



# Significant Wildlife Habitat Form

AECOM

Study Area: <u>BLW</u> <u>JER</u> <u>GSH</u>	Map #: <u>236-GSH(506/150)/194</u>
Date: <u>2012-07-04</u>	Time Started: <u>4:32 p.m.</u>
Field Staff: <u>Tom Sharney Jess Dick</u>	Time Finished: <u>6:00 p.m.</u>
Weather Conditions: <u>suny, 34°C</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



## 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



ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM, FOD6, FOD7, FOD9	Green Dragon ( <i>Ariseema 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: N/O
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Hairy Bedstraw ( <i>Gallium 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>Erigenia bulbosa</i> ) - S3 Bloom Time - early to late April	Occurs in rich moist deciduous woods, especially on floodplains.	Y N UTM: N/O
SAS1, SAM1, SAF1	Hill's Pond Weed ( <i>Potamogeton hillii</i> ) - SC/S2 Bloom Time - summer	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y N UTM:
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:
FOM6, 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: N/O
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostrate Tick-trefoil ( <i>Desmodium rotundifolium</i> ) - S2 Bloom Time - July-September	Dry, sandy or rocky woods	Y N UTM:
FOD7, SWD	Pumpkin Ash ( <i>Fraxinus profunde</i> ) - S2? Bloom Time - March - June	Swamps and floodplains	Y N UTM:
CUW1, ALO, FET1, SWC	Ram's-head Lady's-slipper ( <i>Cypripedium arietinum</i> ) - S3 Bloom Time - mid May to mid June	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.	Y N UTM
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5	Rattlesnake Hawkweed ( <i>Hieracium venosum</i> ) - S2 Bloom Time - April - September	Species inhabits open, dry, sandy woods. Jack pine, oak, and aspen woodlands.	Y N UTM
FOD6, FOD7, FOD9	Round-leaved Groundsel ( <i>Packera obovata</i> ) - S3 Bloom Time - May - June	Found in moist woods	Y N UTM N/O
CUM1, CUT1, CUS1	Round-leaved hawthorn ( <i>Crataegus lumaris</i> ) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y N UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm ( <i>Monarda didyma</i> ) - S3 Bloom Time - May to October	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y N UTM: N/O
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star ( <i>Liatris cylindracea</i> ) - S3	Species occurs in limestone and dolostone pavement, prairies, open woods, alvars and moist sandy meadows.	Y N UTM
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed ( <i>Polygonum tenue</i> ) - S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits	Y N UTM
SDT1, FOD5, FOD9	Stem-flowered Muhly ( <i>Muhlenbergia tenuiflora</i> ) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y N UTM N/O
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian ( <i>Gentiana quinquefolia</i> ) - S2 Bloom Time - late summer to mid fall	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	Y N UTM
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine ( <i>Lupinus perennis</i> ) - S3 Bloom Time - mid-March to mid-June	Inhabits dry, sandy oak savannas, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	Y N UTM

# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen



ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
TP01, TPS1, TPW1, CUM1	Tall Blazing Star ( <i>Liatris aspera</i> ) - S3/S3C	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM
FE0, FES, FET, MAM2, MAM3	Tuberous Indian Plantain ( <i>Amoglossum plantagineum</i> ) - S3 Bloom Time - mid-March to mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats	Y (N) UTM
FOC1, FOC2, FOC3, FOC4	Woodland Pinedrops ( <i>Pterospora andromedea</i> ) - S2 Bloom Time - summer	Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar in dry or rocky soil, often with common juniper and sometimes aspen or birch.	Y (N) UTM
CUM1, CUT1, CUW1, RBO1, SBO1	Yellow Ladies'-tresses ( <i>Spiranthes ochroleuca</i> ) - S2 Bloom Time - August to November	Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields	Y (N) UTM
<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>Seiurus motacilla</i> ) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y (N) UTM
FOD, CUW, CUT	Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> ) - SC	Species inhabits open woodland/edges (oak savannahs and riparian forest) open, deciduous forest with little understory, fields or pasture lands with scattered large trees, wooded swamps, orchards, small woodlots or forest edges, groves of dead or dying trees, requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory	Y (N) UTM
-	Short Eared Owl ( <i>Asio flammeus</i> ) - SC	Assessed as SWH. Record species if found	not required.
CUT1	Yellow-breasted Chat ( <i>Icteria virens</i> ) - SC	Inhabits thickets, tall tangles of shrubbery beside streams, ponds, overgrown bushy clearings with deciduous thickets, nests above ground in bush, vines	Y (N) UTM
<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 brizo</i> ) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles	Y (N) UTM
CUM1, CUT1, CUW1	Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC	Their larvae only feed on milkweeds ( <i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y (N) UTM
TPS, CUW	Mottled Duskywing ( <i>Erynnis martialis</i> ) - S2	Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	Y (N) UTM
SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor ( <i>Asterocampa clyton</i> ) - S3	Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant	Y (N) UTM
FOD5	West Virginia White ( <i>Pieris virginianensis</i> ) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM



# Significant Wildlife Habitat Form

AECOM

Study Area: BLW JER GSH Map #: 23664509/1508/1507  
 Date: 2012-04-18 Time Started: 1:15  
 Field Staff: Tom Shorey Jess Piatt Time Finished: 6:15  
 Weather Conditions: Sunny 9°C, 15 km/h winds

**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: See Hibernacula Form Likelihood to extend below frost line: \_\_\_\_\_

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

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

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

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

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

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



# NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

## Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

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

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

No

Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_

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

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

## Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

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

Shoreline of lake, large river or large wetland present:

No

Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_

Rocky island or peninsula present: \_\_\_\_\_

Mudflat present: \_\_\_\_\_

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

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

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

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

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

Large open habitat present:  No

Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_

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

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

## Old-growth or Mature Forests, Interior Forest Breeding Birds

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

Mature forest present:  No

Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_

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

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

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

Photo #	Location or Subject	Photo #	Location or Subject

# Species Conservation Concern Habitat and Incidental Wildlife - Goshen

Map No: 236 - GSH 1507/GSH 1508  
 Date (yyyy-mm-dd): April 18, 2012

Field Staff: AKS Pelic  
TIM SLIDING

Time Started: 1:15  
 Time Finished: 6:15



## Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Song Sparrow		VO	calling - GSH 1948				
Field Sparrow		VO	calling - GSH 1948				
Turkey Vulture		ob	Singing over fields				
Black-capped Chickadee		VO	within FOD9-4				
Blue Jay		OB	within FOD9-4				
Robin		ob	within "				
Deer		1K	along Swamp				
Callow Wren		ob	near Swamp				
Eastern Towhee		ob	along edge				
Bobcat		TKs	TKs along Fern field				
Wild Turkey		TKs	"				
Mourning Dove		ob	along swamp				

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	Scattered 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 (Elyonimum atropurpureum) - S3 Bloom Time: April - June	Species occurs in dry to moist deciduous thickets and woods	Y N UTM <u>not observed</u>
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. Boggy fens, tamarack swamps.	Y N UTM <u>not observed</u>
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 grass, meadows	Y N UTM

# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

AECOM

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM, FOD6, FOD7, FOD9	Green Dragon ( <i>Arisaema dracontium</i> ) - S1/S2 <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: not observed
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Hairy Bedstraw ( <i>Galium pilosum</i> ) - S3 <u>Bloom Time - June-August</u>	Occurs in dry, sandy woods and thickets, occasionally in dry sandy fields	Y N UTM:
FEO1, FE51, 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: not observed
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: not observed
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: not observed
SAS1, SAM1, SAF1	Hill's Pond Weed ( <i>Potamogeton hillii</i> ) - S1/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: not observed
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: not observed
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: not observed
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: not observed
CUW1, ALO, FET1, SWC	Ram's-head Lady's-slipper ( <i>Cypripedium arietinum</i> ) - S3 <u>Bloom Time - mid May to mid June</u>	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.	Y N UTM
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5	Rattlesnake Hawkweed ( <i>Hieracium venosum</i> ) - S2 <u>Bloom Time - April - September</u>	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands	Y N UTM:
FOD6, FOD7, FOD9	Round-leaved Groundsel ( <i>Packera obovata</i> ) - S3 <u>Bloom Time - May - June</u>	Found in moist woods	Y N UTM: not observed
CUM1, CUT1, CUS1	Round-leaved Hawthorn ( <i>Crataegus lumaria</i> ) - S3? <u>Bloom Time - May - June</u>	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y N UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm ( <i>Monarda didyma</i> ) - S3 <u>Bloom Time - May to October</u>	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y N UTM: not observed
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star ( <i>Liatris cylindracea</i> ) - S3 <u>Bloom Time - late summer to mid fall</u>	Species occurs in limestone and dolostone pavement, prairies, open woods, avars and moist sandy meadows.	Y N UTM:
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed ( <i>Polygonum tenue</i> ) - S2 <u>Bloom Time - late summer to mid fall</u>	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits	Y N UTM
SDT1, FOD5, FOD8	Slim-flowered Muhly ( <i>Muhlenbergia tenuiflora</i> ) - S2 <u>Bloom Time - late summer to mid fall</u>	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y N UTM: not observed
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian ( <i>Gentiana quinquefolia</i> ) - S2 <u>Bloom Time - late summer to mid fall</u>	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	Y N UTM
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine ( <i>Lupinus perennis</i> ) - S3 <u>Bloom Time - mid-March to mid-June</u>	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen	Y N UTM:

# Species Conservation Concern Habitat and Incidental Wildlife – Goshen



ELC		Species	Habitat Description	Habitat Present (Y/N): UTM: description habitat if present
TP01, 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:
FE0, FES, FET, MAM2, MAM3		Tuberous Indian Plantain ( <i>Aimoglossum plantagineum</i> ) - S3 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 fields or wooded areas	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:
	CUT1	Short Eared Owl ( <i>Asio flammeus</i> ) - SC	Assessed as SWH. Record species if found	not required
		Yellow-breasted Chat ( <i>Icteria virens</i> ) - SC	Inhabits thickets, tall tangles of shrubby beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y <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: not observed
TPS, TPW		Sleepy Duskywing ( <i>Erynnis brizo</i> ) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils	Y <input type="radio"/> N <input type="radio"/> UTM:
CUM1, CUT1, CUW1		Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC	Species regularly seen at flowers in oak woods, on the ground, and at mud puddles Their larvae only feed on milkweeds ( <i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y <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>Pteris virginiensis</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:

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 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>				
					Rose (R)					Witch-grass ( <i>Panicum capillare</i> )				
										<i>Panicum</i>				
<b>Deciduous</b>					Com. Blackberry ( <i>Rubus allegheniensis</i> )					Reed Canary Grass ( <i>Phalaris arundinacea</i> )				
Manitoba Maple ( <i>Acer negundo</i> )					Wild Red Raspberry ( <i>Rubus idaeus</i> )					Timothy ( <i>Phleum pratense</i> )				
Black Maple ( <i>Acer nigrum</i> )					Black Raspberry ( <i>Rubus occidentalis</i> )					Common Reed ( <i>Phragmites australis</i> )				
Norway Maple ( <i>Acer platanoides</i> )					Purple-fl. Raspberry ( <i>Rubus odoratus</i> )					Canada Blue Grass ( <i>Poa compressa</i> )				
Red Maple ( <i>Acer rubrum</i> )					Dwarf Raspberry ( <i>Rubus pubescens</i> )					Fowl Meadow Grass ( <i>Poa palustris</i> )				
Silver Maple ( <i>Acer saccharinum</i> )					<i>Rubus</i>					Kentucky Bluegrass ( <i>Poa pratensis</i> )				
Freeman's Maple ( <i>Acer X freemanii</i> )					Peach-leaved Willow ( <i>Salix amygdaloides</i> )					Yellow Foxtail ( <i>Setaria pumila</i> )				
Sugar Maple ( <i>Acer saccharum</i> )					Bebb's Willow ( <i>Salix bebbiana</i> )					Green Foxtail ( <i>Setaria viridis</i> )				
Mountain Maple ( <i>Acer spicatum</i> )					Pussy Willow ( <i>Salix discolor</i> )									
Speckled Alder ( <i>Alnus incana</i> )					Missouri Willow ( <i>Salix eriocephala</i> )									
Downy Serviceberry ( <i>Amelanchier arborea</i> )					Sandbar Willow ( <i>Salix exiguus</i> )									
Serviceberry ( <i>Amelanchier sanguinea</i> )					Shining Willow ( <i>Salix lucida</i> )									
Yellow Birch ( <i>Betula allegheniensis</i> )					Black Willow ( <i>Salix nigra</i> )									
White Birch ( <i>Betula papyrifera</i> )					Slender Willow ( <i>Salix petiolaris</i> )									
European Birch ( <i>Betula pendula</i> )					<i>Salix</i>									
Blue Beech ( <i>Carpinus caroliniana</i> )					Hybrid Crack Willow ( <i>Salix X rubens</i> )									
Bitternut hickory ( <i>Carya cordiformis</i> )					Black-berried Elder ( <i>Sambucus nigra</i> )									
Shagbark Hickory ( <i>Carya ovata</i> )					Red-berried Elder ( <i>Sambucus racemosa</i> )									
Climbing Bittersweet ( <i>Celastrus scandens</i> )					Buffaloberry ( <i>Shepherdia canadensis</i> )									
Common Hackberry ( <i>Celtis occidentalis</i> )					Eur. Mountain Ash ( <i>Sorbus aucuparia</i> )									
Buttonbush ( <i>Cephalanthus occidentalis</i> )					Narrow Meadow-sweet ( <i>Spiraea alba</i> )									
Alt.-leaved Dogwood ( <i>Cornus alternifolia</i> )					Common Lilac ( <i>Syringa vulgaris</i> )									
Silky Dogwood ( <i>Cornus amomum</i> )					Poison-ivy ( <i>Toxicodendron rydbergii</i> )									
Bunchberry ( <i>Cornus canadensis</i> )					Climbing Poison-ivy ( <i>Toxicodendron radicans</i> )									
Gray dogwood ( <i>Cornus racemosa</i> )					White Elm ( <i>Ulmus americana</i> )									
Round-leaved Dogwood ( <i>Cornus rugosa</i> )					Siberian Elm ( <i>Ulmus pumila</i> )									
Red-osier Dogwood ( <i>Cornus sericea</i> )					Slippery Elm ( <i>Ulmus rubra</i> )									
American Hazel ( <i>Corylus americana</i> )					Low Blueberry ( <i>Vaccinium angustifolium</i> )									
Beaked Hazel ( <i>Corylus cornuta</i> )					Maple-leaf Viburnum ( <i>Viburnum acerifolium</i> )									
Cockspur Thorn ( <i>Crataegus crus-galli</i> )					Hobblebush ( <i>Viburnum lantanoides</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</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> )														
Autumn Olive ( <i>Elaeagnus umbellata</i> )														
Run. Strawberry-bush ( <i>Euonymus obovata</i> )					<i>Dicentra</i>									
American Beech ( <i>Fagus grandifolia</i> )														
Glossy Buckthorn ( <i>Frangula alnus</i> )					<i>Fragaria</i>									
White Ash ( <i>Fraxinus americana</i> )														
Black Ash ( <i>Fraxinus nigra</i> )					<b>Ferns &amp; Allies</b>									
Green Ash ( <i>Fraxinus pennsylvanica</i> )					Lady Fern ( <i>Athyrium filix-femina</i> )									
Witch-hazel ( <i>Hamamelis virginiana</i> )					Rattlesnake Fern ( <i>Botrychium virginianum</i> )									
Winterberry ( <i>Ilex verticillata</i> )					Bulb Bladder Fern ( <i>Cystopteris bulbifera</i> )									
Butternut ( <i>Juglans cinerea</i> )					Spin. Wood Fern ( <i>Dryopteris carthusiana</i> )									
Black Walnut ( <i>Juglans nigra</i> )					Crested Wood Fern ( <i>Dryopteris cristata</i> )									
Common Privet ( <i>Ligustrum vulgare</i> )					Marginal Wood Fern ( <i>Dryopteris marginalis</i> )									
Spicebush ( <i>Lindera benzoin</i> )					<i>Dryopteris</i>									
Fly Honeysuckle ( <i>Lonicera canadensis</i> )					Ostrich Fern ( <i>Matteuccia struthiopteris</i> )									
Glaucous Honeysuckle ( <i>Lonicera dioica</i> )					Sensitive Fern ( <i>Onoclea sensibilis</i> )									
Morrow's Honeysuckle ( <i>Lonicera morrowii</i> )					Cinnamon Fern ( <i>Osmunda cinnamomea</i> )									
Tartarian Honeysuckle ( <i>Lonicera tatarica</i> )					Interrupted Fern ( <i>Osmunda claytoniana</i> )									
Common Apple ( <i>Malus pumila</i> )					Royal Fern ( <i>Osmunda regalis</i> )									
White Mulberry ( <i>Morus alba</i> )					Christmas Fern ( <i>Polystichum acrostichoides</i> )									
Sweet Gale ( <i>Myrica gale</i> )					Eastern Bracken-fern ( <i>Pteridium aquilinum</i> )									
Ironwood ( <i>Ostrya virginiana</i> )					Marsh Fern ( <i>Thelypteris palustris</i> )									
Thicket-creeper ( <i>Parthenocissus inserta</i> )														
Ninebark ( <i>Physocarpus opulifolius</i> )					Field Horsetail ( <i>Equisetum arvense</i> )									
Balsam Poplar ( <i>Populus balsamifera</i> )					Scouring-rush ( <i>Equisetum hyemale</i> )									
Eastern Cottonwood ( <i>Populus deltoides</i> )					Variegated Horsetail ( <i>Equisetum variegatum</i> )									
Large-tooth Aspen ( <i>Populus grandidentata</i> )					<i>Equisetum</i>									
Trembling Aspen ( <i>Populus tremuloides</i> )					Ground-cedar ( <i>Lycopodium digitatum</i> )									
Sweet Cherry ( <i>Prunus avium</i> )					Shining Clubmoss ( <i>Lycopodium lucidulum</i> )									
Pin Cherry ( <i>Prunus pensylvanica</i> )					Ground-pine ( <i>Lycopodium obscurum</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: 236 GSH 1079/1504  
 Date: April 18, 2012  
 Surveyors: JB + TS

Plant Species List  
2012

Dicot Herbs - Asteraceae					Dicot Herbs					Dicot Herbs				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Common Yarrow ( <i>Achillea millefolium</i> )					Shepherd's Purse ( <i>Capsella bursa-pastoris</i> )					Kidney-leaf Buttercup ( <i>Ranunculus abortivus</i> )	U			
White Snakeroot ( <i>Ageratina altissima</i> )					Cutleaf Toothwort ( <i>Cardamine concatenata</i> )					Tall Buttercup ( <i>Ranunculus acris</i> )				
Com. Ragweed ( <i>Ambrosia artemisiifolia</i> )					Toothwort ( <i>Cardamine diphylla</i> )					Hooked Buttercup ( <i>Ranunculus recurvatus</i> )				
Giant Ragweed ( <i>Ambrosia trifida</i> )					Penn. Bitter-cress ( <i>Cardamine pennsylvanica</i> )					<i>Ranunculus</i>				
Field Pusstoes ( <i>Antennaria neglecta</i> )					<i>Cardamine</i>					Sheep Sorrel ( <i>Rumex acetosella</i> )				
<i>Artemisia</i>					Blue Cohosh ( <i>Caulophyllum thalictroides</i> )					Curly-leaf Dock ( <i>Rumex crispus</i> )				
Common Burdock ( <i>Arctium minus</i> )					Mouse-ear Chickweed ( <i>Cerastium fontanum</i> )					Bitter Dock ( <i>Rumex obtusifolius</i> )				
Nodding Beggar-ticks ( <i>Bidens cernua</i> )					Turtlehead ( <i>Chelone glabra</i> )					Bloodroot ( <i>Sanguinaria canadense</i> )				
Devil's Beggar-ticks ( <i>Bidens frondosa</i> )					Spotted Water-hemlock ( <i>Cicuta maculata</i> )					Black Snakeroot ( <i>Sanicula marilandica</i> )				
Spotted Knapweed ( <i>Centaurea biebersteinii</i> )					Water-hemlock ( <i>Cicuta virosa</i> )					Bouncing Bet ( <i>Saponaria officinalis</i> )				
Brown Knapweed ( <i>Centaurea jacea</i> )					Enchanter's Nightshade ( <i>Circaea lutetiana</i> )					Marsh Skullcap ( <i>Scutellaria galericulata</i> )				
Chicory ( <i>Cichorium intybus</i> )					Carolina Spring Beauty ( <i>Claytonia caroliniana</i> )	U				Mad Dog Skullcap ( <i>Scutellaria lateriflora</i> )				
Canada Thistle ( <i>Cirsium arvense</i> )					Virginia Spring Beauty ( <i>Claytonia virginica</i> )					White Campion ( <i>Silene latifolia</i> )				
Bull Thistle ( <i>Cirsium vulgare</i> )					Virgin's-bower ( <i>Clematis virginiana</i> )					Bladder Campion ( <i>Silene vulgaris</i> )				
Horseweed ( <i>Conyza canadensis</i> )					Field Bindweed ( <i>Convolvulus arvensis</i> )					Hemlock Water-parsnip ( <i>Sium suave</i> )				
Daisy Fleabane ( <i>Eriogonum annuus</i> )					Dog-strangling Vine ( <i>Cynanchum rossicum</i> )					Bitter Nightshade ( <i>Solanum dulcamara</i> )				
Philadelphia Fleabane ( <i>Erig. philadelphicus</i> )					Wild Carrot ( <i>Daucus carota</i> )					Black Nightshade ( <i>Solanum ptychanthum</i> )				
<i>Eriogonum</i>					Depth Pink ( <i>Dianthus armeria</i> )					Grassleaf Stitchwort ( <i>Stellaria graminea</i> )				
Joe-pye-weed ( <i>Eupatorium maculatum</i> )					Squirrel-com ( <i>Dicentra canadensis</i> )					Common Chickweed ( <i>Stellaria media</i> )				
Boneset ( <i>Eupatorium perforatum</i> )					Dutchman's-breeches ( <i>Dicentra cucullaria</i> )					Early Meadow-rue ( <i>Thalictrum dioicum</i> )				
Large-leaved Aster ( <i>Eurybia macrophylla</i> )					Wild Teasel ( <i>Dipsacus fullonum</i> )					Tall Meadow-rue ( <i>Thalictrum pubescens</i> )				
Flat-top Goldenrod ( <i>Euthamia graminifolia</i> )					Wild Cucumber ( <i>Echinocystis lobata</i> )					Field Penny-cress ( <i>Thlaspi arvense</i> )				
Orange Hawkweed ( <i>Hieracium aurantiacum</i> )					Viper's Bugloss ( <i>Echium vulgare</i> )					Foamflower ( <i>Tiarella cordifolia</i> )				
Field Hawkweed ( <i>Hieracium caespitosum</i> )					Northern Willow-herb ( <i>Epilobium ciliatum</i> )					Star-flower ( <i>Trientalis borealis</i> )				
<i>Hieracium</i>					Hairy Willow-herb ( <i>Epilobium hirsutum</i> )					Red Clover ( <i>Trifolium pratense</i> )				
Elecampans ( <i>Inula helianium</i> )					Small-fl. Willow-herb ( <i>Epilobium parviflorum</i> )					White Clover ( <i>Trifolium repens</i> )				
Prickly Lettuce ( <i>Lactuca scariola</i> )					<i>Epilobium</i>					<i>Trifolium</i>				
<i>Lactuca</i>					Worm Mustard ( <i>Erysimum cheiranthoides</i> )					Stinging Nettle ( <i>Urtica dioica</i> )				
Ox-eye Daisy ( <i>Leucanthemum vulgare</i> )					<i>Euphorbia</i>					Greater Bladderwort ( <i>Utricularia vulgaris</i> )				
Pineapple-weed ( <i>Matricaria discoidea</i> )					Hemp Nettle ( <i>Galeopsis tetrahit</i> )					Common Mullein ( <i>Verbascum thapsus</i> )				
Tall White Lettuce ( <i>Prenanthes altissima</i> )					Wild Madder ( <i>Galium mollugo</i> )					Blue Vervain ( <i>Verbena hastata</i> )				
Black-eyed Susan ( <i>Rudbeckia hirta</i> )					Marsh Bedstraw ( <i>Galium palustre</i> )					White Vervain ( <i>Verbena urticifolia</i> )				
Tall Goldenrod ( <i>Solidago altissima</i> )					Sweet-scented Bedstraw ( <i>Galium triflorum</i> )					Water Speedwell ( <i>Veron. anagallis-aquatica</i> )				
Blue-stem Goldenrod ( <i>Solidago caesia</i> )					<i>Galium</i>					Common Speedwell ( <i>Veronica officinalis</i> )				
Canada Goldenrod ( <i>Solidago canadensis</i> )					Spotted Geranium ( <i>Geranium maculatum</i> )	F				<i>Veronica</i>				
Zig-zag Goldenrod ( <i>Solidago flexicaulis</i> )					Herb-robert ( <i>Geranium robertianum</i> )					Cow Vetch ( <i>Vicia cracca</i> )				
Giant Goldenrod ( <i>Solidago gigantea</i> )					Yellow Avens ( <i>Geum aleppicum</i> )					<i>Vicia</i>				
Early Goldenrod ( <i>Solidago juncea</i> )					White Avens ( <i>Geum canadense</i> )					Periwinkle ( <i>Vinca minor</i> )				
Gray Goldenrod ( <i>Solidago nemoralis</i> )					Urban Avens ( <i>Geum urbanum</i> )					Dog Violet ( <i>Viola conspersa</i> )				
<i>Solidago</i>					Dame's Rocket ( <i>Hesperis matronalis</i> )					Yellow Violet ( <i>Viola pubescens</i> )				
Field Sow-thistle ( <i>Sonchus arvensis</i> )					Virg. Water-leaf ( <i>Hydrophyllum virginianum</i> )					Com. Blue Violet ( <i>Viola sororia</i> )				
<i>Sonchus</i>					Com. St. John's-wort ( <i>Hypericum perforatum</i> )					<i>Viola</i>				
Hear-leaf Aster ( <i>Symph. cordifolium</i> )					Spotted Jewelweed ( <i>Impatiens capensis</i> )									
Heath Aster ( <i>Symph. trichum ericoides</i> )					Wood Nettle ( <i>Laportea canadensis</i> )									
Tall White Aster ( <i>Symph. lanceolatum</i> )					Motherwort ( <i>Leonurus cardiaca</i> )									
Calico Aster ( <i>Symph. trichum lateriflorum</i> )					Field Peppergrass ( <i>Lepidium campestre</i> )									
New England Aster ( <i>Symph. novae-angliae</i> )					Eur. Gromwell ( <i>Lithospermum officinale</i> )									
Purple-stem Aster ( <i>Symph. purpureus</i> )					Butter & Eggs ( <i>Linaria vulgaris</i> )									
Common Tansy ( <i>Tanacetum vulgare</i> )					Great Lobelia ( <i>Lobelia siphilitica</i> )									
Common Dandelion ( <i>Taraxacum officinale</i> )	U				<i>Lobelia</i>									
Com. Goatsbeard ( <i>Tragopogon pratensis</i> )					Cut-leaf Bugleweed ( <i>Lycopus americanus</i> )									
Coltsfoot ( <i>Tussilago farfara</i> )					Northern Bugleweed ( <i>Lycopus uniflorus</i> )					Water-plantain ( <i>Aisma plantago-aquatica</i> )				
					Fringed Loosetrife ( <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 Loosetrife ( <i>Lythrum salicaria</i> )					Wild Calla ( <i>Calla palustris</i> )				
					Black Medick ( <i>Medicago lupulina</i> )					Bluebead-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>Elodea 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> )	F			
					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>Hemerocallis 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> )					Pickeral-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 lepechtholium</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

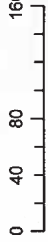
Map Number: 236811039/1509  
 Date: April 18, 2012  
 Surveyors: JPT

# Goshen Feature: 236/225 GSH1508/1509/1948/1949

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

October 28, 2011

160 Meters



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







235 GSH 1509

Koums fm

Nov 9/204

(Z) Moist Decid Forest UTM - 446440 / 4791790

2-4 Carvat - Quercus - Fraxinus (Fraxinus?)

3-3 Acer - Ulmus

6-3 Crx spp Astlate Geucau

FOD 9e?

Soil 0-15 dark brown clay loam

15-35 Gray-brown clay

Mottles 15cm.

(Y) Variable Mixed Decid UTM - 446500 / 4791725  
No clear dominant

2-4 Fraxinus - Quercus - Faggen > Tilia - Acer

3-4 Acer - Ulmus - Ostvieg

4-2 Faggen

FOD 4g

(X) Wash-Shagbark Dec Forest UTM - 446450 / 4792010

1/2-4 Fraxinus > Carvat >> Faggen - Quercus

3-3 Ostvieg > Acer -

FOD 9b?

225 GSH 1949

(W) Deciduous Forest UTM 446770 / 4791870

2-4 Carvat - Fraxinus

3-4 Acer - Crataegus - Ulmus - Frax.

4

6- Eucalypt - Crx - Geucau

FOD 9d?

Many oaks are dead or dying; Hickories are large.

GSH1509

ELC	SITE:	GSH1507 & GSH1508	
	POLYGON:		
WILDLIFE	DATE:	Oct 13 / 2011	
	SURVEYORS:		
	START TIME:	16:30	END TIME:

TEMP (°C):	17	CLOUD (10th):	10	WIND:	1	PRECIPITATION:	
CONDITIONS:							

POTENTIAL WILDLIFE HABITAT:

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

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#
B	BCCH	OB			M	WT ♀ egg	TKS		
	SOSP					November 9			
	AMRO				M	Gray Squirrel	OB		
	RBWO					E. Cottontail	OB		
	BLJA				H	Spring Peeper	VO		
	NDEL				B	SOSP	OB		
	WCSP				B	AMCR			
	SWSP					BLJA			
	AMCR					BCCH			
	KILL					DOWO			
						AMGO			
	Spring Peeper	VO				SNBU		Ply over	
						RUBL		iniquity	
						RWBL			
						TRSP			
						PEJU			

with addition

FAUNAL TYPE CODES (TY):

B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):

BREEDING BIRD - POSSIBLE:

SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:

T = TERRITORY D = DISPLAY P = PAIR  
A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:

DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG  
NE = EGGS NY = YOUNG FS = FOOD/FECAL SACK  
AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:

OB = OBSERVED VO = VOCALIZATION CA = CARCASS  
DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS/YOUNG  
TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT  
SI = OTHER SIGNS (specify)



**Legend**

- Turbine Location
- Road Turn-Around
- Collection Line Layout
- Access Road Layout
- Turbine Turn-Around Box
- Collection Line 20m Buffer
- Access Road 60m Buffer
- Area of Disturbance 120m Buffer
- Natural Feature

- Roads**
- Major Road
  - Local Road

- Water Features**
- Intermittent Stream
  - Permanent Stream



Reimagined from Ontario Ministry of Natural Resources  
Orthophotography



UTM Zone 17N, NAD 83  
1:10,000  
0 25 50 100 150 200  
Meters

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NextEra Energy Canada, ULC  
Cochran Wind Energy Centre

**Feature 240/242**

December 2011  
60185032



Figure 1















\* ASA Survey \*  
\* Vernal Pool ASA \*

### Significant Wildlife Habitat Form

AECOM

Study Area: <u>BLW JER <b>GSH</b></u>	Map #: <u>240-GSH2032</u>
Date: <u>2012-04-24</u>	Time Started: <u>2:40</u>
Field Staff: <u>Tom Sweeney Jess Poole</u>	Time Finished: <u>3:00</u>
Weather Conditions: <u>Cloudy 3°C, 45% wind</u>	

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

*\* Could not complete vernal pool card as this was ASA \**  
**\*\*\*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): \_\_\_\_\_

\* ASA Survey \*      AEA \*

**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:  
 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

ELC	Species	Habitat Description	Habitat Present (Y/N); UTM: description of habitat if present
CUM1, MAM, FOD6, FOD7, FOD9	June - August Green Dragon (Arisaema dracontium) - SC/S3 <u>Bloom Time - May and June</u> Hairy Bedstraw (Galium pilosum) - S3 <u>Bloom Time - June-August</u>	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm. Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y N UTM: Y N UTM:
FOT1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Hairy Valerian (Valeriana edulis) - S1 <u>Bloom Time - June to August</u> Hairy Wood Mint (Blephilia hirsuta) - S1 <u>Bloom Time - Summer</u>	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens. Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.	Y N UTM: Y N UTM:
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (Erigenia bulbosa) - S3 <u>Bloom Time - early to late April</u> Hill's Pond Weed (Potamogeton hillii) - SC/S2 <u>Bloom Time - summer</u>	Occurs in rich, moist deciduous woods, especially on floodplains. Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y N UTM: Y N UTM:
FOM6, FOM7, FOM8	Large Round-leaved Orchid (Platanthera macrophylla) - S2 <u>Bloom Time - June to August</u> Lizard's Tail (Saururus cernuus) - S3 <u>Bloom Time - June - September</u> Pawpaw (Asimina triloba) - S3 <u>Bloom Time - March-May</u>	Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands. Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, shallow water and mudflats at the borders of streams and ponds. Occurs in moist deciduous woods and stream banks.	Y N UTM: Y N UTM: Y N UTM:
FOM8, FOD6, FOD7, FOD9, CUM1	Pilose Evening Primrose (Oenothera pilosella) - S2 <u>Bloom Time - Late Spring - Early Summer</u> Prostate Tick-trefoil (Desmodium rotundifolium) - S2 <u>Bloom Time - July-September</u> Pumpkin Ash (Fraxinus profunda)-S2? <u>Bloom Time - March - June</u>	Moist edges of woods and open, disturbed ground. Dry, sandy or rocky woods Swamps and floodplains	Y N UTM: Y N UTM: Y N UTM:
CUW1, ALO, FET1, SWC, FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5, FOD6, FOD7, FOD9	Ram's-head Lady's-slipper (Cypripedium arietinum) - S3 <u>Bloom Time - mid May to mid June</u> Rattlesnake Hawkweed (Hieracium venosum) - S2 <u>Bloom Time - April - September</u> Round-leaved Groundsel (Packera obovata) - S3 <u>Bloom Time - May - June</u> Round-leaved hawthorn (Crataegus lumarina) - S3?	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren. Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands. Found in moist woods Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y N UTM: Y N UTM: Y N UTM: Y N UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm (Monarda didyma) - S3 <u>Bloom Time - May to October</u> Slender Blazing Star (Liatris cylindracea) - S3	Found in moist, rich woods, thicket swamps, banks and floodplains. Species occurs in limestone and dolostone pavement, prairies, open woods; alvars and moist sandy meadows.	Y N UTM: Y N UTM:
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed (Polygonum tenue)-S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows; at edges of sand pits	Y N UTM:
SDT1, FOD5, FOD9	Slim-flowered Muhly (Muhlenbergia tenuiflora) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y N UTM:
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (Gentianella quinquefolia) - 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 (Lupinus perennis) - S3 <u>Bloom Time - mid-March to mid-June</u>	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	Y N UTM:

# Species Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
TPR01, TPS1, TPW1, CUM1	Tall Blazing Star ( <i>Liatris aspera</i> )-S2/S3	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y N UTM:
FE0, FES, FET, MAM2, MAM3	Tuberous Indian Plantain ( <i>Arnoglossum plantagineum</i> ) - S3 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	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y N UTM:
FOD, FOM	Louisiana Waterthrush ( <i>Seiurus motacilla</i> ) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y N UTM:
FOD, CUW, CUT	Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> ) - SC	Species inhabits open woodland/ edges (oak savannahs and riparian forest), open, deciduous forest with little understorey; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	Y N UTM:
-	Short Eared Owl ( <i>Asio flammeus</i> ) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat ( <i>Icteria virens</i> ) - SC	Inhabits thickets, tall tangles of shrubby 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 clyten</i> ) - S3	Species inhabits densely wooded riparian areas, dry woods, open woods, fencecross and parks. Usually occurs near Hackberry, the larval foodplant	Y N UTM:
FOD5	West Virginia White ( <i>Pteris virginiensis</i> ) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y N UTM:









Plant Species List  
2012

Dicot Herbs - Asteraceae					Dicot Herbs					Dicot Herbs				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Common Yarrow ( <i>Achillea millefolium</i> )					Shepherd's Purse ( <i>Capsella bursa-pastoris</i> )					Kidney-leaf Buttercup ( <i>Ranunculus abortivus</i> )				
White Snakeroot ( <i>A. racemosa</i> )					Cutleaf Toothwort ( <i>Cardamine concatenata</i> )					Tall Buttercup ( <i>Ranunculus acris</i> )				
Com. Ragweed ( <i>Ambrosia artemisiifolia</i> )					Toothwort ( <i>Cardamine diaphylla</i> )					Hooked Buttercup ( <i>Ranunculus recurvatus</i> )				
Giant Ragweed ( <i>Ambrosia trifida</i> )					Penn. Bitter-cress ( <i>Cardamine pennsylvanica</i> )					<i>Ranunculus</i>				
Field Pussytoes ( <i>Antennaria neglecta</i> )					<i>Cardamine</i>					Sheep Sorrel ( <i>Rumex acetosella</i> )				
<i>Artemisia</i>					Blue Cohosh ( <i>Caulophyllum thalictroides</i> )					Curl-leaf Dock ( <i>Rumex crispus</i> )				
Common Burdock ( <i>Arctium minus</i> )					Mouse-ear Chickweed ( <i>Cerastium fontanum</i> )					Bitter Dock ( <i>Rumex obtusifolius</i> )				
Nodding Beggar-ticks ( <i>Bidens cernua</i> )					Turtlehead ( <i>Chelone glabra</i> )					Bloodroot ( <i>Sanguinaria canadense</i> )				
Devil's Beggar-ticks ( <i>Bidens frondosa</i> )					Spotted Water-hemlock ( <i>Cicuta maculata</i> )					Black Snakeroot ( <i>Sanicula marilandica</i> )				
Spotted Knawweed ( <i>Centaurea biebersteinii</i> )					Water-hemlock ( <i>Cicuta virosa</i> )					Bouncing Bet ( <i>Saxifraga officinalis</i> )				
Brown Knawweed ( <i>Centaurea jacea</i> )					Enchanter's Nightshade ( <i>Circaea lutetiana</i> )					Marsh Skullcap ( <i>Scutellaria lateriflora</i> )				
Chicory ( <i>Cichorium intybus</i> )					Carolina Spring Beauty ( <i>Claytonia caroliniana</i> )					Mad Dog Skullcap ( <i>Scutellaria lateriflora</i> )				
Canada Thistle ( <i>Cirsium arvense</i> )					Virginia Spring Beauty ( <i>Claytonia virginica</i> )					White Camphion ( <i>Silene latifolia</i> )				
Bull Thistle ( <i>Cirsium vulgare</i> )					Virginia-bower ( <i>Clematis virginiana</i> )					Bladder Camphion ( <i>Silene vulgaris</i> )				
Horseweed ( <i>Conyza canadensis</i> )					Field Bindweed ( <i>Convolvulus arvensis</i> )					Hemlock Waterparsnip ( <i>Sium suave</i> )				
Daisy Fleabane ( <i>Eryngium annuus</i> )					Dog-strangling Vine ( <i>Cynanchum rossicum</i> )					Bitter Nightshade ( <i>Solanum dulcamara</i> )				
Philadelphia Fleabane ( <i>Eryngium philadelphicum</i> )					Wild Carrot ( <i>Daucus carota</i> )					Black Nightshade ( <i>Solanum elaeagnifolium</i> )				
<i>Eryngium</i>					Deerfoot Pink ( <i>Dianthus armeria</i> )					Grassleaf Stitchwort ( <i>Stellaria graminea</i> )				
Joe-pye-weed ( <i>Eupatorium maculatum</i> )					Sunflower-corn ( <i>Dicentra canadensis</i> )					Common Chickweed ( <i>Stellaria media</i> )				
Boneset ( <i>Eupatorium purfoliatum</i> )					Dutchman's-breeches ( <i>Dicentra cucullaria</i> )					Early Meadow-rue ( <i>Thalictrum dioicum</i> )				
Large-leaved Aster ( <i>Euphorbia maculata</i> )					Wild Teasel ( <i>Dipsacus fulorum</i> )					Tall Meadow-rue ( <i>Thalictrum pubescens</i> )				
Flat-top Goldenrod ( <i>Euthamia ramifolia</i> )					Wild Cucumber ( <i>Echinocystis lobata</i> )					Field Pennycress ( <i>Thlaspi arvense</i> )				
Orange Hawkweed ( <i>Hieracium aurantiacum</i> )					Virginia Bluebell ( <i>Echium vulgare</i> )					Foamflower ( <i>Tiarella cordifolia</i> )				
Field Hawkweed ( <i>Hieracium caespitosum</i> )					Northern Willow-herb ( <i>Eriobium ciliatum</i> )					Star-flower ( <i>Trientalis borealis</i> )				
<i>Hieracium</i>					Hairy Willow-herb ( <i>Eriobium hirsutum</i> )					Red Clover ( <i>Trifolium pratense</i> )				
Elecampane ( <i>Inula helenium</i> )					Small-fl. Willow-herb ( <i>Eriobium parviflorum</i> )					White Clover ( <i>Trifolium repens</i> )				
Prickly Lettuce ( <i>Lactuca serriola</i> )					<i>Eriobium</i>					<i>Trifolium</i>				
<i>Lactuca</i>					Worm Mustard ( <i>Erysimum cheiranthoides</i> )					Stinging Nettle ( <i>Urtica dioica</i> )				
Ox-eye Daisy ( <i>Leucanthemum vulgare</i> )					<i>Erysimum</i>					Greater Bladderwort ( <i>Utricularia vulgaris</i> )				
Pineapple-weed ( <i>Matricaria discoidea</i> )					Hairy Nettle ( <i>Galeopsis tetrahit</i> )					Common Mullein ( <i>Verbascum thapsus</i> )				
Tall White Lettuce ( <i>Prenanthes altissima</i> )					Wild Madder ( <i>Galium mollugo</i> )					Blue Vervain ( <i>Verbena hastata</i> )				
Black-eyed Susan ( <i>Rudbeckia hirta</i> )					Marsh Bedstraw ( <i>Galium palustre</i> )					White Vervain ( <i>Verbena urticifolia</i> )				
Tall Goldenrod ( <i>Solidago altissima</i> )					Sweet-scented Bedstraw ( <i>Galium triflorum</i> )					Water Speedwell ( <i>Veronica anagallis-aquatica</i> )				
Blue-stem Goldenrod ( <i>Solidago caesia</i> )					<i>Galium</i>					Common Speedwell ( <i>Veronica officinalis</i> )				
Canada Goldenrod ( <i>Solidago canadensis</i> )					Spotted Geranium ( <i>Geranium maculatum</i> )					<i>Veronica</i>				
Zig-zag Goldenrod ( <i>Solidago flexicaulis</i> )					Herb-robert ( <i>Geranium robertianum</i> )					Cow Vetch ( <i>Vicia cracca</i> )				
Giant Goldenrod ( <i>Solidago gigantea</i> )					Yellow Avens ( <i>Geum aleaicum</i> )					<i>Vicia</i>				
Early Goldenrod ( <i>Solidago juncea</i> )					White Avens ( <i>Geum canadense</i> )					Periwinkle ( <i>Vinca minor</i> )				
Gray Goldenrod ( <i>Solidago nemoralis</i> )					Urban Avens ( <i>Geum urbanum</i> )					<i>Violet</i>				
<i>Solidago</i>					Dame's Rocket ( <i>Hesperis matronalis</i> )					Yellow Violet ( <i>Viola pubescens</i> )				
Field Sow-thistle ( <i>Sonchus arvensis</i> )					Virginia Waterleaf ( <i>Hydrophyllum virginianum</i> )					Com. Blue Violet ( <i>Viola sororia</i> )				
<i>Sonchus</i>					Com. St. John's-wort ( <i>Hypericum perforatum</i> )					<i>Viola</i>				
Heart-leaf Aster ( <i>Symphoricarpos cordifolius</i> )					Spotted Jewelweed ( <i>Impatiens capensis</i> )									
Heath Aster ( <i>Symphoricarpos ericoides</i> )					Wood Nettle ( <i>Laportea canadensis</i> )									
Tall White Aster ( <i>Symphoricarpos lanceolatum</i> )					Motherwort ( <i>Leonurus cardiaca</i> )									
Calico Aster ( <i>Symphoricarpos lateriflorum</i> )					Field Peppercorn ( <i>Lepidium campestre</i> )									
New England Aster ( <i>Symphoricarpos novae-angliae</i> )					Eur. Gromwell ( <i>Lithospermum officinale</i> )									
Purple-stem Aster ( <i>Symphoricarpos punctatus</i> )					Butter & Eggs ( <i>Linaria vulgaris</i> )									
Common Tansy ( <i>Tanacetum vulgare</i> )					Great Lobelia ( <i>Lobelia siphilitica</i> )									
Common Dandelion ( <i>Taraxacum officinale</i> )					<i>Lobelia</i>									
Com. Goatsbeard ( <i>Trigonotis pratensis</i> )					Cut-leaf Bugweed ( <i>Lycopus americanus</i> )					Water Plantain ( <i>Alisma plantago-aquatica</i> )				
Coltsfoot ( <i>Tussilago farfara</i> )					Northern Bugweed ( <i>Lycopus uniflorus</i> )					Wild Leek ( <i>Allium tricoccum</i> )				
					Fringed Loosestrife ( <i>Lythrum ciliatum</i> )					Jack-in-the-pulpit ( <i>Arisaema triphyllum</i> )				
					Monardella ( <i>Lythrum nummularia</i> )					Asparagus ( <i>Asparagus officinalis</i> )				
					<i>Lythrum</i>					Wild Calla ( <i>Calla palustris</i> )				
					Purple Loosestrife ( <i>Lythrum salicaria</i> )					Bluebead-lily ( <i>Clintonia borealis</i> )				
					Black Medick ( <i>Medicago lupulina</i> )					Garden Lily-of-the-valley ( <i>Convallaria majalis</i> )				
					Alfalfa ( <i>Medicago sativa</i> )					Yel. Lady's Slipper ( <i>Cypripedium parviflorum</i> )				
					White Sweet-clover ( <i>Melilotus alba</i> )					Canada Waterweed ( <i>Elodea canadensis</i> )				
					Yellow Sweet-clover ( <i>Melilotus officinalis</i> )					Helleborine ( <i>Eppacis helleborine</i> )				
					Wild Mint ( <i>Mentha arvensis</i> )					Yellow Trout Lily ( <i>Erythronium americanum</i> )				
					Wild Bergamot ( <i>Monarda fistulosa</i> )					Blue-fl. Iris ( <i>Iris versicolor</i> )				
					Small Forget-me-not ( <i>Myosotis laxa</i> )					Orange Day Lily ( <i>Hemerocallis fulva</i> )				
					Forget-me-not ( <i>Myosotis scorpioides</i> )					Lesser Duckweed ( <i>Lemna minor</i> )				
					Water-cress ( <i>Nasturtium officinale</i> )					Sour Duckweed ( <i>Lemna trisulca</i> )				
					Com. Evening-primrose ( <i>Oenothera biennis</i> )					Wild Lily-of-the-valley ( <i>Maianthemum canadense</i> )				
					Sweet-cicely ( <i>Osmorhiza berterii</i> )					False Solomon Seal ( <i>Maianthemum racemosum</i> )				
					Yellow Wood-sorrel ( <i>Oxalis stricta</i> )					Star False Solomon Seal ( <i>Maianthemum stellatum</i> )				
					Wild Parsnip ( <i>Pastinaca sativa</i> )					True Solomon Seal ( <i>Polygonatum pubescens</i> )				
					English Plantain ( <i>Plantago lanceolata</i> )					Pickering-weed ( <i>Pontederia cordata</i> )				
					Common Plantain ( <i>Plantago major</i> )					Curl-leaf Pondweed ( <i>Potamogeton crispus</i> )				
					Rugel's Plantain ( <i>Plantago rugelii</i> )					Sago Pondweed ( <i>Potamogeton pectinatus</i> )				
					Marigold ( <i>Tagetes patula</i> )					<i>Potamogeton</i>				
					Pale Smartweed ( <i>Polygonum latifolium</i> )					<i>Potamogeton</i>				
					Lady's-thumb ( <i>Polygonum persicaria</i> )					Broad-leaved Arrowhead ( <i>Sagittaria latifolia</i> )				
					Virginia Knotweed ( <i>Polygonum virginianum</i> )					Blue-eyed Grass ( <i>Sisynchium montanum</i> )				
					<i>Polygonum</i>					Herb Carrion Flower ( <i>Smilax herbacea</i> )				
					<i>Polygonum</i>					Bristly Greenbrier ( <i>Smilax hispida</i> )				
					Rough Cin. ufoil ( <i>Potentilla canadensis</i> )					Nodding Ladies' Tresses ( <i>Spiranthes cernua</i> )				
					Rough-fruited Cin. ufoil ( <i>Potentilla recta</i> )					Rose Twisted-stalk ( <i>Streptopus lanceolatus</i> )				
					Common Cin. ufoil ( <i>Potentilla simplex</i> )					Skunk-cabbage ( <i>Symplocos foetidus</i> )				
					<i>Potentilla</i>					Purple Trillium ( <i>Trillium erectum</i> )				
					Heal-all ( <i>Prunella vulgaris</i> )					White Trillium ( <i>Trillium grandiflorum</i> )				
					Shinleaf ( <i>Pyrola elliptica</i> )					Large-flowered Bellwort ( <i>Uvularia grandiflora</i> )				

D - Dominant represented by large numbers, generally forming >10% ground cover or >25% vegetation cover in any one stratum  
 F - Fairly common (=Abundant in ELC) generally widespread scattered 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: 242 GSH 243 1 F006.1 4  
 Date: May 24, 2012 2  
 Surveyors: JLT 3

# Significant Wildlife Habitat Form

AECOM

Study Area: BLW JER GSH Map #: 242-GSH2163  
 Date: 2012-04-24 Time Started: 11:52  
 Field Staff: Tom Shorney Jess Pietto Time Finished: 1:52  
 Weather Conditions: cloudy 30C, 45km/h wind

**Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat**  
 (FET1, FOC, FOM, FOD, SWC, SWM, SWD) #1

Nest bowls present:  No  Yes (if yes, photograph and complete the following)  
 UTM's: 452563 4792824 Number of nests: 1  
 Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present):  
medium sized nest in crotch of green ash - approx 20m high  
 Description of habitat (note riparian areas if present, evidence of disturbance): within FOD1 comments  
Pic # 16

**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)  
 UTM's: \_\_\_\_\_ 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)  
 UTM's: \_\_\_\_\_ Likelihood to extend below frost line: \_\_\_\_\_  
 % canopy cover: \_\_\_\_\_ % slope: \_\_\_\_\_ Distance to open canopy (m): \_\_\_\_\_  
 Description of fissure or stone pile (composition/material, dimensions, etc): \_\_\_\_\_  
 Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): \_\_\_\_\_

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

Evidence of seep or spring:  No  Yes (if yes, photograph and complete the following)  
 UTM's: \_\_\_\_\_ 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
16	Sticknest #1		
18	Sticknest #2		
23	Sticknest #3		

# Significant Wildlife Habitat Form

AECOM

Study Area: BLW JER **GSH** Map #: 242-GSH2163  
 Date: 2012-04-24 Time Started: 11:52  
 Field Staff: Tom Shorway JESS Pie H Time Finished: 1:52  
 Weather Conditions: cloudy, 3°C, 45 km/h wind

## Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat

(FET1, FOC, FOM, FOD, SWC, SWM, SWD)

Nest bowls present:  No  Yes (if yes, photograph and complete the following) Stick #2

UTMs: 452511 4792887 Number of nests: 1

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

Description of habitat (note riparian areas if present, evidence of disturbance): FOD9-3 community Pic #18

## Waterfowls Stopover/Nesting, Amphibian Breeding, Turtle Nesting/Over-wintering, Marsh Breeding Birds

(CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2) (FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FEO1)

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

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

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

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

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

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

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

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

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

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

## Snake Hibernacula

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

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

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

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

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

## Seeps and Springs

(FOC, FOM, FOD, SWC, SWM, SWD)

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

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

# NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

## Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

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

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

No

Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_

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

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

## Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

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

Shoreline of lake, large river or large wetland present:

No

Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_

Rocky island or peninsula present: \_\_\_\_\_

Mudflat present: \_\_\_\_\_

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

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

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

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

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

Large open habitat present:  No

Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_

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

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

## Old-growth or Mature Forests, Interior Forest Breeding Birds

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

Mature forest present:  No

Yes (if yes, photograph and complete the following)

UTMs: \_\_\_\_\_

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

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

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

Photo #	Location or Subject	Photo #	Location or Subject

# Significant Wildlife Habitat Form

AECOM

Study Area: BLW JER **GSH** Map #: 242-6SH2163  
 Date: 2012-04-24 Time Started: 11:52  
 Field Staff: Tom Stoney Jess Pielle Time Finished: 1:52  
 Weather Conditions: cloudy, 30c - 45 Km/h

**Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat**  
 (FET1, FOC, FOM, FOD, SWC, SWM, SWD) stick #3

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

UTMs: 452530 4592744 Number of nests: 2

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present):  
large nest in catch of littered - approx 20m

Description of habitat (note riparian areas if present, evidence of disturbance): FOD6 community  
Pic #23

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

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

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

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

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

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

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

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

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

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

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

**Snake Hibernacula**

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

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

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

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

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

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

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

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

# NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

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



Map No: 242-65H2163  
 Date (yyyy-mm-dd): 2012-04-24  
 Field Staff: Tom Skotney, Jess Purthe  
 Time Started: 11:52  
 Time Finished: 1:52

## Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Song Sparrow		VO	calling				
Red Winged Black		VO					
Robin		OB					
Field Sparrow		VO	calling in field				
Deer		TKS					
vesper sp		VO	along edge?				
Red Admiral		OB	Deciduous forest				
Blue Jay		VO					
Flicker		OB					
cardinal		VO					

**Note: Evidence Codes (EV)** SH=Suitable Habitat, SM=Singing Male;  
 Breeding Bird (Possible) T-Territory, D=Display, P=Pair, N=Nest Building, V= Visiting Nest; A=Anxiety Behavior;  
 Breeding Bird (Probable) DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foos/Faecal sack, AE=Nest Entry  
 Breeding Bird (Confirmed) DP=Distinctive Parts, HO=House/Den, FY=Eggs/young, TK=tracks, FE=Feeding evidence, SC= Scat, SI=Other signs (specify)

**Other Wildlife Evidence:** OB=observed, VO=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 (Coralorhiza 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 (Eonymus 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:
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, FOD5, FOD7, FOD8	June - August Green Dragon ( <i>Arisaema dracontium</i> ) - S1/S2 <u>Bloom Time</u> - May and June	Species found in <u>deciduous forest</u> and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	(Y) N UTM: N/A
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June-August Hairy Bedstraw ( <i>Gallium pilosum</i> ) - S3 <u>Bloom Time</u>	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	(Y) N UTM:
FEO1, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	June to August Hairy Valerian ( <i>Valeriana edulis</i> ) - S1 <u>Bloom Time</u>	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.	(Y) N UTM:
FOD6, FOD7, SWM, SWD	Summer Hairy Wood Mint ( <i>Blephilia hirsuta</i> ) - S1 <u>Bloom Time</u>	Woodlands, often rocky, especially rivers Rich woods, swamp forests, floodplains	(Y) N UTM:
FOD8, FOD7, FOD8, FOD9	Harbinger-of-spring ( <i>Eigenia bulbosa</i> ) - S3 <u>Bloom Time</u> - early to late April	Occurs in rich, <u>moist deciduous woods</u> , especially on floodplains.	(Y) N UTM: N/A
SAS1, SAM1, SAF1	Hill's Pond Weed ( <i>Potamogeton hillii</i> ) - SC/S2 <u>Bloom Time</u> - summer	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	(Y) N UTM:
FOM6, FOM7, FOM8	Large Round-leaved Orchid ( <i>Platanthera macrophylla</i> ) - S2 <u>Bloom Time</u> - June to August	Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.	(Y) N UTM:
MAM2, MAM3, MAS2, MAS3, SWD	Lizard's Tail ( <i>Saururus cernuus</i> ) - S3 <u>Bloom Time</u> - June - September	Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, shallow water and mudflats at the borders of streams and ponds.	(Y) N UTM:
FOD9, FOD7, FOD9	Pawpaw ( <i>Asimina triloba</i> ) - S3 <u>Bloom Time</u> - March-May	Occurs in moist <u>deciduous woods and stream banks</u> .	(Y) N UTM: N/A
FOM8, FOD6, FOD7, FOD9, CUM1	Pilose Evening Primrose ( <i>Oenothera pilosella</i> ) - S2 <u>Bloom Time</u> - Late Spring - Early Summer	Moist edges of woods and open, disturbed ground.	(Y) N UTM:
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostate Tick-trefoil ( <i>Desmodium rotundifolium</i> ) - S2 <u>Bloom Time</u> - July-September	Dry, sandy or rocky woods	(Y) N UTM:
FOD7, SWD	Pumpkin Ash ( <i>Fraxinus profunda</i> )-S2? <u>Bloom Time</u> - March - June	Swamps and floodplains	(Y) N UTM:
CUW1, ALO, FET1, SWC	Ram's-head Lady's-slipper ( <i>Cypripedium arietinum</i> ) - S3 <u>Bloom Time</u> - mid May to mid June	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.	(Y) N UTM:
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM3, FOM5	Rattlesnake Hawkweed ( <i>Hieracium venosum</i> ) - S2 <u>Bloom Time</u> - April - September	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.	(Y) N UTM:
FOD4, FOD7, FOD9	Round-leaved Groundsel ( <i>Packera obovata</i> ) - S3 <u>Bloom Time</u> - May - June	Found in moist woods	(Y) N UTM: N/A
CUM1, CUT1, CUS1	Round-leaved hawthorn ( <i>Crataegus lumaris</i> ) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	(Y) N UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm ( <i>Monarda didyma</i> ) - S3 <u>Bloom Time</u> - May to October	Found in moist, rich woods, thicket swamps, banks and floodplains.	(Y) N UTM: N/A
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star ( <i>Liatris cylindracea</i> ) - S3	Species occurs in limestone and dolomite pavement, prairies, open woods, alvars and moist sandy meadows.	(Y) N UTM:
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed ( <i>Polygonum tenue</i> )-S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows; at edges of sand pits	(Y) N UTM:
SDT1, FOD5, FOD9	Slim-flowered Muihly ( <i>Muhlenbergia tenuiflora</i> ) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	(Y) N UTM:
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian ( <i>Gentiana quinquefolia</i> ) - S2 <u>Bloom Time</u> - late summer to mid fall	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	(Y) N UTM:
TPS1, TPW1, CUW1, RBO SBO	Sundial Lupine ( <i>Lupinus perennis</i> ) - S3 <u>Bloom Time</u> - mid-March to mid-June	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	(Y) N UTM:

# Species Conservation Concern Habitat and Incidental Wildlife - Goshen



ELC	Species	Habitat Description	Habitat Present (Y/N; UTM); description of habitat if present
TP01, TPS1, TPW1, CUM1	Tall Blazing Star ( <i>Liatris aspera</i> )-S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM:
FE0, FES, FET, MAM2, MAM3	Tuberous Indian Plantain ( <i>Arnoglossum plantagineum</i> ) - S3 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	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 metacilla</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 brizo</i> ) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles	Y (N) UTM:
CUM1, CUT1, CUW1	Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC	Their larvae only feed on milkweeds ( <i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y (N) UTM:
TPS, CUW	Mottled Duskywing ( <i>Erynnis martialis</i> ) - S2	Usually seen nectaring 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 virginianis</i> ) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM:

★ This site has an abundance of toothwort throughout ★