

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, 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

A=COM

Time Started:

Time Finished:

Observed Species List

[illegible]

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

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

Breeding Bird (Confirmed) DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=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. S=Other signs (specify)

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
PLANTS			
FOD7	American Gromwell (<i>Lithospermum latifolium</i>) - S3 <u>Bloom Time - Spring</u>	shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y N UTM:
ALO, TPO	Muehlenberg's astomum moss (<i>Astomum muehlenbergianum</i>) - S2 Bloom Time - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie	Y N UTM:
FOM1, FOM2, CUP3	Autumn Coral-root (<i>Corallorhiza odontorhiza</i>) - S2 <u>Bloom Time - summer to fall</u>	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.	Y N UTM:
FOC, FOM, FOD	Burning Bush (<i>Euonymus atropurpureus</i>) - S3 Bloom <u>Time - April - June</u>	Species occurs in dry to moist deciduous thickets and wood	Y N UTM: No
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (<i>Corioselinum chinense</i>) - S2 <u>Bloom Time - summer to fall</u>	wampy places with deciduous trees, white cedars, tamarack, springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes	Y N UTM:
SWC, SWM, SWD, SWT, MAM, MAS	Crowned Beggarticks (<i>Bidens trichosperma</i>) -S2 <u>Bloom Time - late summer</u>	found in openings in swamps, marshes, along shores & wet fields within the Carolinian zone and southeastern Georgian bay. Boggs, fens, tamarack swamps	Y N UTM:
ALT1, FOD7	Eastern Green-violet (<i>Hybanthus concolor</i>) - S2 Bloom <u>Time -mid March to August</u>	Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone includes floodplains and river banks.	Y N UTM:
TPS, TPW, FOM1, FOM2	Fogg's Goosefoot (<i>Chenopodium foggii</i>) -S2	Species occurs in sandy areas on limestone under oak or pine-oak forests	Y N UTM:
TPQ2, TPS2, TPW2	Giant Ironweed (<i>Vernonia gigantea</i>) -S17 Bloom Time-	Found in mesic marshes, thickets, moist woods, roadsides and grassy meadows	Y N UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM, FOD6, FOD7, FOD9	June – August Green Dragon (<i>Arisaema dracontium</i>) - 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	June-August Hairy Bedstraw (<i>Galium pilosum</i>) -S3 <u>Bloom Time</u> – June-August	Occurs in dry, sandy woods and thickets, occasionally in dry sandy fields	Y N UTM:
FE01, 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>Eriogon 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, FOD9, CUM1	Pilose Evening Primrose (<i>Oenothera pilosella</i>) -S2 <u>Bloom Time</u> – Late Spring – Early Summer	Moist edges of woods and open, disturbed ground.	Y N UTM:
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	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:
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 lamarina</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, FOD5, FOD9	Slim-flowered Muhly (<i>Muhlenbergia tenuiflora</i>) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y N UTM:
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>Gentiana quinquefolia</i>) - S2 <u>Bloom Time</u> – late summer to mid fall	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	Y N UTM:
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine (<i>Lupinus perennis</i>) - S3 <u>Bloom Time</u> – mid-March to mid-June	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	Y N UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

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TP01, TP51, TPW1, CUM1	Tail Blazing Star (<i>Liatris aspera</i>)-S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y N UTM
FE0, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>Arnoglossum plantagineum</i>) - S3 Bloom Time – mid-March to mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Pans, wet meadows, and calcareous river flats.	Y N UTM
FOC1, FOC2, FOC3, FOC4	Woodland Pinedrops (<i>Pterospora andromedea</i>) - S2 Bloom Time – summer	Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.	Y N UTM
CUM1, CUT1, CUW1, RBO1, SBO1	Yellow Ladies'-tresses (<i>Spiranthes ochroleuca</i>) - S2 Bloom Time – August to November	Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields	Y N UTM
BIRDS			
-	Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk (<i>Chordeiles minor</i>) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y N UTM
FOD, FOM	Louisiana Waterthrush (<i>Selurus motacilla</i>) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y N UTM
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/ edges (oak savannahs and riparian forest), open, deciduous forest with little understory, fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh, requires about 4 ha for a territory.	Y N UTM
-	Short Eared Owl (<i>Asio flammeus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC	Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y N UTM
REPTILES			
-	Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Milksnake (<i>Lampropeltis triangulum</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Snapping Turtle (<i>Chelydra serpentina</i>) - SC	Assessed as SWH. Record species if found.	not required.
INSECTS			
OAO, SA, SWM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) -S3	Species inhabits fishless ponds, lakes and boggy swamps	Y N UTM
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



AECOM

Figure 1

Goshen ELC Survey
661_GSH2433

May 2012
Project 60155032

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Map Number: 6616-243
Date: June 5 2012
Singer: J 43

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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

Date: 11 Aug 5, 2012

Surveyors: D + 7

**Plant Species List
2012**

Page 1 of 2

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

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Map Number: 111-1224-3 4
 Date: June 1, 2012 5
 Surveyor: P.T.S. 3

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

Significant Wildlife Habitat Form

AZCOM

Study Area:	BLW	JER	GSH	Map #:	651-GSH2433
Date:	2012-06-06			Time Started:	4:00 P.m.
Field Staff:	Tom Shale, Jess Pette			Time Finished:	5:30 P.m.
Weather Conditions: Partly Sunny, 16°C, Light wind					

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

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

UTMs: _____ Number of nests: _____

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present):
* After speaking with landowners, they had commented on Peregrine Falcons in woodlot (whether or not this is true, we were unable to confirm)

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

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

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

UTMs: _____ Area of standing water delineated on field map

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

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

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

Area and soil/substrate of shoreline habitat: Dry Pond, all soil pld. beds

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

Type and abundance of cover in surrounding habitat: Surrounding habitat F.D.S. consisting of Pear Trees, Ficus

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

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

Complete Vernal Pool Habitat Description Form

Snake Hibernacula * Great spot for potential snake hibernacula *

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

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

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

Description of fissure or stone pile (composition, material, dimensions, etc): Several Rock Piles, some flat stones, large rocks - within 100m SW

Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): FODS-1 Cattle grazing surrounding Rock Pile

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

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

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

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

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

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



No



Yes (if yes, photograph and complete the following)

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

AECOM

Significant Wildlife Habitat Form

Study Area:	BLW	JER	<u>GSH</u>	Map #:	<u>651-6542433</u>
Date:	<u>2017-06-01</u>			Time Started:	<u>7:28 a.m.</u>
Field Staff:	<u>Tom Shoben, Jess Rake</u>			Time Finished:	<u>1:00 a.m.</u>
Weather Conditions:	<u>Pa'n. Drilling Wind</u>				

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

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

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

UTMs: _____ Number of nests: _____

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

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

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

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

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

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

UTMs: _____ Area of standing water delineated on field map

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

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

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

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

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

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

A=COM

Time Started:

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

DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Food/Faecal sack, AE=Nest Entry

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, TK=Tracks, FE=Feeding evidence, SC= Scat, SI=Other signs (specify)

GSH-SOCC And Incidental Wildlife 2012-04-13 FINAL Docx

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM, FOD6, FOD7, FOD9	June – August Green Dragon (<i>Arisaema dracontium</i>) - 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	June-August Hairy Bedstraw (<i>Galium pilosum</i>) -S3 <u>Bloom Time</u> - June-August	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y (N) UTM:
FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	June to August Hairy Valerian (<i>Valeriana edulis</i>) - S1 <u>Bloom Time</u> - June to August	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.	Y (N) UTM:
FOD6, FOD7, SWM, SWD	Summer Hairy Wood Mint (<i>Blephilia hirsuta</i>) - S1 <u>Bloom Time</u> - Summer	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Eriogon 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, FOD9, CUM1	Pilose Evening Primrose (<i>Oenothera pilosella</i>) -S2 <u>Bloom Time</u> - Late Spring - Early Summer	Moist edges of woods and open, disturbed ground.	Y (N) UTM:
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	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:
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, FOD8, 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, FOD5, FOD9	Slim-flowered Muly (<i>Muhlenbergia tenuiflora</i>) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y (N) UTM:
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>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 of Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC	Species	Habitat Description	Habitat Present (Y/N): UTM: description of habitat if present
TP01, TPS1, TPW1, CUM1	Tail Blazing Star (<i>Liatris aspera</i>) - S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y ☐ N ☐ UTM:
FEO, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>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			
-	Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk (<i>Chordeiles minor</i>) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y ☐ N ☐ UTM:
FOD, FOM	Louisiana Waterthrush (<i>Selurus motacilla</i>) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y ☐ N ☐ UTM:
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/edges (oak savannahs and riparian forest), open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	Y ☐ N ☐ UTM:
-	Short Eared Owl (<i>Asio flammeus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC	Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y ☐ N ☐ UTM:
REPTILES			
-	Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Milksnake (<i>Lampropeltis triangulum</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Snapping Turtle (<i>Chelydra serpentina</i>) - SC	Assessed as SWH. Record species if found.	not required.
INSECTS			
QAO, SA, SWM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) - S3	Species inhabits fishless ponds, lakes and boggy swamps	Y ☐ N ☐ UTM:
TPS, TPW	Sleepy Duskywing (<i>Erynnis tizze</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>Asclepias</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y ☐ N ☐ UTM:
TPS, CUW	Mottled Duskywing (<i>Erynnis martialis</i>) - S2	Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	Y ☐ N ☐ UTM:
SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor (<i>Asterocampa clyten</i>) - S3	Species inhabits densely wooded riparian areas, dry woods, open woods, 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:

COPY



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: 612 612/243 1 F0D5-6 4
Date: 3 2
Site name: 3 5

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 pennsylvanica</i>)						<i>Ranunculus</i>					
Field Pussytoes (<i>Antennaria neglecta</i>)						<i>Cardamine</i>						Sheep Sorrel (<i>Rumex acetosella</i>)					
<i>Artemisia</i>						Blue Cohosh (<i>Caulophyllum thalictroides</i>)						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>Conyza canadensis</i>)						Field Bindweed (<i>Convolvulus arvensis</i>)						Hemlock Water-parsnip (<i>Sium suave</i>)					
Daisy Fleabane (<i>Erigeron annuus</i>)						Dog-strangling Vine (<i>Cynanchum rossicum</i>)						Bitter Nightshade (<i>Solanum dulcamara</i>)					
Philadelphia Fleabane (<i>Erig. philadelphicus</i>)						Wild Carrot (<i>Daucus carota</i>)						Black Nightshade (<i>Solanum ptychanthum</i>)					
<i>Erigeron</i>						Deptford Pink (<i>Dianthus armeria</i>)						Grassleaf Stitchwort (<i>Stellaria graminea</i>)					
Joe-pye-weed (<i>Eupatorium maculatum</i>)						Squirrel-corn (<i>Dicentra canadensis</i>)						Common Chickweed (<i>Stellaria media</i>)					
Boneset (<i>Eupatorium perfoliatum</i>)						Dutchman's-breeches (<i>Dicentra cucullaria</i>)						Early Meadow-rue (<i>Thalictrum dioicum</i>)					
Large-leaved Aster (<i>Eurybia macrophylla</i>)						Wild Teasel (<i>Dipsacus fullonum</i>)						Tall Meadow-rue (<i>Thalictrum pubescens</i>)					
Flat-top Goldenrod (<i>Euthamia graminifolia</i>)						Wild Cucumber (<i>Echinocystis lobata</i>)						Field Penny-cress (<i>Thlaspi arvense</i>)					
Orange Hawkweed (<i>Hieracium aurantiacum</i>)						Viper's Bugloss (<i>Echium vulgare</i>)						Foamflower (<i>Tiarella cordifolia</i>)					
Field Hawkweed (<i>Hieracium caespitosum</i>)						Northern Willow-herb (<i>Epilobium ciliatum</i>)						Star-flower (<i>Trientalis borealis</i>)					
<i>Hieracium</i>						Hairy Willow-herb (<i>Epilobium hirsutum</i>)						Red Clover (<i>Trifolium pratense</i>)					
Elecampane (<i>Inula helenium</i>)						Small-fl. Willow-herb (<i>Epilobium parviflorum</i>)						White Clover (<i>Trifolium repens</i>)					
Prickly Lettuce (<i>Lactuca 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 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>)						<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>)						Penwinkle (<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>Symph. yotrichum ericoides</i>)						Wood Nettle (<i>Laportea canadensis</i>)											
Tall White Aster (<i>Symph. lanceolatum</i>)						Motherwort (<i>Leonurus cardiaca</i>)											
Calico Aster (<i>Symph. yotrichum lateriflorum</i>)						Field Peppergrass (<i>Lepidium campestre</i>)											
New England Aster (<i>Symph. novae-angliae</i>)						Eur. Gromwell (<i>Lithospermum officinale</i>)											
Purple-stem Aster (<i>Symph. puniceus</i>)						Butter & Eggs (<i>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>)						Water-plantain (<i>Alisma plantago-aquatica</i>)					
Coltsfoot (<i>Tussilago farfara</i>)						Northern Bugleweed (<i>Lycopus uniflorus</i>)						Wild Leek (<i>Allium tricoccum</i>)					
						Fringed Loosestrife (<i>Lythrum filicula</i>)						Jack-in-the-pulpit (<i>Arisaema triphyllum</i>)					
						Moneywort (<i>Lythrum nummularia</i>)						Asparagus (<i>Asparagus officinalis</i>)					
						<i>Lythrum</i>						Wild Calla (<i>Calla palustris</i>)					
						Purple Loosestrife (<i>Lythrum salicaria</i>)						Bluebead-lily (<i>Clintonia borealis</i>)					
						Black Medick (<i>Medicago lupulina</i>)						Garden Lily-of-the-valley (<i>Convallaria majalis</i>)					
						Alfalfa (<i>Medicago sativa</i>)						Yel. Lady's Slipper (<i>Cypripedium parviflorum</i>)					
						White Sweet-clover (<i>Melilotus alba</i>)						Canada Waterweed (<i>Elodea canadensis</i>)					
						Yellow Sweet-clover (<i>Melilotus officinalis</i>)						Helleborine (<i>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>Heemerocallis fulva</i>)					
						Forget-me-not (<i>Myosotis scorpioides</i>)						Lesser Duckweed (<i>Lemna minor</i>)					
						Water-cress (<i>Nasturtium officinale</i>)						Starry Duckweed (<i>Lemna trisulca</i>)					
						Com. Evening-primrose (<i>Oenothera biennis</i>)						Wild Lily-of-the-valley (<i>Maianthemum canadense</i>)					
						Sweet-cicely (<i>Osmorhiza berterii</i>)						False Solom Seal (<i>Maianthemum racemosum</i>)					
						Yellow Wood-sorrel (<i>Oxalis stricta</i>)						Star False Solomon (<i>Maianthemum stellatum</i>)					
						Wild Parsnip (<i>Pastinaca sativa</i>)						True Solomon Seal (<i>Polygonatum pubescens</i>)					
						English Plantain (<i>Plantago lanceolata</i>)						Pickering-weed (<i>Pontederia cordata</i>)					
						Common Plantain (<i>Plantago major</i>)						Curly-leaf Pondweed (<i>Potamogeton crispus</i>)					
						Rugel's Plantain (<i>Plantago rugelii</i>)						Sago Pondweed (<i>Potamogeton pectinatus</i>)					
						May-apple (<i>Podophyllum peltatum</i>)						<i>Potamogeton</i>					
						Pale Smartweed (<i>Polygonum lapathifolium</i>)						<i>Potamogeton</i>					
						Lady's-thumb (<i>Polygonum persicaria</i>)						Broad-leaved Arrowhead (<i>Sagittaria latifolia</i>)					
						Virginia Knotweed (<i>Polygonum virginianum</i>)						Blue-eyed-grass (<i>Sisyrinchium montanum</i>)					
						<i>Polygonum</i>						Herb. Carnion Flower (<i>Smilax herbacea</i>)					
						<i>Polygonum</i>						Bristly Greenbrier (<i>Smilax hispida</i>)					
						Rough Cinquefoil (<i>Potentilla norvegica</i>)						Nodding Ladies' Tresses (<i>Spiranthes cernua</i>)					
						Rough-fruited Cinquefoil (<i>Potentilla recta</i>)						Rose Twisted-stalk (<i>Streptopus lanceolatus</i>)					
						Common Cinquefoil (<i>Potentilla simplex</i>)						Skunk-cabbage (<i>Symplocarpus foetidus</i>)					
						<i>Potentilla</i>						Purple Trillium (<i>Trillium erectum</i>)					
						Heat-all (<i>Prunella vulgaris</i>)						White Trillium (<i>Trillium grandiflorum</i>)					
						Shinleaf (<i>Pyrola elliptica</i>)						Large-flowered Bellwort (<i>Uvularia grandiflora</i>)					

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

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

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

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

Map Number: ZGH2432/2435

Date: May 31, 2012

Surveyors: PJS

Significant Wildlife Habitat Form

AECOM

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

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

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

UTMs: _____ Number of nests: _____

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

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

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

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

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

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

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

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

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

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

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

Complete Vernal Pool Habitat Description Form

Snake Hibernacula

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

UTMs: _____ Likelihood to extend below frost line: _____

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

Description of fissure or stone pile (composition/material, 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

A=COM

11.43 P.

5420

Observed Species List

[illegible]

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

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

DD=Distraction NI=Used Nest EV=Eledged Young NE=Eggs NV=Young ES=Eggs/Eggsal sack AE=Not Entry,

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

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

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

AECOM

ELC	Species	Habitat Description	Habitat Present (Y/N: UTM: description of habitat if present)
CUM1, MAM, FOD6, FOD7, FOD9	June – August Green Dragon (Arisaema dracontium) - 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, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	June-August Hairy Bedstraw (Galium pilosum) -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 Hairy Valerian (Valeriana edulis) - 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 Hairy Wood Mint (Blephilia hirsuta) –S1 Bloom Time– Summer	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (Erigenia bulbosa) - S3 Bloom Time – early to late April	Occurs in rich, moist deciduous woods, especially on floodplains.	Y (N) UTM:
SAS1, SAM1, SAF1	Hill's Pond Weed (Potamogeton hillii) - SC/S2 Bloom Time – summer	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y (N) UTM:
FOM6, FOM7, FOM8	Large Round-leaved Orchid (Platanthera macrophylla) - 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 (Saururus cernuus) - S3 Bloom Time – June – September	Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, shallow water and mudflats at the borders of streams and ponds.	Y (N) UTM:
FOD6, FOD7, FOD9	Pawpaw (Asimina triloba) –S3 Bloom Time – March-May	Occurs in moist deciduous woods and stream banks.	Y (N) UTM:
FOM8, FOD6, FOD7, FOD9, CUM1	Pilose Evening Primrose (Oenothera pilosella) -S2 Bloom Time – Late Spring – Early Summer	Moist edges of woods and open, disturbed ground.	Y (N) UTM:
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostrate Tick-trefoil (Desmodium rotundifolium) -S2 Bloom Time – July-September	Dry, sandy or rocky woods	Y (N) UTM:
FOD7, SWD	Pumpkin Ash (Fraxinus profunda)-S2? Bloom Time – March – June	Swamps and floodplains	Y (N) UTM:
CUM1, ALO, FET1, SWC	Ram's-head Lady's-slipper (Cypripedium arietinum) - S3 Bloom Time –mid May to mid June	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.	Y (N) UTM:
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5	Rattlesnake Hawkweed (Hieracium venosum) - S2 Bloom Time – April – September	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.	Y (N) UTM:
FOD6, FOD7, FOD9	Round-leaved Groundsel (Packera obovata) –S3 Bloom Time– May – June	Found in moist woods	Y (N) UTM:
CUM1, CUT1, CUS1	Round-leaved hawthorn (Crataegus lumaria) –S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y (N) UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm (Monarda didyma) - S3 Bloom Time – May to October	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y (N) UTM:
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star (Liatris cylindracea) –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 (Polygonum tenue)-S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits	Y (N) UTM:
SDT1, FOD5, FOD9	Slim-flowered Muly (Muhlenbergia tenuiflora) - S2	Found in rich deciduous forest often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y (N) UTM: N/O
BL01, BL51, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (Gentianella quinquefolia) - S2 Bloom Time – late summer to mid fall	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	Y (N) UTM:
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine (Lupinus perennis) - S3 Bloom Time – mid-March to mid-June	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	Y (N) UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
TP01, TPS1, TPW1, CUM1	Tall Blazing Star (<i>Liatris aspera</i>) - S2/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y ☒ UTM:
FEO, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>Arnoglossum plantaginifolium</i>) - S3 Bloom Time - mid-March to mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	Y ☒ 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 ☒ 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 ☒ 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	Units insects over a wide variety of habitats, in particular open or semi-open areas. Feeds on ground in a wide range of open, sparse or vegetated tree habitats.	Y ☒ 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 ☒ 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 ☒ UTM:
-	Short Eared Owl (<i>Asio flammeus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC	Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y ☒ 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			
OAD, SA, SWM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) - S3	Species inhabits fishless ponds, lakes and boggy swamps	Y ☒ UTM:
TPS, TPW	Sleepy Duskywing (<i>Erynnis brize</i>) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles	Y ☒ 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 ☒ 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 ☒ UTM:
SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor (<i>Asterocampa clytem</i>) - S3	Species inhabits densely wooded riparian areas, dry woods, open woods, fence rows and parks. Usually occurs near Hackberry, the larval foodplant	Y ☒ 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 ☒ UTM:



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: 695 G-H 276/130M	1	FDD 5-6	4
Date: May 3, 2012	2		8
Surveyors: C.H. BA	3		

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		5
Surveyors:	3		

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW JER <u>GS</u>	Map #:	695 G-4 2769/3019
Date:	May 3, 2012	Time Started:	12:30 pm
Field Staff:	SE/RA	Time Finished:	1:30 pm
Weather Conditions:	21°C, 70% 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):

See hibernacula sheet x2

Seeps and Springs

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

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

UTMs: _____ Description (indicator species, etc):

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

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

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

☒ No

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

UTMs: _____

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

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

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

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

Shoreline of lake, large river or large wetland present:

☒ No

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

UTMs: _____

Rocky island or peninsula present: _____

Mudflat present: _____

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

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

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

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

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

Large open habitat present: ☒ No

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

UTMs: _____

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

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

Old-growth or Mature Forests, Interior Forest Breeding Birds

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

Mature forest present: ☒ No

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

UTMs: _____

Age of oldest trees: _____

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

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

Photo #	Location or Subject	Photo #	Location or Subject

Species Conservation Concern Habitat and Incidental Wildlife - Goshen

Map No: 695-GS12769/3019

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

Field Staff: RA, SG

Time Started: 12:30 PM

Time Finished: 1:30 PM

Observed Species List

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

Note: Evidence Codes (EV)

Breeding Bird (Possible)

SH=Suitable Habitat, SM=Singling Male;

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

DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foss/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 des-ription o habitat if present
PLANTS			
FOD7	American Gromwell (Lithospermum latifolium) - S3 Bloom Time - Spring	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y (N) UTM:
ALO, TPO	Muehlenberg's astomum moss (Astomum muehlenbergianum) - S2 Bloom Time - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie	Y (N) UTM:
FOM1, FOM2, CUP3	Autumn Coral-root (Corallorhiza odontorhiza) - S2 Bloom Time - summer to fall	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.	Y (N) UTM:
FOC, FOM, FOD	Burning Bush (Euonymus atropurpureus) - S3 Bloom Time - April - June	Species occurs in dry to moist deciduous thickets and woods	Y (N) UTM: 17T 0468725, 4796219
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (Conioselinum chinense) - S2 Bloom Time - summer to fall	Swampy places with deciduous trees, white cedars, tamarack; springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes.	Y (N) UTM:
SWC, SWM, SWD, SWT, MAM, MAS	Crowned Beggarticks (Bidens trichosperma) - S2 Bloom Time - late summer	Found in openings in swamps, marshes, along shores & wet fields within the Carolinian zone and southeastern Georgian bay. Bogs, fens, tamarack swamps	Y (N) UTM:
ALT1, FOD7	Eastern Green-violet (Hybanthus concolor) - S2 Bloom Time - mid March to August	Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone. Includes floodplains and river banks.	Y (N) UTM:
TPS, TPW, FOM1, FOM2	Fogg's Goosefoot (Chenopodium foggii) - S2	Species occurs in sandy areas on limestone under oak or pine-oak forests	Y (N) UTM:
TPO2, TPS2, TPW2,	Giant Ironweed (Vernonia gigantea) - S17 Bloom Time -	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y (N) UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

AECOM

ELC	Species	Habitat Description	Habitat Presence (Y/N) UTM description of habitat if present
CUM1, MAM,	June – August		
FOD6, FOD7, FOD9	Green Dragon (<i>Arisaema dracontium</i>) - SC/S3 <u>Bloom Time</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:
TPO1, TPS1, TPW1,	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:
FOM1, FOM2, FOD1, FOD2, FOD3			
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>Erigenia bulbosa</i>) - S3 <u>Bloom Time</u> – early to late April	Occurs in rich, moist deciduous woods, especially on floodplains.	Y (N) UTM:
SAS1, SAM1, SAF1	Hill's Pond Weed (<i>Potamogeton hillii</i>) - 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, FOD9, CUM1	Pilose Evening Primrose (<i>Oenothera pilosella</i>) - S2 <u>Bloom Time</u> – Late Spring – Early Summer	Moist edges of woods and open, disturbed ground.	Y (N) UTM:
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	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 sandy
FOD6, FOD7, FOD9	Round-leaved Groundsel (<i>Packera obovata</i>) - S3 <u>Bloom Time</u> – May – June	Found in moist woods	Y (N) UTM:
CUM3, CUT1, CUS1	Round-leaved hawthorn (<i>Crataegus lumarina</i>) - S3?	Species occurs in old fields, <u>poorly managed pasture</u> , <u>fencelines</u> and roadsides	Y (N) UTM: <u>UNO-T</u> <u>leave</u> <u>NO</u> (not observed)
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 dolomite pavement, prairies, open woods, alvars and moist sandy meadows.	Y (N) UTM:
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed (<i>Polygonum tenue</i>) - S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows; at edges of sand pits	Y (N) UTM:
SDT1, FOD5, FOD9	Slim-flowered Muhly (<i>Muhlenbergia tenuiflora</i>) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y (N) UTM: 100 Disturbed
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>Gentianella quinquefolia</i>) - S2 <u>Bloom Time</u> – late summer to mid fall	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	Y (N) UTM:
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine (<i>Lupinus perennis</i>) - S3 <u>Bloom Time</u> – mid-March to mid-June	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	Y (N) UTM:

Species Conservation Concern Habitat and Incidental Wildlife - Goshen

A. DM

ELC	Species	Habitat Description	Habitat Present (Y/N) UTM	UTM description of habitat if present
TP01, TPS1, 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>Amorpha canescens</i>) - S3 Bloom Time - mid-March to mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	Y (N) UTM:	Not Sandy
FOC1, FOC2, FOC3, FOC4	Woodland Phlox (Pteris aquilina) - S2 Bloom Time - summer	Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.	Y (N) UTM:	
CUM1, CUT1, CUW1, RBO1, SBO1	Yellow Ladies'-tresses (<i>Spiranthes ochroleuca</i>) - S2 Bloom Time - August to November	Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.	Y (N) UTM:	Not Dry
BIRDS				
-	Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC	Assessed as SWH. Record species if found.	not required.	
CUW, SDO, RBO, TPS	Common Nighthawk (<i>Chordeiles minor</i>) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y (N) UTM:	
FOD, FOM	Louisiana Waterthrush (<i>Selurus motacilla</i>) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration.	Y (N) UTM:	Not Native
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/edges (oak savannahs and riparian forest), open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	Y (N) UTM:	
-	Short Eared Owl (<i>Asio flammeus</i>) - SC	Assessed as SWH. Record species if found.	not required.	
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC	Inhabits thickets, tall tangles of shrubbery beside streams, ponds, overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines.	Y (N) UTM:	
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				
DAO, 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>Asclepias</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow.	Y (N) UTM:	No Milkweed
TPS, CUW	Mottled Duskywing (<i>Erynnis martialis</i>) - S2	Usually seen reclining 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:	No Toothwort



Page 1 of 2

Trees & Shrubs	1	2	3	4	5	Trees & 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>A. rostris plantae</i>)					
Common Juniper (<i>Juniperus communis</i>)						Bur Oak (<i>Quercus macrocarpa</i>)						Redtop (<i>A. rostris stolonifera</i>)					
Eastern Red Cedar (<i>Juniperus virginiana</i>)						Red Oak (<i>Quercus rubra</i>)						Awnless Brome (<i>Bromus inermis</i>)					
Tamarack (<i>Larix laricina</i>)						Alder Buckthorn (<i>Rhamnus alnifolia</i>)						Bromus					
Norway Spruce (<i>Picea abies</i>)						Common Buckthorn (<i>Rhamnus cathartica</i>)						Blue Joint Grass (<i>Calamagrostis canadensis</i>)					
White Spruce (<i>Picea mariana</i>)						Smooth Sumac (<i>Rhus glabra</i>)						Orchard Grass (<i>Dactylis glomerata</i>)					
Black Spruce (<i>Picea mariana</i>)						Starhorn 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 Ryegrass (<i>Elymus virginicus</i>)					
Eastern White Pine (<i>Pinus strobus</i>)						Swamp Black Currant (<i>Ribes lacustre</i>)						<i>Elymus</i>					
Scotch Pine (<i>Pinus sylvestris</i>)						Red Currant (<i>Ribes rubrum</i>)											
Canada Yew (<i>Taxus canadensis</i>)						<i>Ribes</i>						Fowl Manna Grass (<i>Glyceria striata</i>)					
Eastern White Cedar (<i>Thuja occidentalis</i>)						Black Locust (<i>Robinia pseudo-acacia</i>)						<i>Glyceria</i>					
Eastern Hemlock (<i>Tsuga canadensis</i>)						Prickly Rose (<i>Rosa acicularis</i>)						Rice Cut Grass (<i>Leersia oryzoides</i>)					
						Smooth Rose (<i>Rosa blanda</i>)						Tall Fescue (<i>Lolium arundinaceum</i>)					
						Multiflora Rose (<i>Rosa multiflora</i>)						Muhlenbergia					
						<i>Rosa</i>						Witch Grass (<i>Panicum capillare</i>)					
						Com. Blackberry (<i>Rubus allegheniensis</i>)						<i>Panicum</i>					
						Wild Red Raspberry (<i>Rubus idaeus</i>)						Reed Canary Grass (<i>Phalaris arundinacea</i>)					
						Black Raspberry (<i>Rubus occidentalis</i>)						Timothy (<i>Phleum pratense</i>)					
						Purple-fl. Raspberry (<i>Rubus odoratus</i>)						Common Reed (<i>Phragmites australis</i>)					
						Dwarf Raspberry (<i>Rubus ulmifolius</i>)						Canada Blue Grass (<i>Poa compressa</i>)					
						<i>Rubus</i>						Fowl Meadow Grass (<i>Poa pulstris</i>)					
						Peach-leaved Willow (<i>Salix amygdaloides</i>)						Kentucky Bluegrass (<i>Poa pratensis</i>)					
						Bebb's Willow (<i>Salix bebbiana</i>)						Yellow Foxtail (<i>Setaria pumila</i>)					
						Pussy Willow (<i>Salix discolor</i>)						Green Foxtail (<i>Setaria viridis</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 radicans</i>)											
						Climbing Poison-ivy (<i>Toxicodendron radicans</i>)											
						White Elm (<i>Ulmus americana</i>)											
						Siberian Elm (<i>Ulmus umila</i>)											
						Slippery Elm (<i>Ulmus rubra</i>)											
						Low Blueberry (<i>Vaccinium angustifolium</i>)											
						Maple-leaf Viburnum (<i>Viburnum acerifolium</i>)											
						Hobblebush (<i>Viburnum lentanoides</i>)											
						Nannyberry (<i>Viburnum lentago</i>)											
						Guelder-Rose (<i>Viburnum opulus</i>)											
						Down Arrow-wood (<i>Vib. rafinesquianum</i>)											
						Riverbank Grape (<i>Vitis riparia</i>)											
						Am. Prickly-ash (<i>Zanthoxylum americanum</i>)											
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