

280

Polygon Description

Stand Description

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	1 0% - 10%	2 10 - 25%	3 25 - 60%	4 > 60%		

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

Community Profile Diagram/Comments

Thank you

Notes:

* Turn Over

Soils Ontario and ELC Soils Description

(elc community description/fo.



Ⓚ Upland Deciduous Forest at Property Line (much like D)

UTM 447975 / 4795985

- 2-4 Ace Saen - Fraamen > Popgem > Faggm - Tsucan
3-3 Acesai - Ham ring - Car caro
4-3 Linherz > Ace Saen
6-3 Eucobor - Maican - Pyrelli

Veg Type: FOD 6-5

ELC Community Description and Classification	Site: 280_GSH1801	Polygon: E
	Surveyor(s): <i>Kawista</i>	Date: <i>Sept 21/11</i> Time start: <i>4:00</i>
UTMZ: <i>448070</i>	UTMZ: <i>448070</i>	UTMN: <i>479605</i>

Polygon Description

System	Substrate	Topographic Feature	Plant Form	Community
☐ Terrestrial ☐ Wetland ☐ Aquatic ☐ Shallow Water ☐ Surficial Dep. ☐ Bedrock	☐ Organic ☐ Mineral Soil ☐ Parent Min. ☐ Acidic Bedrk ☐ Basic Bedrk ☐ Carb. Bedrk	☐ Lacustrine ☐ Riverine ☐ Bottomland ☐ Terrace ☐ Valley Slope ☐ Tableland ☐ Roll, Upland ☐ Cliff ☐ Talus ☐ Crevice/Cave ☐ Alvar ☐ Rockland ☐ Beach / Bar ☐ Sand Dune ☐ Bluff	☐ Plankton ☐ Submerged ☐ Floating-LVD. ☐ Graminoid ☐ Forb ☐ Lichen ☐ Bryophyte ☐ Deciduous ☐ Coniferous ☐ Mixed	☐ Lake ☐ Pond ☐ River ☐ Stream ☐ Marsh ☐ Swamp ☐ Fen ☐ Bog ☐ Barren ☐ Meadow ☐ Prairie ☐ Thicket ☐ Savannah ☐ Woodland ☐ 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	<i>3m</i>	<i>4m</i>	<i>Fraxinus > Acer > Betula</i>
2	<i>3m</i>	<i>3m</i>	<i>Liriodendron</i>
3	<i>3m</i>	<i>3m</i>	<i>Liriodendron</i>
4	<i>3m</i>	<i>3m</i>	<i>Fraxinus - Acer - Betula</i>

HT Codes: 7 < 0.2m 8 > 0.2-0.5m 6 > 0.5-1m 4 > 1-2m 3 > 2-3m 2 > 3-4m 1 > 4m
CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 50 - 75% 5 75 - 100%

Stand Composition	Size Class Analysis
BAI	Standing Snags: <i>0</i> Deadfall / Logs: <i>0</i>
Abundance Codes:	N = None R = Rare O = Occasional A = Abundant

Comm. Age:	☐ Pioneer ☐ Young ☒ Mid-Age ☐ Mature ☐ Old Growth
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Ecosite:	Code:
Vegetation Type:	Code:
Inclusion:	Code:
Complex:	Code:

Community Profile Diagram/Comments

Green Ash Mixed Swamp

SWD 2-2

Notes:

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Av.
Total						100
Basal Area (BA)						
Dead						

Soils Ontario and ELC Soils Description

Site Metrics		Summary	
pH/Auger # <i>#1</i>		Moisture Regime	
Zone		Drainage	
Easting			
Northing			
Position			
Aspect			
Percent			
Slope			
Length			
Mottles			
Gley			
Water Table			
Carbonates			
Bedrock			
Depth to...		Effective Texture (indicate below)	
1	Depth from zero	% CF	% CF
2	Texture	% CF	% CF
3	Depth from zero	% CF	% CF
4	Texture	% CF	% CF
Soil Horizon Description			
Depth from zero		% CF	% CF
Texture		% CF	% CF
Moisture Regime			
Drainage			



(F) White Pine Plantation UTM - 448010/4796120

- W Pine about 10-12m tall - about 25 years old

- Bare ground cover

- Some Red Pine, but mostly White

Veg Type - W. Pine Coniferous Plantation CUP3-2

(G) Poplar forest small forest UTM - 448020 /479195

2-4 Poplar >> Betula

3-4 Alnus > Ham Vieg Ace Sach

5/6-3 Rhuradi - Rubus

Veg Type - df Poplar Decid. Forest FOD3-1

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

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp) (>> Much Greater Than, > Greater Than, = About Equal To)
1	2	4	Acetone > Pet. Paper >
2	2	3	Acetone > Car Card
3	3	4	Liabenz
4	5/6	3	Carb. Sols - Monocarb >> Acetone

HT Codes:	<0.2m	0.2-0.5m	0.5-1m	1-2m	2-2.5m	2.5-3m	3-4m	4-5m	5-6m	6-7m	7-8m	8-9m	9-10m	10-11m	11-12m	12-13m	13-14m	14-15m	15-16m	16-17m	17-18m	18-19m	19-20m	20-21m	21-22m	22-23m	23-24m	24-25m	25-26m	26-27m	27-28m	28-29m	29-30m	30-31m	31-32m	32-33m	33-34m	34-35m	35-36m	36-37m	37-38m	38-39m	39-40m	40-41m	41-42m	42-43m	43-44m	44-45m	45-46m	46-47m	47-48m	48-49m	49-50m	50-51m	51-52m	52-53m	53-54m	54-55m	55-56m	56-57m	57-58m	58-59m	59-60m	60-61m	61-62m	62-63m	63-64m	64-65m	65-66m	66-67m	67-68m	68-69m	69-70m	70-71m	71-72m	72-73m	73-74m	74-75m	75-76m	76-77m	77-78m	78-79m	79-80m	80-81m	81-82m	82-83m	83-84m	84-85m	85-86m	86-87m	87-88m	88-89m	89-90m	90-91m	91-92m	92-93m	93-94m	94-95m	95-96m	96-97m	97-98m	98-99m	99-100m	100-101m	101-102m	102-103m	103-104m	104-105m	105-106m	106-107m	107-108m	108-109m	109-110m	110-111m	111-112m	112-113m	113-114m	114-115m	115-116m	116-117m	117-118m	118-119m	119-120m	120-121m	121-122m	122-123m	123-124m	124-125m	125-126m	126-127m	127-128m	128-129m	129-130m	130-131m	131-132m	132-133m	133-134m	134-135m	135-136m	136-137m	137-138m	138-139m	139-140m	140-141m	141-142m	142-143m	143-144m	144-145m	145-146m	146-147m	147-148m	148-149m	149-150m	150-151m	151-152m	152-153m	153-154m	154-155m	155-156m	156-157m	157-158m	158-159m	159-160m	160-161m	161-162m	162-163m	163-164m	164-165m	165-166m	166-167m	167-168m	168-169m	169-170m	170-171m	171-172m	172-173m	173-174m	174-175m	175-176m	176-177m	177-178m	178-179m	179-180m	180-181m	181-182m	182-183m	183-184m	184-185m	185-186m	186-187m	187-188m	188-189m	189-190m	190-191m	191-192m	192-193m	193-194m	194-195m	195-196m	196-197m	197-198m	198-199m	199-200m	200-201m	201-202m	202-203m	203-204m	204-205m	205-206m	206-207m	207-208m	208-209m	209-210m	210-211m	211-212m	212-213m	213-214m	214-215m	215-216m	216-217m	217-218m	218-219m	219-220m	220-221m	221-222m	222-223m	223-224m	224-225m	225-226m	226-227m	227-228m	228-229m	229-230m	230-231m	231-232m	232-233m	233-234m	234-235m	235-236m	236-237m	237-238m	238-239m	239-240m	240-241m	241-242m	242-243m	243-244m	244-245m	245-246m	246-247m	247-248m	248-249m	249-250m	250-251m	251-252m	252-253m	253-254m	254-255m	255-256m	256-257m	257-258m	258-259m	259-260m	260-261m	261-262m	262-263m	263-264m	264-265m	265-266m	266-267m	267-268m	268-269m	269-270m	270-271m	271-272m	272-273m	273-274m	274-275m	275-276m	276-277m	277-278m	278-279m	279-280m	280-281m	281-282m	282-283m	283-284m	284-285m	285-286m	286-287m	287-288m	288-289m	289-290m	290-291m	291-292m	292-293m	293-294m	294-295m	295-296m	296-297m	297-298m	298-299m	299-300m	300-301m	301-302m	302-303m	303-304m
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Comm. Age:	☐ Pioneer	☐ Young	☐ Mid-Age	☒ Mature	☐ Old Growth
Ecosite:					
Vegetation Type:	(Fireweed) Swamp Maple Swamp ^{mixed}				
Inclusion:					
Complex:					
Code:	SUD3-				

James K. Polk

Notes:

* Turn Over

Soils Ontario and ELC Soils Description

Pit/Auger #						Summary
Zone						Moisture Regime
Easting						
Northing						
Position						
Aspect						
Slope Percent						
Slope Length						Drainage
Mottles						
Clay						
Water Table						
Carbonates						
Bedrock						
Effective Texture (Indicate below)						
Depth to ..						
Soil Horizon Description						
1	Depth from zero	16	% CF	% CF	% CF	% CF
	Texture	brown-black loam				
2	Depth from zero	25	% CF	% CF	% CF	% CF
	Texture	gray sandy silt				
3	Depth from zero	45	% CF	% CF	% CF	% CF
	Texture	light gray fine silty sand with straw mottles				
4	Depth from zero		% CF	% CF	% CF	% CF
	Texture					
	% Surface Stone/Rock					
	Moisture Regime					
	Drainage					

① Deciduous forest but broken canopy from edge effects
and some selective cutting - Slightly elevated above
adjacent Swamp Maple Swamp UTM - 447985/4796260

2-4 AceSacu > Faggron > Betpapy - Fraxmes

3-4 AceSacu > Hamvieg - Carcavo

4-3 Ruballe > Vibacer

6-3 Viocons - Mitrepe > Maicana

Veg Type: d-f Swamp Maple - Beech FOD5-2

② Old Field, - dense mesic meadow - UTM - 447960/
4796245

4-1 Fraxmes

5/6-4 Solcana - Astpib - Poaprat - Poacomp

Veg Type CUM1

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

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) >> Much Greater Than; > Greater Than; = About Equal To
1	2	4	Fraxinus - Populus
2	3	3	Carex
3	4	3	Linum
4	2	2	Phlox

HT Codes:	7 < 0.2m	6 > 0.2-0.5m	5 > 0.5-1m	4 > 1-2m	3 > 2-6m	2 > 6-25m	1 > 25m
CVR Codes:	0 = none	1 0% - 10%	2 10 - 25%	3 25 - 60%	4 > 60%		
Stand Composition:							
Size Class Analysis:							
Standing Snags:							
Deadfall / Logs:							
BA:							

[illegible]

Survey of classes: No votes at present

* Turn Over

Soils Ontario and ELC Soils Description					Summary
Site Metrics				pH/Auger #	
Slope		UTM			
Zone					Moisture Regime
Easting					
Northing					
Position					
Aspect					
Percent					Drainage
Slope					
Length					

Soil Horizon Description							Depth to...		Effective Texture (indicate below)
Mottles							35 cm		
Gley									
Water Table									
Carbonates									
Bedrock									
1	Depth from zero	% CF	% CF	% CF	% CF	% CF	% CF		
	Texture	dark brown brown							
2	Depth from zero	% CF	% CF	% CF	% CF	% CF	% CF		
	Texture	mid brown							
3	Depth from zero	% CF	% CF	% CF	% CF	% CF	% CF		
	Texture	gray fine silty sand		strong mottles					
4	Depth from zero	% CF	% CF	% CF	% CF	% CF	% CF		
	Texture								
	% Surface Stone/Rock								
	Moisture Regime								
	Drainage								

① Rather extensive piece of woodlot that is intertwined complex of SWD and FOD, due to subtle changes in topography - and where seasonal flooding occurs. Overall Green Ash Mineral Swamp is the most predominant Vegetation type

- Contain inclusions of Sugar Maple - Birch - W. Ash
Veg Type: FOD 6-5 / SWD 2-2

② Green Ash Swamp at Corner of Woodlot
utm - 447655 / 4795795

2-4 Fraxinus

3-3 Ulmus > Fraxinus

4-2 Fraxinus.

6-2 Crx - Astilbe

Veg Type: Green Ash Mineral Swamp SWD 2-2

- Very apparent extensive seasonal flooding with muck up to 50 cm on tree trunks

③ Moist Ash - Birch - Poplar Forest utm - 447685 / 4795720

2-4 Fraxinus - Betula - Populus

3-4 Hamamelis > Ulmus

4-3 Linnaea > Viburnum

6-4 Rhynchospora - Fraxinus - Crataegus > Pyracantha

Veg Type: f-m FOD 7/8?

ELC	Site:	GS#	1758	Polygon:	9
Component / Description and Classification	Surveyors:	Date:	Time	start:	17-45
UTMZ: 17	Kawminta	Sept 21/11	UTMZ: 447620	UTMN: 4795550	
				finish:	

Stand Description

HT Codes:	<0.2m	0.2-0.5m	0.5-1m	1-2m	2-6.25m	1>25m			
CYR Codes:	0	1	0% - 10%	2	10 - 25%	3	25 - 60%	4	> 60%
Stand Composition:									
Size Class Analysis:									
Standing Snags:									
Deadfall / Logs:									
BA:									
Abundance Codes:	N = None	R = Rare	O = Occasional	A = Abundant					

Com. Age:	☐ Pioneer	☐ Young	☐ Mid-Age	☒ Mature	☐ Old Growth
Ecosite:					
Vegetation Type:	d.f. Sugar Maple - W. Ash				Code:
Inclusion:					Code:
Complex:					Code:
					FOD5-8

Community Profile Diagram/Comments

Tree Tally by Species						Palm Factor	2
Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Avg.	
Total						100	
Basal Area (BA)							
Dead							

Soil Horizon Description					Depth to...				
					Effective Texture (Indicate below)				
Clay									
Water Table									
Carbonates									
Bedrock									
1	Depth from zero	% CF	% CF	% CF	% CF				
	Texture								
2	Depth from zero	% CF	% CF	% CF	% CF				
	Texture								
3	Depth from zero	% CF	% CF	% CF	% CF				
	Texture								
4	Depth from zero	% CF	% CF	% CF	% CF				
	Texture								
	% Surface Stone/Rock								
	Moisture Regime								
	Drainage								

Q Moist Deciduous Forest UTM - 447420/479550

2-4 Fraxinifera > Tilia > Acer

3-4 Acer > Ulmus - Carpinus

6-4 Asplenium - Equisetum > Crataegus - Rhynchospora

Veg Type: df Sugar Maple - Basswood FOD 5-6

Polygon	Description	Topographic Feature	Plant Form	Community
System	Substrate			
☐ Terrestrial	☒ Organic	☐ Lacustrine	☐ Plankton	☐ Lake
☐ Wetland	☒ Mineral Soil	☐ Riverine	☐ Submerged	☐ Pond
☐ Aquatic	☐ Parent Min.	☐ Bottomland	☐ Floating-LVD.	☐ River
Site	☐ 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
History		☐ Talus	☐ Coniferous	☐ Barren
☐ Natural		☐ Crevice/Cave	☐ Mixed	☐ Meadow
☐ Cultural		☐ Alver		☐ Prairie
Cover		☐ Rockland		☐ Thicket
☐ Open		☐ Beach / Bar		☐ Savannah
☐ Shrub		☐ Sand Dune		☐ Woodland
☐ Treed		☐ Bluff		☒ Forest
				☐ Plantation

Species in Order of Decreasing Dominance (up to 4 sp)

HT Codes:	<0.2m	0.2-0.5m	0.5-1m	1-2m	2-6m	6-25m	>25m
CVR Codes:	0	1 0%- 10%	2 10- 25%	3 25- 60%	4 > 60%		

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

Ecocsite:		Code:	
Vegetation Type:	Most w/ Ash - Bur Oak	Code:	F0D71
Inclusion:		Code:	
Complex:		Code:	

Forced to swim along Blackfish
Appears to be Ash Swamp Maple Swamp further E in the

[illegible]

Summary	Pit/Auger #	Site Metrics					Moisture Regime
		Slope		UTM			
		Zone					
		Easting					
		Northing					
		Position					
		Aspect					
Drainage	Percent						
	Slope						
	Length						

Soil Horizon Description				Depth to...				Effective Texture (Indicate below)
Mottles								
Gley								
Water Table								
Carbonates								
Bedrock								
1	Depth from zero		% CF		% CF		% CF	% CF
	Texture							
2	Depth from zero		% CF		% CF		% CF	% CF
	Texture							
3	Depth from zero		% CF		% CF		% CF	% CF
	Texture							
4	Depth from zero		% CF		% CF		% CF	% CF
	Texture							
% Surface Stone/Rock								
Moisture Regime								
Drainage								

⑤ Mount Ash Forest
along Blackbush Road

FOD 7-2

UTM 447080 / 4795250

2-4 Fraxinus - Fraxinus > Tilia - Populus - Acer

3-3 Ulmus - Acer

4-3 Viburnum - Caragana - Viburnum

6-4 Astilbe - Euonymus - Crataegus - Rhus
inclusions of seasonal ponding

⑦ mid Age W. Pine Plantation
w some understorey regen

UTM 447050 / 4795385

2-4 Pinus > Fraxinus

3-2 Ulmus > Rhus

6-3 Rhus - Astilbe
inclusions of seasonal ponding

CUP 3-2

④ Young disturbed forest w broken canopy + dense shrub layer

UTM 447095 / 4795110

2-4 Fraxinus > Populus

60% canopy.

3-4 Ulmus - Caragana

4-4 Viburnum - Viburnum - Corchorus

6-4 Rhus > Solanum - Fraxinus - Astilbe.

FOD 7-2

Note inclusions of shallow seasonal ponding

Location: Goshen 280

Observer:

Job Number:

1: ASH 1758
2: GSH 1801
3:

4: _____
5: _____
6: _____

SITE LOCATIONS

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

ELC WILDLIFE	SITE: Goshan 280 GSH 1758 + 1801
	POLYGON:
	DATE: Sept 21 / 2011
	SURVEYORS: K. M. S. T. A.
	START TIME: 12:30 END TIME:

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

POTENTIAL WILDLIFE HABITAT:

☒ VERNAL POOLS	☒ SNAGS
☐ HIBERNACULA	☒ FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#
M	E. Chipmunk	OB			H	Spring Peeper	VO	calling, several locations	
	Raccoon	SC	and TR			Wood Frog	OB		
	W.T. Doe	TK			H	Red backed	OB	2 found under rotten log at 447620	
V	Gray Squirrel	VO							4715550
B	CO GR	OB							
B	Wild Turkey	DP	feathers						
	AM CR	VO							
	BL TA								
	RC CH	OB			L	Common Sulfur	OB		
	NO FL	VO							
	HA WO	OB							
	AM RD								
	GB HE	OB	Pygmy						
	YR WA	VO							
	RE VI	VO							
V	WB NU	VO							
	RN BL	OB							

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)

DATE	1971
TIME	10:00
LOCATION	1000
NAME	1000
ADDRESS	1000
CITY	1000
STATE	1000
ZIP	1000

DATE	1971
TIME	10:00
LOCATION	1000
NAME	1000
ADDRESS	1000
CITY	1000
STATE	1000
ZIP	1000

DATE	1971
TIME	10:00
LOCATION	1000
NAME	1000
ADDRESS	1000
CITY	1000
STATE	1000
ZIP	1000



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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 colony by less than about five individuals or small clumps

[illegible]

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	<u>(GSH)</u>	Map #:	<u>280-GSH1759</u>
Date:	<u>April 24, 2012</u>			Time Started:	<u>8:00am</u>
Field Staff:	<u>BA, SG</u>			Time Finished:	<u>11:00am</u>
Weather Conditions: <u>Overcast, Rain/Snow/Hail // Very Windy</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: 17T 0447301, 4795499 Number of nests: 1

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present):
Nest located in top of large poplar tree near edge of forest and agricultural field (Picture # 93, 94)

Description of habitat (note riparian areas if present, evidence of disturbance): In Poplar/Asch area adjacent Sugar Maple forest and agricultural field

Waterfowl 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:
See Vernal Pool sheets for detailed data, not suitable for waterfowl stopover, turtle nesting or 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

Time Started: 8:00 am

Time Finished: 11:00

118.67 cup

[illegible]

Breeding Bird (Probable)

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 <i>Bloom Time - Spring</i>	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>Coralorhiza 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: NO
FOC, FOM, FOD	Burning Bush (<i>Euonymus atropurpureus</i>) - S3 Bloom <i>Time - April - June</i>	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 <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: NO
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: NO
ALT1, FOD7	Eastern Green-violet (<i>Hybanthus concolor</i>) - S2 Bloom <i>Time -mid March to August</i>	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? Bloom Time-	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, FOD6, FOD7, FOD9	June – August 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 <u>Maple forest</u> and forest dominated by <u>Red Ash</u> and <u>White Elm</u> .	Y N UTM: NO
TPO1, 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: NO
FEOT1, 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: NO
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: NO
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Engenia bulbosa</i>) - S3 <u>Bloom Time</u> – early to late April	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</u> – summer	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</u> – June to August	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</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: NO
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: NO
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: NO
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 <u>Bloom Time</u> – July-September	Dry, sandy or rocky woods	Y (N) UTM: NO
FOD7, SWD	Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? <u>Bloom Time</u> – March – June	Swamps and floodplains	Y (N) UTM: NO
CUM1, 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: NO
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: NO
FOD6, FOD7, FOD9	Round-leaved Groundsel (<i>Packera obovata</i>) - S3 <u>Bloom Time</u> – May – June	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</u> – May to October	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 Mulihi (<i>Muhlenbergia tenuiflora</i>) - S2	Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods	Y (N) UTM: NO
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>Gentianella quinquefolia</i>) - S2 <u>Bloom Time</u> – late summer to mid fall	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	Y (N) UTM: NO
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: NO

Species Conservation Concern Habitat and Incidental Wildlife – Goshen

ACOM

LC	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 Pinetrops (<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>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.	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 meads. 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

Significant Wildlife Habitat Form

Re-visit Nest Bowl

AECOM

Study Area:	BLW JER <u>GSH</u>	Map #:	<u>280-GSH1759</u>
Date:	<u>18 May 2012</u>	Time Started:	<u>8:30</u>
Field Staff:	<u>A. Oat</u>	Time Finished:	<u>8:55</u>
Weather Conditions:	<u>Sunny, 18°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: 447301, 4795499 Number of nests: 1

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

Nest actually in tall Green Ash ~ 20m high near edge of beaulach + field
Size of Crow nest + likely Crow, Crows heard calling nearby; No birds seen near nest

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

Also second old nest in Ash about 10m away

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

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

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

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

UTMs: ☐ Area of standing water delineated on field map

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

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

Area and soil/substrate of shoreline habitat:

Type and abundance of cover in open water habitat:

Type and abundance of cover in surrounding habitat:

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

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

Complete Vernal Pool Habitat Description Form

Snake Hibernacula

Fissured rock/foundation or rock/debris pile present:

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

UTMs: _____ Likelihood to extend below frost line: _____

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

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

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

Seeps and Springs

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

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

UTMs: _____ Description (indicator species, etc):

* Additional - bird calls heard are on back of sheet

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

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

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

☐ No

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

UTMs: _____

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

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

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

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

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



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>Capella bursa-pastoris</i>)						Kidney-leaf Buttercup (<i>Ranunculus abortivus</i>)					
White Snakeroot (<i>A. racemosa</i>)						Cutleaf Toothwort (<i>Cardamine concatenata</i>)						Tall Buttercup (<i>Ranunculus acris</i>)					
Com. Ragwort (<i>Ambrosia artemisiifolia</i>)						Toothwort (<i>Cardamine diaphylla</i>)						Hooked Buttercup (<i>Ranunculus recurvatus</i>)					
Giant Ragwort (<i>Ambrosia trifida</i>)						Penn. Bitter-cress (<i>Cardamine pensylvanica</i>)						<i>Ranunculus</i>					
Field Pussytoes (<i>Antennaria neglecta</i>)						<i>Cardamine</i>						Sheep Sorrel (<i>Rumex acetosella</i>)					
<i>Artemisia</i>						Blue Cohosh (<i>Caulophyllum thalictroides</i>)						Curly-leaf Dock (<i>Rumex crispus</i>)					
Common Burdock (<i>Arctium minus</i>)						Mouse-ear Chickweed (<i>Cerastium fontanum</i>)						Bitter Dock (<i>Rumex obtusifolius</i>)					
Nodding Beggar-ticks (<i>Bidens cernua</i>)						Turtlehead (<i>Chelone glabra</i>)						Bloodroot (<i>Sanguinaria canadense</i>)					
Devil's Beggar-ticks (<i>Bidens frondosa</i>)						Spotted Water-hemlock (<i>Cicuta maculata</i>)						Black Snakeroot (<i>Sanicula marilandica</i>)					
Spotted Knapweed (<i>Centaurea biebersteinii</i>)						Water-hemlock (<i>Cicuta virosa</i>)						Bouncing Bet (<i>Saxifraga officinalis</i>)					
Brown Knapweed (<i>Centaurea jacea</i>)						Enchanter's Nightshade (<i>Circaea lutetiana</i>)						Marsh Skullcap (<i>Scutellaria lateriflora</i>)					
Chicory (<i>Cichorium intybus</i>)						Carolina Spring Beauty (<i>Claytonia caroliniana</i>)						Mad Dog Skullcap (<i>Scutellaria latiflora</i>)					
Canada Thistle (<i>Cirsium arvense</i>)						Virginia Spring Beauty (<i>Claytonia virginica</i>)						White Camion (<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>Euphorbia annuus</i>)						Doan's-transplanting Vine (<i>Cynanchum rossicum</i>)						Bitter Nightshade (<i>Solanum dulcamara</i>)					
Philadelphia Fleabane (<i>Euphorbia philladelphica</i>)						Wild Carrot (<i>Daucus carota</i>)						Black Nightshade (<i>Solanum nigrum</i>)					
<i>Euphorbia</i>						Deerfoot 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 purfolium</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 Pennycress (<i>Thlaspi arvense</i>)					
Orange Hawkweed (<i>Hieracium aurantiacum</i>)						Virgin's Bulbous (<i>Echium vulgare</i>)						Foamflower (<i>Tiarella cordifolia</i>)					
Field Hawkweed (<i>Hieracium caespitosum</i>)						Northern Willow-herb (<i>Eriobium ciliatum</i>)						Star-flower (<i>Trenitalia borealis</i>)					
<i>Hieracium</i>						Hairy Willow-herb (<i>Eriobium hirsutum</i>)						Red Clover (<i>Trifolium pratense</i>)					
Elephant's-ear (<i>Inula helenium</i>)						Small-fl. Willow-herb (<i>Eriobium parviflorum</i>)						White Clover (<i>Trifolium repens</i>)					
Prickly Lettuce (<i>Lactuca serriola</i>)						<i>Eriobium</i>						<i>Trifolium</i>					
<i>Lactuca</i>						Worm Mustard (<i>Erysimum cheiranthoides</i>)						Stinging Nettle (<i>Urtica dioica</i>)					
Ox-eye Daisy (<i>Leucanthemum vulgare</i>)						<i>Euphorbia</i>						Greater Bladderwort (<i>Utricularia vulgaris</i>)					
Pineapple-weed (<i>Matricaria discolor</i>)						Worm Nettle (<i>Galeopsis tetrahit</i>)						Common Mullein (<i>Verbascum thapsus</i>)					
Tall White Lettuce (<i>Prenanthes altissima</i>)						Wild Madder (<i>Galium mollugo</i>)						Blue Vervain (<i>Verbena hastata</i>)					
Black-eyed Susan (<i>Rudbeckia hirta</i>)						Marsh Bedstraw (<i>Galium palustre</i>)						White Vervain (<i>Verbena urticifolia</i>)					
Tall Goldenrod (<i>Solidago altissima</i>)						Sweet-scented Bedstraw (<i>Galium triflorum</i>)						Water Speedwell (<i>Veronica anagallis-aquatica</i>)					
Blue-stem Goldenrod (<i>Solidago caesia</i>)						<i>Galium</i>						Common Speedwell (<i>Veronica officinalis</i>)					
Canada Goldenrod (<i>Solidago canadensis</i>)						Spotted Geranium (<i>Geranium maculatum</i>)						<i>Veronica</i>					
Zinnia Goldenrod (<i>Solidago flexicaulis</i>)						Herb-robert (<i>Geranium robertianum</i>)						Cow Vetch (<i>Vicia cracca</i>)					
Giant Goldenrod (<i>Solidago gigantea</i>)						Yellow Avena (<i>Geum alepense</i>)						<i>Vicia</i>					
Early Goldenrod (<i>Solidago uncea</i>)						White Avena (<i>Geum canadense</i>)						Periwinkle (<i>Vinca minor</i>)					
Gray Goldenrod (<i>Solidago nemoralis</i>)						Urban Avena (<i>Geum urbanum</i>)						Blue 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>)						Virginia 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>Symphoricarpos cordifolius</i>)						Spotted Jewelweed (<i>Impatiens capensis</i>)						<i>Viola</i>					
Heath Aster (<i>Symphoricarpos ericoides</i>)						Wood Nettle (<i>Laportea canadensis</i>)						<i>Viola</i>					
Tall White Aster (<i>Symphoricarpos lanceolatus</i>)						Motherwort (<i>Leonurus cardiaca</i>)						<i>Viola</i>					
Calico Aster (<i>Symphoricarpos lateriflorus</i>)						Field Peppercorn (<i>Lepidium campestre</i>)						<i>Viola</i>					
New England Aster (<i>Symphoricarpos novae-angliae</i>)						Eur. Gromwell (<i>Lithospermum officinale</i>)						<i>Viola</i>					
Purple-stem Aster (<i>Symphoricarpos purpureus</i>)						Butter & Eggs (<i>Linaria vulgaris</i>)						<i>Viola</i>					
Common Tansy (<i>Tanacetum vulgare</i>)						Great Lobelia (<i>Lobelia spicata</i>)						<i>Viola</i>					
Common Dandelion (<i>Taraxacum officinale</i>)						<i>Lobelia</i>						<i>Viola</i>					
Com. Goatshead (<i>Thlaspi pratensis</i>)						Cut-leaf Bugleweed (<i>Lythrum americanus</i>)						Water Plantain (<i>Alisma plantago-aquatica</i>)					
Cotfoot (<i>Tussilago farfara</i>)						Northern Bugleweed (<i>Lythrum uniflorus</i>)						Wild Leek (<i>Allium tricoccum</i>)					
						Fringed Loosestrife (<i>Lythrum ciliata</i>)						Jack-in-the-pulpit (<i>Amorpha triphyllum</i>)					
						Monardella (<i>Lythrum nummularia</i>)						Asarum (<i>Asarum officinale</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-fl. Iris (<i>Iris versicolor</i>)					
						Small Forget-me-not (<i>Myosotis laxa</i>)						Orange Day Lily (<i>Hemerocallis fulva</i>)					
						Forget-me-not (<i>Myosotis scorpioides</i>)						Lesser Duckweed (<i>Lemna minor</i>)					
						Water-cress (<i>Nasturtium officinale</i>)						Sour Duckweed (<i>Lemna insulca</i>)					
						Com. Evening primrose (<i>Oenothera biennis</i>)						Wild Lily-of-the-valley (<i>Maianthemum canadense</i>)					
						Sweet-cicely (<i>Osmorhiza berterii</i>)						False Solomon Seal (<i>Maianthemum racemosum</i>)					
						Yellow Wood-sorrel (<i>Oxalis stricta</i>)						Star False Solomon (<i>Maianthemum stellatum</i>)					
						Wild Parsnip (<i>Pastinaca sativa</i>)						True Solomon Seal (<i>Polygonatum perfoliatum</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>)					
						Mar. 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>Sisynchium montanum</i>)					
						<i>Polygonum</i>						Herb Canton Flower (<i>Smilax herbacea</i>)					
						<i>Polygonum</i>						Bristly Greenbrier (<i>Smilax hispida</i>)					
						Rough Cin. ufoil (<i>Potentilla norvegica</i>)						Nodding Ladies' Tresses (<i>Spiranthes cernua</i>)					
						Rough-fruited Cin. ufoil (<i>Potentilla recta</i>)						Rose Twisted-stalk (<i>Streptopus lanceolatus</i>)					
						Common Cin. ufoil (<i>Potentilla simplex</i>)						Skunk-cabbage (<i>Symplocarpus foetidus</i>)					
						<i>Potentilla</i>						Purple Trillium (<i>Trillium erectum</i>)					
						Heal-all (<i>Prunella vulgaris</i>)						White Trillium (<i>Trillium grandiflorum</i>)					
						Shinleaf (<i>Viola 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 by 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>GSH</u>	Map #:	<u>280-GSH-1801</u>
Date:	<u>April 24, 2012</u>			Time Started:	<u>2:00 pm</u>
Field Staff:	<u>SG, RA</u>			Time Finished:	<u>4:00 pm</u>
Weather Conditions:	<u>Sunny, windy</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

Time Started:
Time Finished:

A- 7-603-1 8 CUM-1 9 FOD-1 10 S-03-3

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

DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, 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, 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 - 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 <u>Bloom Time - Spring</u>	Thin soil over level outcrop ledges and on soil under grasses in open prairie	Y (N) UTM:
FOM1, FOM2, CUP3	Autumn Coral-root (<i>Coralorrhiza odorifhoriza</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: n/o
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: n/o
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:
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: n/o
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:
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? <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, 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: n/o
TPO1, 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: n/a
FEO1, 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: n/o
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: n/o
FOD6, FOD7, FOD8, FOD9	Time – early to late April 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	Time – summer 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	S2 <u>Bloom Time</u> – June to August 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: n/o
MAM2, MAM3, MAS2, MAS3, SWD	June – September 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: n/o
FOD6, FOD7, FOD9	March–May Pawpaw (<i>Asimina triloba</i>) - S3 <u>Bloom Time</u> – March–May	Occurs in moist deciduous woods and stream banks.	Y N UTM: n/o
FOM8, EQD6, FOD7, FOD9, CUM1	Early Summer Pilosae Everling 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	July–September Prostrate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 <u>Bloom Time</u> – July–September	Dry, sandy or rocky woods	Y N UTM: n/o
FOD7, SWD	March – June Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? <u>Bloom Time</u> – March – June	Swamps and floodplains	Y N UTM: n/o
CUW1, ALO, FET1, SWC	Mid June 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	September 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	June Round-leaved Groundsel (<i>Packera obovata</i>) - S3 <u>Bloom Time</u> – June	Found in moist woods	Y N UTM: n/o
CUM1, CUT1, CUS1	June Round-leaved hawthorn (<i>Crataegus lumarina</i>) - S3?	Species occurs in old fields, poorly managed pastures, fencelines and roadsides	Y N UTM: n/o
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	May to October Scarlet Beebalm (<i>Monarda didyma</i>) - S3 <u>Bloom Time</u> – May to October	Found in moist, rich woods, thicket swamps, banks and floodplains.	Y N UTM: n/o
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star (<i>Liatris cylindracea</i>) - S3	Species occurs in limestone and dolomite pavement, prairies, open woods; always and moist sandy meadows.	Y N UTM:
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	S2 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	S2 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:
BL01, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	late fall 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	mid-March to mid-June 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

ADOM

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: n/a
FE0, FES, FET, MAM2, MAM3	Tuberous Indian Plantain (<i>Amorpha canescens</i>) - S2	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 Pinelands (Pteris caudata) - 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: n/a
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: n/a
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: n/a
FOD, FOM	Louisiana Waterthrush (<i>Seiurus motacilla</i>) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration.	Y N UTM: n/a
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: n/a
-	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: n/a
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: n/a
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: n/a
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: n/a
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: n/a

Wetland Data Collection Sheet

AECOM

Study area: <u>Goshen</u>	Map No: 280 <u>280-GSH 1801</u>
Date (yyyy-mm-dd): <u>April 24, 2012</u>	Time Started: <u>2:00 pm</u>
Field Staff: <u>SG, RA</u>	Time Finished: <u>4:00 pm</u>

Presence of Groundwater	
No ☒	Yes ☐
☐ bank seepage	☐ iron staining ☐ groundwater indicator

Site Type	Lacustrine ☐ (associated with lakes)	Isolated ☒
	Riverine ☐ (associated with rivers)	
	Palustrine ☐ absent or intermittent inflow and either intermittent or permanent outflow	
what are the water inputs and outputs? <u>precipitation, evaporation, evapotranspiration</u>		

Soils	refer to ELC card for soils information
<u>Silty loam: 0-20cm; Silty clay loam w/ gley: 20cm; water table: 20cm</u>	

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

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

Map Code/ ELC Code	Community Description - list at least four dominant species for each form
<u>SWD3-3</u>	<u>Acer freemanii - D</u> <u>Fraxinus pennsylvanica - F</u>
<u>SWD3-3</u>	<u>Lindera benzoin - F</u> <u>Ulmus americana - F</u>
<u>SWD3-3</u>	<u>Onoclea sensibilis</u>

same community
different
layers

Wetland Data Collection Sheet

Notes on Ecological Functions or features

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

Swamp

Collection

November 21 2011



-  Roads
 Watercourse Crossing
 Property Fabric
 Road & Collection
 Collections
 Roads
 Proposed Changes
 Area of Disturbance



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
	☐ Acidic Bedrk	☐ Terrace	☐ Graminoid	☐ Stream
Site	☐ Basic Bedrk	☐ Valley Slope	☐ Forb	☐ Marsh
☐ Open Water	☐ Carb. Bedrk	☒ Tableland	☐ Lichen	☒ Swamp
☐ Shallow Water		☐ Roll. Upland	☐ Bryophyte	☐ Fen
☒ Surficial Dep.		☐ Cliff	☒ Deciduous	☐ Bog
☐ Bedrock		☐ Talus	☐ Coniferous	☐ Barren
History		☐ Crevice/Cave	☐ Mixed	☐ Meadow
☒ Natural		☐ Alvar		☐ Prairie
☐ Cultural		☐ Rockland		☐ Thicket
Cover		☐ Beach / Bar		☐ Savannah
☐ Open		☐ Sand Dune		☐ Woodland
☐ Shrub		☐ Bluff		☐ Forest
☒ Treed				☐ Plantation

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4.sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	2	4	Kra Nig > 7 ulm Ave = Acer x 5/6
2			
3	3	2	Linton = Horn Vlig
4	6	1	carex sp

T Codes: 7 < 0.2m 8 > 0.2-0.5m 9 > 0.5-1m 4 > 1-2m 3 > 2-6m 1 > 25m
VR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 80% 4 > 80%

Stand/Composition:	Size/Class Analysis:	Standing Snags:	Deadfall/Logs:
3A:	<10	<10	<10
	A	Q	Q
	10-24	10-24	10-24
	25-50	25-50	25-50
	>50	>50	>50

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

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

Ecote: Vegetation	Ask Mineral Deciduous swamp	Code: SWDZ
Type:	Black Ash mineral deciduous swamp	Code: SWDZ-1
Inclusion:	Type	Code:
Complex:		Code:

community Profile Diagram/Comments

Stack Ask swap specified with white & blue tape

Notes:

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	BA Area
Total						100
Basal Area (BA)						
Dead						

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