer to ELC card for soils information

Silty clay loam, 40cm to coarse fragments, culturally mod. field

% open Water

Type 1 - <5% Type 5 - 26-75% (water occurring in a small pattern)

Type 2 - 5-25% (water occurring in one central location) Type 6 - 76-95% (occurring in a central location, vegetation is peripheral)

Type 3 - 5-25% (water occurring in ponds of various sizes) Type 7 - 76-95% (vegetation occurs in patches or diffuse, open stands)

Type 4 - 26-75% (water occurring in a central location) Type 8 - >95% (water occupies over 95% of the area)

Community Descriptions

Vegetation forms

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

Map Code/ ELC Code	Community Description - list at least four dominant species for each form
MAM22	gc-phalaris arundinacea - 100%

Wetland Data Collection Sheet

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

-culturally modified

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



Basemap from Ontario Ministry of Natural Resources
 Orthophotography 2010

UTM Zone 17N, MAD 83
 1:2 000

This drawing has been prepared for the use of AECOM's client and may not be reproduced or relied upon by third parties without the written consent of AECOM. AECOM disclaims any responsibility, and denies any liability whatsoever to any party that modifies this drawing without AECOM's express written consent.

Gathen ELC Survey
754_GSH2119

April 2012
 Project 80155032

AECOM

Figure 1



Map Document in WorkSpace: G:\Projects\754_GSH2119\Map\GSH2119_Survey.mxd
 4/12/2012 9:18:21 PM
 41252012

ELC
Community Description and Classification

Site: 754 551219 Polygon: SWTR
 Surveyor(s): Date: Time start: 10:20 am
 Jels Korte + Tom Shovel May 2, 2012 finish: 12:30 pm
 UTMZ: 45246 UTMZ: 479682 UTMN:

Polygon Description

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

Stand Description

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1			Pine > FRAV > N
2			
3			
4			

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

Stand Composition: Size Class Analysis:

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

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

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

Ecosite: Mineral Thicket Swamp Ecosite Code: SWTZ
Vegetation Type: Code:
Inclusion: Willow Mineral Deciduous Swamp Type Code: SWD4-1
Complex: Code:

Community Profile Diagram/Comments

* Community to be 0.2m tall 0.5m tall in this
 SWD - mineral deciduous swamp
 community

Notes:

Tree Tally by Species

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

Soils Ontario and ELC Soils Description

Pit/Auger #	Soils Description	Summary
1	4524601	Moisture Regime
2	4796802	Moisture Regime
3	4796803	Moisture Regime
4	4796804	Moisture Regime
5	4796805	Moisture Regime
6	4796806	Moisture Regime
7	4796807	Moisture Regime
8	4796808	Moisture Regime
9	4796809	Moisture Regime
10	4796810	Moisture Regime
11	4796811	Moisture Regime
12	4796812	Moisture Regime
13	4796813	Moisture Regime
14	4796814	Moisture Regime
15	4796815	Moisture Regime
16	4796816	Moisture Regime
17	4796817	Moisture Regime
18	4796818	Moisture Regime
19	4796819	Moisture Regime
20	4796820	Moisture Regime
21	4796821	Moisture Regime
22	4796822	Moisture Regime
23	4796823	Moisture Regime
24	4796824	Moisture Regime
25	4796825	Moisture Regime
26	4796826	Moisture Regime
27	4796827	Moisture Regime
28	4796828	Moisture Regime
29	4796829	Moisture Regime
30	4796830	Moisture Regime
31	4796831	Moisture Regime
32	4796832	Moisture Regime
33	4796833	Moisture Regime
34	4796834	Moisture Regime
35	4796835	Moisture Regime
36	4796836	Moisture Regime
37	4796837	Moisture Regime
38	4796838	Moisture Regime
39	4796839	Moisture Regime
40	4796840	Moisture Regime
41	4796841	Moisture Regime
42	4796842	Moisture Regime
43	4796843	Moisture Regime
44	4796844	Moisture Regime
45	4796845	Moisture Regime
46	4796846	Moisture Regime
47	4796847	Moisture Regime
48	4796848	Moisture Regime
49	4796849	Moisture Regime
50	4796850	Moisture Regime
51	4796851	Moisture Regime
52	4796852	Moisture Regime
53	4796853	Moisture Regime
54	4796854	Moisture Regime
55	4796855	Moisture Regime
56	4796856	Moisture Regime
57	4796857	Moisture Regime
58	4796858	Moisture Regime
59	4796859	Moisture Regime
60	4796860	Moisture Regime
61	4796861	Moisture Regime
62	4796862	Moisture Regime
63	4796863	Moisture Regime
64	4796864	Moisture Regime
65	4796865	Moisture Regime
66	4796866	Moisture Regime
67	4796867	Moisture Regime
68	4796868	Moisture Regime
69	4796869	Moisture Regime
70	4796870	Moisture Regime
71	4796871	Moisture Regime
72	4796872	Moisture Regime
73	4796873	Moisture Regime
74	4796874	Moisture Regime
75	4796875	Moisture Regime
76	4796876	Moisture Regime
77	4796877	Moisture Regime
78	4796878	Moisture Regime
79	4796879	Moisture Regime
80	4796880	Moisture Regime
81	4796881	Moisture Regime
82	4796882	Moisture Regime
83	4796883	Moisture Regime
84	4796884	Moisture Regime
85	4796885	Moisture Regime
86	4796886	Moisture Regime
87	4796887	Moisture Regime
88	4796888	Moisture Regime
89	4796889	Moisture Regime
90	4796890	Moisture Regime
91	4796891	Moisture Regime
92	4796892	Moisture Regime
93	4796893	Moisture Regime
94	4796894	Moisture Regime
95	4796895	Moisture Regime
96	4796896	Moisture Regime
97	4796897	Moisture Regime
98	4796898	Moisture Regime
99	4796899	Moisture Regime
100	4796900	Moisture Regime

ELC
Community Description and Classification

Site: 754 GSH2119 Polygon: SWD 63

Surveyor(s): Date: Time start: finish: 10:20 6
1000 Patti May 6, 2012 12:30 000

UTMZ: 4335810 UTMN:

Polygon Description

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

Stand Description

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	4		ACTINOPHYLLIN 2 LINNAMYRIS 1 PACE
2	3		ACTINOPHYLLIN 2 FILIPAN
3	2		P. LAMINIFOLIA
4	2		ACTINOPHYLLIN 1 - V stop

HT Codes: 7 < 0.2m 6 > 0.2-0.5m 5 > 0.5-1m 4 > 1-2m 3 > 2-5m 2 > 5-10m 1 > 10m
 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
		0	A	A	R
		0	R	N	N
		A	0	0	0

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

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

Ecosite: Mable Organic Deciduous Swamp Ecosite Code: SWD6

Vegetation Type: Swamp Mable Organic Deciduous Swamp Type Code: SWD6-3

Inclusion: Code:

Complex: Code:

Community Profile Diagram/Comments

Ground cover layer very sparse but with N mixed patch
 layers of it taller

Notes:

Tree Tally by Species

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

Soils Ontario and ELC Soils Description

Site Metrics		PI/Auger #	Soil Horizon Description				Summary
Zone		1					Moisture Regime
Easting	50	13					
Northing	4245810						
Position	Flat						Drainage
Aspect							
Percent							
Slope							Effective Texture (indicate below)
Length							
Mottles							% CF
Gley							
Water Table							
Carbonates							% CF
Bedrock							
Depth from zero	54cm						
Texture	OM						% CF
Depth from zero							
Texture							
Depth from zero							% CF
Texture							
Depth from zero							
Texture							
Depth from zero							% CF
Texture							
% Surface Stone/Rock							
Moisture Regime	7						
Drainage	VP						

ELC Community Description and Classification

Map #: 754 GSH219 Polygon: MAM 3-2

Surveyor(s): JS.P Date: 2012-05-02 Time start: 10:20am finish: 12:30pm

UTMZ: 452210 UTMZ: 4795789 UTMN:

Polygon Description

System	Substrate	Topographic Feature	Plant Form	Community
<input type="checkbox"/> Terrestrial <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Aquatic <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input checked="" type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock	<input type="checkbox"/> Organic <input checked="" type="checkbox"/> Mineral Soil <input type="checkbox"/> Parent Min. <input type="checkbox"/> Acidic Bedrk <input type="checkbox"/> Basic Bedrk <input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Bottomland <input type="checkbox"/> Terrace <input type="checkbox"/> Valley Slope <input checked="" type="checkbox"/> Tableland <input type="checkbox"/> ROLL. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Alvar <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD. <input checked="" type="checkbox"/> Graminoid <input type="checkbox"/> Fl- orb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Mixed <input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input checked="" type="checkbox"/> Marsh <input type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> Plantation	

Stand Description

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp)
1			
2			
3			
4	6	4	Phaseolus >> Sol. sp. >> Sun sp.

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

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

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

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

Ecosite: Organic Meadow Marsh Code: MAM
 Vegetation Type: Reed-canary Grass Organic Marsh Code: MAM 3-2
 Inclusion: Code:
 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

Site Metrics	PI/Auger #		Soils Description				Summary
	UTM	Zone	Easting	Northing	Position	Aspect	
Slope		17	452210	4795789	Flat		Moisture Regime
Depth to ...	Mottles						
	Gley						
	Water Table						
	Carbonates						
	Bedrock						
Soil Horizon Description	1		Depth from zero		% CF		% CF
	Texture						
	2		Depth from zero		% CF		% CF
	Texture						
	3		Depth from zero		% CF		% CF
	Texture						
	4		Depth from zero		% CF		% CF
	Texture						
% Surface Stone/Rock							
Moisture Regime							
Drainage							

Plant Species List
2012

Trees & Shrubs						Tree & Shrubs						Graminoids					
1	2	3	4	5		1	2	3	4	5		1	2	3	4	5	
Conifers						Deciduous						Grasses					
Balsam Fir (<i>Abies balsamea</i>)						White Oak (<i>Quercus alba</i>)						Giant Redtop (<i>Agrostis gigantea</i>)					
Common Juniper (<i>Juniperus communis</i>)						Bur Oak (<i>Quercus macrocarpa</i>)						Redtop (<i>Agrostis stolonifera</i>)					
Eastern Red Cedar (<i>Juniperus virginiana</i>)						Red Oak (<i>Quercus rubra</i>)						Awnless Brome (<i>Bromus 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>)						Elymus					
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>)						Glyceria					
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>)						Muhlenbergia					
						Rosa						Witch-grass (<i>Panicum capillare</i>)					
Deciduous																	
Manitoba Maple (<i>Acer negundo</i>)						Com. Blackberry (<i>Rubus allegheniensis</i>)						Panicum					
Black Maple (<i>Acer nigrum</i>)						Wild Red Raspberry (<i>Rubus idaeus</i>)						Reed Canary Grass (<i>Phalaris arundinacea</i>)					
Norway Maple (<i>Acer platanoides</i>)						Black Raspberry (<i>Rubus occidentalis</i>)						Timothy (<i>Phleum pratense</i>)					
Red Maple (<i>Acer rubrum</i>)						Purple-fl. Raspberry (<i>Rubus odoratus</i>)						Common Reed (<i>Phragmites australis</i>)					
Silver Maple (<i>Acer saccharinum</i>)						Dwarf Raspberry (<i>Rubus pubescens</i>)						Canada Blue Grass (<i>Poa compressa</i>)					
Freeman's Maple (<i>Acer X freemanii</i>)						<i>Rubus</i>						Fowl Meadow Grass (<i>Poa palustris</i>)					
Sugar Maple (<i>Acer saccharum</i>)						Peach-leaved Willow (<i>Salix amygdaloides</i>)						Kentucky Bluegrass (<i>Poa pratensis</i>)					
Mountain Maple (<i>Acer spicatum</i>)						Bebb's Willow (<i>Salix bebbiana</i>)						Yellow Foxtail (<i>Setaria pumila</i>)					
Speckled Alder (<i>Alnus incana</i>)						Pussy Willow (<i>Salix discolor</i>)						Green Foxtail (<i>Setaria viridis</i>)					
Downy Serviceberry (<i>Amelanchier arborea</i>)						Missouri Willow (<i>Salix eriocephala</i>)											
Serviceberry (<i>Amelanchier sanguinea</i>)						Sandbar Willow (<i>Salix exigua</i>)											
Yellow Birch (<i>Betula alleghaniensis</i>)						Shining Willow (<i>Salix lucida</i>)											
White Birch (<i>Betula papyrifera</i>)						Black Willow (<i>Salix nigra</i>)											
European Birch (<i>Betula pendula</i>)						Slender Willow (<i>Salix petiolaris</i>)											
Blue Beech (<i>Carpinus caroliniana</i>)						<i>Salix</i>											
Bitternut hickory (<i>Carya cordiformis</i>)						Hybrid Crack Willow (<i>Salix X rubens</i>)											
Shagbark Hickory (<i>Carya ovata</i>)						Black-berried Elder (<i>Sambucus nigra</i>)											
Climbing Bittersweet (<i>Celastrus scandens</i>)						Red-berried Elder (<i>Sambucus racemosa</i>)											
Common Hackberry (<i>Celtis occidentalis</i>)						Buffaloberry (<i>Shepherdia canadensis</i>)											
Buttonbush (<i>Cephalanthus occidentalis</i>)						Eur. Mountain Ash (<i>Sorbus aucuparia</i>)											
Alt.-leaved Dogwood (<i>Cornus alternifolia</i>)						Narrow Meadow-sweet (<i>Spiraea alba</i>)						Sedges					
Silky Dogwood (<i>Cornus amomum</i>)						Common Lilac (<i>Syringa vulgaris</i>)						Drooping Wood Sedge (<i>Carex arctata</i>)					
Bunchberry (<i>Cornus canadensis</i>)						Poison-ivy (<i>Toxicodendron rydbergii</i>)						Golden-fruited Sedge (<i>Carex aurea</i>)					
Gray dogwood (<i>Cornus racemosa</i>)						Climbing Poison-ivy (<i>Toxicodendron radicans</i>)						Graceful Sedge (<i>Carex gracillima</i>)					
Round-leaved Dogwood (<i>Cornus rugosa</i>)						White Elm (<i>Ulmus americana</i>)						Inland Sedge (<i>Carex interior</i>)					
Red-osier Dogwood (<i>Cornus sericea</i>)						Siberian Elm (<i>Ulmus pumila</i>)						Bladder Sedge (<i>Carex intumescens</i>)					
American Hazel (<i>Corylus americana</i>)						Slippery Elm (<i>Ulmus rubra</i>)						Lake-bank Sedge (<i>Carex lacustris</i>)					
Beaked Hazel (<i>Corylus cornuta</i>)						Low Blueberry (<i>Vaccinium angustifolium</i>)						Hop Sedge (<i>Carex lupulina</i>)					
Cockspur Thorn (<i>Crataegus crus-galli</i>)						Maple-leaf Viburnum (<i>Viburnum acerifolium</i>)						Pennsylvania Sedge (<i>Carex pennsylvanica</i>)					
English Hawthorn (<i>Crataegus monogyna</i>)						Hobblebush (<i>Viburnum lantanoides</i>)						Aw-fruited Sedge (<i>Carex stipata</i>)					
Large-fruited Thorn (<i>Crataegus punctata</i>)						Nannyberry (<i>Viburnum lentago</i>)						Fox Sedge (<i>Carex vulpinoidea</i>)					
<i>Crataegus</i>						Guelder-Rose (<i>Viburnum opulus</i>)						Carex					
<i>Crataegus</i>						Downy Arrow-wood (<i>Vib. rafinesquianum</i>)						Carex					
Bush Honeysuckle (<i>Dierilla lonicera</i>)						Riverbank Grape (<i>Vitis riparia</i>)						Carex					
Russian Olive (<i>Elaeagnus angustifolia</i>)						Am. Prickly-ash (<i>Zanthoxylum americanum</i>)						Carex					
Autumn Olive (<i>Elaeagnus umbellata</i>)												Carex					
Run. Strawberry-bush (<i>Euonymus obovata</i>)						TRAVIIF						Carex					
American Beech (<i>Fagus grandifolia</i>)												Carex					
Glossy Buckthorn (<i>Frangula alnus</i>)												Carex					
White Ash (<i>Fraxinus americana</i>)												Carex					
Black Ash (<i>Fraxinus nigra</i>)												Carex					
Green Ash (<i>Fraxinus pennsylvanica</i>)												Cyperus					
Witch-hazel (<i>Hamamelis virginiana</i>)												Redroot Spike-rush (<i>Eleocharis erythropoda</i>)					
Winterberry (<i>Ilex verticillata</i>)												Eleocharis					
Butternut (<i>Juglans cinerea</i>)												Hard-stem Bulrush (<i>Schoenoplectus acutus</i>)					
Black Walnut (<i>Juglans nigra</i>)												Three-square Bulrush (<i>Sch. pungens</i>)					
Common Privet (<i>Ligustrum vulgare</i>)												Soft-stem Bulrush (<i>Sch. tabernaemontani</i>)					
Spicebush (<i>Lindera benzoin</i>)												Dark-green Bulrush (<i>Scirpus atrovirens</i>)					
Fly Honeysuckle (<i>Lonicera canadensis</i>)												Wool-grass (<i>Scirpus cyperinus</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-creeper (<i>Parthenocissus inserta</i>)																	
Ninebark (<i>Physocarpus opulifolius</i>)																	
Balsam Poplar (<i>Populus balsamifera</i>)						Field Horsetail (<i>Equisetum arvense</i>)											
Eastern Cottonwood (<i>Populus deltoides</i>)						Scouring-rush (<i>Equisetum hyemale</i>)											
Large-tooth Aspen (<i>Populus grandidentata</i>)						Variegated Horsetail (<i>Equisetum variegatum</i>)											
Trembling Aspen (<i>Populus tremuloides</i>)						<i>Equisetum</i>											
Sweet Cherry (<i>Prunus avium</i>)						Ground-cedar (<i>Lycopodium digitatum</i>)											
Pin Cherry (<i>Prunus pensylvanica</i>)						Shining Clubmoss (<i>Lycopodium lucidulum</i>)											
Black Cherry (<i>Prunus serotina</i>)						Ground-pine (<i>Lycopodium obscurum</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 polygon by less than about five individuals or small clumps

Map Number: 7546SH 2119
 Date: May 2, 2012
 Surveyors: JPT

SWT
 SWD
 MAM

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW JER GSH	Map #:	754 - GSH2119
Date:	2012-05-02	Time Started:	10:20 a.m.
Field Staff:	Tom Shorey Jess Piette	Time Finished:	12:30 p.m.
Weather Conditions:	overcast, 15°C, 20km/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: 452461 4796182 Area of standing water delineated on field map

Water depth (m): +2m % open water: 90 % emergent vegetation: 5%

Description of standing water (permanent pool, evidence of annual spring flooding, etc): Permanent pool in middle of farmers field. Possibly dug.

Area and soil/substrate of shoreline habitat: Shoreline habitat is heavily vegetated with Willow downy, some sedge sp. → mineral soils

Type and abundance of cover in open water habitat: Willow 40% 5% cover overall Sedge sp 60%

Type and abundance of cover in surrounding habitat: Surrounding habitat Swamp thicket gray/red osier dogwood Willow green Ash, cottonwood

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

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: during vegetation survey heard Spring peepers calling → 2

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

Snake Hibernacula

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

UTMs: _____ Likelihood to extend below frost line: _____

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

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

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

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

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

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

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

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

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

No

Yes (if yes, photograph and complete the following)

UTMs: _____

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

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

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

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

Shoreline of lake, large river or large wetland present:

No

Yes (if yes, photograph and complete the following)

UTMs: _____

Rocky island or peninsula present: _____

Mudflat present: _____

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

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

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

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

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

Large open habitat present: No

Yes (if yes, photograph and complete the following)

UTMs: _____

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

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

Old-growth or Mature Forests, Interior Forest Breeding Birds

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

Mature forest present: No

Yes (if yes, photograph and complete the following)

UTMs: _____

Age of oldest trees: _____

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

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

Photo #	Location or Subject	Photo #	Location or Subject
11, 12	Pond → SWD41/SWT2		

Species Conservation Concern Habitat and Incidental Wildlife - Goshen

Map No: 754 - GSH 2119
 Date (yyyy-mm-dd): 2012-05-02

Field Staff: Tom Stoney
 Jess P. Ho

Time Started: 12:30 a.m.
 Time Finished: 12:30 p.m.



Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Song SP		VO					
Killdeer		VO					
Red-winged		VO					
Brown-headed		VO					
Blue Jay		VO					
Red-shouldered		OB					
Flicker		VO					
Deer		TKS					
Rose breasted		OB					
Grasshopper							
Leopard Frog							

Note: Evidence Codes (EV) SH=Suitable Habitat, SM=Singing Male; 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=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Feeds/Faecal sack, AE=Nest Entry

Other Wildlife Evidence: OB=observed, VO=vocalization, CA=Carcass, DP=Distinctive Parts, HO=House/Den, FY=Eggs/Young, TK=tracks, FE=Feeding evidence, SC=Scat, SI=Other signs (specify) *Not observed* → N/O

ELC	Species	Habitat Description	Habitat Present (Y/N); UTM; description of habitat if present)
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:
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>Coralorhiza odontorhiza</i>) - S2 Bloom Time - summer to fall	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.	Y (N) UTM:
FOC, FOM, FOD	Burning Bush (<i>Euonymus atropurpureus</i>) - S3 Bloom Time - April - June	Species occurs in dry to moist deciduous thickets and woods	Y (N) UTM:
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (<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:
SWC, SWM, SWD, SWT, MAM, MAS	Crowned 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. Bogs, fens, tamarack swamps	Y (N) UTM N/O
ALT1, FOD7	Eastern Green-violet (<i>Hybanthus concolor</i>) - S2 Bloom Time - mid March to August	Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone. Includes floodplains and river banks	Y (N) UTM
TPS, TPW, FOM1, FOM2	Fogg's Goosefoot (<i>Chenopodium foggii</i>) - S2	Species occurs in sandy areas on limestone under oak or pine-oak forests	Y (N) UTM
TPO2, TPS2, TPW2,	Giant Ironweed (<i>Vernonia gigantea</i>) - S1? Bloom Time -	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y (N) UTM

Species of Conservation Concern Habitat and Incidental Wildlife -- Goshen



ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM, FOD6, FOD7, FOD9	June - August Green Dragon (<i>Arisaema dracontium</i>) - S1/S3 <u>Bloom Time</u> - May and June	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	Y (N) UTM:
TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June-August Hairy Bedstraw (<i>Galium pilosum</i>) - S3 <u>Bloom Time</u> - June-August	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y (N) UTM:
FE01, FE51, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	Hairy Valerian (<i>Valeriana edulis</i>) - S1 <u>Bloom Time</u> - June to August	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.	Y (N) UTM:
FOD6, FOD7, SWM, SWD	Hairy Wood Mint (<i>Blephilia hirsuta</i>) - S1 <u>Bloom Time</u> - Summer	Woodlands, often rocky, especially rivers, (swamp forests) floodplains.	Y (N) UTM: N/O
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Erigenia bulbosa</i>) - S3 <u>Bloom Time</u> - early to late April	Occurs in rich, moist deciduous woods, especially on floodplains.	Y (N) UTM:
SAS1, SAM1, SAF1	Hill's Pond Weed (<i>Potamogeton hillii</i>) - S1/S2 <u>Bloom Time</u> - summer	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y (N) UTM:
FOM6, FOM7, FOM8	Large Round-leaved Orchid (<i>Platanthera macrophylla</i>) - S2 <u>Bloom Time</u> - June to August	Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.	Y (N) UTM:
MAM2, MAM3, MAS2, MAS3, SWD	Lizard's Tail (<i>Saururus cernuus</i>) - S3 <u>Bloom Time</u> - June - September	Species inhabits shores and streambanks along shallow water. As well as swamps floodplains, shallow water and mudflats at the borders of streams and ponds.	Y (N) UTM: N/O
FOD6, FOD7, FOD9	Pawpaw (<i>Asimina triloba</i>) - S3 <u>Bloom Time</u> - March-May	Occurs in moist, deciduous woods and stream banks.	Y (N) UTM:
FOM8, FOD6, FOD7, FOD9, CUM1	Pileose Evening Primrose (<i>Oenothera pilosella</i>) - S2 <u>Bloom Time</u> - Late Spring - Early Summer	Moist edges of woods and open, disturbed ground.	Y (N) UTM:
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 <u>Bloom Time</u> - July-September	Dry, sandy or rocky woods	Y (N) UTM:
FOD7, SWD	Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? <u>Bloom Time</u> - March - June	Swamps and floodplains	Y (N) UTM: N/O
CUW1, ALO, FET1, SWC	Ram's-head Lady's-slipper (<i>Cypripedium arietinum</i>) - S3 <u>Bloom Time</u> - mid May to mid June	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.	Y (N) UTM:
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5	Rattlesnake Hawkweed (<i>Hieracium venosum</i>) - S2 <u>Bloom Time</u> - April - September	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.	Y (N) UTM:
FOD6, FOD7, FOD9	Round-leaved Groundsel (<i>Packera obovata</i>) - S3 <u>Bloom Time</u> - May - June	Found in moist woods	Y (N) UTM:
CUM1, CUT1, CUS1	Round-leaved hawthorn (<i>Crataegus lumaria</i>) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm (<i>Monarda didyma</i>) - S3 <u>Bloom Time</u> - May to October	Found in moist, rich woods, (thicket swamps) banks and floodplains.	Y (N) UTM: N/O
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star (<i>Liatris cylindracea</i>) - S3	Species occurs in limestone and dolomite pavement, prairies, open woods, alvars and moist sandy meadows.	Y (N) UTM:
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed (<i>Polygonum tenue</i>) - S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows; at edges of sand pits	Y (N) UTM:
SOT1, FOD5, FOD9	Slim-flowered Muttly (<i>Muhlenbergia tenuiflora</i>) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y (N) UTM:
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>Gentiana quinquefolia</i>) - S2 <u>Bloom Time</u> - late summer to mid fall	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	Y (N) UTM:
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine (<i>Lupinus perennis</i>) - S3 <u>Bloom Time</u> - mid-March to mid-June	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	Y (N) UTM:

Species Conservation Concern Habitat and Incidental Wildlife - Goshen



ELC	Species	Habitat Description	Habitat Present (Y/N); UTM; description of habitat if present
TPO1, TPS1, TPW1, CUM1	Tail Blazing Star (<i>Liatris aspera</i>)-S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (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			
OAO, SA, SWM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) -S3	Species inhabits fishless ponds, lakes and boggy swamps	Y (N) UTM: N/A
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 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 virginiensis</i>) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM:

Wetland Data Collection Sheet



Study area: <u>GOSHEN</u>	Map No: <u>279654 2119</u>
Date (yyyy-mm-dd): <u>May 2nd, 2012</u>	Time Started: <u>10:20am</u>
Field Staff: <u>Jess Bette + Tom Shorney</u>	Time Finished: <u>12:30pm</u>

Presence of Groundwater No Yes

bank seepage
 iron staining
 groundwater indicator

Site Type Lacustrine (associated with lakes) Isolated

Riverine (associated with rivers)
 Palustrine absent or intermittent inflow and either intermittent or permanent outflow

what are the water inputs and outputs? Surface water

Soils refer to ELC card for soils information

% open Water dry this year, however in wetter years would be all water

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

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

Map Code/ ELC Code	Community Description - list at least four dominant species for each form
<u>SWDG-3/ S1</u>	<u>h*: Acefria, Frapenn, Uimamer, ACENEGUN</u>
<u>MAM3-2 M1</u>	<u>ne*: phaargun ts: Salexig</u>
<u>SWT2</u>	<u>h: Popdelt, Frapenn +S: cortace, corseri, Salexig</u>

Wetland Data Collection Sheet

Notes on Ecological Functions or features

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

Further N within site gc and ls become more prominent and would occupy >25% however within portion of patch that falls within our study area nothing other than h occupies >25% cover

- area is adjacent to hydro line
- potential for musk, racoon
- surrounding area is a little higher but relatively flat

★ Organic Soils ★

FOD
MEM

Lot 11 Con 9
Hay

Lot 11 Con 10
Hay

Pepper Rd



FOD

Lot 10 Con 10
Hay

Lot 10 Con 9
Hay

SWD

SWD

MAM

Lot 9 Con 9
Hay

MEM

Lot 9 Con 10
Hay

SWD

Area

Plot #7

364-1006

ELC Community Description and Classification

Site: 757 GSH1006 Polygon: P7

Surveyor(s): UP-NR-C6 Date: June 1, 2011 Time start: 1:11 PM finish: 3:20 PM

UTMZ: J7 UTMZ: UTMN:

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
Sugar maple	1111					
Red maple	1					
Total						100
Basal Area (BA)						
Dead						

Polygon Description

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

Stand Description

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp)
1	1	4	AKERS-CM >> Q-CARD >> TILAMER >> OSTVIG
2			
3	4	3	LA-BENZ >> R-UB-GL >> B-GL-CA >> B-GL-VA
4	6	4	ART-IP >> M-IB-RE >> M-TR-AS-CED >> V-IB-LE

HT Codes: 7 < 0.2m 8 > 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 - 50% 4 > 50%

Stand Composition: Size Class Analysis:

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

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

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

Ecosite: F06

Vegetation Type: Fresh-mist Sugar Maple Hardwood

Inclusion: Code: F06

Complex: Code: F06-5

Community Profile Diagram/Comments

1st 60% severe pools, some of trees are investigated. 1st 60% is not Sugar Maple.

Investigating topography

Soils Ontario and ELC Soils Description

Site Metrics	PI/Auger #		Soils Ontario and ELC Soils Description		Summary
	UTM	Slope	Zone	Position	
Moistures					Moisture Regime
Gley					
Water Table					
Carbonates					Drainage
Bedrock					
Depth to...	1	Depth from zero	25cm	% CF	% CF
		Texture	Sandy loam	% CF	% CF
	2	Depth from zero	56cm	% CF	% CF
		Texture	Wet Sand	% CF	% CF
3	Depth from zero		% CF	% CF	
	Texture		% CF	% CF	
4	Depth from zero		% CF	% CF	
	Texture		% CF	% CF	
Moisture Regime	% Surface Stone/Rock				
	Moisture Regime				
Drainage					

ELC	SITE: 757 GSH1006	
	POLYGON: GEG	
WILDLIFE	DATE: June 1/11	
	SURVEYORS: JP, NH, CB	
	START TIME:	END TIME:

TEMP (°C): 20°C	CLOUD (10th):	WIND:	PRECIPITATION:
CONDITIONS: Sunny			

POTENTIAL WILDLIFE HABITAT:

<input checked="" type="checkbox"/> A	VERNAL POOLS	dry + wet	<input type="checkbox"/> O	SNAGS
<input checked="" type="checkbox"/>	HIBERNACULA		<input checked="" type="checkbox"/> A	FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#
B	OVEN	VO							
B	GRZ	VO							
B	HUNSH	VO							
B	VETH	VO							
H	CRFP	VO							

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)

Location: **P7** 757 GSH1006
 Observer: **JP, CS, NH**

VASCULAR PLANT CHECKSHEET

Date: **June 1, 2011**
 Job Number:

DICOT HERBS												MONOCOT HERBS										
1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6					
Achillea millefolium						Erigeron annuus						Plantago lanceolata					Alisma plantago-aquatica					
Actaea pachypoda	X					Erigeron philadelphicus						Plantago major					Allium tricoccum					
Actaea rubra						Erigeron strigosus						Plantago rugelii					Allium					
Agalinus						Erysimum cheiranthoides						Podophyllum peltatum					Arisaema triphyllum			X		
Agrimonia gryposepala						Eupatorium maculatum						Polygonum					Asparagus officinalis					
Alliaria petiolaris	X					Eupatorium perfoliatum						Polygonum					Cela palustris					
Amaranthus retroflexus						Eupatorium rugosum						Polygonum					Cimicifuga borealis					
Ambrosia artemisiifolia						Euphorbia						Polygonum lapathifolium					Conwallaria majus					
Amphicarpaea bracteata						Euthamia graminifolia						Polygonum persicaria					Cypripedium calceolus					
Anaphalis margaritacea						Fragaria virginiana	X					Potentilla					Diodea canadensis					
Anemone						Fragaria vesca						Potentilla norvegica					Epipactis helleborine					
Anemone canadensis						Galeopsis tetrahit						Potentilla recta					Erythronium americanum					
Anemone virginiana						Galium						Pterandres 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					
Anala nudicaulis						Geranium robertianum	X					Ranunculus acris					Malthanthemum canadense			X		
Arctium minus						Geum aleppicum	X					Rudbeckia hirta					Malthanthemum racemosa			X		
Artemisia						Geum canadense						Rumex acetosella					Malthanthemum stollia					
Asarum canadense	X					Geum						Rumex crispus			X		Platanthera					
Asclepias incarnata						Glechoma hederacea						Rumex					Portulaca cordata					
Asclepias syriaca						Hepatica acutiloba						Sanguinaria canadensis					Polygonatum pubescens					
Aster	X					Hesperis matronalis						Sanicula marilandica					Potamogeton crispus					
Aster cordifolius						Hieracium aurantiacum						Saponaria officinale					Potamogeton pectinatus					
Aster erioloides						Hieracium caespitosum						Salureja vulgaris					Potamogeton					
Aster lanceolatus						Hieracium						Scutellaria galericulata					Potamogeton					
Aster laevis						Hydrophyllum virginianum						Silene vulgaris					Potamogeton					
Aster macrophyllus						Hypericum perforatum						Stium suave					Sagittaria latifolia					
Aster novae-angliae						Impatiens capensis	X					Solanum dulcamara					Silene maritima					
Aster purpureus						Inula helenium						Solidago			X		Smilax herbacea					
Barbarea vulgaris						Lactuca						Solidago altissima					Spiranthes cernua					
Bidens cernua						Laportea canadensis	X					Solidago caesia					Spiranthes cernua					
Bidens frondosa						Lapsana communis						Solidago canadensis					Spiranthes cernua					
Boehmeria cylindrica						Leonurus cardiaca						Solidago flexicaulis			X		Trillium erectum			X		
Callitha palustris						Lepidium						Solidago gigantea					Trillium grandiflorum			X		
Calyptegia sepium						Linaris vulgaris						Solidago nemoralis					Uvularia grandiflora			X		
Cardamine diphylla						Lithospermum officinale						Solidago rugosa										
Cardamine						Lobelia						Sonchus oleraceus										
Caulophyllum thalictroides	X					Lobelia inflata						Sonchus asper										
Cerastium fontanum						Lotus corniculatus						Stellaria										
Cerastium demersum						Lycopus americanus	X					Tanacetum vulgare										
Chalidonium majus						Lycopus						Taraxacum officinale										
Chenopodium album						Lysimachia ciliata						Thalictrum dioicum										
Chrysanth. leucanthemum						Lythrum salicaria						Thalictrum pubescens										
Cichorium intybus						Medicago lupulina						Tianella cordifolia			X							
Cicuta						Medicago sativum						Tragopogon pratensis										
Circaea lutetiana						Melilotus alba						Trifolium borealis										
Cirsium arvense						Mentha arvensis						Trifolium										
Cirsium vulgare						Mimulus ringens						Trifolium pratense										
Clematis virginiana						Mimulus ringens						Trifolium repens										
Cimicifuga borealis						Mitella diphylla						Tussilago farfara										
Coryza canadensis						Monarda fistulosa						Urtica dioica										
Coronilla varia						Mycoselia						Urticaria vulgaris										
Cynanchum rossicum						Nasturtium officinale						Verbascum thapsus										
Cynoglossum officinale						Nepeta cataria						Verbena hastata										
Daucus carota						Nuphar variegatum						Verbena urticifolia										
Desmodium canadense						Nymphaea odorata						Veronica										
Dianthus armeria						Oenothera biennis						Veronica officinalis										
Dipsacus filiformis						Oenothera						Vicia cracca										
Echinochloa lobata						Oxalis stricta						Vicia tetrasperma										
Echium vulgare						Phytolacca						Vicia (sp.)			X							
Egloffium						Physalis heterophylla						Vicia										
Egloffium dilatatum												Vicia pubescens										
Egloffium hirsutum												Vicia sororia										
Egloffium pavidum																						

1: F006-5 4: _____
 2: _____ 5: _____
 3: _____ 6: _____

SITE LOCATIONS

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

Scale: 1:25,000 (Map 83)
 M Zone 17N (MAD 83)

This drawing has been prepared for the use of AECOM's client. It is not to be used for any other purpose without the prior written consent of AECOM. AECOM disclaims any and all liability for use by governmental reviewing agencies. AECOM accepts no responsibility for the accuracy or completeness of the information presented herein, and shall not be held liable for any errors or omissions, including those arising from data provided by the client.

Gothen Amphibian Survey
GSH1006
 757-
 April 2012
 Project 60115032

AECOM



Figure 1

ELC
Community Description and Classification

Map #: 757-GSH 1026 Polygon: 1

Surveyor(s): S.G. RA. Date: Apr 12 2002 Time start: finish: UTMZ: UTMN:

Polygon Description

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

Stand Description

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	2	4	ACE, SALIC, TIL, AMER
2	2	5	ACE, SALIC
3	4	3	FRUITING = LILK, BEAR, EM, AGR, AC = MIX, RACE
4	6	3	

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

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

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

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

Ecosite: Fresh - moist sugar maple D.F. Code: FOD6
 Vegetation Type: Fresh - moist sugar maple bedrock D.F. Code: FOD6-5
 Inclusion: Code:
 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

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

heavy salmon

green flower

Spurred m

ginger

Plant Species List 2012

Table with columns for species names and abundance counts (1-5) for three categories: Trees & Shrubs, Tree & Shrubs, and Graminoids. Includes handwritten notes and a legend at the bottom.

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 vegetation by less than about five individuals or small clump

Map Number: 364-GSH 1000 Date: April 25, 2012 Surveyors: SG, RA

