

Species Conservation Concern Habitat and Incidental Wildlife – Goshen

AM

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:
FEO, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>Amorhossium 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 wooded 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. Nesting in 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			
OA0, 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:

COPY



- Legend**
- Property Boundary
 - GE Turbine
 - ELC Completed 2011
 - Natural Feature and ID
 - ELC Polygon Boundary
 - Disturbance Areas
 - Area of Disturbance, plus 10m
 - ANSI
 - Evaluated Wetlands - PSW
 - ABCA Watercourse



Basemapping from Ontario Ministry of Natural Resources
 Orthophotography 2010



UTM Zone 17N NAD 83
 12,500
 0 25 50 100
 Metres

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ELC
 Goshen Amphibian Survey
 220_GSH1539

April 2012
 Project 00155032

AECOM

Figure 1

ELC	Community Description and Classification	UTMZ:	UTMN:
		UTMZ:	UTMN:
Map #:	Surveyor(s):	Date:	Polygon:
	SG, RA	April 26, 2012	220 GSH 1539.
		Time start:	
		finish:	
			8:00 am.
			8:30 am.

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

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp) ($\gg$ Much Greater Than; $>$ Greater Than; $\approx$ About Equal To)
1	2	1	Picab P n r
2			
3			
4	3	4	Bs s sp $\gg$ Phaeo and

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

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

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

Com. Age:	☒ Pioneer	☐ Young	☐ Mid-Age	☐ Mature	☐ Old Growth
Ecosite:					
Vegetation Type:	cultural meadow				
Inclusion:	mineral cultural meadow				
Complex:					
	Code:	cuml			
	Code:	cuml-1			
	Code:				
	Code:				

AS $\rightarrow$ (oaks) side
- cultural meadow adjacent to stream and field.

Notes:

[illegible][illegible]

ASA

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW JER <u>GSH</u>	Map #:	<u>220 GSH 1539</u>
Date:	<u>April 26, 2012</u>	Time Started:	<u>8:30 am</u>
Field Staff:	<u>SG, RA</u>	Time Finished:	<u>9:00 am</u>
Weather Conditions:	<u>overcast, 8°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: _____

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

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

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

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

Complete Vernal Pool Habitat Description Form

Snake Hibernacula

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

UTMs: _____ Likelihood to extend below frost line: _____

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

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

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

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

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

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

NHA Site Investigation - Significant Wildlife Habitat Form

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

AI CM

Time Started:

Time Finished: 2:30

Time Finished: 2:30

[illegible]

=Suitable Habitat, SM=Singing Male;

territory. D=Display. P=Pair. N=Nest Building. V=Visiting Nest. A=Anxiety Behavior.

Breeding Bird (Confirmed)

used $VN \equiv$ Vocalization $CA \equiv$ Carrass $NP \equiv$ Nisticutive Parts $HQ \equiv$ House/Man $FV \equiv$ Eggs/young TK tracks $EE \equiv$ Feeding evidence $SC \equiv$ Seat $SI \equiv$ Other

[illegible]

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: NO
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 NO
FOM1, FOM2, CUP3	Autumn Coral-root (<i>Coralorrhiza 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 NO
FOC, FOM, FOD	Burning Bush (<i>Euonymus atropurpureus</i>) - S3 <u>Bloom Time - April - June</u>	Species occurs in dry to moist deciduous thickets and woods	Y (N) UTM NO
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (<i>Conioselinum chinense</i>) - S2 <u>Bloom Time - summer to fall</u>	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 NO
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 Bogs, fens, tamarack swamps	Y (N) UTM NO
ALT1, FOD7	Eastern Green-violet (<i>Hybanthus concolor</i>) - S2 <u>Bloom 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 NO
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 NO
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 (N) UTM NO

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM,	June – August		
FOD6, FOD7, FOD9	Green Dragon (<i>Arisaema dracontium</i>) - SC/S3 <u>Bloom Time – May and June</u>	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	Y (N) UTM NO
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Hairy Bedstraw (<i>Galium pilosum</i>) - S3 <u>Bloom Time – June-August</u>	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y (N) UTM NO
FEOT, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	Hairy Valerian (<i>Valeriana edulis</i>) - S1 <u>Bloom Time – June to August</u>	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.	Y (N) UTM NO
FOD6, FOD7, SWM, SWD	Hairy Wood Mint (<i>Blephilia hirsuta</i>) - S1 <u>Bloom Time – Summer</u>	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains	Y (N) UTM NO
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Engelmannia bulbosa</i>) - S3 <u>Bloom Time – early to late April</u>	Occurs in rich, moist deciduous woods, especially on floodplains.	Y (N) UTM NO
SAS1, SAM1, SAF1	Hill's Pond Weed (<i>Potamogeton hillii</i>) - SC/S2 <u>Bloom Time – summer</u>	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y (N) UTM: NO
FOM6, FOM7, FOM8	Large Round-leaved Orchid (<i>Platanthera macrophylla</i>) - S2 <u>Bloom Time – June to August</u>	Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.	Y (N) UTM: NO
MAM2, MAM3, MAS2, MAS3, SWD	Lizard's Tail (<i>Saururus cernuus</i>) - S3 <u>Bloom Time – June – September</u>	Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, shallow water and mudflats at the borders of streams and ponds.	Y (N) UTM: NO
FOD6, FOD7, FOD9	Pawpaw (<i>Asimina triloba</i>) - S3 <u>Bloom Time – March-May</u>	Occurs in moist deciduous woods and stream banks.	Y (N) UTM NO
FOM8, FOD6, FOD7, FOD9, CUM1	Pilose Evening Primrose (<i>Oenothera pilosella</i>) - S2 <u>Bloom Time – Late Spring – Early Summer</u>	Moist edges of woods and open, disturbed ground	(Y) N UTM NO
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostrate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 <u>Bloom Time – July-September</u>	Dry, sandy or rocky woods	Y (N) UTM NO
FOD7, SWD	Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? <u>Bloom Time – March – June</u>	Swamps and floodplains	Y (N) UTM NO
CUW1, ALO, FET1, SWC	Ram's-head Lady's-slipper (<i>Cypripedium arietinum</i>) - S3 <u>Bloom Time – mid May to mid June</u>	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren	Y (N) UTM NO
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5	Rattlesnake Hawkweed (<i>Hieracium venosum</i>) - S2 <u>Bloom Time – April – September</u>	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.	Y (N) UTM NO
FOD6, FOD7, FOD9	Round-leaved Groundsel (<i>Packera obovata</i>) - S3 <u>Bloom Time – May – June</u>	Found in moist woods	Y (N) UTM NO
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 NO
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm (<i>Monarda didyma</i>) - S3 <u>Bloom Time – May to October</u>	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y (N) UTM NO
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: NO
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 NO
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 NO
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>Gentianella quinquefolia</i>) - S2 <u>Bloom Time – late summer to mid fall</u>	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides	Y (N) UTM NO
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine (<i>Lupinus perennis</i>) - S3 <u>Bloom Time – mid-March to mid-June</u>	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen	Y (N) UTM NO

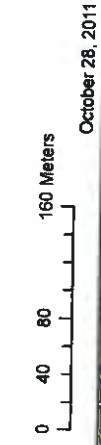
Species Conservation Concern Habitat and Incidental Wildlife – Goshen

ADOM

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: NO
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: NO
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: NO
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: NO
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: NO
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: NO
FOD, CUW, CUT	Red-headed Woodpecker (<i>Meelanerpes 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: NO
-	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: NO
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: NO
TPS, TPW	Sleepy Duskywing (<i>Erynnis brize</i>) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles	(Y) N UTM: NO
CUM1, CUT1, CUW1	Monarch Butterfly (<i>Danaus plexippus</i>) - SC	Their larvae only feed on milkweeds (<i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	(Y) N UTM: NO
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: NO
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: NO
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

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

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



- Roads
- Access/Collection Line
- Survey to be Completed
- Turbine Buffer (171.5m)

- ELC Survey Completed
- Turbine Buffer/Feature Inters
- Property Fabric
- Goshen Wind Energy Centre



235 GSH 1509

Kaunstru

Nov 9/2014

(2) Moist Decid Forest UTM - 446440 / 4791790

2-4 Carvat - Quercus - Fraxinus (Fraxinus?) FOD 9e:

3-3 Acer - Alnus

6-3 Crx spp Astlate Geucal

Soil 0-15 dark brown clay loam

15-35 Gray-brown clay.

Mottles 15 cm.

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

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

3-4 Acer - Alnus - Ostvrig

4-2 Faggen

(X) W. Ash - Shagbark Dec Forest UTM - 446450 / 4792010

1/2-4 Fraxinus > Carvat >> Faggen - Quercus FOD 9b?

3-3 Ostvrig > Acer -

225 GSH 1949

(W) Deciduous Forest UTM 446770 / 4791870

2-4 Carvat - Fraxinus FOD 9d?

3-4 Acer - Crataegus - Alnus - Fraxinus

4

6- Euobor - Crx - Geucal

Many oaks are dead or dying; hickories are large.

GSH1509

ELC WILDLIFE	SITE: <u>GSH1507 & GSH1508</u>			
	POLYGON:			
	DATE: <u>OCT 13 12011</u>			
	SURVEYORS:			
	START TIME: <u>16:30</u>	END TIME: <u>18:10</u>		
TEMP (°C): <u>17</u>		CLOUD (10th): <u>10</u>	WIND: <u>1</u>	PRECIPITATION:
CONDITIONS:				

POTENTIAL WILDLIFE HABITAT:

☒ VERNAL POOLS	☐ SNAGS
☐ HIBERNACULA	☒ FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#
B	BCCH	OB			M	WT Poon	TK		
	SOCP					November 9			
	AMRO								
	RBWO								
	BLJA				M	Gray Squid	OB		
	NOEL					E. Cotton-tail	OB		
	WCSP				H	Spring Peeper	VO		
	SWSP				B	SOCP	OB		
	AMCR				B	AMCR			
	KILL					BLJA			
						BCCH			
						POWO			
						AMGO			
	Spring Peeper	VO				SNBU		fly over	
						RUBL		insects	
						RWBL			
						TRSP			
						PEJU			

with addition

FAUNAL TYPE CODES (TY):

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

EVIDENCE CODES (EV):**BREEDING BIRD - POSSIBLE:**

SH = SUITABLE HABITAT

SM = SINGING MALE

BREEDING BIRD - PROBABLE:

T = TERRITORY

D = DISPLAY

P = PAIR

A = ANXIETY BEHAVIOUR

N = NEST BUILDING

V = VISITING NEST

BREEDING BIRD - CONFIRMED:

DD = DISTRACTION

NU = USED NEST

FY = FLEDGED YOUNG

NE = EGGS

NY = YOUNG

FS = FOOD/FECAL SACK

AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:

OB = OBSERVED

VO = VOCALIZATION

CA = CARCASS

DP = DISTINCTIVE PARTS

HO = HOUSE/DEN

FY = EGGS/YOUNG

TK = TRACKS

FE = FEEDING EVIDENCE

SC = SCAT

SI = OTHER SIGNS (specify)

226 - GSH1949

Goshen ELC SMN28



Tree Tally by Species

Community Designation and Classification	.lbt: 65H 43		Polygon: V 1	
	Surveyor(s): Jd, km	Date: July 13, 11	Time start:	finish:
	UTMZ:	UTMZ:	UTMN:	

Polygon Description

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

Stand Description

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	2	3	green ash.
2	4	4	red cedar - y green
3			
4			

HT Codes: 7 <0.2m 6 >0.2-0.5m 5 0.5-1m 4 >1-2m 3 >2-5m 2 >5-25m 1 >25m

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

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

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

Excellite:		Code:	SWD Z
Vegetation Type:	Green Ash Mixed Deciduous Swamp	Code:	SWD Z - Z
Inclusion:		Code:	
Comments:		Code:	

Community Profile Diagram/Comments

What was written

Notes:

Location: BN 1949-Feature 125
 Observer: JD+RM

VASCULAR PLANT CHECKSHEET

Date: July 13, 2011
 Job Number: _____

Observer: JD + KM	Job Number:												MONOCOT HERBS											
HERBS	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Abies balsamea																								
Actaea rubra																								
Agalinis																								
Agrimonia gryposepala																								
Alliaria petiolata																								
Amaranthus retrofractus																								
Ambrosia artemisiifolia																								
Amphicarpaea bracteata																								
Anaphalis margaritacea																								
Anemone																								
Anemone canadensis																								
Anemone virginiana																								
Antennaria neglecta																								
Apocynum androsaemifolium																								
Apocynum cannabinum																								
Aquilegia canadensis																								
Arnica montana																								
Aster cordifolius																								
Aster ericoides																								
Aster lanceolatus																								
Aster lateriflorus																								
Aster macrophyllus																								
Aster novae-angliae																								
Aster punctatus																								
Barbarea vulgaris																								
Bidens cernua																								
Bidens frondosa																								
Boschniakia cylindrica																								
Calla palustris																								
Castilleja septentrionalis																								
Cardamine																								
Cardiophyllum thalictroides																								
Cerastium fontanum																								
Ceratophyllum demersum																								
Chelidonium majus																								
Chenopodium album																								
Chrysanthemum leucanthemum																								
Cichorium intybus																								
Cicuta																								
Circaea leuticarpa																								
Cirsium arvense																								
Cirsium vulgare																								
Clematis virginiana																								
Clintonia borealis																								
Coryza canadensis																								
Coronilla varia																								
Cynanchum rossicum																								
Cynoglossum officinale																								
Daucus carota																								
Desmodium canadense																								
Dianthus amurensis																								
Dipsacus fullorum																								
Echinocystis lobata																								
Echium vulgare																								
Epilobium																								
Epilobium ciliatum																								
Epilobium hirsutum																								
Epilobium parviflorum																								
Erigeron annuus																								
Erigeron philadelphicus																								
Erigeron strigosus																								
Erythronium chleranthoides																								
Eupatorium maculatum																								
Eupatorium perfoliatum																								
Eupatorium rugosum																								
Euphorbia																								
Euthamia graminifolia																								
Fragaria virginiana																								
Fragaria vesca																								
Galeopsis tetrahit																								
Galium																								
Galium																								
Galium palustre																								
Galium triflorum																								
Geranium maculatum																								
Geranium robertianum																								
Geum elaeagnum																								
Geum canadense																								
Geum																								
Glechoma hederacea																								
Hepatica acutiloba																								
Hesperis matronalis																								
Hieracium aurantiacum																								
Hieracium caespitosum																								
Hieracium																								
Hydrophyllum virginianum																								
Hypericum perforatum																								
Impatiens capensis																								
Inula helenium																								
Lactuca																								
Laportea canadensis																								
Lapsana communis																								
Leonurus cardiaca																								
Lepidium																								
Lineria vulgaris																								
Lithospermum officinale																								
Lobelia																								
Lobelia inflata																								
Lolium corniculatum																								
Lycopus americanus																								
Lycopus																								
Lythrum ciliata																								
Lythrum salicaria																								
Medicago lupulina																								
Medicago sativum																								
Melilotus alba																								
Mercurialis																								
Mertensia virginica																								
Mimulus ringens																								
Mitella diphylla																								
Mitella repens																								

SITE LOCATIONS

1: SND 22
 2: _____
 3: _____

4: _____
 5: _____
 6: _____

I CONIFERS						TREES and SHRUBS						GRAMINOIDS					
1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Abies balsamea						+ Rosa multiflora						Agrostis gigantea					
Juniperus communis						Rosa						Agrostis stolonifera					
Juniperus virginiana						Rubus allegheniensis						Agropyron repens					
Larix laricina						Rubus idaeus						Alopecurus					
Picea abies						Rubus occidentalis						Bromus inermis					
Picea glauca						Rubus odoratus						Calamagrostis canadensis					
Pinus resinosa						Rubus pubescens						Carex arctata					
Pinus strobus						Salix alba						Carex aurea					
Pinus sylvestris						Salix amygdaloides						Carex bebbii					
Thuja occidentalis						Salix bebbiana						Carex blanda					
Tsuga canadensis						+ Salix discolor						Carex gracillima					
						Salix eriocephala						Carex granularis					
						Salix exigua						Carex hystericina					
						Salix lucida						Carex pensylvanica					
						Salix petiolaris						Carex radiata					
TREES and SHRUBS						+ Salix purpurea						Carex retorsa					
Acer negundo						Salix x rubens						Carex stipata					
Acer rubrum						+ Salix						Carex stricta					
Acer saccharinum						Sambucus canadensis						Carex vulpinoidea					
Acer saccharum						Sambucus racemosa						Carex					
Acer spicatum						Sorbus aucuparia						Carex					
Alnus rugosa						Spiraea alba						Carex					
Amelanchier						Syringa vulgaris						Carex					
Berberis thunbergii						* Tilia americana						Carex					
Betula alleghaniensis						Ulmus americana						Carex					
Betula papyrifera						Ulmus						Carex					
Carpinus caroliniana						Vaccinium						Carex					
Carya cordiformis						Viburnum lentago						Carex					
Celastrus scandens						Viburnum opulus						Cyperus					
Cornus alternifolia						Viburnum						Cyperus					
Cornus amomum						Vitis riparia						Dactylis glomerata					
Cornus rugosa												Danthonia spicata					
Cornus stolonifera												Echinochloa crus-galli					
Corylus cornuta												Eleocharis erythropoda					
Crataegus monogyna												Eleocharis					
Crataegus punctata												Elymus virginicus					
Crataegus sp.												Elymus					
Crataegus												Festuca arundinacea					
Diervilla lonicera												Glyceria striata					
Fagus grandifolia												Glyceria					
Fraxinus americana												Juncus dudleyi					
Fraxinus nigra						FERNS						Juncus effusus					
Fraxinus pennsylvanica						Adiantum pedatum						Juncus tenuis					
Ilex verticillata						Athyrium filix-femina						Juncus					
Juglans cinerea						Botrychium multifidum						Juncus					
Juglans nigra						Botrychium virginianum						Leersia oryzoides					
Lonicera morrowi						Cystopteris bulbifera						Muhlenbergia					
Lonicera tatarica						Dryopteris carthusiana						Oryzopsis asperifolia					
Lonicera						Dryopteris cristata						Panicum					
Malus pumila						Dryopteris marginalis						Panicum					
Ostrya virginiana						Dryopteris						Phalaris arundinacea					
Parthenocissus inserta						Equisetum arvense						Phleum pratense					
Populus balsamifera						Equisetum hyemale						Phragmites australis					
Populus grandidentata						Equisetum variegatum						Poa compressus					
Populus tremuloides						Equisetum						Poa pratensis					
Populus						Gymnocarpium dryoperis						Poa					
Prunus pennsylvanica						Lycopodium digitatum						Scirpus atrovirens					
Prunus serotina						Lycopodium obscurum						Scirpus cyperinus					
Prunus virginiana						Lycopodium						Scirpus validus					
Prunus						Lycopodium						Scirpus					
Quercus macrocarpa						Mattuccia struthiopteris						Scirpus					
Quercus rubra						Onoclea sensibilis						Setaria					
Quercus						Osmunda cinnamomina						Sparganium					
Rhamnus cathartica						Osmunda regalis						Typha angustifolia					
Rhus radicans						Polystichum acrostichoides						Typha latifolia					
Rhus typhina						Pteridium aquilinum						Typha Xglauca					
Ribes americana						Thelypteris palustris											
Ribes cynosbati																	
Ribes x rubrum																	
Robinia pseudo-acacia																	
CALYA OVATA																	



- Legend**
- Property Boundary
 - GE Turbine
 - ELC Completed 2011
 - Natural Feature and ID
 - ELC Polygon Boundary
 - Disturbance Areas
 - Area of Disturbance, plus 10m
 - ANSI
 - Evaluated Wetlands - PSW
 - ABCA Watercourse



Resemapping from Ontario Ministry of Natural Resources
Orthophotography 2010

UTM Zone 17N, MAD 83
1:2 000

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Goshen Amphibian Survey

225_GSH1949

April 2012
Project 00150032

AECOM

Figure 1

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>)					Awnless Brome (<i>Bromus inermis</i>)				
Tamarack (<i>Larix laricina</i>)					Alder Buckthorn (<i>Rhamnus alnifolia</i>)					<i>Bromus</i>				
Norway Spruce (<i>Picea abies</i>)					Common Buckthorn (<i>Rhamnus cathartica</i>)					Blue Joint Grass (<i>Calamagrostis canadensis</i>)				
White Spruce (<i>Picea mariana</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>)					Poor Oat Grass (<i>Danthonia serotina</i>)				
Jack Pine (<i>Pinus banksiana</i>)					Wild Black Currant (<i>Ribes americanum</i>)					Quack Grass (<i>Elymus repens</i>)				
Red Pine (<i>Pinus resinosa</i>)					Prickly Gooseberry (<i>Ribes cynosbati</i>)					Virginia Wild Rye (<i>Elymus virginicus</i>)				
Eastern White Pine (<i>Pinus strobus</i>)					Swamp Black Currant (<i>Ribes lacustre</i>)					<i>Elymus</i>				
Scotch Pine (<i>Pinus sylvestris</i>)					Red Currant (<i>Ribes rubrum</i>)									
Canada Yew (<i>Taxus canadensis</i>)					<i>Ribes</i>					Fowl Manna Grass (<i>Glyceria striata</i>)				
Eastern White Cedar (<i>Thuja occidentalis</i>)					Black Locust (<i>Robinia pseudo-acacia</i>)					<i>Glyceria</i>				
Eastern Hemlock (<i>Tsuga canadensis</i>)					Prickly Rose (<i>Rosa acicularis</i>)					Rice Cut Grass (<i>Leersia oryzooides</i>)				
					Smooth Rose (<i>Rosa blanda</i>)					Tall Fescue (<i>Lolium arundinaceum</i>)				
					Multiflora Rose (<i>Rosa multiflora</i>)					<i>Muhlenbergia</i>				
					<i>Rosa</i>					Witch Grass (<i>Panicum capillare</i>)				
					Com. Blackberry (<i>Rubus allegheniensis</i>)					<i>Panicum</i>				
Manitoba Maple (<i>Acer negundo</i>)					Wild Red Raspberry (<i>Rubus idaeus</i>)					Reed Canary Grass (<i>Phalaris arundinacea</i>)				
Black Maple (<i>Acer nigrum</i>)					Black Raspberry (<i>Rubus occidentalis</i>)					Timothy (<i>Phleum pratense</i>)				
Norway Maple (<i>Acer platanoides</i>)					Purple-fl. Raspberry (<i>Rubus odoratus</i>)					Common Reed (<i>Phragmites australis</i>)				
Red Maple (<i>Acer rubrum</i>)					Dwarf Raspberry (<i>Rubus subscens</i>)					Canada Blue Grass (<i>Poa compressa</i>)				
Silver Maple (<i>Acer saccharinum</i>)					<i>Rubus</i>					Fowl Meadow Grass (<i>Poa pulstris</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 rumila</i>)				
Mountain Maple (<i>Acer spicatum</i>)					Pussy Willow (<i>Salix discolor</i>)					Green Foxtail (<i>Setaria viridis</i>)				
Spotted Alder (<i>Alnus incana</i>)					Missouri Willow (<i>Salix eriocephala</i>)									
Downy Serviceberry (<i>Amelanchier arborea</i>)					Sandbar Willow (<i>Salix exigua</i>)									
Serviceberry (<i>Amelanchier sanguinea</i>)					Shining Willow (<i>Salix lucida</i>)									
Yellow Birch (<i>Betula alleghaniensis</i>)					Black Willow (<i>Salix nigra</i>)									
White Birch (<i>Betula papyrifera</i>)					Slender Willow (<i>Salix petiolaris</i>)									
European Birch (<i>Betula pendula</i>)					<i>Salix</i>									
Blue Beech (<i>Carpinus caroliniana</i>)					Hybrid Crack Willow (<i>Salix X rubens</i>)									
Bitternut Hickory (<i>Carya cordiformis</i>)					Black-berried Elder (<i>Sambucus nigra</i>)									
Shagbark Hickory (<i>Carya ovata</i>)					Red-berried Elder (<i>Sambucus racemosa</i>)									
Climbing Bittersweet (<i>Celastrus scandens</i>)					Buffalobery (<i>Shepherdia canadensis</i>)									
Common Hackberry (<i>Celtis occidentalis</i>)					Eur. Mountain Ash (<i>Sorbus aucuparia</i>)									
Buttonbush (<i>Cephalanthus occidentalis</i>)					Narrow Meadow-sweet (<i>Spiraea alba</i>)									
Alt-leaved Dogwood (<i>Cornus alternifolia</i>)					Common Lilac (<i>Syringa vulgaris</i>)									
Silky Dogwood (<i>Cornus amomum</i>)					Poison-ivy (<i>Toxicodendron radicans</i>)									
Bunchberry (<i>Cornus canadensis</i>)					Climbing Poison-ivy (<i>Toxicodendron radicans</i>)									
Gray Dogwood (<i>Cornus racemosa</i>)					White Elm (<i>Ulmus americana</i>)									
Round-leaved Dogwood (<i>Cornus rugosa</i>)					Siberian Elm (<i>Ulmus umila</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 lantoides</i>)									
English Hawthorn (<i>Crataegus monogyna</i>)					Nannyberry (<i>Viburnum lentago</i>)									
Large-fruited Thorn (<i>Crataegus punctata</i>)					Guelder-Rose (<i>Viburnum opulus</i>)									
<i>Crataegus</i>					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>Zanthoxylum americanum</i>)									
Russian Olive (<i>Elaeagnus angustifolia</i>)														
Autumn Olive (<i>Elaeagnus umbellata</i>)														
Run. Strawberry-bush (<i>Eubonymus obovata</i>)														
American Beech (<i>Fagus grandifolia</i>)														
Glossy Buckthorn (<i>Fraxinus 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 Honey-suckle (<i>Lonicera canadensis</i>)														
Glaucous Honeysuckle (<i>Lonicera dioica</i>)														
Morrow's Honeysuckle (<i>Lonicera morrowii</i>)														
Tartarian Honeysuckle (<i>Lonicera tatarica</i>)														
Common Apple (<i>Malus umila</i>)														
White Mulberry (<i>Morus alba</i>)														
Sweet Gale (<i>Myrica gale</i>)														
Ironwood (<i>Ostrya virginiana</i>)														
Thicket-creep (<i>Parthenocissus inserta</i>)														
Ninebark (<i>Physocarpus opulifolius</i>)														
Balsam Poplar (<i>Populus balsamifera</i>)														
Eastern Cottonwood (<i>Populus deltoides</i>)														
Large-tooth Aspen (<i>Populus grandidentata</i>)														
Trembling Aspen (<i>Populus tremuloides</i>)														
Sweet Cherry (<i>Prunus avium</i>)														
Pin Cherry (<i>Prunus pensylvanica</i>)														
Black Cherry (<i>Prunus serotina</i>)														
Choke Cherry (<i>Prunus virginiana</i>)														
<i>Prunus</i>														

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

Map Number: 125011 1946	1	SWD2-2	4
Date: April 17, 2012	2	FDD9	6
Surveyors: JH, JS	3	MARK: 7	

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	(GSH)	Map #:	225-GSH 1949
Date:	2012-04-17			Time Started:	3:30
Field Staff:	Tom Shorney, Jess Piette			Time Finished:	5:18
Weather Conditions: Sunny, 5°C, 15 km/h winds					

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

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

UTMs: _____ Number of nests: _____

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

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

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

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

UTMs: 446807 4591913 ☒ Area of standing water delineated on field map

Water depth (m): 15-20cm % open water: 80% % emergent vegetation: 5%

Description of standing water (permanent pool, evidence of annual spring flooding, etc): Vernal Pools
would be drier by mid-late July

Area and soil/substrate of shoreline habitat: Mineral Soils, 50% exposure

Type and abundance of cover in open water habitat: Sedges in water

Type and abundance of cover in surrounding habitat: mat mid aged trees, elm, Ash

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

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: N/A
Potential for Amphibian breeding

Complete Vernal Pool Habitat Description Form

Snake Hibernacula

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

UTMs: _____ Likelihood to extend below frost line: _____

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

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

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

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

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

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

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

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

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

☒ No

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

UTMs: _____

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

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

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

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

Shoreline of lake, large river or large wetland present:

☒ No

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

UTMs: _____

Rocky island or peninsula present: _____

Mudflat present: _____

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

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

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

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

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

☒ No

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

Large open habitat present:

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
62-66	Breeding Amphibian Habitat		

33

Time Finished: 5:22

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, ES=Eggs/Faecal sack, AF=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 (<i>Lithospermum latifolium</i>) - S3 <u>Bloom Time</u> - Spring	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y (N) 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 (N) UTM:
FOM1, FOM2, CUP3	Autumn Coral-root (<i>Corallorhiza odoriforhiza</i>) - S2 <u>Bloom Time</u> - summer to fall	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.	Y (N) UTM:
FOC, FOM, FOD	Burning Bush (<i>Euonymus atropurpureus</i>) - S3 <u>Bloom Time</u> - 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 <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 (N) UTM:
SWC, SWM, SWD, SWT, MAM, MAS	Crowned Beggarticks (<i>Bidens trichosperma</i>) -S2 <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) N UTM: N/A
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 (N) UTM:
TPS, TPW, FOM1, FOM2	Fogg's Goosefoot (<i>Crenopodium 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>) -S17 <u>Bloom Time</u> -	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,	June – August		
FOD6, FOD7, FOD9	Green Dragon (<i>Arisaema dracontium</i>) - S3/S3 <u>Bloom Time – May and June</u>	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	Y N UTM: N/A
TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Hairy Bedstraw (<i>Galium pilosum</i>) - S3 <u>Bloom Time – June-August</u>	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y N UTM:
FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPW	Hairy Valerian (<i>Valeriana edulis</i>) - S1 <u>Bloom Time – June to August</u>	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.	Y N UTM: N/A
FOD6, FOD7, SWM, SWD	Hairy Wood Mint (<i>Blephilia hirsuta</i>) - S1 <u>Bloom Time – Summer</u>	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.	Y N UTM: N/A
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Erigenia bulbosa</i>) - S3 <u>Bloom Time – early to late April</u>	Occurs in rich, moist deciduous woods, especially on floodplains.	Y N UTM: N/A
SAS1, SAM1, SAF1	Hill's Pond Weed (<i>Potamogeton hillii</i>) - SC/S2 <u>Bloom Time – summer</u>	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y N UTM:
FOM6, FOM7, FOM8	Large Round-leaved Orchid (<i>Platanthera macrophylla</i>) - S2 <u>Bloom Time – June to August</u>	Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.	Y N UTM:
MAM2, MAM3, MAS2, MAS3, SWD	Lizard's Tail (<i>Saururus cernuus</i>) - S3 <u>Bloom Time – June – September</u>	Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, shallow water and mudflats at the borders of streams and ponds.	Y N UTM: N/A
FOD6, FOD7, FOD9	Pawpaw (<i>Asimina triloba</i>) - S3 <u>Bloom Time – March-May</u>	Occurs in moist deciduous woods and stream banks.	Y N UTM: N/A
FOM8, FOD6, FOD7, FOD9, CUM1	Pilose Evening Primrose (<i>Oenothera pilosella</i>) - S2 <u>Bloom Time – Late Spring – Early Summer</u>	Moist edges of woods and open, disturbed ground.	Y N UTM: N/A
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostrate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 <u>Bloom Time – July-September</u>	Dry, sandy or rocky woods	Y N UTM:
FOD7, SWD	Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? <u>Bloom Time – March – June</u>	Swamps and floodplains	Y N UTM: N/A
CUW1, ALO, FET1, SWC	Ram's-head Lady's-slipper (<i>Cypripedium arietinum</i>) - S3 <u>Bloom Time – mid May to mid June</u>	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.	Y N UTM:
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5	Rattlesnake Hawkweed (<i>Hieracium venosum</i>) - S2 <u>Bloom Time – April – September</u>	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.	Y N UTM:
FOD6, FOD7, FOD9	Round-leaved Groundsel (<i>Packera obovata</i>) - S3 <u>Bloom Time – May – June</u>	Found in moist woods	Y N UTM: N/A
CUM1, CUT1, CUS1	Round-leaved hawthorn (<i>Crataegus lunaria</i>) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y N UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm (<i>Monarda didyma</i>) - S3 <u>Bloom Time – May to October</u>	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y N UTM: N/A
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 Muhlly (<i>Muhlenbergia tenuiflora</i>) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y N UTM: N/A
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>Gentianella quinquefolia</i>) - S2 <u>Bloom Time – late summer to mid fall</u>	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	Y N UTM: N/A
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine (<i>Lupinus perennis</i>) - S3 <u>Bloom Time – mid-March to mid-June</u>	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	Y N UTM:

Species Conservation Concern Habitat and Incidental Wildlife – Goshen

AM

ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
TP01, TPS1, TPW1, CUM1	Tall Blazing Star (<i>Liatris aspera</i>) - S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM:
FE0, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>Amorhossium plantagineum</i>) - S3 Bloom Time - mid-March to mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	Y (N) UTM: N/A
FOC1, FOC2, FOC3, FOC4	Woodland Pinedrops (<i>Pterospora andromedea</i>) - S2 Bloom Time - summer	Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.	Y (N) UTM:
CUM1, CUT1, CUW1, RBO1, SBO1	Yellow Ladies'-tresses (<i>Spiranthes ochroleuca</i>) - S2 Bloom Time - August to November	Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.	Y (N) UTM:
BIRDS			
-	Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS	Common Nighthawk (<i>Chordeiles minor</i>) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y (N) UTM:
FOD, FOM	Louisiana Waterthrush (<i>Selurus motacilla</i>) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y (N) UTM:
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/edges (oak savannahs and riparian forest), open, deciduous forest with little understory, fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	Y (N) UTM:
-	Short Eared Owl (<i>Asio flammeus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC	Inhabits thickets, tall tangles of shrubbery beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y (N) UTM:
REPTILES			
-	Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Milksnake (<i>Lampropeltis triangulum</i>) - SC	Assessed as SWH. Record species if found.	not required.
-	Snapping Turtle (<i>Chelydra serpentina</i>) - SC	Assessed as SWH. Record species if found.	not required.
INSECTS			
OAO, SA, SWM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) - S3	Species inhabits fishless ponds, lakes and boggy swamps	Y (N) UTM: N/A
TPS, TPW	Sleepy Duskywing (<i>Erynnis brize</i>) - S1	Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles	Y (N) UTM:
CUM1, CUT1, CUW1	Monarch Butterfly (<i>Danaus plexippus</i>) - SC	Their larvae only feed on milkweeds (<i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow	Y (N) UTM:
TPS, CUW	Mottled Duskywing (<i>Erynnis martialis</i>) - S2	Usually seen nectaring 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: N/A
FOD5	West Virginia White (<i>Pieris virginianensis</i>) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y (N) UTM:

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	<u>GSH</u>	Map #:	<u>277-GSH/1605</u>
Date:	<u>May 18, 2012</u>			Time Started:	<u>12:40pm</u>
Field Staff:	<u>RA, SG</u>			Time Finished:	<u>1:40pm</u>
Weather Conditions:	<u>20°C, 0% cloud cover, Light Breeze (1)</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

Species Conservation Concern Habitat and Incidental Wildlife - Goshen

Map No: 227 - GSH11605

Date (yyyy-mm-dd): 2012-05-18

Field Staff: BA, SG

Time Started: 12:40pm

Time Finished: 1:40pm

Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Red-winged Blackbird		OB		Yellow-bellied Sapsucker		VO	
Song Sparrow		VO		Blue Jay		OB	
Brown Thrasher		VO					
Eastern Kingbird		OB					
White Cabbage		OB					
American Goldfinch		VO					
Warbling Vireo		VO					
Turkey Vulture		OB					
Brown-headed Cowbird		OB					
American Robin		OB					
Willow Flycatcher		VO					
American Cuckoo		VO					
Tree Swallow		OB					
Horned Lark		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=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)

ELC	Species	Habitat Description	Habitat Present (Y/N) UTM	description of habitat if present
PLANTS				
FOD7	American Gromwell (Lithospermum latifolium) - S3 Bloom Time - Spring	Shaded river banks, wooded floodplains. River floodplains, woods and edges of woods.	Y (N) UTM:	
ALO, TPO	Muehlenberg's astomum moss (Astomum muehlenbergianum) - S2 Bloom Time - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie	Y (N) UTM:	
FOM1, FOM2, CUP3	Autumn Coral-root (Corallorhiza odontorhiza) - S2 Bloom Time - summer to fall	Oak-pine woods or occasionally in open, red pine or white pine plantations. Dry, sandy woods.	Y (N) UTM:	
FOC, FOM, FOD	Burning Bush (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 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 Present (Y/N) UTM	description of habitat if present
CUM1, MAM, FOD6, FOD7, FOD9	June – August Green Dragon (<i>Arisaema dracontium</i>) - SC/S3 <u>Bloom Time – May and June</u>	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	Y (N) UTM	
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Hailey Bedstraw (<i>Galium pilosum</i>) - S3 <u>Bloom Time – June-August</u>	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	Y (N) UTM	
FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW	Hailey Valerian (<i>Valeriana edulis</i>) - S1 <u>Bloom Time – June to August</u>	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens.	Y (N) UTM	
FOD6, FOD7, SWM, SWD	Hailey Wood Mint (<i>Blephilia hirsuta</i>) - S1 <u>Bloom Time – Summer</u>	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.	Y (N) UTM	
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Erigenia bulbosa</i>) - S3 <u>Bloom Time – early to late April</u>	Occurs in rich, moist deciduous woods, especially on floodplains.	Y (N) UTM	
SAS1, SAM1, SAF1	Hill's Pond Weed (<i>Potamogeton hillii</i>) - SC/S2 <u>Bloom Time – summer</u>	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	Y (N) UTM	
FOM6, FOM7, FOM8	Large Round-leaved Orchid (<i>Platanthera macrophylla</i>) - S2 <u>Bloom Time – June to August</u>	Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.	Y (N) UTM	
MAM2, MAM3, MAS2, MAS3, SWD	Lizard's Tail (<i>Saururus cernuus</i>) - S3 <u>Bloom Time – June – September</u>	Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, shallow water and mudflats at the borders of streams and ponds.	Y (N) UTM	
FOD6, FOD7, FOD9	Pawpaw (<i>Asimina triloba</i>) - S3 <u>Bloom Time – March-May</u>	Occurs in moist deciduous woods and stream banks.	Y (N) UTM	
FOM8, FOD6, FOD7, FOD9, CUM1	Pilose Evening Primrose (<i>Oenothera pilosella</i>) - S2 <u>Bloom Time – Late Spring – Early Summer</u>	Moist edges of woods and open, disturbed ground.	Y (N) UTM	
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostrate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 <u>Bloom Time – July-September</u>	Dry, sandy or rocky woods	Y (N) UTM	Not Observed
FOD7, SWD	Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? <u>Bloom Time – March – June</u>	Swamps and floodplains	Y (N) UTM	
CUW1, ALO, FET1, SWC	Ram's-head Lady's-slipper (<i>Cypripedium arietinum</i>) - S3 <u>Bloom Time – mid May to mid June</u>	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren.	Y (N) UTM	
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5	Rattlesnake Hawkweed (<i>Hieracium venosum</i>) - S2 <u>Bloom Time – April – September</u>	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands.	Y (N) UTM	
FOD6, FOD7, FOD9	Round-leaved Groundsel (<i>Packera obovata</i>) - S3 <u>Bloom Time – May – June</u>	Found in moist woods	Y (N) UTM	
CUM1, CUT1, CUS1	Round-leaved hawthorn (<i>Crataegus 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 – May to October</u>	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y (N) UTM	
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star (<i>Liatris cylindracea</i>) - S3	Species occurs in limestone and 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	
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>Gentianella quinquefolia</i>) - S2 <u>Bloom Time – late summer to mid fall</u>	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	Y (N) UTM	
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine (<i>Lupinus perennis</i>) - S3 <u>Bloom Time – mid-March to mid-June</u>	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	Y (N) UTM	

Species Conservation Concern Habitat and Incidental Wildlife - Goshen

0 A DM

ELC	Species	Habitat Description	Habitat Present? (Y/N) UTM: description of habitat if present
TP01, TPS1, TPW1, CUM1	Tall Blazing Star (<i>Liatris aspera</i>) - S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM:
FE0, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>Arnoglossum 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 (N) UTM: Not Sandy
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: Not Sandy
BIRDS			
CUM, SDO, RBO, TPS	Bald Eagle (<i>Haliaeetus leucocephalus</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, sparse or vegetation-free habitats.	Y (N) UTM:
	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), 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: Not a lot of milkweed
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: Ne Hackberry
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:



229-9SH1072

Polygon Description 30°C-felo like 38°C, 60% cloud cover

Stand Description

CVR Codes:	0 = none	1 0% - 10%	2 10 - 25%	3 25 - 60%	4 > 60%
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Abundance Codes: N = None R = Rare O = Occasional A = Abundant

Community Profile Diagram/Comments

Notes:

Free Tally by Species

Soils Ontario and ELC Soils Description

Job Number:

Add polygon /
Side location

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

1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
CONIFERS						TREES and SHRUBS						GRAMINOIDs					
Abies balsamea						+ Rosa multiflora						Agrostis gigantea					
Juniperus communis						Rosa						Agrostis stolonifera					
Juniperus virginiana						Rubus allegheniensis						Agropyron repens					
Larix laricina						Rubus idaeus						Alopecurus					
Picea abies						Rubus occidentalis						Bromus inermis					
Picea glauca						Rubus odoratus						Calamagrostis canadensis					
Pinus resinosa						Rubus pubescens						Carex arctata					
Pinus strobus						Salix alba						Carex aurea					
Pinus sylvestris						Salix amygdaloides						Carex bebbii					
Thuja occidentalis						Salix bebbiana						Carex blanda					
Tsuga canadensis						+ Salix discolor						Carex gracillima					
						Salix eriocephala						Carex granularis					
						Salix exigua						Carex hystericina					
						Salix lucida						Carex pennsylvanica					
						Salix petiolaris						Carex radiata					
TREES and SHRUBS						+ Salix purpurea						Carex retrorsa					
Acer negundo						Salix x rubens						Carex stipata					
Acer rubrum						+ Salix						Carex stricta					
Acer saccharinum						Sambucus canadensis						Carex vulpinoidea					
Acer saccharum	X					Sambucus racemosa						Carex					
Acer spicatum						Sorbus aucuparia						Carex					
Alnus rugosa						Spiraea alba						Carex					
Amelanchier						Syringa vulgaris						Carex					
Berberis thunbergii						+ Tilia americana		X				Carex					
Betula alleghaniensis						Ulmus americana		X				Carex					
Betula papyrifera						Ulmus						Carex					
Carpinus caroliniana						Vaccinium						Carex					
Carya cordiformis						Viburnum lentago						Carex					
Celastrus scandens						Viburnum opulus						Cyperus					
Cornus alternifolia	X					Viburnum						Cyperus					
Cornus amomum						Vitis riparia		X				Dactylis glomerata					
Cornus rugosa												Danthonia spicata					
Cornus stolonifera												Echinochloa crus-galli					
Corylus cornuta												Eleocharis erythropoda					
Crataegus monogyna												Eleocharis					
Crataegus punctata												Elymus virginicus					
Crataegus sp.	X											Elymus					
Crataegus												Festuca arundinacea					
Diervilla lonicera												Glyceria striata					
Fagus grandifolia												Glyceria					
Fraxinus americana	X											Juncus dudleyi					
Fraxinus nigra						FERNS						Juncus effusus					
Fraxinus pennsylvanica						Adiantum pedatum						Juncus tenuis					
Ilex verticillata						Athyrium filix-femina						Juncus					
Juglans cinerea						Botrychium multifidum						Juncus					
Juglans nigra						Botrychium virginianum						Leersia oryzoides					
Lonicera morrowi						Cystopteris bulbifera						Muhlenbergia					
Lonicera tatarica						Dryopteris carthusiana						Oryzopsis asperifolia					
Lonicera						Dryopteris cristata						Panicum					
Malus pumila	X					Dryopteris marginalis						Panicum					
Ostrya virginiana						Dryopteris						Phalaris arundinacea					
Parthenocissus litoralis						Equisetum arvense						Phleum pratense					
Populus balsamifera						Equisetum hyemale						Phragmites australis					
Populus grandidentata						Equisetum variegatum						Poa compressus					
Populus tremuloides	X					Equisetum						Poa pratensis					
Populus						Gymnocarpium dryopteris						Poa					
Prunus pennsylvanica						Lycopodium digitatum						Scirpus atrovirens					
Prunus serotina						Lycopodium obscurum						Scirpus cyperinus					
Prunus virginiana						Lycopodium						Scirpus validus					
Prunus						Lycopodium						Scirpus					
Quercus macrocarpa						Mateucia struthiopteris						Scirpus					
Quercus rubra						Onoclea sensibilis						Setaria					
Quercus						Osmunda cinnamomea						Sparganium					
Rhamnus cathartica						Osmunda regalis						Typha angustifolia					
Rhus radicans						Polystichum acrostichoides						Typha latifolia					
Rhus typhina						Pteridium aquilinum						Typha x glauca					
Ribes americana						Thelypteris palustris											
Ribes cynosbati																	
Ribes x rubrum																	
Robinia pseudo-acacia																	
COXIAS C. C. M. 6	X																

Goshen Feature: 229 GSH1740

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



September 1, 2011

h

- Roads
- Access/Collection Line
- Collection Buffer (125m)
- Turbine Buffer (171.5m)
- Collection/Feature Intersect
- Turbine Buffer/Feature Intersect
- Property Fabric
- Goshen Wind Energy Centre



System	Subfields	Typographic Feature	Plant Form	Community
☐ Terrestrial ☐ Wetland ☐ Aquatic	☐ Organic ☐ Mineral Soil ☐ Parent Mln. ☐ Acidic Bedrk ☐ Basic Bedrk ☐ Carb. Bedrk	☐ Lacustrine ☐ Riverine ☐ Bottomland ☐ Terrace ☐ Valley Slope ☒ Stepland ☐ Roll. Upland ☐ Cliff	☐ Plankton ☐ Submerged ☐ Floating-LVD. ☐ Graminoid ☐ Forb ☐ Lichen ☐ Bryophyte ☒ Deciduous ☐ Coniferous ☐ Mixed	☐ Lake ☐ Pond ☐ River ☐ Stream ☐ Marsh ☐ Swamp ☐ Fen ☐ Bog ☐ Barren
Sites ☐ Open Water ☐ Shallow Water ☐ Surficial Dep. ☐ Bedrock				
History ☐ Natural ☐ Cultural				
Cover ☐ Open ☐ Shrub ☐ Treed		☐ Talus ☐ Crevice/Cave ☐ Alvar ☐ Rockland ☐ Beach / Bar ☐ Sand Dune ☐ Bluff		☐ Prairie ☐ Thicket ☐ Savannah ☐ Woodland ☒ Forest ☐ Plantation

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) ($>$ Much Greater Than, $>$ Greater Than, $\approx$ About Equal To)
1			
2	4		Tilmanera - Carpud-Ficus
3	4		Cordia - Ficus - Magnolia
4	4		Albizia - Cecropia - Ast. Jacq.

Stand Comp cation:	Six Class Analysis:					
	☐	A	☒ O			
	<10	10-24	25-50	>50		
BAs:	☐	O	O			
	<10	10-24	25-50	>50		
Abundance Codes:	N = None	R = Rare	O = Occasional	A = Abundant		
	Dustfall / Logs:	A	O			
	<10	10-24	25-50	>50		

Cam. Age: ☐ Pioneer ☒ Young ☒ Mid-Age ☐ Mature ☐ Old Growth

Ecotype:	Code:
Vegetation Type:	Code:
Inclusion:	Code:
Complex:	Code:
de Basswood Dec Forest	FSD 4-

Find the area between 2 find only area

Tree Tally by Species						Priam Factor	2
Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.	
Total							
Basal Area (BA)						100	
Dens							

Summary	Moisture Regime	UTM	Site Metrics							
			Slope	Zone						
				Easting						
				Northing						
				Position						
				Aspect						
	Percent									
Drainage			Slope Length							
			Mottles							
			Gley							
			Water Table							
Effective Texture (Indicate below)										
							Carbonates			
							Bedrock			

Soil Horizon Description									
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								

VASCULAR PLANT CHECKSHEET

Location: Goshen 229 GSH
 Observer: _____

Date: Oct
 Job Number: _____

DICOT HERBS												MONOCOT HERBS					
1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Achillea millefolium						Erigeron annuus						Plantago lanceolata					
Actaea pachypoda						Erigeron philadelphicus						Plantago major					
Actaea rubra						Erigeron strigosus						Plantago rugelii					
Agalinus						Erysimum cheiranthoides						Podophyllum peltatum					
Agrimonia gryposepala						Eupatorium maculatum						Polygonum					
Alliaria petiolata						Eupatorium perfoliatum						Polygonum					
Amaranthus retrofractus						Eupatorium rugosum						Polygonum					
Ambrosia artemisiifolia						Euphorbia						Polygonum lapathifolium					
Amphicarpaea baccata						Euthamia graminifolia						Polygonum persicaria					
Anemone						Fragaria virginiana						Potentilla					
Anemone canadensis						Fragaria vesca						Potentilla norvegica					
Anemone virginiana						Galeopsis tetrahit						Potentilla recta					
Antennaria neglecta						Gallium						Prenanthes alba					
Apocynum androsaemifolium						Gallium						Prunella vulgaris					
Apocynum cannabinum						Gallium pilosum						Pyrola asarifolia					
Aquilegia canadensis						Gallium triflorum						Ranunculus					
Aralia nudicaulis						Geranium maculatum						Ranunculus abortivus					
Ardium minus						Geranium robertianum						Ranunculus acris					
Artemisia						Geum aleppicum						Rubus hirta					
Asarum canadense						Geum canadense						Rumex acetosella					
Asclepias incarnata						Geum						Rumex crispus					
Asclepias syriaca						Glechoma hederacea						Rumex					
Aster						Hepatica acutiloba						Sanguinaria canadensis					
Aster cordifolius						Hebea matronalis						Sanicula marilandica					
Aster ericoides						Hieracium aurantiacum						Saponaria officinalis					
Aster lanceolatus						Hieracium caspitosum						Satureja vulgaris					
Aster lateriflorus						Hieracium						Scutellaria galericulata					
Aster macrophyllus						Hydrophyllum virginianum						Silene vulgaris					
Aster novae-angliae						Hypericum perforatum						Sium suave					
Aster puniceus						Impatiens capensis						Solanum dulcamara					
Barbarea vulgaris						Inula helenium						Solidago					
Bidens cernua						Lactuca						Solidago altissima					
Bidens frondosa						Laportea canadensis						Solidago cassia					
Boehmeria cylindrica						Lapsana communis						Solidago canadensis					
Caltha palustris						Leonurus cardiaca						Solidago flexicaulis					
Calyssegia septum						Lepidium						Solidago gigantea					
Cardamine diphylla						Linaria vulgaris						Solidago nemoralis					
Cardamine						Lithospermum officinale						Solidago rugosa					
Caulophyllum thalictroides						Lobelia						Sonchus oleraceus					
Cerastium fontanum						Lobelia inflata						Sonchus asper					
Ceratophyllum demersum						Lotus corniculatus						Stellaria					
Chelidonium majus						Lycopus americanus						Tanacetum vulgare					
Chenopodium album						Lycopus						Tanacetum officinale					
Chrysanth. leucanthemum						Lythrum salicaria						Thalictrum dioicum					
Cichorium intybus						Medicago lupulina						Thalictrum pubescens					
Cicuta						Medicago sativum						Tiarella cordifolia					
Circaea leutellana						Malilotus alba						Tragopogon pratensis					
Cirsium arvense						Meritha arvensis						Trifolium borealis					
Cirsium vulgare						Mimulus ringens						Trifolium					
Clematis virginiana						Mimulus ringens						Trifolium pratense					
Clintonia borealis						Mimulus ringens						Trifolium repens					
Coryza canadensis						Monarda fistulosa						Tussock farfara					
Coronilla varia						Mycosotis						Urtica dioica					
Cynanchum roseum						Nasturtium officinale						Urticularia vulgaris					
Cynoglossum officinale						Nasturtium						Verbascum thapsus					
Daucus carota						Nuphar variegatum						Verbena hastata					
Desmodium canadense						Nymphaea odorata						Verbena urticifolia					
Dianthus armeria						Oenothera biennis						Veronica					
Dipsacus fullorum						Osmorhiza						Veronica officinalis					
Echinochloa lobata						Oxalis stricta						Viola cracca					
Echium vulgare						Phytolacca heterophylla						Viola tetrasperma					
Epilobium												Viola					
Epilobium ciliatum												Viola pubescens					
Epilobium hirsutum												Viola sororia					
Epilobium parviflorum												Viola minor					
Abutilon																	

SITE LOCATIONS

1: GSH 1940 4: _____
 2: _____ 5: _____
 3: _____ 6: _____