

## Page 2 of 2

Date: \_\_\_\_\_

# Significant Wildlife Habitat Form

AECOM

|                     |                               |     |      |                |                  |
|---------------------|-------------------------------|-----|------|----------------|------------------|
| Study Area:         | BLW                           | JER | (SH) | Map #:         | 701 GSH3038/2767 |
| Date:               | March 3, 2012                 |     |      | Time Started:  | 11:50 am         |
| Field Staff:        | S. B. A.                      |     |      | Time Finished: | 12:15 pm         |
| Weather Conditions: | light rain, 21°C, 80% clouds. |     |      |                |                  |

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

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

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

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

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

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

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

(CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2)

(FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FEO1)

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

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

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

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

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

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

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

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

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

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

#### Snake Hibernacula

Fissured rock/foundation or rock/debris pile present:

☒ No

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

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

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

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

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

#### Seeps and Springs

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

Evidence of seep or spring: ☒ No

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

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

# 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 |
|---------|---------------------|---------|---------------------|
|         |                     |         |                     |
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ASA

# Species Conservation Concern Habitat and Incidence al Wildlife – Goshen

Map No:

201-GSH3038/2764

Date (yyyy-mm-dd):

2012-05-03

Field Staff:

RA, SG

Time Started:

11:50 AM

Time Finished:

12:15 PM

A-3M

## Observed Species List

| Species Code            | UTM | EV | Notes | Species Code | UTM | EV | Notes |
|-------------------------|-----|----|-------|--------------|-----|----|-------|
| House Wren              |     | VO |       |              |     |    |       |
| Blue Jay                |     | VO |       |              |     |    |       |
| American Robin          |     | VO |       |              |     |    |       |
| Chimney Swift           |     | VO |       |              |     |    |       |
| Brown-headed Cowbird    |     | VO |       |              |     |    |       |
| Monarch                 |     | VO |       |              |     |    |       |
| Wood Thrush             |     | VO |       |              |     |    |       |
| Black-capped Chickadee  |     | VO |       |              |     |    |       |
| Green-backed Flycatcher |     | VO |       |              |     |    |       |
| Song Sparrow            |     | VO |       |              |     |    |       |
| Chipping Sparrow        |     | VO |       |              |     |    |       |

Note: Evidence Codes (EV)

Breeding Bird (Possible) SH=Suitable Habitat, SM=Singing Male;

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

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

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

| ELC                                            | Species                                                                             | Habitat Description                                                                                                                                             | Habitat Present (Y/N) UTM | description of habitat if present |
|------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------|
| PLANTS                                         |                                                                                     |                                                                                                                                                                 |                           |                                   |
| FOD7                                           | American Gromwell (Lithospermum latifolium) - S3<br>Bloom Time - Spring             | Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.                                                                            | Y (N) UTM:                |                                   |
| ALO, TPO                                       | Muehlenberg's astomum moss (Astomum muehlenbergianum) - S2 Bloom Time - Spring      | Thin soil over level outcrop ledges and on soil under grasses in open prairie                                                                                   | Y (N) UTM:                |                                   |
| FOM1, FOM2, CUP3                               | Autumn Coral-root (Corallorhiza odontorhiza) - S2<br>Bloom Time - summer to fall    | Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.                                                                   | Y (N) UTM:                |                                   |
| FOC, FOM, FOD                                  | Burning Bush (Euonymus atropurpureus) - S3 Bloom Time - April - June                | Species occurs in dry to moist deciduous thickets and woods                                                                                                     | Y (N) UTM:                |                                   |
| SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6 | Chinese Hemlock Parsley (Conioselinum chinense) - S2<br>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<br>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) - S17 Bloom Time                                 | Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows                                                                                    | Y (N) UTM:                |                                   |

# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

ALCOM

| ELC                                                 | Species                                                                                                    | Habitat Description                                                                                                                                          | Habitat Presence (Y/N) UTM description of habitat if present |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| CUM1, MAM, FOD6, FOD7, FOD9                         | June – August<br>Green Dragon ( <i>Arisaema dracontium</i> ) - S3/S3 <u>Bloom Time</u> – May and June      | Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.                     | Y (N) UTM:                                                   |
| TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3      | Hairy Bedstraw ( <i>Galium pilosum</i> ) - S3 <u>Bloom Time</u> – June-August                              | Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields                                                                                    | Y (N) UTM:                                                   |
| FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW | Hairy Valerian ( <i>Valeriana edulis</i> ) - S1 <u>Bloom Time</u> – June to August                         | Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.                                                                | Y (N) UTM:                                                   |
| FOD6, FOD7, SWM, SWD                                | Hairy Wood Mint ( <i>Blephilia hirsuta</i> ) - S1 <u>Bloom Time</u> – Summer                               | Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.                                                                           | Y (N) UTM:                                                   |
| FOD6, FOD7, FOD8, FOD9                              | Harbinger-of-spring ( <i>Eritgenia bulbosa</i> ) - S3 <u>Bloom Time</u> – early to late April              | Occurs in rich, moist deciduous woods, especially on floodplains.                                                                                            | Y (N) UTM:                                                   |
| SAS1, SAM1, SAF1                                    | Hill's Pond Weed ( <i>Potamogeton hillii</i> ) - 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:                                                   |
| FOD6, FOD7, FOD9                                    | Pawpaw ( <i>Asimina triloba</i> ) - S3 <u>Bloom Time</u> – March-May                                       | Occurs in moist deciduous woods and stream banks.                                                                                                            | Y (N) UTM:                                                   |
| FOM8, FOD6, FOD7, FOD8, 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                  | Prostrate 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, FOM1, FOM5      | Rattlesnake Hawkweed ( <i>Hieracium venosum</i> ) - S2 <u>Bloom Time</u> – April – September               | Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.                                                                                 | Y (N) UTM: Not open woods                                    |
| FOD6, FOD7, FOD9                                    | Round-leaved Groundsel ( <i>Packera obovata</i> ) - S3 <u>Bloom Time</u> – May - June                      | Found in moist woods                                                                                                                                         | Y (N) UTM:                                                   |
| CUM1, CUT1, CUS1                                    | Round-leaved hawthorn ( <i>Crataegus lumarina</i> ) - S3?                                                  | Species occurs in old fields, poorly managed pastures, fencelines and roadsides                                                                              | Y (N) UTM:                                                   |
| FOD6, FOD7, FOD8, FOD9, SWT2, SWT3                  | Scarlet Beebalm ( <i>Monarda didyma</i> ) - S3 <u>Bloom Time</u> – May to October                          | Found in moist, rich woods, thicket swamps, banks and floodplains.                                                                                           | Y (N) UTM:                                                   |
| ALO, ALS, ALT, TPO, TPS, TPW                        | Slender Blazing Star ( <i>Liatris cylindracea</i> ) - S3                                                   | Species occurs in limestone and dolostone pavement, prairies, open woods, 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, FOD3, FOD9                                    | Slim-flowered Muhly ( <i>Muhlenbergia tenuiflora</i> ) - S2                                                | Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods                   | Y (N) UTM: NO                                                |
| BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7      | Stiff Gentian ( <i>Gentianella quinquefolia</i> ) - S2 <u>Bloom Time</u> – late summer to mid fall         | Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.                                              | Y (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 savannas, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.                                          | Y (N) UTM:                                                   |

# Species Conservation Concern Habitat and Incidental Wildlife - Goshen

A. DM

| ELC                                        | Species                                                                                             | Habitat Description                                                                                                                                                                                                                                                                                                                                       | Habitat Present (Y/N) UTM: description of habitat if present |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| TP01, TPW1, CUM1                           | Tall Blazing Star ( <i>Liatis aspera</i> ) - S3/SC                                                  | Occurs in open, sandy woods, dry roadsides and sandy prairies                                                                                                                                                                                                                                                                                             | Y (N) UTM:                                                   |
| FE0, FES, FET, MAM2, MAM3                  | Tuberous Indian Plantain ( <i>Amoglossum plantagineum</i> ) - S3 Bloom Time - mid-March to mid-June | Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.                                                                                                                                                                                                                                                 | Y (N) UTM:                                                   |
| FOC1, FOC2, FOC3, FOC4                     | Woodland Pinedrops ( <i>Pterospora andromedea</i> ) - S2 Bloom Time - summer                        | Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.                                                                                                                                                                                        | Y (N) UTM:                                                   |
| CUM1, CUT1, CUW1, RBO1, SBO1               | Yellow Ladies' tresses ( <i>Spiranthes ochroleuca</i> ) - S2 Bloom Time - August to November        | Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.                                                                                                                                                                                                 | Y (N) UTM:                                                   |
| BIRDS                                      |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                           |                                                              |
| -                                          | Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) - SC                                                 | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                |
| CUW, SDO, RBO, TPS                         | Common Nighthawk ( <i>Chordeiles minor</i> ) - SC                                                   | Hunts insects over a wide variety of habitats. In particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.                                                                                                                                                                                        | Y (N) UTM:                                                   |
| FOD, FOM                                   | Louisiana Waterthrush ( <i>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: Not open, no large trees                          |
| -                                          | Short Eared Owl ( <i>Asio flammeus</i> ) - SC                                                       | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                |
| CUT1                                       | Yellow-breasted Chat ( <i>Icteria virens</i> ) - SC                                                 | Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines                                                                                                                                                                                                  | Y (N) UTM:                                                   |
| REPTILES                                   |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                           |                                                              |
| -                                          | Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> ) - SC                                             | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                |
| -                                          | Milksnake ( <i>Lampropeltis triangulum</i> ) - SC                                                   | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                |
| -                                          | Snapping Turtle ( <i>Chelydra serpentina</i> ) - SC                                                 | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required.                                                |
| INSECTS                                    |                                                                                                     |                                                                                                                                                                                                                                                                                                                                                           |                                                              |
| OAO, SA, SWM, SWD                          | Azure Bluet ( <i>Enallagma aspersum</i> ) - S3                                                      | Species inhabits fishless ponds, lakes and boggy swamps                                                                                                                                                                                                                                                                                                   | Y (N) UTM:                                                   |
| TPS, TPW                                   | Sleepy Duskywing ( <i>Erynnis brize</i> ) - S1                                                      | Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles. 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:                                                   |
| CUM1, CUT1, CUW1                           | Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC                                                  | Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present                                                                                                                                                                                                                      | Y (N) UTM:                                                   |
| TPS, CUW                                   | Mottled Duskywing ( <i>Erynnis martialis</i> ) - S2                                                 |                                                                                                                                                                                                                                                                                                                                                           | Y (N) UTM:                                                   |
| SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1 | Tawny Emperor ( <i>Asterocampa clyton</i> ) - S3                                                    | Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant                                                                                                                                                                                                           | Y (N) UTM:                                                   |
| FOD5                                       | West Virginia White ( <i>Pieris virginianensis</i> ) - SC                                           | This species is restricted to rich, moist deciduous woods where its foodplant Toothwort occur                                                                                                                                                                                                                                                             | Y (N) UTM: NO                                                |

# Wetland Data Collection Sheet

**AECOM**

|                                     |                          |
|-------------------------------------|--------------------------|
| Study area: 701-65113038/2767       | Map No: 701              |
| Date (yyyy-mm-dd): 2012-07-04       | Time Started: 8:15 a.m.  |
| Field Staff: Tom Shoney, Sam Gilder | Time Finished: 9:45 a.m. |

|                                                |                                                                     |
|------------------------------------------------|---------------------------------------------------------------------|
| <b>Presence of Groundwater</b>                 | No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> |
| <input type="checkbox"/> bank seepage          | <input type="checkbox"/> iron staining                              |
| <input type="checkbox"/> groundwater indicator |                                                                     |

|                                        |                                                                                                                |                                              |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| <b>Site Type</b>                       | Lacustrine <input type="checkbox"/> (associated with lakes)                                                    | Isolated <input checked="" type="checkbox"/> |
|                                        | Riverine <input type="checkbox"/> (associated with rivers)                                                     |                                              |
|                                        | Palustrine <input type="checkbox"/> absent or intermittent inflow and either intermittent or permanent outflow |                                              |
| what are the water inputs and outputs? | Water input from field → No outflow                                                                            |                                              |

|              |                                         |
|--------------|-----------------------------------------|
| <b>Soils</b> | refer to ELC card for soils information |
|--------------|-----------------------------------------|

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

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

| Map Code/<br>ELC Code | Community Description - list at least four dominant species for each form                                                  |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------|
| 5VD33<br>P2           | h → AcerFree, Fra penn<br>ts → AcerFree, Fra penn<br>ls → Ulm amer, Carcatol, Fra Nigr<br>gc → geu ana, get macu, mai face |
|                       |                                                                                                                            |
|                       |                                                                                                                            |
|                       |                                                                                                                            |

# Wetland Data Collection Sheet

AECOM

|  |  |
|--|--|
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## Notes on Ecological Functions or features

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

ATV trails throughout woodlot used for forest management as well as hunting activities (shotgun shells observed) → No water observed in swamps.



**Legend**

- Transmission Line
- Waterbodies
- Watercourse
- PSW
- ABCA Regulation Limit
- Properties
- ELC
- Valley/lands
- Disturbance Area (100m Buffer)

Reconnaissance Area - Study of the Valley of the River

Scale: 1:10,000

Scale: 1:10,000

Scale: 1:10,000

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Goshen ELC Survey -  
Transmission Line  
701\_GSH30382767

April 2012  
Project 60100002

**AECOM**





**Plant Species List  
2012**

Page 2 of 2

| Dicot Herbs - Asteraceae                               |   |   |   |   | Dicot Herbs                                             |   |   |   |   | Dicot Herbs                                              |   |   |   |   |
|--------------------------------------------------------|---|---|---|---|---------------------------------------------------------|---|---|---|---|----------------------------------------------------------|---|---|---|---|
| 1                                                      | 2 | 3 | 4 | 5 | 1                                                       | 2 | 3 | 4 | 5 | 1                                                        | 2 | 3 | 4 | 5 |
| Common Yarrow ( <i>Achillea millefolium</i> )          |   |   |   |   | Shepherd's Purse ( <i>Capsella bursa-pastoris</i> )     |   |   |   |   | Kidney-leaf Buttercup ( <i>Ranunculus abortivus</i> )    |   |   |   |   |
| White Snakeroot ( <i>Ageratina altissima</i> )         |   |   |   |   | Cutleaf Toothwort ( <i>Cardamine concatenata</i> )      |   |   |   |   | Tall Buttercup ( <i>Ranunculus acris</i> )               |   |   |   |   |
| Com. Ragweed ( <i>Ambrosia artemisiifolia</i> )        |   |   |   |   | Toothwort ( <i>Cardamine diphylla</i> )                 |   |   |   |   | Hooked Buttercup ( <i>Ranunculus recurvatus</i> )        |   |   |   |   |
| Giant Ragweed ( <i>Ambrosia trifida</i> )              |   |   |   |   | Penn. Bitter-cress ( <i>Cardamine pensylvanica</i> )    |   |   |   |   | <i>Ranunculus</i>                                        |   |   |   |   |
| Field Pussytoes ( <i>Antennaria neglecta</i> )         |   |   |   |   | <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> ) |   |   |   |   | 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>Coryza canadensis</i> )                 |   |   |   |   | Field Bindweed ( <i>Convolvulus arvensis</i> )          |   |   |   |   | Hemlock Water-paranip ( <i>Slum suave</i> )              |   |   |   |   |
| Daisy Fleabane ( <i>Erigeron annuus</i> )              |   |   |   |   | Dog-strangling Vine ( <i>Cynanchum rossicum</i> )       |   |   |   |   | Bitter Nightshade ( <i>Solanum dulcamara</i> )           |   |   |   |   |
| Philadelphian Fleabane ( <i>Erig. philadelphicus</i> ) |   |   |   |   | Wild Carrot ( <i>Daucus carota</i> )                    |   |   |   |   | Black Nightshade ( <i>Solanum ptychanthum</i> )          |   |   |   |   |
| <i>Erigeron</i>                                        |   |   |   |   | Deptford Pink ( <i>Dianthus armeria</i> )               |   |   |   |   | Grassleaf Stitchwort ( <i>Stellaria graminea</i> )       |   |   |   |   |
| Joe-pye-weed ( <i>Eupatorium maculatum</i> )           |   |   |   |   | Squirrel-corn ( <i>Dicentra canadensis</i> )            |   |   |   |   | Common Chickweed ( <i>Stellaria media</i> )              |   |   |   |   |
| Bonsett ( <i>Eupatorium perfoliatum</i> )              |   |   |   |   | Dutchman's-breeches ( <i>Dicentra cucullaria</i> )      |   |   |   |   | Early Meadow-rue ( <i>Thalictrum dioicum</i> )           |   |   |   |   |
| Large-leaved Aster ( <i>Eurybia macrophylla</i> )      |   |   |   |   | Wild Teasel ( <i>Dipsacus fullonum</i> )                |   |   |   |   | Tall Meadow-rue ( <i>Thalictrum pubescens</i> )          |   |   |   |   |
| Flat-top Goldenrod ( <i>Euthamia graminifolia</i> )    |   |   |   |   | Wild Cucumber ( <i>Echinocystis lobata</i> )            |   |   |   |   | Field Penny-cress ( <i>Thlaspi arvense</i> )             |   |   |   |   |
| Orange Hawkweed ( <i>Hieracium aurantiacum</i> )       |   |   |   |   | Viper's Bugloss ( <i>Echium vulgare</i> )               |   |   |   |   | Foamflower ( <i>Tiarella cordifolia</i> )                |   |   |   |   |
| Field Hawkweed ( <i>Hieracium caespitosum</i> )        |   |   |   |   | Northern Willow-herb ( <i>Epilobium ciliatum</i> )      |   |   |   |   | Star-flower ( <i>Trientalis borealis</i> )               |   |   |   |   |
| <i>Hieracium</i>                                       |   |   |   |   | Hairy Willow-herb ( <i>Epilobium hirsutum</i> )         |   |   |   |   | Red Clover ( <i>Trifolium pratense</i> )                 |   |   |   |   |
| Elecampane ( <i>Inula helenium</i> )                   |   |   |   |   | Small-fl. Willow-herb ( <i>Epilobium parviflorum</i> )  |   |   |   |   | White Clover ( <i>Trifolium repens</i> )                 |   |   |   |   |
| Prickly Lettuce ( <i>Lactuca serriola</i> )            |   |   |   |   | <i>Epilobium</i>                                        |   |   |   |   | <i>Trifolium</i>                                         |   |   |   |   |
| <i>Lactuca</i>                                         |   |   |   |   | Worm Mustard ( <i>Erysimum cheiranthoides</i> )         |   |   |   |   | Stinging Nettle ( <i>Urtica dioica</i> )                 |   |   |   |   |
| Ox-eye Daisy ( <i>Leucanthemum vulgare</i> )           |   |   |   |   | <i>Euphorbia</i>                                        |   |   |   |   | Greater Bladderwort ( <i>Utricularia vulgaris</i> )      |   |   |   |   |
| Pineapple-weed ( <i>Matricaria discoidea</i> )         |   |   |   |   | Hemp Nettle ( <i>Galeopsis tetrahit</i> )               |   |   |   |   | Common Mullein ( <i>Verbascum thapsus</i> )              |   |   |   |   |
| Tall White Lettuce ( <i>Prenanthes altissima</i> )     |   |   |   |   | Wild Madder ( <i>Galium mollugo</i> )                   |   |   |   |   | Blue Vervain ( <i>Verbena hastata</i> )                  |   |   |   |   |
| Black-eyed Susan ( <i>Rudbeckia hirta</i> )            |   |   |   |   | Marsh Bedstraw ( <i>Galium palustre</i> )               |   |   |   |   | White Vervain ( <i>Verbena urticifolia</i> )             |   |   |   |   |
| Tall Goldenrod ( <i>Solidago altissima</i> )           |   |   |   |   | Sweet-scented Bedstraw ( <i>Galium triflorum</i> )      |   |   |   |   | Water Speedwell ( <i>Veron. anagallis-aquatica</i> )     |   |   |   |   |
| Blue-stem Goldenrod ( <i>Solidago caesia</i> )         |   |   |   |   | <i>Galium</i>                                           |   |   |   |   | Common Speedwell ( <i>Veronica officinalis</i> )         |   |   |   |   |
| Canada Goldenrod ( <i>Solidago canadensis</i> )        |   |   |   |   | Spotted Geranium ( <i>Geranium maculatum</i> )          |   |   |   |   | <i>Veronica</i>                                          |   |   |   |   |
| Zig-zag Goldenrod ( <i>Solidago flexicaulis</i> )      |   |   |   |   | Herb-robert ( <i>Geranium robertianum</i> )             |   |   |   |   | Cow Vetch ( <i>Vicia cracca</i> )                        |   |   |   |   |
| Giant Goldenrod ( <i>Solidago gigantea</i> )           |   |   |   |   | Yellow Avens ( <i>Geum aleppicum</i> )                  |   |   |   |   | <i>Vicia</i>                                             |   |   |   |   |
| Early Goldenrod ( <i>Solidago juncea</i> )             |   |   |   |   | White Avens ( <i>Geum canadense</i> )                   |   |   |   |   | Periwinkle ( <i>Vinca minor</i> )                        |   |   |   |   |
| Gray Goldenrod ( <i>Solidago nemoralis</i> )           |   |   |   |   | Urban Avens ( <i>Geum urbanum</i> )                     |   |   |   |   | Dog Violet ( <i>Viola conspersa</i> )                    |   |   |   |   |
| <i>Solidago</i>                                        |   |   |   |   | Dame's Rocket ( <i>Hesperis matronalis</i> )            |   |   |   |   | Yellow Violet ( <i>Viola pubescens</i> )                 |   |   |   |   |
| Field Sow-thistle ( <i>Sonchus arvensis</i> )          |   |   |   |   | Virg. Water-leaf ( <i>Hydrophyllum virginianum</i> )    |   |   |   |   | Com. Blue Violet ( <i>Viola sororia</i> )                |   |   |   |   |
| <i>Sonchus</i>                                         |   |   |   |   | Com. St. John's-wort ( <i>Hypericum perforatum</i> )    |   |   |   |   | <i>Viola</i>                                             |   |   |   |   |
| Heart-leaf Aster ( <i>Symph. cordifolium</i> )         |   |   |   |   | Spotted Jewelweed ( <i>Impatiens capensis</i> )         |   |   |   |   |                                                          |   |   |   |   |
| Heath Aster ( <i>Symphyotrichum ericoides</i> )        |   |   |   |   | Wood Nettle ( <i>Laportea canadensis</i> )              |   |   |   |   |                                                          |   |   |   |   |
| Tall White Aster ( <i>Symph. lanceolatum</i> )         |   |   |   |   | Motherwort ( <i>Leonurus cardiaca</i> )                 |   |   |   |   |                                                          |   |   |   |   |
| Calico Aster ( <i>Symphyotrichum 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. 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>Tragopogon pratensis</i> )        |   |   |   |   | Cut-leaf Bugleweed ( <i>Lycopus americanus</i> )        |   |   |   |   | Monocot Herbs                                            |   |   |   |   |
| Coltsfoot ( <i>Tussilago farfara</i> )                 |   |   |   |   | Northern Bugleweed ( <i>Lycopus uniflorus</i> )         |   |   |   |   | Water-plantain ( <i>Alisma plantago-aquatica</i> )       |   |   |   |   |
|                                                        |   |   |   |   | Fringed Loosestrife ( <i>Lysimachia ciliata</i> )       |   |   |   |   | Wild Leek ( <i>Allium tricoccum</i> )                    |   |   |   |   |
|                                                        |   |   |   |   | Moneywort ( <i>Lysimachia nummularia</i> )              |   |   |   |   | Jack-in-the-pulpit ( <i>Arisaema triphyllum</i> )        |   |   |   |   |
|                                                        |   |   |   |   | <i>Lysimachia</i>                                       |   |   |   |   | Asparagus ( <i>Asparagus officinalis</i> )               |   |   |   |   |
|                                                        |   |   |   |   | Purple Loosestrife ( <i>Lythrum salicaria</i> )         |   |   |   |   | Wild Calla ( <i>Calla palustris</i> )                    |   |   |   |   |
|                                                        |   |   |   |   | Black Medick ( <i>Medicago lupulina</i> )               |   |   |   |   | Bluebead-lily ( <i>Clintonia borealis</i> )              |   |   |   |   |
|                                                        |   |   |   |   | Alfalfa ( <i>Medicago sativa</i> )                      |   |   |   |   | Garden Lily-of-the-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>Morinda fistulosa</i> )              |   |   |   |   | Yellow Trout Lily ( <i>Erythronium americanum</i> )      |   |   |   |   |
|                                                        |   |   |   |   | Small Forget-me-not ( <i>Myosotis laxa</i> )            |   |   |   |   | Blue-flag Iris ( <i>Iris versicolor</i> )                |   |   |   |   |
|                                                        |   |   |   |   | Forget-me-not ( <i>Myosotis scorpioides</i> )           |   |   |   |   | Orange Day Lily ( <i>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-the-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 lapathifolium</i> )       |   |   |   |   | <i>Potamogeton</i>                                       |   |   |   |   |
|                                                        |   |   |   |   | Lady's-thumb ( <i>Polygonum persicaria</i> )            |   |   |   |   | <i>Potamogeton</i>                                       |   |   |   |   |
|                                                        |   |   |   |   | Virginia Knotweed ( <i>Polygonum virginianum</i> )      |   |   |   |   | Broad-leaved Arrowhead ( <i>Sagittaria latifolia</i> )   |   |   |   |   |
|                                                        |   |   |   |   | <i>Polygonum</i>                                        |   |   |   |   | Blue-eyed-grass ( <i>Sisyrinchium montanum</i> )         |   |   |   |   |
|                                                        |   |   |   |   | <i>Polygonum</i>                                        |   |   |   |   | Herb. Carrion Flower ( <i>Smilax herbacea</i> )          |   |   |   |   |
|                                                        |   |   |   |   | Rough Cinquefoil ( <i>Potentilla norvegica</i> )        |   |   |   |   | Bristly Greenbrier ( <i>Smilax hispida</i> )             |   |   |   |   |
|                                                        |   |   |   |   | Rough-fruited Cinquefoil ( <i>Potentilla recta</i> )    |   |   |   |   | Nodding Ladies' Tresses ( <i>Spiranthes cernua</i> )     |   |   |   |   |
|                                                        |   |   |   |   | Common Cinquefoil ( <i>Potentilla simplex</i> )         |   |   |   |   | Rose Twisted-stalk ( <i>Streptopus lanceolatus</i> )     |   |   |   |   |
|                                                        |   |   |   |   | <i>Potentilla</i>                                       |   |   |   |   | Skunk-cabbage ( <i>Symplocarpus foetidus</i> )           |   |   |   |   |
|                                                        |   |   |   |   | Heal-all ( <i>Prunella vulgaris</i> )                   |   |   |   |   | Purple Trillium ( <i>Trillium erectum</i> )              |   |   |   |   |
|                                                        |   |   |   |   | Shinleaf ( <i>Pyrola elliptica</i> )                    |   |   |   |   | White Trillium ( <i>Trillium grandiflorum</i> )          |   |   |   |   |
|                                                        |   |   |   |   |                                                         |   |   |   |   | Large-flowered Bellwort ( <i>Uvularia grandiflora</i> )  |   |   |   |   |

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

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

U - Uncommon (=Occasional in ELQ): 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: | 7-1 GSH 3028 2012 | 1 | FODS-8 | 4 |
| Date:       | July 4, 2012      | 2 | SWD3-3 | 6 |
| Surveyors:  | S.G., J.S.        | 3 |        |   |

## Page 1 of 2

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

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

# Significant Wildlife Habitat Form

AECOM

|                                                     |                              |                |                         |
|-----------------------------------------------------|------------------------------|----------------|-------------------------|
| Study Area:                                         | BLW JER <u>GSH</u>           | Map #:         | <u>701-GS 3032/2767</u> |
| Date:                                               | <u>2012-07-04</u>            | Time Started:  | <u>8:15 a.m.</u>        |
| Field Staff:                                        | <u>Tom Shorey Sam Gilder</u> | Time Finished: | <u>9:45 a.m.</u>        |
| Weather Conditions: <u>Isolated T-showers, 20°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, 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

AZCOM

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

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

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

☒ No

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

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 |
|---------|---------------------|---------|---------------------|
|         |                     |         |                     |
|         |                     |         |                     |
|         |                     |         |                     |
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|         |                     |         |                     |



# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

AECOM

| ELC                                                 | Species                                                                                                                            | Habitat Description                                                                                                                                          | Habitat Present (Y/N), UTM, description of habitat if present |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| CUM1, MAM, FOD6, FOD7, FOD9                         | June - August<br>Green Dragon ( <i>Arisaema dracontium</i> ) - S3/S3 Bloom Time - May and June                                     | Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.                     | Y N UTM                                                       |
| TP01, TP51, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3      | June - August<br>Hairy Bedstraw ( <i>Galium pilosum</i> ) - S3 Bloom Time - June-August                                            | Occurs in dry, sandy woods and thickets, occasionally in dry sandy fields                                                                                    | Y N UTM                                                       |
| FE01, FE51, FET1, SMC, SPM, SWD, SWT, TPO, TP5, TPW | June to August<br>Hairy Valerian ( <i>Valeriana edulis</i> ) - S1 Bloom Time - June to August                                      | Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.                                                                | Y N UTM                                                       |
| FOD6, FOD7, SWM, SWD                                | Summer<br>Hairy Wood Mint ( <i>Elephantella hirsuta</i> ) - S1 Bloom Time - Summer                                                 | Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.                                                                           | Y N UTM                                                       |
| FOD6, FOD7, FOD8, FOD9                              | Spring - early to late April<br>Harbinger-of-spring ( <i>Erigeron bulbosa</i> ) - S3 Bloom Time - early to late April              | Occurs in rich, moist deciduous woods, especially on floodplains.                                                                                            | Y N UTM                                                       |
| SAS1, SAM1, SAF1                                    | Summer<br>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                                    | June - September<br>Large Round-leaved Orchid ( <i>Platanthera macrophylla</i> ) - S2 Bloom Time - June to August                  | Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.                                              | Y N UTM                                                       |
| MAM2, MAM3, MAS2, MAS3, SWD                         | June - September<br>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                                    | March - May<br>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                        | Early Summer<br>Pillose Evening Primrose ( <i>Oenothera pilosella</i> ) - S2 Bloom Time - Late Spring - Early Summer               | Moist edges of woods and open, disturbed ground.                                                                                                             | Y N UTM                                                       |
| TPW1, FOM1, FOM2, FOD1, FOD2, FOD3                  | July-September<br>Prostrate Tick-trefoil ( <i>Desmodium rotundifolium</i> ) - S2 Bloom Time - July-September                       | Dry, sandy or rocky woods                                                                                                                                    | Y N UTM                                                       |
| FOD7 (SWD)                                          | March - June<br>Pumpkin Ash ( <i>Fraxinus profunda</i> ) - S27 Bloom Time - March - June                                           | Swamps and floodplains                                                                                                                                       | Y N UTM                                                       |
| CUM1, ALO, FET1, SMC                                | Mid-May to mid-June<br>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, FOD1, FOM5            | April - September<br>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                                    | May - June<br>Round-leaved Groundsel ( <i>Packera obovata</i> ) - S3 Bloom Time - May - June                                       | Found in moist woods                                                                                                                                         | Y N UTM                                                       |
| CUM1, CUT1, CUS1                                    | ~S27<br>Round-leaved hawthorn ( <i>Crataegus lamarca</i> ) - S27                                                                   | Species occurs in old fields, poorly managed pastures, fencelines and roadsides                                                                              | Y N UTM                                                       |
| FOD6, FOD7, FOD8, FOD9, SWT2, SWT3                  | May to October<br>Scarlet Beebalm ( <i>Monarda didyma</i> ) - S3 Bloom Time - May to October                                       | Found in moist, rich woods, thicket swamps, banks and floodplains.                                                                                           | Y N UTM                                                       |
| ALO, ALO, ALT, TPO, TP5, TPW                        | ~S3<br>Slender Blazing Star ( <i>Liatris cylindracea</i> ) - S3                                                                    | Species occurs in limestone and dolomite pavement, prairies, open woods, alders and moist sandy meadows.                                                     | Y N UTM                                                       |
| SBO, SBO, SBT, TPO1, TP51, TPW1, FOD1, FOD2         | S2<br>Slender Knotweed ( <i>Polygonum tenue</i> ) - S2                                                                             | Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits                                                       | Y N UTM                                                       |
| SOT1, FOD5, FOD6                                    | S2<br>Slim-flowered Muhly ( <i>Muhlenbergia tenuiflora</i> ) - S2                                                                  | Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods                   | Y N UTM                                                       |
| BLO1, BLS1, BLT1, TPO2, TP52, TPW2, MAM2, FOD7      | S2 Bloom Time - late summer to mid-fall<br>Soft 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                                                       |
| TP51, TPW1, CUW1, RBO, SBO                          | S3 Bloom Time - mid-March to mid-June<br>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, TP51, TPW1, CUM1                    | Tail Blazing Star ( <i>Liatris spicata</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>Amorpha canescens</i> ) - S3       | Occurs mainly in flat, sandy areas of the Bruce Peninsula. Ferns, wet meadows, and calcareous river flats.                                                                                                                                                                                                                                                | Y (N) UTM:                                                    |
| FOC1, FOC2, FOC3, FOC4                    | Woodland Pinelands ( <i>Pteris caudata</i> ) - S2                | Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.                                                                                                                                                                                        | Y (N) UTM:                                                    |
| CUM1, CUT1, CUM1, RBO1, SBO1              | Yellow Ladies'-tresses ( <i>Spiranthes ochroleuca</i> ) - S2     | Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.                                                                                                                                                                                                 | Y (N) UTM:                                                    |
| <b>BIRDS</b>                              |                                                                  |                                                                                                                                                                                                                                                                                                                                                           |                                                               |
| -                                         | Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) - SC              | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                                 | not required                                                  |
| CUM, 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, grassy 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, CUM, CUT                             | Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> ) - SC | Species inhabits open woodland/edges (oak savannahs and riparian forests), open, deciduous forest with little understory, fields or pasture lands with scattered large trees, wooded swamps, orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory. | Y (N) UTM:                                                    |
| -                                         | Short Eared Owl ( <i>Nyctaleus</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 sirtalis</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>                            |                                                                  |                                                                                                                                                                                                                                                                                                                                                           |                                                               |
| QAO, SA, SWM, SWD                         | Azure Bluet ( <i>Enallagma asperum</i> ) - S3                    | Species inhabits shallow ponds, lakes and boggy swamps                                                                                                                                                                                                                                                                                                    | Y (N) UTM:                                                    |
| TPS, TPW                                  | Sleepy Duskywing ( <i>Erynnis brizo</i> ) - S1                   | Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles. Their larvae only feed on milkweeds ( <i>Asclepias</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow.                          | Y (N) UTM:                                                    |
| CUM1, CUT1, CUM1                          | Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC               | Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present.                                                                                                                                                                                                                     | Y (N) UTM:                                                    |
| TPS, CUM                                  | Mottled Duskywing ( <i>Erynnis martialis</i> ) - S2              | Species inhabits densely wooded riparian areas, dry woods, open woods, fence rows and parks. Usually occurs near Hackberry, the larval foodplant.                                                                                                                                                                                                         | Y (N) UTM:                                                    |
| SWT, SWD, SWM, FOM, FOD-3, TPW, TPS, CUM1 | Tawny Emperor ( <i>Asterocampa cydon</i> ) - S3                  | This species is restricted to rich, moist, deciduous woods, where its foodplant, Toothwort occur.                                                                                                                                                                                                                                                         | Y (N) UTM: N/A                                                |
| FOD5                                      | West Virginia White ( <i>Paris virginiana</i> ) - SC             |                                                                                                                                                                                                                                                                                                                                                           | Y (N) UTM:                                                    |



ASA

Map #: 102 GSH 303212038 Polygon: FOD9-1  
Surveyor(s): Date: May 5, 2012 Time: start: 3:41 PM finish: 11:25 PM  
UTMZ: UTMZ: UTMN:

Polygon Description

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

Stand Description

| Layer | HT | CVR | Species in Order of Decreasing Dominance (up to 4 sp) |
|-------|----|-----|-------------------------------------------------------|
| 1     | 1  | 4   | Quercus - FLESACC - TILAMER - Carcord                 |
| 2     | 2  | 3   | ACESAC                                                |
| 3     | 3  | 3   | Bractech - Lantata - Pruning                          |
| 4     | 6  | 4   | Germau - Eryamer - Mirarce - Trigan                   |

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

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

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

|           |                                  |                                |                                             |                                 |                                     |
|-----------|----------------------------------|--------------------------------|---------------------------------------------|---------------------------------|-------------------------------------|
| Com. Age: | <input type="checkbox"/> Pioneer | <input type="checkbox"/> Young | <input checked="" type="checkbox"/> Mid-Age | <input type="checkbox"/> Mature | <input type="checkbox"/> Old Growth |
|-----------|----------------------------------|--------------------------------|---------------------------------------------|---------------------------------|-------------------------------------|

|                  |                                               |       |        |
|------------------|-----------------------------------------------|-------|--------|
| Ecosite:         | FRESH Moist Oak-Mud-Hickory Deciduous Ecosite | Code: | FOD9   |
| Vegetation Type: | Fresh-Moist Oak-Sugar Maple Deciduous Forest  | Code: | FOD9-1 |
| Inclusion:       |                                               | Code: |        |
| Complex:         |                                               | Code: |        |

Community Profile Diagram/Comments

Lowest debris with few. Majorly maple  
Trees seem to be between 20-30cm dbh

Notes:

Tree Tally by Species

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

Soils Ontario and ELC Soils Description

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

## Page 1 of 2

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

Map Number: 7025H3032/2838 1 F0057 4  
 Date: May 8, 2012 2 8  
 Surveyors: 181TS 3

## Page 2 of 2

|                                                                                                                                                                                      |                 |   |        |   |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---|--------|---|--|--|--|--|--|
| D - Dominant : represented by large numbers; generally forming >10% ground cover or >25% vegetation cover in any one stratum                                                         |                 |   |        |   |  |  |  |  |  |
| F - Fairly common (=Abundant in ELC) : generally widespread represented by fairly large numbers of individual clumps; usually forming >10% ground cover                              |                 |   |        |   |  |  |  |  |  |
| U - Uncommon (=Occasional in ELC) : present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category) |                 |   |        |   |  |  |  |  |  |
| R - Rare : represented in the polygon by less than about five individuals or small clumps                                                                                            |                 |   |        |   |  |  |  |  |  |
| Map Number:                                                                                                                                                                          | 70265H3038/2838 | 1 | F009-1 | 4 |  |  |  |  |  |
| Date:                                                                                                                                                                                | May 8, 2012     | 2 |        | 6 |  |  |  |  |  |
| Surveyors:                                                                                                                                                                           | JP + JS         | 3 |        |   |  |  |  |  |  |

# Significant Wildlife Habitat Form

AECOM

|                     |                                |     |     |                |                  |
|---------------------|--------------------------------|-----|-----|----------------|------------------|
| Study Area:         | BLW                            | JER | GSH | Map #:         | 702-GSH3032/2838 |
| Date:               | 2012-05-08                     |     |     | Time Started:  | 3:40 P.m.        |
| Field Staff:        | Ben Shorney, Jess Rott         |     |     | Time Finished: | 4:25 P.m.        |
| Weather Conditions: | Partly Sunny, 12°C, Light wind |     |     |                |                  |

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Snake Hibernacula

Fissured rock/foundation or rock/debris pile present:

☒ No ☐ Yes (if yes, photograph and complete the following)

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

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

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

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

## Seeps and Springs

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

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

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

# NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

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

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

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

☒ No

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

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

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

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

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

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

Shoreline of lake, large river or large wetland present:

☒ No

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

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

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

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

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

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

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

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

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

Large open habitat present: ☒ No

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

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

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

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

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

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

Mature forest present: ☒ No

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

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

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

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

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

| Photo # | Location or Subject | Photo # | Location or Subject |
|---------|---------------------|---------|---------------------|
|         |                     |         |                     |
|         |                     |         |                     |
|         |                     |         |                     |
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|         |                     |         |                     |

Species Conservation Concern Habitat and Incidental Wildlife – Goshen

Map No: 702-GSH3032/2838

Date (yyyy-mm-dd): 2012-05-08

**Field Staff:**

10/10

55

Time Started:

**Time Finished:** 4.25 pm

### Observed Species List

[illegible]

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

Breeding Bird (Probable)

Breeding Bird Observations

Breeding Bird (Confirmed)

**Other Wildlife Evidence:** OB=observed, VO=Vocalization. CA=Carcass. DP=Distinctive Parts. HN=House/Den. EV=Eggs/Young. FS=Fossils/aecal sack, AE=Nest Entry

Other signs (specify):

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

# Species of Conservation Concern Habitat and Incidental Wildlife - Goshen

AECOM

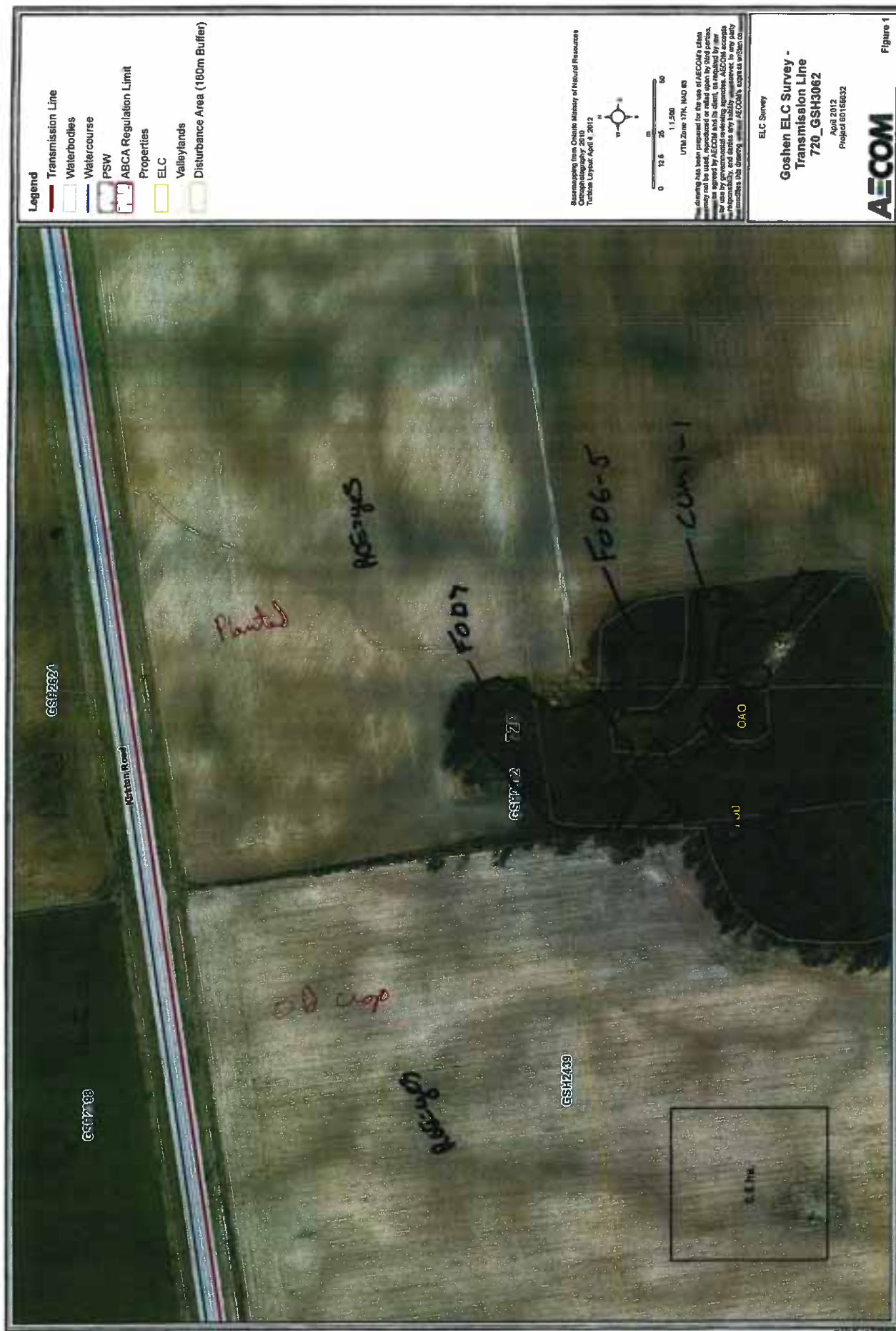
| ELC                                                 | Species                                                                                                        | Habitat Description                                                                                                                                          | Habitat Presence (Y/N) UTM: description of habitat if present |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| CUM1, MAM, FOD6, FOD7, FOD9                         | June - August<br>Green Dragon ( <i>Arisaema dracontium</i> ) - S3/S3 Bloom Time - May and June                 | Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.                     | Y N UTM: N/A                                                  |
| TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3      | June-August<br>Hairy Bedstraw ( <i>Galium pilosum</i> ) - S3 Bloom Time - June-August                          | Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields                                                                                    | Y N UTM:                                                      |
| FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW | June-August<br>Hairy Valerian ( <i>Valeriana edulis</i> ) - S1 Bloom Time - June to August                     | Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.                                                                | Y N UTM:                                                      |
| FOD6, FOD7, SWM, SWD                                | Summer<br>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                              | Spring<br>Hartbeater-of-spring ( <i>Eriogon bulbosa</i> ) - S3 Bloom Time - early to late April                | Occurs in rich, moist deciduous woods, especially on floodplains.                                                                                            | Y N UTM: N/A                                                  |
| SAS1, SAM1, SAF1                                    | Summer<br>Hill's Pond Weed ( <i>Potamogeton hillii</i> ) - S3/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                                    | Summer<br>Large Round-leaved Orchid ( <i>Ptilanthera 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                         | Summer<br>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                                    | March-May<br>Pawpaw ( <i>Asimina triloba</i> ) - S3 Bloom Time - March-May                                     | Occurs in moist deciduous woody and stream banks.                                                                                                            | Y N UTM: N/A                                                  |
| FOM4, FOD6, FOD7, FOD9, CUM1                        | Spring<br>Pillose Evening Primrose ( <i>Oenothera pilosella</i> ) - S2 Bloom Time - Late Spring - Early Summer | Moist edges of woods and open, disturbed ground.                                                                                                             | Y N UTM: N/A                                                  |
| TPW1, FOM1, FOM2, FOD1, FOD2, FOD3                  | Summer<br>Prostrate Tick-trefoil ( <i>Desmodium rotundifolium</i> ) - S2 Bloom Time - July-September           | Dry, sandy or rocky woods                                                                                                                                    | Y N UTM:                                                      |
| FOD7, SWD                                           | March - June<br>Pumpkin Ash ( <i>Fraxinus profunda</i> ) - S2? Bloom Time - March - June                       | Swamps and floodplains                                                                                                                                       | Y N UTM:                                                      |
| CUW1, ALO, FET1, SWC                                | Summer<br>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      | Summer<br>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                                    | Summer<br>Round-leaved Groundsel ( <i>Packera obovata</i> ) - S3 Bloom Time - May - June                       | Found in moist woods                                                                                                                                         | Y N UTM: N/A                                                  |
| CUM1, CUT1, CUS1                                    | Summer<br>Round-leaved hawthorn ( <i>Crataegus lumaria</i> ) - S3?                                             | Species occurs in old fields, poorly managed pastures, fencelines and roadsides                                                                              | Y N UTM:                                                      |
| FOD4, FOD7, FOD8, FOD9, SWT2, SWT3                  | Summer<br>Scarlet Beebalm ( <i>Monarda didyma</i> ) - S3 Bloom Time - May to October                           | Found in moist, rich woods, thicket swamps, banks and floodplains.                                                                                           | Y N UTM:                                                      |
| ALO, ALS, ALT, TPO, TPS, TPW                        | Summer<br>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         | Summer<br>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, FOD6, FOD8                                    | Summer<br>Slim-flowered Mulberry ( <i>Muhlenbergia tenuiflora</i> ) - S2                                       | Found in rich deciduous forest, open on rocky or sandy soils, wooded dunes, hillsides, and riverbanks, whether in oak or beech-maple woods                   | Y N UTM: N/A                                                  |
| BL01, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7      | Summer<br>Stiff Gentian ( <i>Gentianella quinquefolia</i> ) - S2 Bloom Time - late summer to mid fall          | Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.                                              | Y N UTM:                                                      |
| TPS1, TPW1, CUW1, RBO, SBO                          | Summer<br>Sundial Lupine ( <i>Lupinus perennis</i> ) - S3 Bloom Time - mid-March to mid-June                   | Inhabits dry, sandy oak savannas, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.                                          | Y N UTM:                                                      |

# Species Conservation Concern Habitat and Incidental Wildlife – Goshen

A DM

| ELC                                        | Species                                                                                              | Habitat Description                                                                                                                                                                                                                                                                                                 | Habitat Present (Y/N) UTM |
|--------------------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| TP01, TP-S1, TPW1, CUM1                    | Tall Blazing Star ( <i>Liatris aspera</i> ) - S3/SC                                                  | Occurs in open, sandy woods, dry roadsides and sandy prairies                                                                                                                                                                                                                                                       | Y (N) UTM                 |
| FEO, FES, FET, MAM2, MAM3                  | Tuberous Indian Plantain ( <i>Arnoglossum plantagineum</i> ) - S3 Bloom Time – mid-March to mid-June | Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.                                                                                                                                                                                                           | Y (N) UTM                 |
| FOC1, FOC2, FOC3, FOC4                     | Woodland Pinedrops ( <i>Pterospora andromedea</i> ) - S2 Bloom Time – summer                         | Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.                                                                                                                                                  | Y (N) UTM                 |
| CUM1, CUT1, CUW1, RBO1, SBO1               | Yellow Ladies'-tresses ( <i>Spiranthes ochroleuca</i> ) - S2 Bloom Time – August to November         | Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.                                                                                                                                                           | Y (N) UTM                 |
| BIRDS                                      |                                                                                                      |                                                                                                                                                                                                                                                                                                                     |                           |
| -                                          | Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) - SC                                                  | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                           | not required              |
| CUW, SDO, RBO, TPS                         | Common Nighthawk ( <i>Chordeiles minor</i> ) - SC                                                    | Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetative tree habitats.                                                                                                                                                  | Y (N) UTM                 |
| FOD, FOM                                   | Louisiana Waterthrush ( <i>Seiurus motacilla</i> ) - SC                                              | Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration.                                                                            | Y (N) UTM                 |
| FOD, CUW, CUT                              | Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> ) - SC                                     | Occurs in open woodlands and riparian forest, open, deciduous forest with fine understory; fields or pasture lands with scattered large trees, wooded swamps, orchards, small woodlots or forest 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                 |
| CUT1                                       | Short Eared Owl ( <i>Asio flammeus</i> ) - SC                                                        | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                           | not required              |
| REPTILES                                   | 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                 |
| -                                          | Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> ) - SC                                              | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                           | not required              |
| -                                          | Milksnake ( <i>Lampropeltis triangulum</i> ) - SC                                                    | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                           | not required              |
| -                                          | Snapping Turtle ( <i>Chelydra serpentina</i> ) - SC                                                  | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                           | not required              |
| INSECTS                                    |                                                                                                      |                                                                                                                                                                                                                                                                                                                     |                           |
| OAO, SA, SWM, SWD                          | Azure Bluet ( <i>Enallagma aspersum</i> ) - S3                                                       | Species inhabits fishless ponds, lakes and boggy swamps                                                                                                                                                                                                                                                             | Y (N) UTM                 |
| TPS, TPW                                   | Sleepy Duskywing ( <i>Erynnis brizo</i> ) - S1                                                       | Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles.                                                                                                                                             | Y (N) UTM                 |
| CUM1, CUT1, CUW1                           | Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC                                                   | Their larvae only feed on milkweeds ( <i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow                                                                                                                                                             | Y (N) UTM                 |
| TPS, CUW                                   | Mottled Duskywing ( <i>Erynnis martialis</i> ) - S2                                                  | Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present                                                                                                                                                                                | Y (N) UTM                 |
| SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1 | Tawny Emperor ( <i>Asterocampa clyton</i> ) - S3                                                     | Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant                                                                                                                                                                     | Y (N) UTM                 |
| FOD5                                       | West Virginia White ( <i>Pieris virginianensis</i> ) - SC                                            | This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur                                                                                                                                                                                                                     | Y (N) UTM                 |







**Plant Species List  
2012**

Page 2 of 2

| Dicot Herbs - Asteraceae                              |   |   |   |   |  | Dicot Herbs                                             |   |   |   |   |  | Dicot Herbs                                              |   |   |   |   |  |
|-------------------------------------------------------|---|---|---|---|--|---------------------------------------------------------|---|---|---|---|--|----------------------------------------------------------|---|---|---|---|--|
| 1                                                     | 2 | 3 | 4 | 5 |  | 1                                                       | 2 | 3 | 4 | 5 |  | 1                                                        | 2 | 3 | 4 | 5 |  |
| Common Yarrow ( <i>Achillea millefolium</i> )         |   |   |   |   |  | Shepherd's Purse ( <i>Capsella bursa-pastoris</i> )     |   |   |   |   |  | Kidney-leaf Buttercup ( <i>Ranunculus abortivus</i> )    |   |   |   |   |  |
| White Snakeroot ( <i>Ageratina altissima</i> )        |   |   |   |   |  | Cutleaf Toothwort ( <i>Cardamine concatenata</i> )      |   |   |   |   |  | Tall Buttercup ( <i>Ranunculus acris</i> )               |   |   |   |   |  |
| Com. Ragweed ( <i>Ambrosia artemisiifolia</i> )       |   |   |   |   |  | Toothwort ( <i>Cardamine diphylla</i> )                 |   |   |   |   |  | Hocked Buttercup ( <i>Ranunculus recurvatus</i> )        |   |   |   |   |  |
| Giant Ragweed ( <i>Ambrosia trifida</i> )             |   |   |   |   |  | Penn. Bitter-cress ( <i>Cardamine pensylvanica</i> )    |   |   |   |   |  | <i>Ranunculus</i>                                        |   |   |   |   |  |
| Field Pussies (Antennaria neglecta)                   |   |   |   |   |  | Cardamine                                               |   |   |   |   |  | Sheep Sorrel ( <i>Rumex acetosella</i> )                 |   |   |   |   |  |
| Artemisia                                             |   |   |   |   |  | Blue Cohosh ( <i>Caulophyllum thalictroides</i> )       |   |   |   |   |  | Curly-leaf Dock ( <i>Rumex crispus</i> )                 |   |   |   |   |  |
| Common Burdock ( <i>Arctium minus</i> )               |   |   |   |   |  | Mouse-ear Chickweed ( <i>Cerastium fontanum</i> )       |   |   |   |   |  | Blister 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 Nighthshade ( <i>Circaea lutetiana</i> )    |   |   |   |   |  | Marsh Skullcap ( <i>Scutellaria galericulata</i> )       |   |   |   |   |  |
| Chicory ( <i>Cichorium intybus</i> )                  |   |   |   |   |  | Carolina Spring Beauty ( <i>Claytonia caroliniana</i> ) |   |   |   |   |  | Mad Dog Skullcap ( <i>Scutellaria lateriflora</i> )      |   |   |   |   |  |
| Canada Thistle ( <i>Cirsium arvense</i> )             |   |   |   |   |  | Virginia Spring Beauty ( <i>Claytonia virginica</i> )   |   |   |   |   |  | White Campion ( <i>Silene latifolia</i> )                |   |   |   |   |  |
| Bull Thistle ( <i>Cirsium vulgare</i> )               |   |   |   |   |  | Virgin's-bower ( <i>Clematis virginiana</i> )           |   |   |   |   |  | Bladder Campion ( <i>Silene vulgaris</i> )               |   |   |   |   |  |
| Horseweed ( <i>Conyza canadensis</i> )                |   |   |   |   |  | Field Bindweed ( <i>Convolvulus arvensis</i> )          |   |   |   |   |  | Hemlock Water-parsnip ( <i>Sium suave</i> )              |   |   |   |   |  |
| Daisy Fleabane ( <i>Erigeron annuus</i> )             |   |   |   |   |  | Dog-strangling Vine ( <i>Cynanchum rossicum</i> )       |   |   |   |   |  | Bitter Nightshade ( <i>Solanum dulcamara</i> )           |   |   |   |   |  |
| Philadelphia Fleabane ( <i>Erig. philadelphicus</i> ) |   |   |   |   |  | Wild Carrot ( <i>Daucus carota</i> )                    |   |   |   |   |  | Black Nightshade ( <i>Solanum ptychanthum</i> )          |   |   |   |   |  |
| Phlariod. (P)                                         |   |   |   |   |  | Deptford Pink ( <i>Dianthus armeria</i> )               |   |   |   |   |  | Grassleaf Stitchwort ( <i>Stellaria graminea</i> )       |   |   |   |   |  |
| Joe-pye-weed ( <i>Eupatorium maculatum</i> )          |   |   |   |   |  | Squirrel-corn ( <i>Dicentra canadensis</i> )            |   |   |   |   |  | Common Chickweed ( <i>Stellaria media</i> )              |   |   |   |   |  |
| Boneset ( <i>Eupatorium perfoliatum</i> )             |   |   |   |   |  | Dutchman's-breaches ( <i>Dicentra cucullaria</i> )      |   |   |   |   |  | Early Meadow-rue ( <i>Thalictrum dioicum</i> )           |   |   |   |   |  |
| Large-leaved Aster ( <i>Eurybia macrophylla</i> )     |   |   |   |   |  | Wild Teasel ( <i>Dipsacus fulorum</i> )                 |   |   |   |   |  | Tall Meadow-rue ( <i>Thalictrum pubescens</i> )          |   |   |   |   |  |
| Flat-top Goldenrod ( <i>Euthamia graminifolia</i> )   |   |   |   |   |  | Wild Cucumber ( <i>Echinocystis lobata</i> )            |   |   |   |   |  | Field 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> )               |   |   |   |   |  |
| Hieracium                                             |   |   |   |   |  | Hairy Willow-herb ( <i>Epilobium hirsutum</i> )         |   |   |   |   |  | Red Clover ( <i>Trifolium pratense</i> )                 |   |   |   |   |  |
| Elocampane ( <i>Inula helenium</i> )                  |   |   |   |   |  | Small-fl. Willow-herb ( <i>Epilobium parviflorum</i> )  |   |   |   |   |  | White Clover ( <i>Trifolium repens</i> )                 |   |   |   |   |  |
| Prickly Lettuce ( <i>Lactuca scariola</i> )           |   |   |   |   |  | Epilobium                                               |   |   |   |   |  | Trifolium                                                |   |   |   |   |  |
| Lactuca                                               |   |   |   |   |  | Worm Mustard ( <i>Erysimum cheiranthoides</i> )         |   |   |   |   |  | Stinging Nettle ( <i>Urtica dioica</i> )                 |   |   |   |   |  |
| Ox-eye Daisy ( <i>Leucanthemum vulgare</i> )          |   |   |   |   |  | Euphorbia                                               |   |   |   |   |  | Greater Bladderwort ( <i>Utricularia vulgaris</i> )      |   |   |   |   |  |
| Pineapple-weed ( <i>Matricaria discoidea</i> )        |   |   |   |   |  | Hemp Nettle ( <i>Galeopsis tetrahit</i> )               |   |   |   |   |  | Common Mullen ( <i>Verbascum thapsus</i> )               |   |   |   |   |  |
| Tall White Lettuce ( <i>Prenanthes altissima</i> )    |   |   |   |   |  | Wild Madder ( <i>Galium mollugo</i> )                   |   |   |   |   |  | Blue Vervain ( <i>Verbena hastata</i> )                  |   |   |   |   |  |
| Black-eyed Susan ( <i>Rudbeckia hirta</i> )           |   |   |   |   |  | Marsh Bedstraw ( <i>Galium palustre</i> )               |   |   |   |   |  | White Vervain ( <i>Verbena urticifolia</i> )             |   |   |   |   |  |
| Tall Goldenrod ( <i>Solidago altissima</i> )          |   |   |   |   |  | Sweet-scented Bedstraw ( <i>Galium triflorum</i> )      |   |   |   |   |  | Water Speedwell ( <i>Veron. anagallis-aquatica</i> )     |   |   |   |   |  |
| Blue-stem Goldenrod ( <i>Solidago caesia</i> )        |   |   |   |   |  | Galium                                                  |   |   |   |   |  | Common Speedwell ( <i>Veronica officinalis</i> )         |   |   |   |   |  |
| Canada Goldenrod ( <i>Solidago canadensis</i> )       |   |   |   |   |  | Spotted Geranium ( <i>Geranium maculatum</i> )          |   |   |   |   |  | Veronica                                                 |   |   |   |   |  |
| Zip-zag Goldenrod ( <i>Solidago flexuosa</i> )        |   |   |   |   |  | Herb-robert ( <i>Geranium robertianum</i> )             |   |   |   |   |  | Cow Vetch ( <i>Vicia cracca</i> )                        |   |   |   |   |  |
| Giant Goldenrod ( <i>Solidago gigantea</i> )          |   |   |   |   |  | Yellow Avena ( <i>Geum aleppicum</i> )                  |   |   |   |   |  | Vicia                                                    |   |   |   |   |  |
| Ear Goldenrod ( <i>Solidago juncea</i> )              |   |   |   |   |  | White Avena ( <i>Geum canadense</i> )                   |   |   |   |   |  | Periwinkle ( <i>Vinca minor</i> )                        |   |   |   |   |  |
| Gray Goldenrod ( <i>Solidago nemoralis</i> )          |   |   |   |   |  | Urban Avena ( <i>Geum urbanum</i> )                     |   |   |   |   |  | Dog Violet ( <i>Viola conspersa</i> )                    |   |   |   |   |  |
| Solidago (P)                                          |   |   |   |   |  | 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> )                |   |   |   |   |  |
| Sonchus                                               |   |   |   |   |  | Com. St. John's-wort ( <i>Hypericum perforatum</i> )    |   |   |   |   |  | Viola                                                    |   |   |   |   |  |
| Heart-leaf Aster ( <i>Symph. cordifolium</i> )        |   |   |   |   |  | Spotted Jewelweed ( <i>Impatiens capensis</i> )         |   |   |   |   |  | mentha sp                                                |   |   |   |   |  |
| Heath Aster ( <i>Symph. ericoides</i> )               |   |   |   |   |  | Wood Nettle ( <i>Laportea canadensis</i> )              |   |   |   |   |  |                                                          |   |   |   |   |  |
| Tall White Aster ( <i>Symph. lanceolatum</i> )        |   |   |   |   |  | Motherwort ( <i>Leonurus cardiaca</i> )                 |   |   |   |   |  |                                                          |   |   |   |   |  |
| Calico Aster ( <i>Symph. triflorum</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. punicus</i> )           |   |   |   |   |  | Butter & Eggs ( <i>Linaria vulgaris</i> )               |   |   |   |   |  |                                                          |   |   |   |   |  |
| Common Tansy ( <i>Tanacetum vulgare</i> )             |   |   |   |   |  | Great Lobelia ( <i>Lobelia siphilitica</i> )            |   |   |   |   |  |                                                          |   |   |   |   |  |
| Common Dandelion ( <i>Taraxacum officinale</i> )      |   |   |   |   |  | Lobelia                                                 |   |   |   |   |  |                                                          |   |   |   |   |  |
| Com. Goatsbeard ( <i>Tragopogon pratensis</i> )       |   |   |   |   |  | Cut-leaf Bugleweed ( <i>Lycopus americanus</i> )        |   |   |   |   |  | Water-plantain ( <i>Alisma plantago-aquatica</i> )       |   |   |   |   |  |
| Collisfoot ( <i>Tussilago farfara</i> )               |   |   |   |   |  | Northern Bugleweed ( <i>Lycopus uniflorus</i> )         |   |   |   |   |  | Wild Leek ( <i>Allium tricoccum</i> )                    |   |   |   |   |  |
|                                                       |   |   |   |   |  | Fringed Loosetrife ( <i>Lysimachia ciliata</i> )        |   |   |   |   |  | Jack-in-the-pulpit ( <i>Arisaema triphyllum</i> )        |   |   |   |   |  |
|                                                       |   |   |   |   |  | Moneywort ( <i>Lysimachia nummularia</i> )              |   |   |   |   |  | Asparagus ( <i>Asparagus officinalis</i> )               |   |   |   |   |  |
|                                                       |   |   |   |   |  | Lysimachia                                              |   |   |   |   |  | Wild Calla ( <i>Calla palustris</i> )                    |   |   |   |   |  |
|                                                       |   |   |   |   |  | Purple Loosetrife ( <i>Lythrum salicaria</i> )          |   |   |   |   |  | Bluebead-lily ( <i>Clintonia borealis</i> )              |   |   |   |   |  |
|                                                       |   |   |   |   |  | Black Medick ( <i>Medicago lupulina</i> )               |   |   |   |   |  | Garden Lily-of-the-valley ( <i>Convallaria majalis</i> ) |   |   |   |   |  |
|                                                       |   |   |   |   |  | Alfalfa ( <i>Medicago sativa</i> )                      |   |   |   |   |  | Yel. Lady's Slipper ( <i>Cypripedium parviflorum</i> )   |   |   |   |   |  |
|                                                       |   |   |   |   |  | White Sweet-clover ( <i>Melilotus alba</i> )            |   |   |   |   |  | Canada Waterweed ( <i>Elodea canadensis</i> )            |   |   |   |   |  |
|                                                       |   |   |   |   |  | Yellow Sweet-clover ( <i>Melilotus officinalis</i> )    |   |   |   |   |  | Helleborine ( <i>Epipactis helleborine</i> )             |   |   |   |   |  |
|                                                       |   |   |   |   |  | Wild Mint ( <i>Mentha arvensis</i> )                    |   |   |   |   |  | Yellow Trout Lily ( <i>Erythronium americanum</i> )      |   |   |   |   |  |
|                                                       |   |   |   |   |  | Wild Bergamot ( <i>Monarda fistulosa</i> )              |   |   |   |   |  | Blue-flag Iris ( <i>Iris versicolor</i> )                |   |   |   |   |  |
|                                                       |   |   |   |   |  | Small Forget-me-not ( <i>Myosotis laxa</i> )            |   |   |   |   |  | Orange Day Lily ( <i>Hemerocallis fulva</i> )            |   |   |   |   |  |
|                                                       |   |   |   |   |  | Forget-me-not ( <i>Myosotis scorpioides</i> )           |   |   |   |   |  | Lesser Duckweed ( <i>Lemna minor</i> )                   |   |   |   |   |  |
|                                                       |   |   |   |   |  | Water-cren ( <i>Nasturtium officinale</i> )             |   |   |   |   |  | Starry Duckweed ( <i>Lemna trisulca</i> )                |   |   |   |   |  |
|                                                       |   |   |   |   |  | Com. Evening-primrose ( <i>Oenothera biennis</i> )      |   |   |   |   |  | Wild Lily-of-the-valley ( <i>Maianthemum canadense</i> ) |   |   |   |   |  |
|                                                       |   |   |   |   |  | Sweet-daisy ( <i>Osmorhiza berterii</i> )               |   |   |   |   |  | False Solomon Seal ( <i>Maianthemum racemosum</i> )      |   |   |   |   |  |
|                                                       |   |   |   |   |  | Yellow Wood-sorrel ( <i>Oxalis stricta</i> )            |   |   |   |   |  | Star False Solomon ( <i>Maianthemum stellatum</i> )      |   |   |   |   |  |
|                                                       |   |   |   |   |  | Wild Parsnip ( <i>Pastinaca sativa</i> )                |   |   |   |   |  | True Solomon Seal ( <i>Polygonatum pubescens</i> )       |   |   |   |   |  |
|                                                       |   |   |   |   |  | English Plantain ( <i>Plantago lanceolata</i> )         |   |   |   |   |  | Pickeral-weed ( <i>Pontederia cordata</i> )              |   |   |   |   |  |
|                                                       |   |   |   |   |  | Common Plantain ( <i>Plantago major</i> )               |   |   |   |   |  | Curly-leaf Pondweed ( <i>Potamogeton crispus</i> )       |   |   |   |   |  |
|                                                       |   |   |   |   |  | Rugel's Plantain ( <i>Plantago rugelii</i> )            |   |   |   |   |  | Sago Pondweed ( <i>Potamogeton pectinatus</i> )          |   |   |   |   |  |
|                                                       |   |   |   |   |  | May-apple ( <i>Podophyllum peltatum</i> )               |   |   |   |   |  | Potamogeton                                              |   |   |   |   |  |
|                                                       |   |   |   |   |  | Pale Smartweed ( <i>Polygonum lapathifolium</i> )       |   |   |   |   |  | Potamogeton                                              |   |   |   |   |  |
|                                                       |   |   |   |   |  | Lady's-thumb ( <i>Polygonum persicaria</i> )            |   |   |   |   |  | Broad-leaved Arrowhead ( <i>Sagittaria latifolia</i> )   |   |   |   |   |  |
|                                                       |   |   |   |   |  | Virginia Knotweed ( <i>Polygonum virginianum</i> )      |   |   |   |   |  | Blue-eyed-grass ( <i>Sisyrinchium montanum</i> )         |   |   |   |   |  |
|                                                       |   |   |   |   |  | Polygonum                                               |   |   |   |   |  | Harb. Canon Flower ( <i>Smilax herbacea</i> )            |   |   |   |   |  |
|                                                       |   |   |   |   |  | Polygonum                                               |   |   |   |   |  | Bristly Greenbrier ( <i>Smilax hispida</i> )             |   |   |   |   |  |
|                                                       |   |   |   |   |  | Rough Cinquefoil ( <i>Potentilla norvegica</i> )        |   |   |   |   |  | Nodding Ladies' Tresses ( <i>Spiranthes cernua</i> )     |   |   |   |   |  |
|                                                       |   |   |   |   |  | Rough-fruited Cinquefoil ( <i>Potentilla recta</i> )    |   |   |   |   |  | Rose Twisted-stalk ( <i>Streptopus lanceolatus</i> )     |   |   |   |   |  |
|                                                       |   |   |   |   |  | Common Cinquefoil ( <i>Potentilla simplex</i> )         |   |   |   |   |  | Stunk-cabbage ( <i>Symplocarpus foetidus</i> )           |   |   |   |   |  |
|                                                       |   |   |   |   |  | Potentilla                                              |   |   |   |   |  | Purple Trillium ( <i>Trillium erectum</i> )              |   |   |   |   |  |
|                                                       |   |   |   |   |  | Heal-all ( <i>Prunella vulgaris</i> )                   |   |   |   |   |  | White Trillium ( <i>Trillium grandiflorum</i> )          |   |   |   |   |  |
|                                                       |   |   |   |   |  | Shin-leaf ( <i>Pyrola elliptica</i> )                   |   |   |   |   |  | Large-flowered Bellwort ( <i>Uvularia grandiflora</i> )  |   |   |   |   |  |
|                                                       |   |   |   |   |  | golum sp                                                |   |   |   |   |  |                                                          |   |   |   |   |  |

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: | 7226113062  | 1 | F027 (Indigulm)   | 4 |
| Date:       | May 3, 2012 | 2 | F027-1 (Indigulm) | 6 |
| Surveyors:  | SP + PS     | 3 | F027-5            |   |

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| Trees & Shrubs                                    |  |  |  |  |  | Tree & Shrubs                                         |  |  |  |  |  | Graminoids                                           |  |  |  |  |  |
|---------------------------------------------------|--|--|--|--|--|-------------------------------------------------------|--|--|--|--|--|------------------------------------------------------|--|--|--|--|--|
| Conifers                                          |  |  |  |  |  | Deciduous                                             |  |  |  |  |  | Grasses                                              |  |  |  |  |  |
| Balsam Fir ( <i>Abies balsamea</i> )              |  |  |  |  |  | White Oak ( <i>Quercus alba</i> )                     |  |  |  |  |  | Giant Redtop ( <i>Agrostis gigantea</i> )            |  |  |  |  |  |
| Common Juniper ( <i>Juniperus communis</i> )      |  |  |  |  |  | Bur Oak ( <i>Quercus macrocarpa</i> )                 |  |  |  |  |  | Redtop ( <i>Agrostis stolonifera</i> )               |  |  |  |  |  |
| Eastern Red Cedar ( <i>Juniperus virginiana</i> ) |  |  |  |  |  | Red Oak ( <i>Quercus rubra</i> )                      |  |  |  |  |  | Awlless 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> )                   |  |  |  |  |  | Fowl Mania Grass ( <i>Glyceria striata</i> )         |  |  |  |  |  |
| Canada Yew ( <i>Taxus canadensis</i> )            |  |  |  |  |  | <i>Ribes</i>                                          |  |  |  |  |  | <i>Glyceria</i>                                      |  |  |  |  |  |
| Eastern White Cedar ( <i>Thuja occidentalis</i> ) |  |  |  |  |  | Black Locust ( <i>Robinia pseudo-acacia</i> )         |  |  |  |  |  | Rice Cut Grass ( <i>Leersia oryzoides</i> )          |  |  |  |  |  |
| Eastern Hemlock ( <i>Tsuga canadensis</i> )       |  |  |  |  |  | Prickly Rose ( <i>Rosa acicularis</i> )               |  |  |  |  |  | Tall Fescue ( <i>Lolium arundinaceum</i> )           |  |  |  |  |  |
|                                                   |  |  |  |  |  | Smooth Rose ( <i>Rosa blanda</i> )                    |  |  |  |  |  | Muhlenbergia                                         |  |  |  |  |  |
|                                                   |  |  |  |  |  | Multiflora Rose ( <i>Rosa multiflora</i> )            |  |  |  |  |  | Witch-grass ( <i>Panicum capillare</i> )             |  |  |  |  |  |
|                                                   |  |  |  |  |  | Rose                                                  |  |  |  |  |  | <i>Panicum</i>                                       |  |  |  |  |  |
|                                                   |  |  |  |  |  | Com. Blackberry ( <i>Rubus allegheniensis</i> )       |  |  |  |  |  | Reed Canary Grass ( <i>Phalaris arundinacea</i> )    |  |  |  |  |  |
|                                                   |  |  |  |  |  | Wild Red Raspberry ( <i>Rubus idaeus</i> )            |  |  |  |  |  | Timothy ( <i>Phleum pratense</i> )                   |  |  |  |  |  |
|                                                   |  |  |  |  |  | Black Raspberry ( <i>Rubus occidentalis</i> )         |  |  |  |  |  | Common Reed ( <i>Phragmites australis</i> )          |  |  |  |  |  |
|                                                   |  |  |  |  |  | Purple-fl. Raspberry ( <i>Rubus odoratus</i> )        |  |  |  |  |  | Canada Blue Grass ( <i>Poa compressa</i> )           |  |  |  |  |  |
|                                                   |  |  |  |  |  | Dwarf Raspberry ( <i>Rubus pubescens</i> )            |  |  |  |  |  | Fowl Meadow Grass ( <i>Poa palustris</i> )           |  |  |  |  |  |
|                                                   |  |  |  |  |  | <i>Rubus</i>                                          |  |  |  |  |  | Kentucky Bluegrass ( <i>Poa pratensis</i> )          |  |  |  |  |  |
|                                                   |  |  |  |  |  | Peach-leaved Willow ( <i>Salix amygdaloides</i> )     |  |  |  |  |  | Yellow Foxtail ( <i>Setaria pumila</i> )             |  |  |  |  |  |
|                                                   |  |  |  |  |  | Bebb's Willow ( <i>Salix bebbiana</i> )               |  |  |  |  |  | Green Foxtail ( <i>Setaria viridis</i> )             |  |  |  |  |  |
|                                                   |  |  |  |  |  | Pussy Willow ( <i>Salix discolor</i> )                |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Missouri Willow ( <i>Salix eriocephala</i> )          |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Sandbar Willow ( <i>Salix exigua</i> )                |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Shining Willow ( <i>Salix lucida</i> )                |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Black Willow ( <i>Salix nigra</i> )                   |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Slender Willow ( <i>Salix petiolaris</i> )            |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | <i>Salix</i>                                          |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Hybrid Crack Willow ( <i>Salix X rubens</i> )         |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Black-berried Elder ( <i>Sambucus nigra</i> )         |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Red-berried Elder ( <i>Sambucus racemosa</i> )        |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Buffaloberry ( <i>Shepherdia canadensis</i> )         |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Eur. Mountain Ash ( <i>Sorbus aucuparia</i> )         |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Narrow Meadow-sweet ( <i>Spiraea alba</i> )           |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Common Lilac ( <i>Syringa vulgaris</i> )              |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Poison-ivy ( <i>Toxicodendron rydbergii</i> )         |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Climbing Poison-ivy ( <i>Toxicodendron radicans</i> ) |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | White Elm ( <i>Ulmus americana</i> )                  |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Siberian Elm ( <i>Ulmus pumila</i> )                  |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Slippery Elm ( <i>Ulmus rubra</i> )                   |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Low Blueberry ( <i>Vaccinium angustifolium</i> )      |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Maple-leaf Viburnum ( <i>Viburnum acerifolium</i> )   |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Hobblebush ( <i>Viburnum lantanoides</i> )            |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Nannyberry ( <i>Viburnum lentago</i> )                |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Guelder-Rose ( <i>Viburnum opulus</i> )               |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Downy Arrow-wood ( <i>Vib. rafinesquianum</i> )       |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Riverbank Grape ( <i>Vitis riparia</i> )              |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | Am. Prickly-ash ( <i>Zanthoxylum americanum</i> )     |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | <i>T. glabra</i>                                      |  |  |  |  |  |                                                      |  |  |  |  |  |
|                                                   |  |  |  |  |  | FRUING                                                |  |  |  |  |  |                                                      |  |  |  |  |  |
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# Significant Wildlife Habitat Form

AZCOM

|                     |                                 |                |                    |
|---------------------|---------------------------------|----------------|--------------------|
| Study Area:         | BLW JER <u>GSH</u>              | Map #:         | <u>720-GSH3062</u> |
| Date:               | <u>2012-05-07</u>               | Time Started:  | <u>3:19 PM</u>     |
| Field Staff:        | <u>Ben Storey Jess Pfeiffer</u> | Time Finished: | <u>5:00 PM</u>     |
| Weather Conditions: | <u>Rain, 17°C, Light 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: 472609 4798324 Number of nests: 1

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present):  
Large nest built in crotch of large green Ash. Approx 20-15-20m high. Possibly active - evidence of droppings around base of tree.

Description of habitat (note riparian areas if present, evidence of disturbance): Within FOD6-5 Community.

**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, FE01)

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

UTMs: ☒ Area of standing water delineated on field map

Water depth (m): 1.5-1m % open water: 95% % emergent vegetation: 5%

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

Area and soil/substrate of shoreline habitat: Shoreline substrate 30% exposed. Mineral Soils

Type and abundance of cover in open water habitat: 5% cover -> 75% duckweed, 75% Carex sp.

Type and abundance of cover in surrounding habitat: 65% Surrounding cover, 50% Frodoon, 20% 50% Acer, Suckling

Evidence of disturbance (e.g. cattle grazing): Farmers dumping stones and rubble in

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: Evidence of Amphibians in and around pond.

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

CUM

**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

AZCOM

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

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

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

☒ No

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

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, SOT1, 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 |
|---------|---------------------|---------|---------------------|
| 17      | Sticknest           |         |                     |
|         |                     |         |                     |
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# Species of Conservation Concern Habitat and Incidental Wildlife - Goshen

Map No: 720-GSH 3062  
Date (yyyy-mm-dd): 2012-05-07 / 2012-06-06

Field Staff: Tom Starnes  
Jesse DeHr

Time Started: 3:19 PM  
Time Finished: 5:00 PM

AECOM

## Observed Species List

| Species Code           | UTM | EV | Notes | Species Code     | UTM                | EV | Notes |
|------------------------|-----|----|-------|------------------|--------------------|----|-------|
| Blue Jay               |     | ob |       | Baltimore Oriole |                    | Vo |       |
| White-throated Sparrow |     | ob |       | Eastern Towhee   |                    | ob |       |
| Song Sparrow           |     | Vo |       | Flicker          | Active cavity nest | ob |       |
| House Wren             |     | Vo |       | Great Gray Owl   |                    | Vo |       |
| Grackles               |     | ob |       |                  |                    |    |       |
| Gray-winged Towhee     |     | ob |       |                  |                    |    |       |
| Peewee                 |     | ob |       |                  |                    |    |       |
| Red-wing               |     | ob |       |                  |                    |    |       |
| Red-winged Blackbird   |     | Vo |       |                  |                    |    |       |
| House Wren             |     | Vo |       |                  |                    |    |       |
| Baltimore Oriole       |     | ob |       |                  |                    |    |       |
| Red-winged Blackbird   |     | ob |       |                  |                    |    |       |
| House Wren             |     | Vo |       |                  |                    |    |       |
| Song Sparrow           |     | Vo |       |                  |                    |    |       |

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

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

Not observed → N/O

| ELC                                            | Species                                                                          | Habitat Description                                                                                                                                             | Habitat Present (Y/N; UTM; description of habitat if present) |
|------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| PLANS                                          |                                                                                  |                                                                                                                                                                 |                                                               |
| FOD7                                           | American Gromwell (Lithospermum latifolium) - S3                                 | Shaded river banks, wooded floodplains. River floodplains, woods and edges of floodplain                                                                        | Y N UTM: U/O                                                  |
| ALO, TPO                                       | Muehlenberg's astomum moss (Astomum muehlenbergianum) - S2 Bloom Time - Spring   | in soil over level outcrop ledges and on soil under grasses in open prairie                                                                                     | Y N UTM:                                                      |
| FOM1, FOM2, CUP3                               | Autumn Coral-root (Corallorhiza odoratissima) - S2                               | Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.                                                                   | Y N UTM:                                                      |
| FOD, FOM, FOD                                  | Burning Bush (Euonymus atropurpureus) - S3 Bloom Time - April - June             | Species occurs in dry to moist deciduous thickets and woods                                                                                                     | Y N UTM: U/O                                                  |
| SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6 | Chinese Hemlock Parsley (Conioselinum chinense) - S2 Bloom Time - summer to fall | Swampy places with deciduous trees, white cedars, tamarack, springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes. | Y N UTM:                                                      |
| 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. Bays, 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, FOD8, FOD7, FOD9                                      | June - August<br>Green Dragon ( <i>Arisaema dracontium</i> ) - SCIS3 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                                                 |
| TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3                   | June-August<br>Hairy Bedstraw ( <i>Galium pilosum</i> ) - S3 Bloom Time - June-August              | Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields                                                                                  | Y N UTM:                                                     |
| FE01, FE51, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW              | June to August<br>Hairy Valerian ( <i>Valeriana edulis</i> ) - S1 Bloom Time - June to August      | Habits swampy river flats and meadows, wet prairies, and wooded, rocky verbanks and fans.                                                                  | Y N UTM:                                                     |
| FOD6, FOD7, SWM, SWD                                             | Summer<br>Hairy Wood Mint ( <i>Blephilia hirsuta</i> ) - S1 Bloom Time - Summer                    | Woodlands, often rocky, especially rivers, rich woods, swamp forests, floodplains.                                                                         | Y N UTM: N/O                                                 |
| FOD8, FOD7, FOD8, FOD9                                           | Harbinger-of-spring ( <i>Eriogon bulbosa</i> ) - S3 Bloom Time - early to late April               | Occurs in rich, moist deciduous woods, especially on floodplains.                                                                                          | Y N UTM: N/O                                                 |
| SAS1, SAM1, SAF1                                                 | Hill's Pond Weed ( <i>Potamogeton hillii</i> ) - SCIS2 Bloom Time - summer                         | Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and low-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, rich woods, and mudflats at the borders of streams and ponds. | Y N UTM:                                                     |
| FOD6, FOD7, FOD8                                                 | Pawpaw ( <i>Asimina triloba</i> ) - S3 Bloom Time - March-May                                      | Occurs in moist deciduous woods and stream banks.                                                                                                          | Y N UTM: N/O                                                 |
| FOM8, FOD4, FOD7, FOD9, CUM1                                     | Piase 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 nudiflorum</i> ) - S2 Bloom Time - July-September            | Dry, sandy or rocky woods                                                                                                                                  | Y N UTM:                                                     |
| FOD7, SWD                                                        | Pumpkin Ash ( <i>Fraxinus profunda</i> ) - S2? Bloom Time - March - June                           | Swamps and floodplains                                                                                                                                     | Y N UTM: N/O                                                 |
| CUM1, ALO, FET1, SWC                                             | Ram's-head Lady's-slipper ( <i>Cypripedium arietinum</i> ) - S3 Bloom Time - mid May to mid June   | Found in cedar woodlands, limestone plains and wooded fans, moist coniferous swamps, dry sandy woods, and limestone barren.                                | Y N UTM:                                                     |
| FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM4, 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, FOD8                                                 | Round-leaved Groundsel ( <i>Packera obovata</i> ) - S3 Bloom Time - May - June                     | Found in moist woods                                                                                                                                       | Y N UTM: N/O                                                 |
| CUM1, CUT1, CUS1                                                 | Round-leaved hawthorn ( <i>Crataegus tumida</i> ) - S3?                                            | Species occurs in old fields, poorly managed pastures, fencelines and roadsides                                                                            | Y N UTM:                                                     |
| FOD2, FOD7, FOD8, FOD9, SWT2, SWT3, ALO, ALS, ALT, TPO, TPS, TPW | Scarlet Beabalm ( <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                                                 |
| SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2                      | 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:                                                     |
| SDT1, FOD5, FOD9                                                 | 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:                                                     |
| BL01, BLS1, BLT1, TPO2, TPS1, TPW2, MAM2, FOD7                   | Slim-flowered Muihy ( <i>Muhlenbergia tenuiflora</i> ) - S2                                        | Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods                 | Y N UTM:                                                     |
| TPS1, TPW1, CUW1, RBO, SBO                                       | Stiff Gentian ( <i>Gentianella quinquefolia</i> ) - S2 Bloom Time - late summer to mid fall        | Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.                                            | Y N UTM:                                                     |
|                                                                  | Sundial Lupine ( <i>Lupinus perennis</i> ) - S3 Bloom Time - mid-March to mid-June                 | Habits dry, sandy oak savannahs, prairies, open barns or clearings in woodlands of oak, jack pine, and/or aspen.                                           | Y N UTM:                                                     |

# Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

AECOM

| ELC                                        | Species                                                               | Habitat Description                                                                                                                                                                                                                                                                                                                             | Habitat Present (Y/N); UTM; description of habitat if present |
|--------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| 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:                                                    |
| FEQ, FES, FET, MAM2, MAM3                  | Tuberous Indian Plantain ( <i>Arnoglossum plantaginifolium</i> ) - S3 | 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              | Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.                                                                                                                                                                              | Y (N) UTM:                                                    |
| CUM1, CUT1, CUW1, RBO1, SBO1               | Yellow Ladies'-tresses ( <i>Spiranthes ochroleuca</i> ) - S2          | Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.                                                                                                                                                                                       | Y (N) UTM:                                                    |
| BIRDS                                      |                                                                       |                                                                                                                                                                                                                                                                                                                                                 |                                                               |
| CUW, SDO, RBO, TPS                         | Bald Eagle ( <i>Haliaeetus leucocapillus</i> ) - SC                   | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                       | not required.                                                 |
| FOD, FOM                                   | 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, wooded or wooded habitats.                                                                                                                                                                                       | Y (N) UTM:                                                    |
| FOD, CUW, CUT                              | Louisiana Waterthrush ( <i>Seiurus motacilla</i> ) - SC               | Habits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Records are preferred stopover sites during migration.                                                                                                                     | Y (N) UTM:                                                    |
|                                            | Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> ) - SC      | Species inhabits open woodland edges (oak savannahs and riparian forest), open, deciduous forest with large understory fields or pasture lands with scattered large trees; wooded savannahs, 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: Found on upper portions of tree canopy             |
|                                            | Short Eared Owl ( <i>Asio flammeus</i> ) - SC                         | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                       | not required.                                                 |
| CUT1                                       | Yellow-breasted Chat ( <i>Icteria virens</i> ) - SC                   | Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines                                                                                                                                                                                        | Y (N) UTM:                                                    |
| REPTILES                                   |                                                                       |                                                                                                                                                                                                                                                                                                                                                 |                                                               |
|                                            | Eastern Ribbonsnake ( <i>Thamnophis sauritus</i> ) - SC               | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                       | not required.                                                 |
|                                            | Milksnake ( <i>Lampropeltis trianqulum</i> ) - SC                     | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                       | not required.                                                 |
|                                            | Shapping Turtle ( <i>Chelydra serpentina</i> ) - SC                   | Assessed as SWH. Record species if found.                                                                                                                                                                                                                                                                                                       | not required.                                                 |
| INSECTS                                    |                                                                       |                                                                                                                                                                                                                                                                                                                                                 |                                                               |
| OAO, SA, SWM, SWD                          | Azure Bluet ( <i>Enallagma aspersum</i> ) - S3                        | Species inhabits fishless ponds, lakes and boggy swamps                                                                                                                                                                                                                                                                                         | Y (N) UTM:                                                    |
| TPS, TPW                                   | Sleepy Duskywing ( <i>Erynnis brizo</i> ) - S1                        | Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles.                                                                                                                                                                         | Y (N) UTM:                                                    |
| CUM1, CUT1, CUW1                           | Monarch Butterfly ( <i>Danaus plexippus</i> ) - SC                    | Their larvae only feed on milkweeds ( <i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow                                                                                                                                                                                         | Y (N) UTM:                                                    |
| TPS, CUW                                   | Mottled Duskywing ( <i>Erynnis martialis</i> ) - S2                   | Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present                                                                                                                                                                                                            | Y (N) UTM:                                                    |
| SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1 | Tawny Emperor ( <i>Asterocampa clyton</i> ) - S3                      | Species inhabits densely wooded riparian areas; dry woods, open woods, fence rows 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:                                                    |

Plant Species List  
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| Trees & Shrubs                                    | 1 | 2 | 3 | 4 | 5 | Tree & Shrubs                                         | 1 | 2 | 3 | 4 | 5 | Graminoids                                           | 1 | 2 | 3 | 4 | 5 |
|---------------------------------------------------|---|---|---|---|---|-------------------------------------------------------|---|---|---|---|---|------------------------------------------------------|---|---|---|---|---|
| Conifers                                          |   |   |   |   |   | Deciduous                                             |   |   |   |   |   | Grasses                                              |   |   |   |   |   |
| Balsam Fir ( <i>Abies balsamea</i> )              |   |   |   |   |   | White Oak ( <i>Quercus alba</i> )                     |   |   |   |   |   | Giant Redtop ( <i>Agrostis gigantea</i> )            |   |   |   |   |   |
| Common Juniper ( <i>Juniperus communis</i> )      |   |   |   |   |   | Bur Oak ( <i>Quercus macrocarpa</i> )                 |   |   |   |   |   | Redtop ( <i>Agrostis stolonifera</i> )               |   |   |   |   |   |
| Eastern Red Cedar ( <i>Juniperus virginiana</i> ) |   |   |   |   |   | Red Oak ( <i>Quercus rubra</i> )                      |   |   |   |   |   | Awake Brome ( <i>Bromus inermis</i> )                |   |   |   |   |   |
| Tamarack ( <i>Larix laricina</i> )                |   |   |   |   |   | Alder Buckhorn ( <i>Rhamnus alnifolia</i> )           |   |   |   |   |   | Bromus                                               |   |   |   |   |   |
| Norway Spruce ( <i>Picea abies</i> )              |   |   |   |   |   | Common Buckhorn ( <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 typhina</i> )                |   |   |   |   |   | Poorwill Grass ( <i>Danthonia spicata</i> )          |   |   |   |   |   |
| Jack Pine ( <i>Pinus banksiana</i> )              |   |   |   |   |   | Wild Black Currant ( <i>Ribes americanum</i> )        |   |   |   |   |   | Quack Grass ( <i>Elymus repens</i> )                 |   |   |   |   |   |
| Red Pine ( <i>Pinus resinosa</i> )                |   |   |   |   |   | Prickly Gooseberry ( <i>Ribes cynosbati</i> )         |   |   |   |   |   | Virginia Wild Rye ( <i>Elymus virginicus</i> )       |   |   |   |   |   |
| Eastern White Pine ( <i>Pinus strobus</i> )       |   |   |   |   |   | Swamp Black Currant ( <i>Ribes lacustre</i> )         |   |   |   |   |   | Elymus                                               |   |   |   |   |   |
| Scotch Pine ( <i>Pinus sylvestris</i> )           |   |   |   |   |   | Red Currant ( <i>Ribes rubrum</i> )                   |   |   |   |   |   |                                                      |   |   |   |   |   |
| Canada Tree ( <i>Taxus canadensis</i> )           |   |   |   |   |   | Ribes                                                 |   |   |   |   |   |                                                      |   |   |   |   |   |
| Eastern White Cedar ( <i>Thuja occidentalis</i> ) |   |   |   |   |   | Black Locust ( <i>Robinia pseudo-acacia</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
| Eastern Hemlock ( <i>Tsuga canadensis</i> )       |   |   |   |   |   | Prickly Rose ( <i>Rosa acicularis</i> )               |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Smooth Rose ( <i>Rosa blanda</i> )                    |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Mullein Rose ( <i>Rosa multiflora</i> )               |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Rose                                                  |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Com. Blackberry ( <i>Rubus allegheniensis</i> )       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Wild Red Raspberry ( <i>Rubus idaeus</i> )            |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Black Raspberry ( <i>Rubus occidentalis</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Purple-fr. Raspberry ( <i>Rubus odoratus</i> )        |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Dwarf Raspberry ( <i>Rubus pubescens</i> )            |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Rubus                                                 |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Peach-leaved Willow ( <i>Salix amygdaloides</i> )     |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Bebb's Willow ( <i>Salix bebbiana</i> )               |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Pussy Willow ( <i>Salix discolor</i> )                |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Missouri Willow ( <i>Salix eriocephala</i> )          |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Sandbar Willow ( <i>Salix exigua</i> )                |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Shining Willow ( <i>Salix lucida</i> )                |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Black Willow ( <i>Salix nigra</i> )                   |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Slender Willow ( <i>Salix petiolata</i> )             |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Salix                                                 |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Hybrid Crack Willow ( <i>Salix X rubens</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Black-barked Elder ( <i>Sambucus nigra</i> )          |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Red-barked Elder ( <i>Sambucus racemosa</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Buffaloberry ( <i>Shepherdia canadensis</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Eur. Mountain Ash ( <i>Sorbus aucuparia</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Narrow Meadow-sweet ( <i>Spiraea alba</i> )           |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Common Lilac ( <i>Syringa vulgaris</i> )              |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Poison-ivy ( <i>Toxicodendron rydbergii</i> )         |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Climbing Poison-ivy ( <i>Toxicodendron radicans</i> ) |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | White Elm ( <i>Ulmus americana</i> )                  |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Siberian Elm ( <i>Ulmus pumila</i> )                  |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Slippery Elm ( <i>Ulmus rubra</i> )                   |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Low Blueberry ( <i>Vaccinium angustifolium</i> )      |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Maple-leaf Viburnum ( <i>Viburnum acerifolium</i> )   |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Hobblebush ( <i>Viburnum lentago</i> )                |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Nannyberry ( <i>Viburnum lentago</i> )                |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Guelder-Rose ( <i>Viburnum opulus</i> )               |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Downy Arrow-wood ( <i>Vib. rafinesquianum</i> )       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Riverbank Grape ( <i>Vitis riparia</i> )              |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   | Am. Prickly-ash ( <i>Zanthoxylum americanum</i> )     |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
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|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |
|                                                   |   |   |   |   |   |                                                       |   |   |   |   |   |                                                      |   |   |   |   |   |

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# Significant Wildlife Habitat Form

Re-visit Nest Bowls

AECOM

|                     |                      |     |     |                |             |
|---------------------|----------------------|-----|-----|----------------|-------------|
| Study Area:         | BLW                  | JER | GSH | Map #:         | 720-GSH3062 |
| Date:               | 17-May-2012          |     |     | Time Started:  | 1:10 p.m.   |
| Field Staff:        | J. Kamstra + A. Dart |     |     | Time Finished: | 1:20 pm     |
| Weather Conditions: | Sunny, 18°C.         |     |     |                |             |

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

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

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

UTMs: 0472612, 478314 ±3m

Number of nests: 1

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

Large stick nest in Ash. Fresh maple sap indicates nest is actually most likely RTHA because small isolated woodlot

Description of habitat (note riparian areas if present, evidence of disturbance): White Ash - Sugar Maple

red-tailed hawk.

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

(CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2)

(FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FEO1)

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

UTMs: ☐ Area of standing water delineated on field map

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

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

Area and soil/substrate of shoreline habitat:

Type and abundance of cover in open water habitat:

Type and abundance of cover in surrounding habitat:

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

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

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

## Snake Hibernacula

Fissured rock/foundation or rock/debris pile present:

☐ No

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

UTMs:

Likelihood to extend below frost line:

% canopy cover:

% slope:

Distance to open canopy (m):

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

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

## Seeps and Springs

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

Evidence of seep or spring: ☐ No

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

UTMs:

Description (indicator species, etc):

\*Additional Bird calls heard are noted on back sheet

# 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 |
|---------|---------------------|-----------|---------------------|
| SOSP    | calley              | AMRO      |                     |
| EWPE    | "                   | AMGO      |                     |
| GCFL    | "                   | RBWD      |                     |
| BAOR    | "                   | Red Arrow |                     |
| HOWR    | "                   | Cableway  |                     |
| COGR    | "                   |           |                     |
| BLJA    | "                   |           |                     |
| POWD    | "                   |           |                     |
| EUST    | "                   |           |                     |





