



Plant Species List  
2012

Trees & Shrubs						Tree & Shrubs						Graminoids					
1	2	3	4	5		1	2	3	4	5		1	2	3	4	5	
<b>Conifers</b>						<b>Deciduous</b>						<b>Grasses</b>					
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 Bromo ( <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 viscosum</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> )						Fowl Manna Grass ( <i>Glyceria striata</i> )					
Canada Yew ( <i>Taxus canadensis</i> )						Ribes						<i>Glyceria</i>					
Eastern White Cedar ( <i>Taxus occidentalis</i> )						Black Locust ( <i>Robinia pseudo-acacia</i> )						Rice Cut Grass ( <i>Leersia oryzoides</i> )					
Eastern Hemlock ( <i>Tsuga canadensis</i> )						Prickly Rose ( <i>Rosa acicularis</i> )						Tall Fescue ( <i>Lolium arundinaceum</i> )					
						Smooth Rose ( <i>Rosa blanda</i> )						Muhlenbergia					
						Multiflora Rose ( <i>Rosa multiflora</i> )						Witch Grass ( <i>Panicum capillare</i> )					
						Rosa						Panicum					
						Com. Blackberry ( <i>Rubus allegheniensis</i> )						Reed Canary Grass ( <i>Phalaris arundinacea</i> )					
<b>Deciduous</b>						Wild Red Raspberry ( <i>Rubus idaeus</i> )						Timothy ( <i>Phleum pratense</i> )					
Manitoba Maple ( <i>Acer nebulosum</i> )						Black Raspberry ( <i>Rubus occidentalis</i> )						Common Reed ( <i>Phragmites australis</i> )					
Black Maple ( <i>Acer nigrum</i> )						Purple-fl. Raspberry ( <i>Rubus odoratus</i> )						Canada Blue Grass ( <i>Poa compressa</i> )					
Norway Maple ( <i>Acer platanoides</i> )						Dwarf Raspberry ( <i>Rubus pubescens</i> )						Fowl Meadow Grass ( <i>Poa palustris</i> )					
Red Maple ( <i>Acer rubrum</i> )						Rubus						Kentucky Blue Grass ( <i>Poa pratensis</i> )					
Silver Maple ( <i>Acer saccharinum</i> )						Peach-leaved Willow ( <i>Salix amygdaloides</i> )						Yellow Foxtail ( <i>Setaria pumila</i> )					
Freeman's Maple ( <i>Acer X freemanii</i> )						Bebb's Willow ( <i>Salix bebbiana</i> )						Green Foxtail ( <i>Setaria viridis</i> )					
Sugar Maple ( <i>Acer saccharum</i> )						Pussy Willow ( <i>Salix discolor</i> )											
Mountain Maple ( <i>Acer spicatum</i> )						Missouri Willow ( <i>Salix eriocephala</i> )											
Speckled Alder ( <i>Alnus incana</i> )						Sandbar Willow ( <i>Salix exigua</i> )											
Downy Serviceberry ( <i>Amelanchier arborea</i> )						Shining Willow ( <i>Salix lucida</i> )											
Serviceberry ( <i>Amelanchier sanguinea</i> )						Black Willow ( <i>Salix nigra</i> )											
Yellow Birch ( <i>Betula alleghaniensis</i> )						Slender Willow ( <i>Salix petiolaris</i> )											
White Birch ( <i>Betula papyrifera</i> )						Salix											
European Birch ( <i>Betula pendula</i> )						Hybrid Crack Willow ( <i>Salix X rubens</i> )											
Blue Beech ( <i>Carpinus caroliniana</i> )						Black-berried Elder ( <i>Sambucus nigra</i> )											
Bitternut Hickory ( <i>Carya cordiformis</i> )						Red-berried Elder ( <i>Sambucus racemosa</i> )											
Shagbark Hickory ( <i>Carya ovata</i> )						Buffaloberry ( <i>Shepherdia canadensis</i> )											
Climbing Bittersweet ( <i>Celastrus scandens</i> )						Eur. Mountain Ash ( <i>Sorbus aucuparia</i> )											
Common Hackberry ( <i>Celtis occidentalis</i> )						Narrow Meadow-sweet ( <i>Spiraea alba</i> )											
Buttonbush ( <i>Cephalanthus occidentalis</i> )						Common Lilac ( <i>Syringa vulgaris</i> )											
Alt.-leaved Dogwood ( <i>Cornus alternifolia</i> )						Poison-hy ( <i>Toxicodendron rubro-olivaceum</i> )											
Silky Dogwood ( <i>Cornus amomum</i> )						Climbing Poison-hy ( <i>Toxicodendron radicans</i> )											
Bunchberry ( <i>Cornus canadensis</i> )						White Elm ( <i>Ulmus americana</i> )											
Gray dogwood ( <i>Cornus racemosa</i> )						Siberian Elm ( <i>Ulmus pumila</i> )											
Round-leaved Dogwood ( <i>Cornus rugosa</i> )						Slippery Elm ( <i>Ulmus rubra</i> )											
Red-osier Dogwood ( <i>Cornus sericea</i> )						Low Blueberry ( <i>Vaccinium angustifolium</i> )											
American Hazel ( <i>Corylus americana</i> )						Male-leaf Viburnum ( <i>Viburnum acerifolium</i> )											
Beaked Hazel ( <i>Corylus cornuta</i> )						Hobblebush ( <i>Viburnum lantanoides</i> )											
Cockspur Thorn ( <i>Crataegus crus-galli</i> )						Nannyberry ( <i>Viburnum lentago</i> )											
English Hawthorn ( <i>Crataegus monogyna</i> )						Guelder-Rose ( <i>Viburnum opulus</i> )											
Large-fruited Thorn ( <i>Crataegus punctata</i> )						Downy Arrow-wood ( <i>Vib. rafinesquianum</i> )											
Crataegus						Riverbank Grape ( <i>Vitis riparia</i> )											
Crataegus						Am. Prickly-ash ( <i>Ranunculus americanum</i> )											
<b>Bush Honeysuckle (<i>Diervilla lonicera</i>)</b>																	
Russian Olive ( <i>Elaeagnus angustifolia</i> )																	
Autumn Olive ( <i>Elaeagnus umbellata</i> )																	
Run. Strawberry-bush ( <i>Eubotrys obovata</i> )																	
American Beech ( <i>Fagus grandifolia</i> )																	
Glossy Buckthorn ( <i>Frangula alnus</i> )																	
White Ash ( <i>Fraxinus americana</i> )																	
Black Ash ( <i>Fraxinus nigra</i> )																	
Green Ash ( <i>Fraxinus pennsylvanica</i> )																	
Witch-hazel ( <i>Hamamelis virginiana</i> )																	
Winterberry ( <i>Ilex verticillata</i> )																	
Butternut ( <i>Juglans cinerea</i> )																	
Black Walnut ( <i>Juglans nigra</i> )																	
Common Privet ( <i>Ligustrum vulgare</i> )																	
Spicebush ( <i>Lindera benzoin</i> )																	
Fly Honeysuckle ( <i>Lonicera canadensis</i> )																	
Glaucous Honeysuckle ( <i>Lonicera dioica</i> )																	
Morrow's Honeysuckle ( <i>Lonicera morrowii</i> )																	
Tartarian Honeysuckle ( <i>Lonicera tatarica</i> )																	
Common Apple ( <i>Malus rumila</i> )																	
White Mulberry ( <i>Morus alba</i> )																	
Sweet Gale ( <i>Mirtica pale</i> )																	
Ironwood ( <i>Ostrya virginiana</i> )																	
Thicket-creener ( <i>Parthenocissus inserta</i> )																	
Ninebark ( <i>Physocarpus opulifolius</i> )																	
Balsam Poplar ( <i>Populus balsamifera</i> )																	
Eastern Cottonwood ( <i>Populus deltoides</i> )																	
Large-tooth Aspen ( <i>Populus grandidentata</i> )																	
Trembling Aspen ( <i>Populus tremuloides</i> )																	
Sweet Cherry ( <i>Prunus avium</i> )																	
Pin Cherry ( <i>Prunus pennsylvanica</i> )																	
Black Cherry ( <i>Prunus serotina</i> )																	
Choke Cherry ( <i>Prunus virginiana</i> )																	
<b>Prunus</b>																	
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: 111, H24, 3																	
Date: June 1, 2012																	
Surveyors: PJS																	





# Significant Wildlife Habitat Form

AECOM

Study Area: BLW JER GSH Map #: 661-GSH2433  
 Date: 2012-06-06 Time Started: 4:00 P.m.  
 Field Staff: Tom Shroyer, Jess Pette Time Finished: 5:30 P.m.  
 Weather Conditions: Partly Sunny, 16°C, Light 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):  
\* After speaking with landowners, they had commented on Peregrine Falcons in woodlot (whether or not this is true, we were unable to confirm) \*

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): 1-3m % open water: 100 % emergent vegetation: 0

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): Dug Pond, permanent water

Area and soil/substrate of shoreline habitat: Dug Pond, all soil piled beside pond - soil consist of clay

Type and abundance of cover in open water habitat: Pond is completely covered by duckweed - 100%

Type and abundance of cover in surrounding habitat: Surrounding habitat F.DS consisting of Acer, Syc, Frax Penn

Evidence of disturbance (e.g. cattle grazing): Cattle grazing within woodlot and along pond

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: observed several green frogs in pond.

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

**Snake Hibernacula** \* Great spot for potential snake hibernacula \*

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

UTMs: 464669 4796462 Likelihood to extend below frost line: YES

% canopy cover: 10% % slope: 0 Distance to open canopy (m): 2m

Description of fissure or stone pile (composition/material, dimensions, etc): Several rock piles, some flat stones, large rocks - within meters com

Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): FOD5-1 Cattle grazing surrounding rock pile

**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, 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

Significant Wildlife Habitat Form

AECOM

Study Area: BLW JER **GSH** Map #: 651-6542433  
 Date: 2017-06-01 Time Started: 7:28 a.m.  
 Field Staff: Tom Shoben Jess Rake Time Finished: 1:00 a.m.  
 Weather Conditions: Rain, falling wind

**Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat**  
 (FET1, FOC, FOM, FOD, SWC, SWM, SWD)  
 Nest bowls present:  No  Yes (if yes, photograph and complete the following)  
 UTMs: \_\_\_\_\_ Number of nests: \_\_\_\_\_  
 Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present): \_\_\_\_\_  
 Description of habitat (note riparian areas if present, evidence of disturbance): \_\_\_\_\_

**Waterfowls Stopover/Nesting, Amphibian Breeding, Turtle Nesting/Over-wintering, Marsh Breeding Birds**  
 (CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2) (FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FEO1)  
 Standing water present:  No  Yes (if yes, photograph and complete the following)  
 UTMs: \_\_\_\_\_ Area of standing water delineated on field map: \_\_\_\_\_  
 Water depth (m): \_\_\_\_\_ % open water: \_\_\_\_\_ % emergent vegetation: \_\_\_\_\_  
 Description of standing water (permanent pool, evidence of annual spring flooding, etc): \_\_\_\_\_  
 Area and soil/substrate of shoreline habitat: \_\_\_\_\_  
 Type and abundance of cover in open water habitat: \_\_\_\_\_  
 Type and abundance of cover in surrounding habitat: \_\_\_\_\_  
 Evidence of disturbance (e.g. cattle grazing): \_\_\_\_\_  
 Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: \_\_\_\_\_  
 \*\*\*Complete Vernal Pool Habitat Description Form\*\*\*

**Snake Hibernacula**  
 Fissured rock/foundation or rock/debris pile present:  No  Yes (if yes, photograph and complete the following)  
 UTMs: \_\_\_\_\_ Likelihood to extend below frost line: \_\_\_\_\_  
 % canopy cover: \_\_\_\_\_ % slope: \_\_\_\_\_ Distance to open canopy (m): \_\_\_\_\_  
 Description of fissure or stone pile (composition/material, dimensions, etc): \_\_\_\_\_  
 Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): \_\_\_\_\_

**Seeps and Springs** (FOC, FOM, FOD, SWC, SWM, SWD)  
 Evidence of seep or spring:  No  Yes (if yes, photograph and complete the following)  
 UTMs: \_\_\_\_\_ Description (indicator species, etc): \_\_\_\_\_

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# NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

**Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)**  
 (CUM1, CUT1, CUS, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1)

Eroding bank, sandy hill, pits, steep slope or rock face present:  
 No  Yes (if yes, photograph and complete the following )

UTMs: \_\_\_\_\_ Location (e.g. aggregate pit, bridge): \_\_\_\_\_

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

**Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas**  
 (BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1, MAM2, MAM3, MAM4, MAM5)

Shoreline of lake, large river or large wetland present:  
 No  Yes (if yes, photograph and complete the following )

UTMs: \_\_\_\_\_ Rocky island or peninsula present: \_\_\_\_\_  
 Mudflat present: \_\_\_\_\_ Evidence of disturbance (e.g. cattle grazing): \_\_\_\_\_

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

**Raptor Winter Feeding and Roosting, Open Country or Shrub/Early Successional Bird Breeding Habitat**  
 CUT1, CUS1, >30ha, CUM1 >30ha, FOC, FOD, FOM with a CUM, CUT, CUS, CUW > 20ha, or a CUM, CUS, CUT, CUW > 15ha

Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, CUS, CUW) present:  
 Large open habitat present:  No  Yes (if yes, photograph and complete the following )

UTMs: \_\_\_\_\_ Evidence of disturbance (e.g. cattle grazing): \_\_\_\_\_

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

**Old-growth or Mature Forests, Interior Forest Breeding Birds**  
 (FOD, FOC, FOM, SWC, SWM, SWD. Mature forest (>60 years) present)

Mature forest present:  No  Yes (if yes, photograph and complete the following )

UTMs: \_\_\_\_\_ Age of oldest trees: \_\_\_\_\_

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

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

Photo #	Location or Subject	Photo #	Location or Subject

# Species of Conservation Concern Habitat and Incidental Wildlife - Goshen



Time Started: 8:28 a.m.  
Time Finished: 10:00 a.m.

Field Staff: Tom Skofne  
Jess Porter

Map No: 661 - GSH2433  
Date (yyyy-mm-dd): 2012-06-01

## Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Red-tailed Hawk		VO					
Common Nighthawk		OB					
Screech Owl		VO					
Chickadee		OB					
Blue Jay		VO					
Blue Jay		OB					
Blue Jay		VO					
Green Frog		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=Distracted, 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)

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:
FOD, FOM, FOD	Burning Bush (Euonymus atropurpureus) - S3 Bloom Time - April - June	Species occurs in dry to moist deciduous thickets and woods.	Y (N) UTM: N/A
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:
MAM, MAS	Crowned Beggarticks (Bidens trichosperma) - S2 Bloom Time - late summer	Found in openings in swamps, marshes, along shores & wet fields within the Carolinian zone and southeastern Georgian bay. Bogs, fens, tamarack swamps.	Y (N) UTM:
ALT1, FOD7	Eastern Green-violet (Hybanthus concolor) - S2 Bloom Time - mid March to August	Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone. Includes floodplains and river banks.	Y (N) UTM:
TPS, TPW, FOM1, FOM2	Fogg's Goosefoot (Chenopodium foggii) - S2	Species occurs in sandy areas on limestone under oak or pine-oak forests	Y (N) UTM:
TPO2, TPS2, TPW2,	Giant Ironweed (Vernonia gigantea) - S1? Bloom Time -	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y (N) UTM:

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# 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	Green Dragon ( <i>Arisaema dracontium</i> ) - SC/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:
FOD6, FOD7, FOD9	June - August	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:
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June to August	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:
FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	Summer	Hairy Wood Mint ( <i>Blephilia hirsuta</i> ) -S1	<u>Bloom Time - June to August</u>	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9	early to late April	Harbinger-of-spring ( <i>Erigenia 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	summer	Hill's Pond Weed ( <i>Potamogeton hillii</i> ) - SC/S2	<u>Bloom Time - June to August</u>	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y (N) UTM:
FOM6, FOM7, FOM8	June to August	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	September	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:
FOD6, FOD7, FOD9	March-May	Pawpaw ( <i>Asimina triloba</i> ) -S3	<u>Bloom Time - March-May</u>	Occurs in moist deciduous woods and stream banks.	Y (N) UTM:
FOM8, FOD6, FOD7, FOD9, CUM1	Late Spring - Early Summer	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	July-September	Prostate Tick-trefoil ( <i>Desmodium rotundifolium</i> ) -S2	<u>Bloom Time - July-September</u>	Dry, sandy or rocky woods	Y (N) UTM:
FOD7, SWD	March - June	Pumpkin Ash ( <i>Fraxinus profunda</i> )-S2?	<u>Bloom Time - March - June</u>	Swamps and floodplains	Y (N) UTM:
CUW1, ALO, FET1, SWC	mid May to mid June	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	April - September	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	May - June	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 lumarfa</i> ) -S3?		Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	May to October	Scarlet Beebalm ( <i>Monarda didyma</i> ) - S3	<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 in 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 Muihy ( <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	late summer to mid fall	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	mid-March to mid-June	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 of 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 <input type="radio"/> N <input type="radio"/> UTM:
FEO, FES, FET, MAM2, MAM3	Tuberous Indian Plantain ( <i>Arnoglossum plantagineum</i> ) - S3 Bloom Time - mid-March to mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	Y <input type="radio"/> N <input type="radio"/> 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 <input type="radio"/> N <input type="radio"/> UTM:
CUM1, CUT1, CUW1, RBO1, SBO1	Yellow Ladies'-tresses ( <i>Spiranthes ochroleuca</i> ) - S2 Bloom Time - August to November	Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.	Y <input type="radio"/> N <input type="radio"/> UTM:
<b>BIRDS</b>			
-	Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk ( <i>Chordeiles minor</i> ) - SC	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 <input type="radio"/> N <input type="radio"/> 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 <input type="radio"/> N <input type="radio"/> UTM:
FOD, CUW, CUT	Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> ) - SC	Species inhabits open woodland/edges (oak savannahs and riparian forest), open, deciduous forest with little understorey; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	Y <input type="radio"/> N <input type="radio"/> 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 <input type="radio"/> N <input type="radio"/> UTM:
<b>REPTILES</b>			
-	Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> ) - SC	Assessed as SWH. Record species if found.	not required.
-	Milksnake ( <i>Lampropeltis triangulum</i> ) - SC	Assessed as SWH. Record species if found.	not required.
-	Snapping Turtle ( <i>Chelydra serpentina</i> ) - SC	Assessed as SWH. Record species if found.	not required.
<b>INSECTS</b>			
OAO, SA, SWM, SWD	Azure Bluet ( <i>Enallagma aspersum</i> ) - S3	Species inhabits fishless ponds, lakes and boggy swamps	Y <input type="radio"/> N <input type="radio"/> UTM:
TPS, TPW	Sleepy Duskywing ( <i>Erynnis brize</i> ) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles	Y <input type="radio"/> N <input type="radio"/> 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 <input type="radio"/> N <input type="radio"/> UTM:
TPS, CUW	Mottled Duskywing ( <i>Erynnis martialis</i> ) - S2	Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	Y <input type="radio"/> N <input type="radio"/> UTM:
SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor ( <i>Asterocampa clyton</i> ) - S3	Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant	Y <input type="radio"/> N <input type="radio"/> UTM:
FOD5	West Virginia White ( <i>Pieris virginianensis</i> ) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y <input type="radio"/> N <input type="radio"/> UTM:

COPY



- Legend**
- Property Boundary
  - Prime Transmission Line
  - Prime Transmission Line Buffer (180 m)
  - ELC Completed 2011
  - Natural Feature and ID
  - ELC Polygon Boundary
  - ANSI
  - Evaluated Wetlands - PSW
  - ABCA Watercourse



Resemapping from Ontario Ministry of Natural Resources  
 Orthophotography: 2010

N  
 W    E  
 S

Metres  
 0    25    50    100

UTM Zone 17N, NAD 83  
 1:3,000

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Goshen ELC Survey

**662\_GSH2432/GSH2435**

May 2012  
 Project 60165032

**AECOM**

Figure 1

**ELC** Community Description and Classification

Map #: 66265H2432/2435 Polygon: F0056

Surveyor(s): Jess Kletter from Shireburn Date: start: 4:45 PM finish: 5:48 PM

UTMZ: UTMZ: UTMZ:

**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 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 type="checkbox"/> Tableland <input type="checkbox"/> Roli. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Alvar <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD. <input type="checkbox"/> Graminoid <input type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input checked="" type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Mixed	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Marsh <input type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Plantation

**Stand Description**

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp)
1	4		TILAMER > AEFYAC > ACCELLUB > UIMAMER
2	3		AEFYAC > TILAM
3	3		TUBIDAR > STAMER > CARCARO
4	3		MESKIL > ...

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: 

<10	A	10-24	A	25-50	R	>50
<10	N	10-24	N	25-50	N	>50
<10	A	10-24	A	25-50	R	>50

  
 Deadfall / Logs: 

<10	A	10-24	A	25-50	R	>50
-----	---	-------	---	-------	---	-----

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

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

Ecosite: Dry-Fresh Sugar Maple Deciduous Forest Ecosite Code: F005  
 Vegetation Type: Dry-Fresh Sugar Maple - Basswood Deciduous Forest Type Code: F005-6  
 Inclusion: Code:  
 Complex: Code:

**Community Profile Diagram / Comments**

→ Potential tree basal area...  
 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**

Pit/Auger #	Soils Ontario and ELC Soils Description	Summary
UTM		Moisture Regime
Zone		Drainage
Easting		
Northing		
Position		
Aspect		
Percent		
Slope		
Length		
Mottles		
Gley		
Water Table		
Carbonates		
Bedrock		
Depth from zero	% CF	% CF
Texture		
Depth from zero	% CF	% CF
Texture		
Depth from zero	% CF	% CF
Texture		
Depth from zero	% CF	% CF
Texture		
Depth from zero	% CF	% CF
Texture		
% Surface Stone/Rock		
Moisture Regime		
Drainage		





# Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	<u>GSH</u>	Map #:	<u>662-GSH2432/2435</u>
Date:	<u>2012-05-31</u>			Time Started:	<u>4:43 P.m.</u>
Field Staff:	<u>DM Stoney Jess Piette</u>			Time Finished:	<u>5:48 P.m.</u>
Weather Conditions:	<u>Sunny, 16°C, 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): \_\_\_\_\_

# NHA Site Investigation - Significant Wildlife Habitat Form

AZCOM

**Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)**  
 (CUM1, CUT1, CUS, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1)  
 Eroding bank, sandy hill, pits, steep slope or rock face present:  
 No  Yes (if yes, photograph and complete the following )  
 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, 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 of Conservation Concern Habitat and Incidental Wildlife – Goshen

Map No: 662-GSH2432/2435  
 Date (yyyy-mm-dd): 2012-05-31  
 Field Staff: Van Storey  
Jess Piche



Time Started: 4:43 P.M.  
 Time Finished: 5:48 P.M.

## Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Blue Jay		Ob					
Song Sparrow		Vo					
Gray-crowned Woodpecker		Vo					
Red-shouldered Hawk		Vo					
House Wren		Vo					

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

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

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

# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen



ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM, FOD6, FOD7, FOD9	June - August Green Dragon ( <i>Arisaema dracontium</i> ) - S1/S3 Bloom Time - May and June	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	Y (N) UTM:
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June-August Hairy Bedstraw ( <i>Galium pilosum</i> ) -S3 Bloom Time - June-August	Occurs in dry, sandy woods and thickets, occasionally in dry sandy fields	Y (N) UTM:
FE01, FE51, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	Hairy Valerian ( <i>Valeriana edulis</i> ) -S1 Bloom Time - June to August	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.	Y (N) UTM:
FOD6, FOD7, SWM, SWD	Hairy Wood Mint ( <i>Blephilia hirsuta</i> ) -S1 Bloom Time- Summer	Woodlands, often rocky, especially rivers Rich woods, swamp forests, floodplains.	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring ( <i>Eriogonum bulbosum</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:
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	Prostate 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:
CUM1, 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 lumaria</i> ) -S3?	Species occurs in old fields, poorly managed pastures, fence-lines 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:
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 Mully ( <i>Muhlenbergia tenuiflora</i> ) - S2	Found in rich deciduous forest often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y (N) UTM: N/A
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	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:
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine ( <i>Lupinus perennis</i> ) - S3 Bloom Time - mid-March to mid-June	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	Y (N) UTM:

# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen



ELC	Species	Habitat Description	Habitat Present (Y/N); UTM; description of habitat if present
TPO1, TPS1, TPW1, CUM1	Tall Blazing Star ( <i>Liatris aspera</i> )-S2/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM:
FEO, FES, FET, MAM2, MAM3	Tuberous Indian Plantain ( <i>Arnoglossum plantagineum</i> ) - S3 Bloom Time -mid-March to mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	Y (N) UTM:
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:
<b>BIRDS</b>			
-	Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk ( <i>Chordeiles minor</i> ) - SC	Units insects over a wide variety of habitats; in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetated tree habitats.	Y (N) UTM:
FOD, FOM	Louisiana Waterthrush ( <i>Seiurus motacilla</i> ) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y (N) UTM:
FOD, CUW, CUT	Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> ) - SC	Species inhabits open woodland/ edges (oak savannahs and riparian forest), open, deciduous forest with little understorey; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	Y (N) UTM:
-	Short Eared Owl ( <i>Asio flammeus</i> ) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat ( <i>Icteria virens</i> ) - SC	Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y (N) UTM:
<b>REPTILES</b>			
-	Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> ) - SC	Assessed as SWH. Record species if found.	not required.
-	Milksnake ( <i>Lampropeltis triangulum</i> ) -SC	Assessed as SWH. Record species if found.	not required.
-	Snapping Turtle ( <i>Chelydra serpentina</i> ) - SC	Assessed as SWH. Record species if found.	not required.
<b>INSECTS</b>			
OAO, SA, SWM, SWD	Azure Bluet ( <i>Enallagma aspersum</i> ) -S3	Species inhabits fishless ponds, lakes and boggy swamps	Y (N) UTM:
TPS, TPW	Sleepy Duskywing ( <i>Erynnis brize</i> ) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles	Y (N) UTM:
CUM1, CUT1, CUW1	Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC	Their larvae only feed on milkweeds ( <i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y (N) UTM:
TPS, CUW	Mottled Duskywing ( <i>Erynnis martialis</i> ) -S2	Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	Y (N) UTM:
SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor ( <i>Asterocampa clytem</i> ) - S3	Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant	Y (N) UTM:
FOD5	West Virginia White ( <i>Pieris virginiensis</i> ) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM:



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

Basemapping from Ontario, Ministry of Natural Resources  
 Orthophotography 2010  
 Update Report, April 4, 2012



UTM Zone 17N, WAD 85  
 11,000

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ELC Survey  
**Goshen ELC Survey -  
 Transmission Line**  
**695\_GSHZ769/3019**  
 April 2012  
 Project 60155032

**AECOM**

Figure 1

**ELC** Community Description and Classification

Map #: 695-GH2769/3019 Polygon: 1

Surveyor(s): RAJ S Date: Nov 3, 2012 Time start: 12:30 pm finish: 1:30 pm

UTMZ: UTMZ: UTMN:

**Polygon Description**

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

**Stand Description**

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	2	4	TILAMER > QUERCUS
2	2	3	ACESAC > ULM & AMER
3	4	2	VIBLANT = PRUVIRG = RHACATH
4	7	2	FRYANER = ANE CANA = GEMMACA

HT Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 > 50% 5 > 0.5-1m 6 > 0.2-0.5m 7 > 1-2m 8 > 2-5m 9 > 5-10m 10 > 10m

CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 > 50%

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

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

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

Ecosite:	Dry-Fresh Sugar Maple Deciduous Forest	Code:	F0D5
Vegetation Type:	Dry-Fresh Sugar Maple Oak Deciduous Forest	Code:	F0D5-6
Inclusion:	Dry-Moist Old Field Meadow	Code:	CUM1-1
Complex:		Code:	

**Community Profile Diagram/Comments**

Site: rarely disturbed

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

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

Map Number: 695 GSH 2769/3019  
 Date: May 5, 2012  
 Surveyors: Ch. RA

FOD 5-6



# Significant Wildlife Habitat Form

AECOM

Study Area: BLW JER **GSH** Map #: 695 GSH 2769/3019  
 Date: MAY 3, 2012 Time Started: 12:30 pm  
 Field Staff: SF/RA Time Finished: 1:30 pm  
 Weather Conditions: 21°C, 20% clouds.

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

Nest bowls present:  No  Yes (if yes, photograph and complete the following )  
 UTMs: \_\_\_\_\_ Number of nests: \_\_\_\_\_  
 Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present): \_\_\_\_\_  
 \_\_\_\_\_  
 Description of habitat (note riparian areas if present, evidence of disturbance): \_\_\_\_\_

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

Standing water present:  No  Yes (if yes, photograph and complete the following )  
 UTMs: \_\_\_\_\_ Area of standing water delineated on field map \_\_\_\_\_  
 Water depth (m): \_\_\_\_\_ % open water: \_\_\_\_\_ % emergent vegetation: \_\_\_\_\_  
 Description of standing water (permanent pool, evidence of annual spring flooding, etc): \_\_\_\_\_  
 Area and soil/substrate of shoreline habitat: \_\_\_\_\_  
 Type and abundance of cover in open water habitat: \_\_\_\_\_  
 Type and abundance of cover in surrounding habitat: \_\_\_\_\_  
 Evidence of disturbance (e.g. cattle grazing ): \_\_\_\_\_  
 Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: \_\_\_\_\_  
 \_\_\_\_\_  
 \*\*\*Complete Vernal Pool Habitat Description Form\*\*\*

**Snake Hibernacula**

Fissured rock/foundation or rock/debris pile present:  No  Yes (if yes, photograph and complete the following )  
 UTMs: \_\_\_\_\_ Likelihood to extend below frost line: \_\_\_\_\_  
 % canopy cover: \_\_\_\_\_ % slope: \_\_\_\_\_ Distance to open canopy (m): \_\_\_\_\_  
 Description of fissure or stone pile (composition/material, dimenstions, etc): \_\_\_\_\_  
 Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc):  
See hibernacula sheet x2

**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: 695-5512769/3019

Date (yyyy-mm-dd): 2012-05-03

Field Staff: BA, SG

Time Started: 12:30 PM

Time Finished: 1:30 PM



## Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Red-winged Blackbird		VO					
Red Admiral		VO					
Turkey Vulture		QB					
Robin		QB					
Horned Lark		VO					
House Wren		VQ					
Great Crested Flycatcher		VO					
Brown-headed Cowbird		VO					
Brown Thrasher		QB					
American Cuckoo		VO					
Song Sparrows		VO					
White Collared		QB					
Deer		TK					
Den #1	17T 0468725, 4796219	QB	15x10cm adjacent stream				

Note: Evidence Codes (EV) Breeding Bird (Possible) SH=Suitable Habitat, SM=Singling 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	Habitat Present (Y/N)	UTM
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 (Euroymnus atropurpureus) - S3 Bloom Time - April - June	Species occurs in dry to moist deciduous thickets and woods	Y	(N)	UTM:	
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (Conioselinum chinense) - S2 Bloom Time - summer to fall	Swampy places with deciduous trees, white cedars, tamarack; springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes.	Y	(N)	UTM:	
SWC, SWM, SWD, SWT, MAM, MAS	Crowned Beggarticks (Bidens trichosperma) - S2 Bloom Time - late summer	Found in openings in swamps, marshes, along shores & wet fields within the Carolinian zone and southeastern Georgian bay. Bogs, fens, tamarack swamps	Y	(N)	UTM:	
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) - S17 Bloom Time -	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y	(N)	UTM:	

# Species of Conservation Concern Habitat and Incidental Wildlife - Goshen



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> ) - SC/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:	
FE01, 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>Erigenia 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:	
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:	
FOM8, 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: Not sandy	
FOD6, FOD7, FOD9	Round-leaved Groundsel ( <i>Packera obovata</i> ) - S3 <u>Bloom Time - May - June</u>	Found in moist woods	Y (N)	UTM:	
CUM3, CUT1, CUS1	Round-leaved hawthorn ( <i>Crataegus lumarina</i> ) - S3?	Species occurs in old fields, <del>poorly managed pasture</del> , fence lines and roadsides	Y (N)	UTM: <del>UNO</del> have NO (not observed)	
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, alvars and moist sandy meadows.	Y (N)	UTM:	
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed ( <i>Polygonum tenue</i> ) - S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows; at edges of sand pits	Y (N)	UTM:	
SDT1, FOD5, FOD9	Slim-flowered Muhly ( <i>Muhlenbergia tenuiflora</i> ) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y (N)	UTM: 100 Disturbed	
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian ( <i>Gentianella 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

A. DM

ELC	Species	Habitat Description	Habitat Present (Y/N) UTM	description of habitat if present
TPO1, TPS1, TPW1, CUM1	Tall Blazing Star ( <i>Liatris aspera</i> ) - S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM:	
FEO, FES, FET, MAM2, MAM3	Tuberous Indian Plantain ( <i>Arnoglossum plantagineum</i> ) - S3 Bloom Time - mid-March to mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	Y (N) UTM:	Not Seedy
FOC1, FOC2, FOC3, FOC4	Woodland Phedrops ( <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:	Not Dry
<b>BIRDS</b>				
-	Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) - SC	Assessed as SWH. Record species if found	not required.	
CUW, SDO, RBO, TPS	Common Nighthawk ( <i>Chordeiles minor</i> ) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y (N) UTM:	
FOD, FOM	Louisiana Waterthrush ( <i>Selurus motacilla</i> ) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y (N) UTM:	Not Native
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:	
<b>REPTILES</b>				
-	Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> ) - SC	Assessed as SWH. Record species if found.	not required.	
-	Milksnake ( <i>Lampropeltis triangulum</i> ) - SC	Assessed as SWH. Record species if found	not required.	
-	Snapping Turtle ( <i>Chelydra serpentina</i> ) - SC	Assessed as SWH. Record species if found.	not required.	
<b>INSECTS</b>				
OAO, SA, SWM, SWD	Azure Bluet ( <i>Enallagma aspersum</i> ) - S3	Species Inhabits fishless ponds, lakes and boggy swamps	Y (N) UTM:	
TPS, TPW	Sleepy Duskywing ( <i>Erynnis bizo</i> ) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils	Y (N) UTM:	
CUM1, CUT1, CUW1	Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC	Their larvae only feed on milkweeds ( <i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y (N) UTM:	No Milkweed
TPS, CUW	Mottled Duskywing ( <i>Erynnis martialis</i> ) - S2	Usually seen rearing on or wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	Y (N) UTM:	
SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor ( <i>Asterocampa clyton</i> ) - S3	Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant	Y (N) UTM:	
FOD5	West Virginia White ( <i>Pieris virginianensis</i> ) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM:	No Toothwort



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

Line May 3, 2012  
GG, PA

Reprojected from Ontario Ministry of Natural Resources  
Orthophotography 2010  
Turbine Layout April 4 2012



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ELC Survey  
**Goshen ELC Survey -  
Transmission Line  
701\_GSH3038/2767**  
April 2012  
Project 861958032

**AECOM**

Figure 1

Map Document: \\Work\proj\4456\comps\1550222010\701\701\GIS\spatial\kkr\kkr\proj\ELC\_Mapping\goshen\GSH\_ELC\1550222012\_GSH\_ELC\_17N\_701\_GSH3038\_2767.mxd

ASA  
12/28/04

**ELC**  
Community Description and Classification

Map #: 701 GSH 208 / 12/28/04 Polygon: 1  
 Surveyor(s): S.K.A. Date: May 3, 2007 Time start: 11:30am finish: 12:15pm  
 UTMZ: UTMZ: UTMN:

**Polygon Description**

System	Substrate	Topographic Feature	Plant Form	Community
<input checked="" type="checkbox"/> Terrestrial	<input checked="" 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 checked="" type="checkbox"/> Tableland	<input type="checkbox"/> Lichen	<input type="checkbox"/> Swamp
<input checked="" type="checkbox"/> Surficial Dep.		<input type="checkbox"/> Roll. Upland	<input type="checkbox"/> Bryophyte	<input type="checkbox"/> Fen
<input type="checkbox"/> Bedrock		<input type="checkbox"/> Cliff	<input checked="" type="checkbox"/> Deciduous	<input type="checkbox"/> Bog
		<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"/> Alvar		<input type="checkbox"/> Prairie
		<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"/> Tree		<input type="checkbox"/> Bluff		<input checked="" type="checkbox"/> Forest
				<input type="checkbox"/> Plantation

**Stand Description**

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	2	4	FS 3000000 = AC 5000
2	2	4	AC 5000
3	4	3	REV 0000 = T 1000
4	4	3	REV 0000 = T 1000

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

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

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

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

Ecosite: D 4 - Fresh sugar maple dec. Code: F05-8  
 Vegetation Type: D 4 - Fresh sugar maple - White Ash Code: F05-8  
 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**

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



Plant Species List  
2012

Dicot Herbs - Asteraceae					Dicot Herbs					Dicot Herbs				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
					Shepherd's Purse ( <i>Capsella bursa-pastoris</i> )					Kidney-leaf Buttercup ( <i>Ranunculus abortivus</i> )				
					Cutleaf Toothwort ( <i>Cardamine concatenata</i> )					Tall Buttercup ( <i>Ranunculus acris</i> )				
					Toothwort ( <i>Cardamine diphylla</i> )					Hooked Buttercup ( <i>Ranunculus recurvatus</i> )				
					Penn. Bitter-cress ( <i>Cardamine pennsylvanica</i> )					<i>Ranunculus</i>				
					<i>Cardamine</i>					Sheep Sorrel ( <i>Rumex acetosella</i> )				
					Blue Cohosh ( <i>Caulophyllum thalictroides</i> )					Curly-leaf Dock ( <i>Rumex crispus</i> )				
					Mouse-ear Chickweed ( <i>Cerastium fontanum</i> )					Bitter Dock ( <i>Rumex obtusifolius</i> )				
					Turtlehead ( <i>Chelone glabra</i> )					Bloodroot ( <i>Sanguinaria canadense</i> )				
					Spotted Water-hemlock ( <i>Cicuta maculata</i> )					Black Snakeroot ( <i>Sanicula marilandica</i> )				
					Water-hemlock ( <i>Cicuta virosa</i> )					Bouncing Bet ( <i>Saponaria officinalis</i> )				
					Enchanter's Nightshade ( <i>Circaea lutetiana</i> )					Marsh Skullcap ( <i>Scutellaria galericulata</i> )				
					Carolina Spring Beauty ( <i>Claytonia caroliniana</i> )					Mad Dog Skullcap ( <i>Scutellaria lateriflora</i> )				
					Virginia Spring Beauty ( <i>Claytonia virginica</i> )					White Campion ( <i>Silene latifolia</i> )				
					Virgin's-bower ( <i>Clematis virginiana</i> )					Bladder Campion ( <i>Silene vulgaris</i> )				
					Field Bindweed ( <i>Convolvulus arvensis</i> )					Hemlock Water-parsnip ( <i>Sium suave</i> )				
					Dog-strangling Vine ( <i>Cynanchum rossicum</i> )					Bitter Nightshade ( <i>Solanum dulcamara</i> )				
					Wild Carrot ( <i>Daucus carota</i> )					Black Nightshade ( <i>Solanum ptychanthum</i> )				
					Deptford Pink ( <i>Dianthus armeria</i> )					Grassleaf Stitchwort ( <i>Stellaria graminea</i> )				
					Squirrel-corn ( <i>Dicentra canadensis</i> )					Common Chickweed ( <i>Stellaria media</i> )				
					Dutchman's-breeches ( <i>Dicentra cucullaria</i> )					Early Meadow-rue ( <i>Thalictrum dioicum</i> )				
					Wild Teasel ( <i>Dipsacus fullonum</i> )					Tall Meadow-rue ( <i>Thalictrum pubescens</i> )				
					Wild Cucumber ( <i>Echinocystis lobata</i> )					Field Penny-cress ( <i>Thlaspi arvense</i> )				
					Viper's Bugloss ( <i>Echium vulgare</i> )					Foamflower ( <i>Tiarella cordifolia</i> )				
					Northern Willow-herb ( <i>Epilobium ciliatum</i> )					Star-flower ( <i>Trientalis borealis</i> )				
					Hairy Willow-herb ( <i>Epilobium hirsutum</i> )					Red Clover ( <i>Trifolium pratense</i> )				
					Small-fl. Willow-herb ( <i>Epilobium parviflorum</i> )					White Clover ( <i>Trifolium repens</i> )				
					<i>Epilobium</i>					<i>Trifolium</i>				
					Worm Mustard ( <i>Erysimum cheiranthoides</i> )					Stinging Nettle ( <i>Urtica dioica</i> )				
					<i>Euphorbia</i>					Greater Bladderwort ( <i>Utricularia vulgaris</i> )				
					Hemp Nettle ( <i>Galeopsis tetrahit</i> )					Common Mullein ( <i>Verbascum thapsus</i> )				
					Wild Madder ( <i>Galium mollugo</i> )					Blue Vervain ( <i>Verbena hastata</i> )				
					Marsh Bedstraw ( <i>Galium palustre</i> )					White Vervain ( <i>Verbena urticifolia</i> )				
					Sweet-scented Bedstraw ( <i>Galium triflorum</i> )					Water Speedwell ( <i>Veron. anagallis-aquatica</i> )				
					<i>Galium</i>					Common Speedwell ( <i>Veronica officinalis</i> )				
					Spotted Geranium ( <i>Geranium maculatum</i> )					<i>Veronica</i>				
					Herb-robert ( <i>Geranium robertianum</i> )					Cow Vetch ( <i>Vicia cracca</i> )				
					Yellow Avens ( <i>Geum alepicum</i> )					<i>Vicia</i>				
					White Avens ( <i>Geum canadense</i> )					Periwinkle ( <i>Vinca minor</i> )				
					Urban Avens ( <i>Geum urbanum</i> )					Dog Violet ( <i>Viola conspersa</i> )				
					Dame's Rocket ( <i>Hesperis matronalis</i> )					Yellow Violet ( <i>Viola pubescens</i> )				
					Virg. Water-leaf ( <i>Hydrophyllum virginianum</i> )					Com. Blue Violet ( <i>Viola sororia</i> )				
					Com. St. John's-wort ( <i>Hypericum perforatum</i> )					<i>Viola</i>				
					Spotted Jewelweed ( <i>Impatiens capensis</i> )									
					Wood Nettle ( <i>Laportea canadensis</i> )									
					Motherwort ( <i>Leonurus cardiaca</i> )									
					Field Peppergrass ( <i>Lepidium campestre</i> )									
					Eur. Gromwell ( <i>Lithospermum officinale</i> )									
					Butter & Eggs ( <i>Linaria vulgaris</i> )									
					Great Lobelia ( <i>Lobelia siphilitica</i> )									
					<i>Lobelia</i>									
					Cut-leaf Bugleweed ( <i>Lycopus americanus</i> )						<b>Monocot Herbs</b>			
					Northern Bugleweed ( <i>Lycopus uniflorus</i> )						Water-plantain ( <i>Alisma plantago-aquatica</i> )			
					Fringed Loosestrife ( <i>Lysimachia ciliata</i> )						Wild Leek ( <i>Allium tricoccum</i> )			
					Moneywort ( <i>Lysimachia nummularia</i> )						Jack-in-the-pulpit ( <i>Arisaema triphyllum</i> )			
					<i>Lysimachia</i>						Asparagus ( <i>Asparagus officinalis</i> )			
					Purple Loosestrife ( <i>Lythrum salicaria</i> )						Wild Calla ( <i>Calla palustris</i> )			
					Black Medick ( <i>Medicago lupulina</i> )						Bluebeard-lily ( <i>Clintonia borealis</i> )			
					Alfalfa ( <i>Medicago sativa</i> )						Garden Lily-of-valley ( <i>Convallaria majalis</i> )			
					White Sweet-clover ( <i>Melilotus alba</i> )						Yel. Lady's Slipper ( <i>Cypripedium parviflorum</i> )			
					Yellow Sweet-clover ( <i>Melilotus officinalis</i> )						Canada Waterweed ( <i>Elochea canadensis</i> )			
					Wild Mint ( <i>Mentha arvensis</i> )						Helleborine ( <i>Epipactis helleborine</i> )			
					Wild Bergamot ( <i>Monarda fistulosa</i> )						Yellow Trout Lily ( <i>Erythronium americanum</i> )			
					Small Forget-me-not ( <i>Myosotis laxa</i> )						Blue-flag Iris ( <i>Iris versicolor</i> )			
					Forget-me-not ( <i>Myosotis scorpioides</i> )						Orange Day Lily ( <i>Heimerocallis fulva</i> )			
					Water-cress ( <i>Nasturtium officinale</i> )						Lesser Duckweed ( <i>Lemna minor</i> )			
					Com. Evening-primrose ( <i>Oenothera biennis</i> )						Starry Duckweed ( <i>Lemna trisulca</i> )			
					Sweet-cicely ( <i>Osmorhiza berterii</i> )						Wild Lily-of-valley ( <i>Maianthemum canadense</i> )			
					Yellow Wood-sorrel ( <i>Oxalis stricta</i> )						False Solom Seal ( <i>Maianthemum racemosum</i> )			
					Wild Parsnip ( <i>Pastinaca sativa</i> )						Star False Solomon ( <i>Maianthemum stellatum</i> )			
					English Plantain ( <i>Plantago lanceolata</i> )						True Solomon Seal ( <i>Polygonatum pubescens</i> )			
					Common Plantain ( <i>Plantago major</i> )						Pickering-weed ( <i>Pontederia cordata</i> )			
					Rugel's Plantain ( <i>Plantago rugelii</i> )						Curly-leaf Pondweed ( <i>Potamogeton crispus</i> )			
					May-apple ( <i>Podophyllum peltatum</i> )						Sago Pondweed ( <i>Potamogeton pectinatus</i> )			
					Pale Smartweed ( <i>Polygonum lapathifolium</i> )						<i>Potamogeton</i>			
					Lady's-thumb ( <i>Polygonum persicaria</i> )						<i>Potamogeton</i>			
					Virginia Knotweed ( <i>Polygonum virginianum</i> )						Broad-leaved Arrowhead ( <i>Sagittaria latifolia</i> )			
					<i>Polygonum</i>						Blue-eyed-grass ( <i>Sisyrinchium montanum</i> )			
					<i>Polygonum</i>						Herb. Carrion Flower ( <i>Smilax herbacea</i> )			
					Rough Cinquefoil ( <i>Potentilla norvegica</i> )						Bristly Greenbrier ( <i>Smilax hispida</i> )			
					Rough-fruited Cinquefoil ( <i>Potentilla recta</i> )						Nodding Ladies' Tresses ( <i>Spiranthes cernua</i> )			
					Common Cinquefoil ( <i>Potentilla simplex</i> )						Rose Twisted-stalk ( <i>Streptopus lanceolatus</i> )			
					<i>Potentilla</i>						Skunk-cabbage ( <i>Symplocarpus foetidus</i> )			
					Heal-all ( <i>Prunella vulgaris</i> )						Purple Trillium ( <i>Trillium erectum</i> )			
					Shinleaf ( <i>Pyrola elliptica</i> )						White Trillium ( <i>Trillium grandiflorum</i> )			
											Large-flowered Bellwort ( <i>Uvularia grandiflora</i> )			

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

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

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

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

Map Number:

1

4

Date:

2

6

Surveyors:

3



# Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	<input checked="" type="checkbox"/> GSH	Map #:	701 GSH/S038/2767
Date:	March 3, 2012			Time Started:	11:50 am
Field Staff:	S.G. BA			Time Finished:	12:15 pm
Weather Conditions:	light rain, 21°C, 80% clouds.				

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

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

UTMs: \_\_\_\_\_ Number of nests: \_\_\_\_\_

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

\_\_\_\_\_

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

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

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

UTMs: \_\_\_\_\_ Area of standing water delineated on field map

Water depth (m): \_\_\_\_\_ % open water: \_\_\_\_\_ % emergent vegetation: \_\_\_\_\_

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

Area and soil/substrate of shoreline habitat: \_\_\_\_\_

Type and abundance of cover in open water habitat: \_\_\_\_\_

Type and abundance of cover in surrounding habitat: \_\_\_\_\_

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

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

\_\_\_\_\_

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

**Snake Hibernacula**

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

UTMs: \_\_\_\_\_ Likelihood to extend below frost line: \_\_\_\_\_

% canopy cover: \_\_\_\_\_ % slope: \_\_\_\_\_ Distance to open canopy (m): \_\_\_\_\_

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

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

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

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

UTMs: \_\_\_\_\_ Description (indicator species, etc): \_\_\_\_\_