

Appendix B1

Site Investigation

Significant Wildlife Habitat Form

AECOM

Study Area: BLW JER (GSH) Map #: 0-GSH1765
 Date: 2012-04-17 Time Started: 1:30
 Field Staff: Tom Shorney Jess Piette Time Finished: 2:30
 Weather Conditions: SUNNY 5°C 20km/h

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, FE01)

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

UTMs: 17T 48058 4793864 Area of standing water delineated on field map

Water depth (m): N/A (too large) % open water: 90% % emergent vegetation: 5%

Description of standing water (permanent pool, evidence of annual spring flooding, etc):
Permanent Pond → possibly deep in center

Area and soil/substrate of shoreline habitat: Some exposed sand along edge, mineral soil type

Type and abundance of cover in open water habitat: Some grass sp Trees and shrubs → red osier dogwood

Type and abundance of cover in surrounding habitat: Willow sp / Cottonwood surrounding Vege. cover

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

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: Mallards/geese flushed as we approached → Salamander / Frog sp tadpoles observed

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
44	Salamanders		

Species Conservation Concern Habitat and Incidental Wildlife - Goshen



Map No: 0-65H1765
 Date (yyyy-mm-dd): 2012-04-17

Field Staff: Tom Shockey
Jess Pfeiffer

Time Started: 1:30
 Time Finished: 2:30

Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Song Sparrow		VO	calling along edge of pond				
marsh wren		OB	flushed from pond				
Robin		VO	edge of pond				
Peeper		VO	in pond				
Opereal		OB	North end of pond				
Red-winged Black		VO	calling along edge of pond				
Yellowbird		OB	in trees				
hawk sp.		VO	heard out of study area				
woodpecker sp.		VO	heard pecking out of study area				
Swallow sp.		OB	catching flies over pond				
Robin		VO	calling - edge of pond				
Downy woodpecker		OB	on tree along edge of pond				

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=Feeds/Faecal sack, AE=Nest Entry

Other Wildlife Evidence: OB=observed, VO=Vocalization, CA=Carass, 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 <input checked="" type="checkbox"/> 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 <input checked="" type="checkbox"/> 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 <input checked="" type="checkbox"/> UTM:
FOC, FOM, FOD	Burning Bush (Euonymus atropurpureus) - S3 Bloom Time - April - June	Species occurs in dry to moist deciduous thickets and woods	Y <input checked="" type="checkbox"/> UTM:
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (Coriiselinum 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 <input checked="" type="checkbox"/> 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 <input checked="" type="checkbox"/> 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 floodplains and river banks.	Y <input checked="" type="checkbox"/> 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 <input checked="" type="checkbox"/> UTM:
TPO2, TPS2, TPW2	Giant Ironweed (Vernonia gigantea) - S1? Bloom Time -	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y <input checked="" type="checkbox"/> UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen



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

Species Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC		Species	Habitat Description	Habitat Present (Y/N); UTM; description of habitat if present
TP01, TPS1, TPW1, CUM1		Tall Blazing Star (<i>Liatris aspera</i>)-S2/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y (N) UTM:
FEO, FES, FET, MAM2, MAM3		Tuberous Indian Plantain (<i>Amoglossum plantagineum</i>) - S3 Bloom Time –mid-March to mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	Y (N) UTM:
FOC1, FOC2, FOC3, FOC4		Woodland Pinedrops (<i>Pterospora andromedea</i>) - S2 Bloom Time – summer	Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.	Y (N) UTM:
CUM1, CUT1, CUW1, RBO1, SBO1		Yellow Ladies'-tresses (<i>Spiranthes ochroleuca</i>) - S2 Bloom Time – August to November	Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.	Y (N) UTM:
BIRDS				
-		Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUW, SDO, RBO, TPS		Common Nighthawk (<i>Chordeiles minor</i>) - SC	Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats.	Y (N) UTM:
FOD, FOM		Louisiana Waterthrush (<i>Seiurus motacilla</i>) - SC	Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration	Y (N) UTM:
FOD, CUW, CUT		Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/ edges (oak savannahs and riparian forest), open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory.	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 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:

177- GASH 1068



09/28/08 ELC 0572/330047

GASH 1068

(600) 214-1111
 07/28/08
 ELC 0572/330047
 177- GASH 1068

100

ELC
 Community Description and Classification
 Surveyor(s): *Griffin*
 Date: *July 12, 2011*
 Polygon: *CE72*
 Time start: *8:12 am*
 Time finish: *11:15 am*
 UTMZ: *17*
 UTMN:

Polygon Description *22°C, overcast-80% cloud cover*

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

Stand Description
 Species in Order of Decreasing Dominance (up to 4 sp)
(>> Much Greater Than; > Greater Than; = About Equal To)
 1 *4* *FRANIER >> ACE-SACK*
 2 *3* *ACE-SACK*
 3 *4* *ZANAMEL >> R-HAGATH*
 4 *6* *FRANIER >> GRINLET > TOX & ADI > YELLOW-GURT*

HT Codes: 7 < 0.2m 8 > 0.2-0.5m 9 > 0.5-1m 4 > 1-2m 3 > 2-4m 2 > 6-25m 1 > 25m
 CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 > 50%

Stand Composition: Size Class Analysis:
 Standing Snags: *R < 10 0 10-24 A 25-50 R > 50*
 Deadfall / Logs: *N < 10 N 10-24 N 25-50 N > 50*
 Deadfall / Logs: *A < 10 A 10-24 O 25-50 N > 50*

Abundance Codes: N = None R = Rare O = Occasional A = Abundant
 Com. Age: Pioneer Young Mid-Age Mature Old Growth

Ecosite: *Deciduous forest*
 Vegetation Type: *High Moist forest*
 Inclusion: Code: *FOO*
 Complex: Code: *FOO#Z*

Community Profile Diagram/Comments
Ecology topography
 Notes:
Used same soil as SMN 47, same forest community

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
ACE-SACK	11					
FRANIER	11					
ZANAMEL	11					
GRINLET	11					
Total	<i>12</i>					100
Basal Area (BA)	<i>24</i>					
Dead						

Soils Ontario and ELC Soils Description

Site Metrics		Pit/Auger #	Soils Description				Summary
UTM	Zone	<i>17</i>					Moisture Regime <i>6</i>
	Easting						
	Northing						
	Position						Drainage <i>P/I</i>
	Aspect						
	Percent						
	Slope						Effective Texture (indicate below) <i>C</i> % CF
	Slope Length	<i>200m</i>					
	Mottles						
	Gley						% CF
	Water Table						
	Carbonates						
	Bedrock						% CF
	Depth from zero	<i>19</i>					
	Texture	<i>S/C</i>					
	Depth from zero	<i>40</i>					% CF
	Texture	<i>C</i>					
	Depth from zero						
	Texture						
	Depth from zero						% CF
	Texture						
	Depth from zero						
	Texture						
	% Surface Stone/Rock						% CF
	Moisture Regime	<i>6</i>					
	Drainage	<i>Very moist</i>					

Surveyor(s): Yes + Kelly Date: July 12, 2011 Time start: 7:32 AM finish: 11:50 AM
 UTMZ: 17 UTMZ: UTMN Polygon: Scimens 47

Polygon Description 22C, west-80' cloud cover

System	Substrate	Topographic Feature	Plant Form	Community
<input type="checkbox"/> Terrestrial <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Aquatic Site <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input type="checkbox"/> % Surface Dep. <input type="checkbox"/> Bedrock History <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Cultural Cover <input type="checkbox"/> Open <input type="checkbox"/> Shrub <input checked="" type="checkbox"/> Tree	<input type="checkbox"/> Organic <input checked="" type="checkbox"/> Mineral Soil <input type="checkbox"/> Parent Min. <input type="checkbox"/> Acidic Bedrk <input type="checkbox"/> Basic Bedrk <input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Bottomland <input type="checkbox"/> Terraces <input type="checkbox"/> Valley Slope <input checked="" type="checkbox"/> Stableland <input type="checkbox"/> Roll. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Alier <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD. <input type="checkbox"/> Graminoid <input type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Mixed	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Marsh <input checked="" type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> 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	1	U	FRANITIC >> KESACK >> FERNIER >> WAIMANER
2			
3	4	U	FRICKYASH >> RHACATH
4	6	U	100% SH >> SICENT >> YELLAGYENS >> FOX >> RAD /

HT Codes: 7 < 0.2m 8 > 0.2-0.5m 9 > 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 - 50% 4 > 50%

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

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

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

Ecosite: Substrate Deciduous Forest Code: SUBSTRATE F007
 Vegetation Type: Shrub-dominated deciduous swamp Code: SAPADA F072
 Inclusion: fresh-kill ASH Island Code:
 Complex: Code:

Community Profile Diagram/Comments

XUSY TOLE BRUSHY
 Cecropia sp.
 -> young forest of soft leafy trees

Notes:

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
ACEBACH	1				1	
FRANITIC	1				1	
WAIMANER	1				1	
ACECUBC	1				1	
Total	4				4	100
Basal Area (BA)	10				10	
Dead	1				1	

Soils Ontario and ELC Soils Description

Site Metrics	PH/Auger #	Soils Ontario and ELC Soils Description	Summary
Zone	17		
Easting	437999		Moisture Regime
Northing	4787220		6
Position	M.A		
Aspect			
Percent	1%		Drainage
Slope			1/1
Length			
Mottles	200M		
Gley			Effective Texture (Indicate below)
Water Table			% CF
Carbonates			% CF
Bedrock			% CF
1	Depth from zero	10cm	% CF
	Texture	SIC	% CF
2	Depth from zero	40cm	% CF
	Texture	C	% CF
3	Depth from zero		% CF
	Texture		% CF
4	Depth from zero		% CF
	Texture		% CF
	% Surface Stone/Rock		% CF
	Moisture Regime	6	% CF
	Drainage	very moist	% CF

eff. C Poor/impaired

VASCULAR PLANT CHECKSHEET

Location: Goheen GF70

Date: July 12, 2011

Observer: Jess + Becky

Job Number:

DICTYOCOT HERBS						MONOCOT HERBS					
1	2	3	4	5	6	1	2	3	4	5	6
Achillea millefolium						Plantago lanceolata					
Actaea pachyphloea						Plantago major					
Actaea rubra						Plantago rugelii					
Agalinus						Podophyllum peltatum					
Agriopsis gryposepala	X					Polygonum					
Alliaria petiolata						Polygonum					
Amaranthus retroflexus						Polygonum					
Ambrosia artemisiifolia						Polygonum lapathifolium					
Amphicarpaea bracteata						Polygonum perfoliatum					
Anaphalis margaritacea						Potentilla					
Anemone						Potentilla norvegica					
Anemone canadensis						Potentilla recta					
Anemone virginiana						Pteranthes alba					
Antennaria neglecta						Prunella vulgaris					
Apocynum androsaemifolium						Pyrola elliptica					
Apocynum cannabinum						Ranunculus					
Aquilegia canadensis						Ranunculus abortivus					
Arnica montana						Ranunculus acris					
Arydium minus						Rudbeckia hirta					
Artemisia						Rumex acetosella					
Aster canadensis						Rumex crispus					
Aster ericoides						Rumex					
Aster lanceolatus						Sanguinaria canadensis					
Aster lateriflorus						Sanicula marilandica					
Aster macrophyllus						Saponaria officinalis					
Aster novae-angliae						Satureja vulgaris					
Aster purpureus						Scutellaria galericulata					
Barbarea vulgaris						Silene vulgaris					
Bidens cernua						Sium suave					
Bidens frondosa						Solanum dulcamara					
Bolanderia cylindrica						Solidago					
Bryonia cretica						Solidago altissima					
Calyptella septium						Solidago canadensis					
Candollea diphyla						Solidago canadensis					
Candollea						Solidago flexicaulis					
Caulophyllum thalictroides						Solidago gigantea					
Cerastium fontanum						Solidago nemoralis					
Cerastium demissum						Solidago rugosa					
Chelidonium majus						Sonchus oleraceus					
Chenopodium album						Sonchus asper					
Chrysanth. leucanthemum						Stellaria					
Cichorium intybus						Tanacetum vulgare					
Cicuta						Tanacetum officinale					
Circaea lutetiana	X					Thalictrum dioicum					
Cirsium arvense						Thalictrum pubescens					
Cirsium vulgare						Thlaspi cordifolia					
Cornifolia virginiana						Thlaspi pratense					
Corydalis borealis						Thlaspi repens					
Corydalis canadensis						Tuzillago farfara					
Coronilla varia						Urtica dioica					
Cynanchum rossicum						Urtica vulgaris					
Cynoglossum officinale						Verbascum thapsus					
Daucus carota	X					Verbena hastata					
Desmodium canadense						Verbena urticifolia					
Dianthus armeria						Veronica					
Dipsacus filiformis						Veronica officinalis					
Echinopsyetis lobata						Viola cracca					
Echium vulgare						Viola latrepansae					
Elythium						Viola					
Elythium ciliatum						Viola pubescens					
Elythium hirsutum						Viola sororia					
Elythium parviflorum											

1: SWD

4: _____

2: _____

5: _____

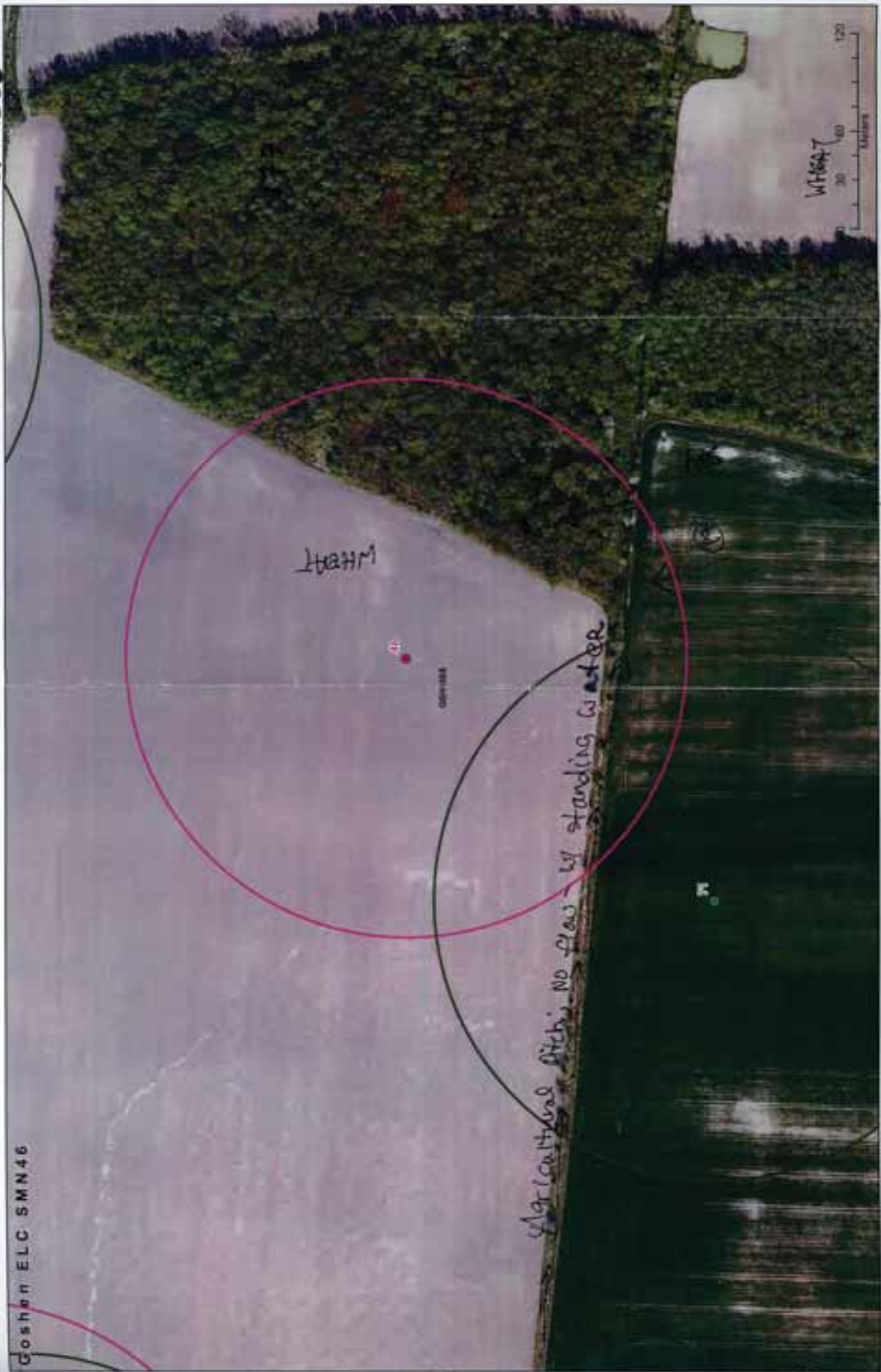
3: _____

6: _____

SITE LOCATIONS

177- GSH1068

Goshen ELC SMN46



Hamm

41

05/11/11

Agricultural Ditch - NO flow - by standing water

WFS&T

0 30 60 120
Meters

Seimens 46 = sunny, 10% overcast

July 12, 2011

- entire length of woodlot
- ~~agricultural~~ land use adjacent / Channelized, agricultural drain / little water

VASCULAR PLANT CHECKSHEET

Location: Goshen SMN 46

Date: July 12, 2011

Observer: JES + Rocky

Job Number:

DICOT HERBS												MONOCOT HERBS											
1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						
<i>Achillea millefolium</i>						<i>Erigeron annuus</i>						<i>Plantago lanceolata</i>						<i>Alisma plantago-aquatica</i>					
<i>Actaea pachyloba</i>						<i>Erigeron philadelphicus</i>						<i>Plantago major</i>						<i>Allium trixocum</i>					
<i>Actaea rubra</i>						<i>Erigeron strigosus</i>						<i>Plantago rugelii</i>						<i>Alum</i>					
<i>Agalinis</i>						<i>Erysimum checarthoides</i>						<i>Podophyllum peltatum</i>						<i>Arisaema triphyllum</i>					
<i>Agriopsis gryposepis</i>	X					<i>Eupatorium maculatum</i>						<i>Polygonum</i>						<i>Asparagus officinalis</i>					
<i>Allaria petiolata</i>						<i>Eupatorium perfoliatum</i>						<i>Polygonum</i>						<i>Cela palustris</i>					
<i>Amaranthus retrofractus</i>						<i>Eupatorium rugosum</i>						<i>Polygonum</i>						<i>Cirsium laciniata</i>					
<i>Ambrosia artemisiifolia</i>						<i>Euphorbia</i>						<i>Polygonum lapathifolium</i>						<i>Conularia majus</i>					
<i>Amphispiza bilineata</i>						<i>Euthamia graminifolia</i>						<i>Polygonum pensilvanicum</i>						<i>Cyperidium calceolus</i>					
<i>Arachnoid marginatus</i>						<i>Fraxinus virginiana</i>						<i>Potentilla</i>						<i>Elymus canadensis</i>					
<i>Anemone canadensis</i>						<i>Fragaria vesca</i>						<i>Potentilla norvegica</i>						<i>Eragrostis heliophora</i>					
<i>Anemone virginiana</i>						<i>Galeopsis tetrahit</i>						<i>Potentilla recta</i>						<i>Erythronium americanum</i>					
<i>Antennaria neglecta</i>						<i>Galium</i>						<i>Prunella alba</i>						<i>Hemerocallis lutea</i>					
<i>Apocynum androsaemifolium</i>						<i>Galium palustre</i>						<i>Prunella vulgaris</i>						<i>Iris versicolor</i>					
<i>Apocynum cannabinum</i>						<i>Galium triflorum</i>						<i>Pyrola asarifolia</i>						<i>Lemna minor</i>					
<i>Aquilegia canadensis</i>						<i>Geranium maculatum</i>						<i>Ranunculus</i>						<i>Lemna trisulca</i>					
<i>Asa foetida</i>						<i>Geranium robertianum</i>						<i>Ranunculus abortivus</i>						<i>Lilium</i>					
<i>Aster multiflorus</i>						<i>Geum alepicum</i>						<i>Ranunculus acris</i>						<i>Mahonia canadensis</i>					
<i>Aster multiflorus</i>						<i>Geum canadense</i>						<i>Rudbeckia hirta</i>						<i>Mahonia racemosa</i>					
<i>Aster multiflorus</i>						<i>Geum</i>			X			<i>Rumex acetosella</i>						<i>Mahonia obtusa</i>					
<i>Aster multiflorus</i>						<i>Glechoma hederacea</i>						<i>Rumex crispus</i>						<i>Polygonum</i>					
<i>Aster multiflorus</i>						<i>Hepatica scutellata</i>						<i>Rumex</i>						<i>Portulaca oleraceae</i>					
<i>Aster multiflorus</i>						<i>Hesperis matronalis</i>						<i>Sanguinaria canadensis</i>						<i>Polygonum pubescens</i>					
<i>Aster multiflorus</i>						<i>Horradium aurantiacum</i>						<i>Sanicula marilandica</i>						<i>Potamogeton crispus</i>					
<i>Aster multiflorus</i>						<i>Horradium cespitosum</i>						<i>Saponaria officinalis</i>						<i>Potamogeton pectinatus</i>					
<i>Aster multiflorus</i>						<i>Hydrophyllum virginianum</i>						<i>Sedum vulgare</i>						<i>Potamogeton</i>					
<i>Aster multiflorus</i>						<i>Hypericum perforatum</i>						<i>Scutellaria perfoliata</i>						<i>Potamogeton</i>					
<i>Aster multiflorus</i>						<i>Impatiens capensis</i>			X			<i>Sium vulgare</i>						<i>Scilla maritima</i>					
<i>Aster multiflorus</i>						<i>Inula helentium</i>						<i>Sium suave</i>						<i>Sisyrinchium montanum</i>					
<i>Aster multiflorus</i>						<i>Lactuca</i>						<i>Solidago</i>			X			<i>Smilax herbacea</i>					
<i>Aster multiflorus</i>						<i>Laportea canadensis</i>						<i>Solidago altissima</i>						<i>Spiranthes cernua</i>					
<i>Aster multiflorus</i>						<i>Lapsana complanata</i>						<i>Solidago canadensis</i>						<i>Spizella monticola</i>					
<i>Aster multiflorus</i>						<i>Leonurus cardiaca</i>						<i>Solidago flexilis</i>						<i>Stachys recta</i>					
<i>Aster multiflorus</i>						<i>Leptilon</i>						<i>Solidago gigantea</i>						<i>Trillium erectum</i>					
<i>Aster multiflorus</i>						<i>Lithospermum officinale</i>						<i>Solidago nemoralis</i>						<i>Trillium grandiflorum</i>					
<i>Aster multiflorus</i>						<i>Lobelia</i>						<i>Solidago rugosa</i>						<i>Urtica dioica</i>					
<i>Aster multiflorus</i>						<i>Lobelia inflata</i>						<i>Sonchus oleraceus</i>											
<i>Aster multiflorus</i>						<i>Lobelia spicata</i>						<i>Sonchus asper</i>											
<i>Aster multiflorus</i>						<i>Lycopus americanus</i>						<i>Sedum</i>											
<i>Aster multiflorus</i>						<i>Lycopus</i>						<i>Taraxacum vulgare</i>											
<i>Aster multiflorus</i>						<i>Lythrum alatum</i>			X			<i>Taraxacum officinale</i>											
<i>Aster multiflorus</i>						<i>Lythrum salicaria</i>						<i>Thalictrum dictamnus</i>											
<i>Aster multiflorus</i>						<i>Medicago lupulina</i>						<i>Thalictrum pubescens</i>											
<i>Aster multiflorus</i>						<i>Medicago sativum</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Melilotus alba</i>						<i>Thalictrum flavum</i>											
<i>Aster multiflorus</i>						<i>Mentha arvensis</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mentha sylvestris</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mentha spicata</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
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<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
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<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
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<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</i>											
<i>Aster multiflorus</i>						<i>Mimulus ringens</i>						<i>Thalictrum minus</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		X				Agropyron repens					
Larix laricina						Rubus idaeus						Alopecurus					
Picea abies						Rubus occidentalis		X				Bromus laevis					
Picea glauca						Rubus odoratus						Calamagrostis canadensis					
Pinus resinosa						Rubus pubescens						Carex acutata					
Pinus strobus						Salix alba						Carex aurea					
Pinus sylvestris						Salix amygdalioides						Carex bebbii		X			
Thuja occidentalis						Salix bebbiana						Carex blanda					
Tsuga canadensis						+ Salix discolor						Carex gracillima		X			
						Salix eriocephala						Carex gutularis					
						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		X				+ Salix						Carex stricta					
Acer saccharinum		X				Sambucus canadensis						Carex vulpinoidea					
Acer saccharum						Sambucus racemosa						Carex <i>incurvata</i>		X			
Acer spicatum						Sorbus aucuparia						Carex					
Alnus rugosa						Spirea alba						Carex					
Amelanchier						Syringa vulgaris						Carex					
Berberis thunbergii						+ Tilia americana						Carex					
Betula alleghaniensis						Ulmus americana		X				Carex					
Betula papyrifera						Ulmus						Carex					
Carpinus caroliniana						Vaccinium						Carex					
Carya cordiformis						Viburnum lentago		X				Carex					
Celastrus scandens						Viburnum opulus						Cyperus					
Cornus alternifolia						Viburnum						Cyperus					
Cornus amomum						Vitis riparia		X				Dactylis glomerata					
Cornus rugosa						<i>Z. dioica</i>		X				Danthonia spicata					
Cornus stolonifera												Echinochloa crus-galli					
Corylus cornuta												Eleocharis erythropoda					
Crataegus mucronata												Eleocharis					
Crataegus punctata												Elymus virginicus					
Crataegus sp.		X										Elymus					
Crataegus <i>halimifolia</i>		X										Festuca arundinacea					
Diervilla lonicera												Glyceria striata		X			
Fagus grandifolia												Glyceria					
Fraxinus americana						FERNS						Juncus dudleyi					
Fraxinus nigra		X				Adiantum pedatum						Juncus effusus					
Fraxinus pennsylvanica		X				Athyrium filix-femina						Juncus tenuis					
Ilex verticillata						Betrychium multifidum						Juncus					
Juglans cinerea						Botrychium virginianum						Juncus					
Juglans nigra						Cystopteris bulbifera						Leersia oryzoides					
Lonicera morrowi						Dryopteris caroliniana						Muhlenbergia					
Lonicera tatarica						Dryopteris cristata						Oryzopsis asperifolia					
Lonicera						Dryopteris marginalis						Panicum					
Malus pennsylvanica						Dryopteris						Panicum					
Ostrya virginiana						Equisetum arvense						Panicum					
Parthenocissus litoralis		X				Equisetum hyemale						Phalaris arundinacea			X		
Populus balsamifera						Equisetum variegatum						Phleum pratense					
Populus grandidentata						Equisetum						Paragassia australis					
Populus tremuloides						Gymnocarpium dryopteris						Poa compressa					
Populus						Lycopodium digitatum						Poa pratensis					
Prunus pennsylvanica						Lycopodium obscurum						Poa					
Prunus serotina						Lycopodium						Scirpus atrovirens					
Prunus virginiana						Lycopodium						Scirpus cyperinus					
Prunus						Matricaria struthiopteris						Scirpus validus					
Quercus macrocarpa						Oenoclea umbellata		X				Scirpus					
Quercus rubra						Osmunda cinnamomea						Setaria					
Quercus						Osmunda regalis						Sparganium					
Rhamnus cathartica		X				Polystichum acrostichoides						Typha angustifolia					
Rhus radicans		X				Pteridium aquilinum						Typha latifolia					
Rhus typhina						Thelypteris palustris						Typha Xglauca					
Ribes americana																	
Ribes cynosbati																	
Ribes x rubrum																	
Robinia pseudo-acacia																	

177-0165H 1068

Sw Done Aug. 12/11 -SAM

177-0165H 1068

Goshen Access Road / Collection Lines

- Roads
- ELC to Evaluator
- Waterbodies
- Access/Collection Line
- No Access (as of August 2011)
- Access
- 120m Buffer



6003153

ELC
Community Description and Classification

Site: **GSH 1068** Polygon: **0**
 Surveyor(s): **SM** Date: **Aug. 12/11** Time start/finish: **19:36h / 17:36h**
 UTMZ: **17** UTMZ: UTMN:

Polygon Description **w p 201 a 200 (recheck photos)**

System	Substrate	Topographic Feature	Plant Form	Community
<input type="checkbox"/> Terrestrial <input type="checkbox"/> Wetland <input type="checkbox"/> Aquatic <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input checked="" type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock	<input type="checkbox"/> Organic <input checked="" type="checkbox"/> Mineral Soil <input type="checkbox"/> Parent Min. <input type="checkbox"/> Acidic Bedrk <input type="checkbox"/> Basic Bedrk <input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Bottomland <input type="checkbox"/> Terrace <input type="checkbox"/> Valley Slope <input checked="" type="checkbox"/> Tableland <input type="checkbox"/> Roll. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Alvar <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD <input type="checkbox"/> Graminoid <input type="checkbox"/> J Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input checked="" type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Mixed	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Marsh <input type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Mes. low <input type="checkbox"/> Prairie <input type="checkbox"/> Thin wet <input type="checkbox"/> Sav. marsh <input type="checkbox"/> Woodland <input checked="" type="checkbox"/> Forest <input type="checkbox"/> 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	44	AW = HX > EW > MS
2	3	4	AX = EW
3	4	2	no trees ground level - Poison Ivy = Smooth Red Currant few Mannik
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
 CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 > 50%
 Stand Composition: Size Class Analysis:

0 < 10	A	10-24	A	25-50	R	> 50
A > 40-HX < 6-6-AS	R	< 10	O	25-50	N	> 50

 Standing Snags:

0 < 10	O	10-24	R	> 50
--------	---	-------	---	------

 Deadfall / Logs:

0 < 10	O	10-24	R	> 50
--------	---	-------	---	------

 BA: 2.5
 Abundance Codes: N = None R = Rare O = Occasional A = Abundant

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

Ecotope: Fresh-Moist Lowland Deciduous Forest	Code: F0D7
Vegetation Type: Fresh-Moist White Ash-Swamp Maple Deciduous forest type	Code: F0D7
Inclusion:	Code:
Complex:	Code:

Community Profile Diagram/Comments

Notes:

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
AW	3	4	1	0	10	40
MS	1	1	0	0	2	11
HX	2	4	7	0	13	36
EW	3	1	2	0	6	25
Total	10	10	10	0	30	100
Basal Area (BA)	2.0	1.5	1.3	0	5.0	3.5
Dead						

Soils Ontario and ELC Soils Description

Site Metrics	PI/Auger #	Soils Ontario and ELC Soils Description	Summary
Zone	17	w p 200 (1) w p 201 (2)	
Easting			
Northing			
Position			
Aspect			
Percent			
Slope Length	2m		
Mottles			
Clay	17	A3	
Water Table	5A	5A	
Carbonates	46	5A	
Bedrock			
Depth from zero	0	0	% CF
Texture	LC	LC	% CF
Depth from zero	14	2.4	% CF
Texture	C	C	% CF
Depth from zero		50	% CF
Texture		C	% CF
Depth from zero			% CF
Texture			% CF
% Surface Stone/Rock			
Moisture Regime	Very moist (6)	moist (5)	moist (5)
Drainage	Imperfect (5)	Imperfect (5)	Imperfect (5)

VASCULAR PLANT CHECKSHEET

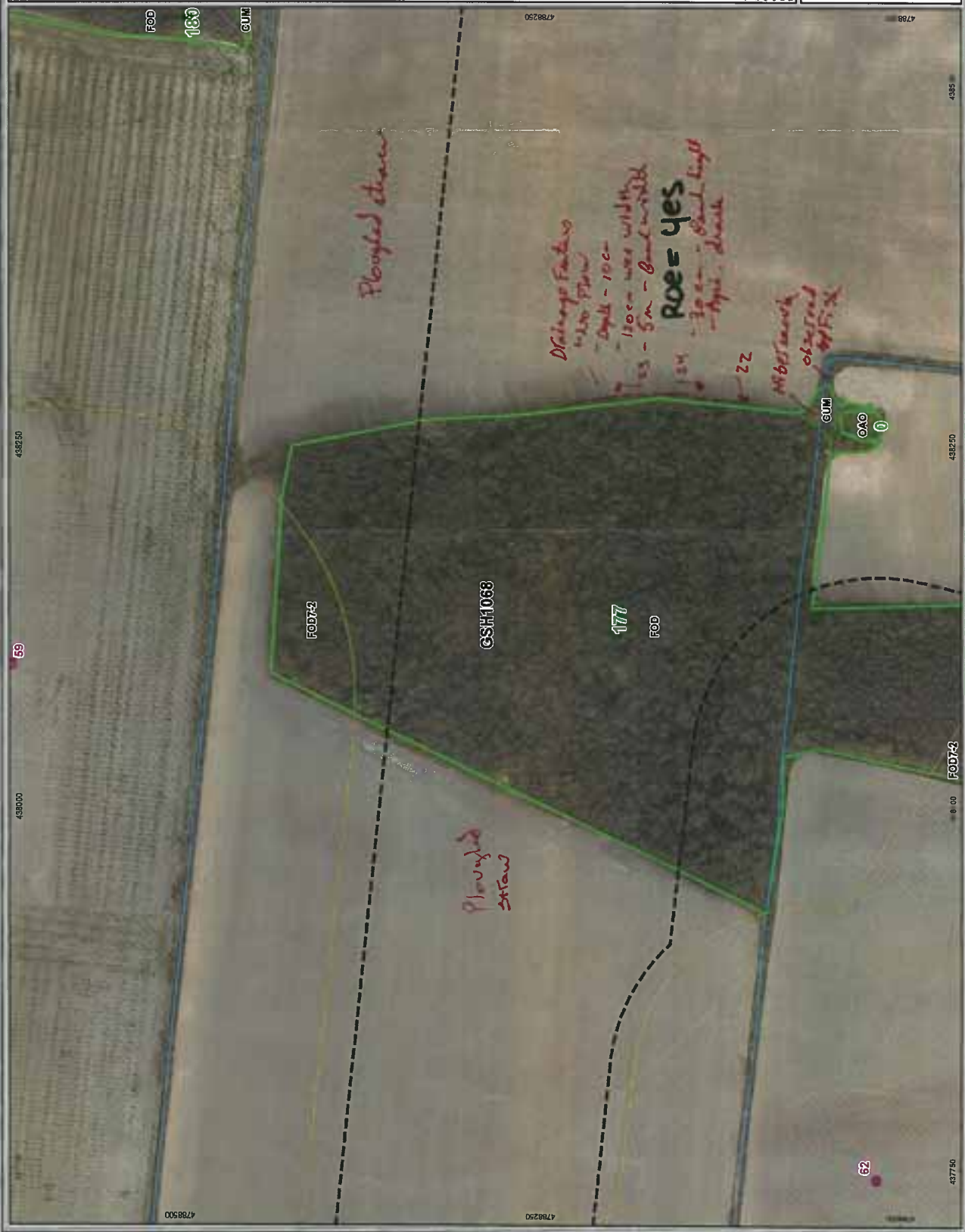
Location: 177 GSH 1068
Observer: SAM

Date: Aug. 12/11
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					Allium plantago-aquaticum					
Actaea pachypoda						Erigeron philadelphicus						Plantago major					Allium tricoccum					
Actaea rubra						Erigeron strigosus						Plantago rugelii					Allium					
Agalinis						Erysimum cheiranthoides						Podophyllum peltatum					Arisaema triphyllum				X	
Agropyron gryosepala						Eupatorium maculatum						Polygonum					Asparagus officinalis					
Alliaria petiolata	X					Eupatorium perfoliatum						Polygonum					Calla palustris					
Amaranthus retroflexus						Eupatorium rugosum						Polygonum					Clintonia borealis					
Ambrosia artemisiifolia						Euphorbia						Polygonum lapathifolium					Corallaria majus					
Amphicarpaea baccata						Euthamia graminifolia						Polygonum persicaria					Cypripedium calceolus					
Anaphalis margaritacea						Fragaria virginiana						Potentilla					Elodea canadensis					
Anemone						Fragaria vesca		X				Potentilla norvegica					Epigastria helleborina					
Anemone canadensis						Galeopsis tetrahit						Potentilla recta					Erythronium americanum					
Anemone virginiana						Galium						Prenanthes alba					Hemerocallis flava					
Artemisia neglecta						Galium						Prunella vulgaris					Iris versicolor					
Apocynum androsaemifolium						Galium palustre						Pyrola elliptica					Lemna minor					
Apocynum cannabinum						Galium triflorum						Ranunculus					Lemna trisulca					
Aquilegia canadensis						Geranium maculatum						Ranunculus abortivus					Lilium					
Aralia nudicaulis						Geranium robertianum		X				Ranunculus acris					Milantherum canadense					
Arctium minus						Geum aleppicum		X				Rudbeckia hirta					Milantherum racemosa					
Arsenisia						Geum canadense						Rumex acetosella					Milantherum staltia					
Azaron canadense						Geum						Rumex crispus					Plantago					
Azalea incarnata						Glecoma hederacea						Rumex					Pontederia cordata					
Azalea syriaca						Hepatica acutiloba						Sanguinaria canadensis					Polygonatum pubescens					
Aster						Hesperis matronalis						Sanicula marilandica					Potamogeton crispus					
Aster cordifolius						Hieracium aurantiacum						Saponaria officinalis					Potamogeton pectinatus					
Aster ericoides						Hieracium caespitosum						Saturaia vulgaris					Potamogeton					
Aster lanceolatus						Hieracium						Scutellaria galericulata					Potamogeton					
Aster lateriflorus	X					Hydrophyllum virginianum						Silene vulgaris					Potamogeton					
Aster macrophyllus						Hypericum perforatum						Sium suave					Sagittaria latifolia					
Aster novae-angliae						Impatiens capensis						Solanum dulcamara					Siaryochim montanum					
Aster purpureus						Inula helenium						Solidago					Smilax herbacea					
Barbarea vulgaris						Lactuca						Solidago altissima					Spiranthes cernua					
Bidens cernua						Laportea canadensis						Solidago caesia					Spirodela polyrhiza					
Bidens frondosa						Lapsana communis						Solidago canadensis					Streptopus roseus					
Boehmeria cylindrica						Leonurus cardiaca						Solidago flexicaulis					Trillium erectum					
Caltha palustris						Lepidium						Solidago gigantea					Trillium grandiflorum					
Calystegia sepium						Linaria vulgaris						Solidago nemoralis					Uvularia grandiflora					
Candaminea diphylia						Urospermum officinale						Solidago rugosa										
Candaminea						Lobelia						Sonchus oleracea										
Caulophyllum thalictroides						Lobelia inflata						Sonchus asper										
Cerastium fontanum						Lobelia spicata						Stellaria										
Ceratophyllum demersum						Lycopus americanus						Tanacetum vulgare										
Chelidonium majus						Lycopus						Taraxacum officinale										
Chenopodium album						Lysimachia ciliata						Thalictrum dioicum										
Chrysanth. leucanthemum						Lythrum salicaria						Thalictrum pubescens										
Dichotum trifybus						Medicago lupulina						Tiarata cordifolia										
Cicuta						Medicago sativum						Tragopogon pratensis										
Circaea leutifera	X					Melilotus alba						Trifolium boreale										
Cirsium arvense						Mentha arvensis						Trifolium										
Cirsium vulgare						Mimulus ringens						Trifolium pratense										
Clematis virginiana						Mimulus ringens						Trifolium repens										
Clintonia borealis						Miella diphylia						Tussilago farfara										
Coryza canadensis						Morantia fetulosa						Urtica dioica										
Coronilla varia						Myosotis						Urticularia vulgaris										
Cynanchum rossicum						Nasturtium officinale						Verbascum thapsus										
Cynoglossum officinale						Nepeta cataria						Verbena hastata										
Daucus carota						Nuphar variegatum						Verbena urticifolia										
Daemodum canadense						Nymphaea odorata						Veronica										
Dianthus amurensis						Oenothera biennis						Veronica officinalis										
Dipsacus filonum						Osmorhiza						Viola cracca										
Echinocystis lobata						Oxalis stricta						Viola tetrasperma										
Echium vulgare						Phytolacca heterophylla						Viola										
Epilobium						Physalis heterophylla						Viola										
Epilobium ciliatum												Viola pubescens										
Epilobium hirsutum												Viola sororia										
Epilobium parviflorum																						

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

SITE LOCATIONS



- 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



Revised from: Office of Ministry of Natural Resources
Cartography 2010



0 25 50 100
Metres
UTM Zone 17N, NAD 83
13,500

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ELC
Goshen Amphibian Survey
177_GSH1068
North
April 2012
Project 60156032

AECOM

Figure 1

Plant Species List
2012

Trees & Shrubs					Tree & Shrubs					Graminoids				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Conifers					Deciduous					Grasses				
Balsam Fir (<i>Abies balsamea</i>)					White Oak (<i>Quercus alba</i>)					Giant Redtop (<i>Agrostis gigantea</i>)				
Common Juniper (<i>Juniperus communis</i>)					Bur Oak (<i>Quercus macrocarpa</i>)					Redtop (<i>Agrostis stolonifera</i>)				
Eastern Red Cedar (<i>Juniperus virginiana</i>)					Red Oak (<i>Quercus rubra</i>)					Awlless Brome (<i>Bromus nemris</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 canadensis</i>)					Smooth Sumac (<i>Rhus glabra</i>)					Orchard Grass (<i>Dactylis glomerata</i>)				
Black Spruce (<i>Picea mariana</i>)					Staghorn Sumac (<i>Rhus hirta</i>)					Poverty Oat Grass (<i>Danthonia spicata</i>)				
Jack Pine (<i>Pinus banksiana</i>)					Wild Black Currant (<i>Ribes americanum</i>)					Quack Grass (<i>Elymus repens</i>)				
Red Pine (<i>Pinus resinosa</i>)					Prickly Gooseberry (<i>Ribes cynosbati</i>)					Virginia Wild Rye (<i>Elymus virginicus</i>)				
Eastern White Pine (<i>Pinus strobus</i>)					Swamp Black Currant (<i>Ribes lacustre</i>)					<i>Elymus</i>				
Scotch Pine (<i>Pinus sylvestris</i>)					Red Currant (<i>Ribes rubrum</i>)									
Canada Yew (<i>Taxus canadensis</i>)					<i>Ribes</i>					Fowl Manna Grass (<i>Glyceria striata</i>)				
Eastern White Cedar (<i>Thuja occidentalis</i>)					Black Locust (<i>Robinia pseudo-acacia</i>)					<i>Glyceria</i>				
Eastern Hemlock (<i>Tsuga canadensis</i>)					Prickly Rose (<i>Rosa acicularis</i>)					Rice Cut Grass (<i>Leersia oryoides</i>)				
					Smooth Rose (<i>Rosa blanda</i>)					Tall Fescue (<i>Lolium arundinaceum</i>)				
					Multiflora Rose (<i>Rosa multiflora</i>)					Muhlenbergia				
					<i>Rosa</i>					Witch Grass (<i>Panicum capillare</i>)				
					Com. Blackberry (<i>Rubus allegheniensis</i>)					<i>Panicum</i>				
Deciduous					Wild Red Raspberry (<i>Rubus idaeus</i>)					Reed Canary Grass (<i>Phalaris arundinacea</i>)				
Manitoba Maple (<i>Acer negundo</i>)					Black Raspberry (<i>Rubus occidentalis</i>)					Timothy (<i>Phleum pratense</i>)				
Black Maple (<i>Acer nigrum</i>)					Purple-fl. Raspberry (<i>Rubus odoratus</i>)					Common Reed (<i>Phragmites australis</i>)				
Norway Maple (<i>Acer platanoides</i>)					Dwarf Raspberry (<i>Rubus rubescens</i>)					Canada Blue Grass (<i>Poa compressa</i>)				
Red Maple (<i>Acer rubrum</i>)					<i>Rubus</i>					Fowl Meadow Grass (<i>Poa polystris</i>)				
Silver Maple (<i>Acer saccharinum</i>)					Peach-leaved Willow (<i>Salix amygdaloides</i>)					Kentucky Bluegrass (<i>Poa pratensis</i>)				
Freeman's Maple (<i>Acer X freemanii</i>)					Bebb's Willow (<i>Salix bebbiana</i>)					Yellow Foxtail (<i>Setaria pumila</i>)				
Sugar Maple (<i>Acer saccharum</i>)					Pussy Willow (<i>Salix discolor</i>)					Green Foxtail (<i>Setaria viridis</i>)				
Mountain Maple (<i>Acer spicatum</i>)					Missouri Willow (<i>Salix eriocha halei</i>)									
Spotted Alder (<i>Alnus incana</i>)					Sandbar Willow (<i>Salix eximia</i>)									
Downy Serviceberry (<i>Amelanchier borealis</i>)					Shining Willow (<i>Salix lucida</i>)									
Serviceberry (<i>Amelanchier sanguinea</i>)					Black Willow (<i>Salix nigra</i>)									
Yellow Birch (<i>Betula alleghaniensis</i>)					Slender Willow (<i>Salix petiolaris</i>)									
White Birch (<i>Betula papyrifera</i>)					<i>Salix</i>									
European Birch (<i>Betula pendula</i>)					Hybrid Crack Willow (<i>Salix X rubens</i>)									
Blue Beech (<i>Carpinus caroliniana</i>)					Black-berried Elder (<i>Sambucus nigra</i>)									
Bitternut hickory (<i>Carya cordiformis</i>)					Red-berried Elder (<i>Sambucus racemosa</i>)									
Shagbark Hickory (<i>Carya ovata</i>)					Buffaloberry (<i>Shepherdia canadensis</i>)									
Climbing Bittersweet (<i>Celastrus scandens</i>)					Eur. Mountain Ash (<i>Sorbus aucuparia</i>)									
Common Hackberry (<i>Celtis occidentalis</i>)					Narrow Meadow-sweet (<i>Spiraea alba</i>)									
Buttonbush (<i>Cephalanthus occidentalis</i>)					Common Lilac (<i>Syringa vulgaris</i>)									
Alt.-leaved Dogwood (<i>Cornus alternifolia</i>)					Poison-ivy (<i>Toxicodendron radicans</i>)									
Silky Dogwood (<i>Cornus amomum</i>)					Climbing Poison-ivy (<i>Toxicodendron radicans</i>)									
Bunchberry (<i>Cornus canadensis</i>)					White Elm (<i>Ulmus americana</i>)									
Gray dogwood (<i>Cornus racemosa</i>)					Siberian Elm (<i>Ulmus umila</i>)									
Round-leaved Dogwood (<i>Cornus rugosa</i>)					Slippery Elm (<i>Ulmus rubra</i>)									
Red-osier Dogwood (<i>Cornus sericea</i>)					Low Blueberry (<i>Vaccinium angustifolium</i>)									
American Hazel (<i>Corylus americana</i>)					Maple-leaf Viburnum (<i>Viburnum acerifolium</i>)									
Beaked Hazel (<i>Corylus cornuta</i>)					Hobblebush (<i>Viburnum lantanoides</i>)									
Cockspur Thorn (<i>Crataegus crus-galli</i>)					Nannyberry (<i>Viburnum lentago</i>)									
English Hawthorn (<i>Crataegus mollis</i>)					Gelder-Rose (<i>Viburnum opulus</i>)									
Lance-fruited Thorn (<i>Crataegus punctata</i>)					Downy Arrow-wood (<i>Vib. rafinesquianum</i>)									
<i>Crataegus</i>					Riverbank Grape (<i>Vitis riparia</i>)									
<i>Crataegus</i>					Am. Prickly-ash (<i>Zanthoxylum americanum</i>)									
Bush Honeysuckle (<i>Diervilla lonicera</i>)														
Russian Olive (<i>Elaeagnus angustifolia</i>)														
Autumn Olive (<i>Elaeagnus umbellata</i>)														
Run-Strawberry-bush (<i>Euronimus 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 Honeysuckle (<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-creepier (<i>Parthenocissus inserta</i>)														
Ninebark (<i>Phoradendron ovatifolius</i>)														
Balsam Poplar (<i>Populus balsamifera</i>)														
Eastern Cottonwood (<i>Populus deltoides</i>)														
Lance-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 survey by less than about five individuals or small clumps

Map Number: 177 GSN 108E 1 F0.07-2 4
 Date: April 16, 2012 2 8
 Surveyors: J.M.P./T.M.S. 3

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW	JER	(GSH)	Map #:	177-65H/068
Date:	2012/04/16			Time Started:	9:30
Field Staff:	Tom Sharney / Jess P. [unclear]			Time Finished:	1:15
Weather Conditions:	Windy (45 km/h), cloudy, 20°C				

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

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

UTMs: _____ 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, FE01)

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

UTMs: _____ Area of standing water delineated on field map

Water depth (m): _____ % 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: 0438276 4788073 Likelihood to extend below frost line: _____

% canopy cover: 20% % slope: 10% Distance to open canopy (m): 1m

Description of fissure or stone pile (composition/material, dimensions, etc): Long, varies from small pebbles to large boulders - Abundant sun exposure

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

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 Incidence Wildlife - Goshen



Map No: 179 GSH1068
Date (yyyy-mm-dd): 2012-04-16

Field Staff: Tom Shoney
Jess Piette

Time Started: 9:30 am
Time Finished: 1:15 pm

Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Turkey Vulture		OB	Sounding above features				
Canada goose		OB	3 flying over woods				
White-tailed Kite		TK	Tracks				
Downy Woodpecker		VO	Towards N center				
Red-winged Blackbird		VO	Along edge				
Nuthatch		OB	on tree				
Killdeer		VO	Field North end				
Flicker		OB	West side				
Song Sparrow		OB	West side				

Note: Evidence Codes (EV) SH= Suitable Habitat, SM= Singing Male; T= Territory, D= Display, P= Pair, N= Nest Building, V= Visiting Nest, A= Anxiety Behavior; DD= Distraction, NU= Used Nest, FY= Fledged Young, NE= Eggs, NY= Young, FS= Feeds/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: N/O
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 (Coralorrhiza odonorrhiza) - 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: N/O
SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Chinese Hemlock Parsley (Conioselinum chinense) - S2 Bloom Time - summer to fall	Swampy places with deciduous trees, white cedars, tamarack, springy river banks, wet borders of streams and rivers. Also found among calcareous seepage slopes.	Y N UTM:
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: N/O
TPS, TPW, FOM1, FOM2	Fogg's Goosefoot (Chenopodium foggii) - S2	Species occurs in sandy areas on limestone under oak or pine-oak forests	Y N UTM:
TPO2, TPS2, TPW2	Giant Ironweed (Vernonia gigantea) - S1? Bloom Time -	Found in mesic prairies, thickets, moist woods, roadsides and grassy meadows	Y N UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Goshen



ELC	Species	Habitat Description	Habitat Present (Y/N; UTM; description of habitat if present)
CUM1, MAM,	June – August		
FOD6, FOD7, FOD9	Green Dragon (<i>Arisaema dracontium</i>) - SC/S3 <u>Bloom</u> Time – May and June	Species found in damp, deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	(Y) N UTM: n/o
TPO1, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Hairy Bedstraw (<i>Galium pilosum</i>) - S3 <u>Bloom</u> Time – June-August	Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields	(Y) N UTM:
FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW,	Hairy Valerian (<i>Valeriana edulis</i>) - S1 <u>Bloom</u> Time – June to August	Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens	(Y) N UTM:
FOD6, FOD7, SWM, SWD	Hairy Wood Mint (<i>Blephilia hirsuta</i>) - S1 <u>Bloom</u> Time – Summer	Woodlands, often rocky, especially rivers. Rich woods, swamp forests, floodplains.	(Y) N UTM: n/o
FOD6, FOD7, FOD8, FOD9	Harbinger-of-spring (<i>Erigenia bulbosa</i>) - S3 <u>Bloom</u> Time – early to late April	Occurs in rich, moist deciduous woods, especially on floodplains.	(Y) N UTM:
SAS1, SAM1, SAF1	Hill's Pond Weed (<i>Potamogeton hillii</i>) - SC/S2 <u>Bloom</u> Time – summer	Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters.	(Y) N UTM:
FOM6, FOM7, FOM8	Large Round-leaved Orchid (<i>Platanthera macrophylla</i>) - S2 <u>Bloom</u> Time – June to August	Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands.	(Y) N UTM:
MAM2, MAM3, MAS2, MAS3, SWD	Lizard's Tail (<i>Saururus cernuus</i>) - S3 <u>Bloom</u> Time – June – September	Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, shallow water and mudflats at the borders of streams and ponds.	(Y) N UTM:
FOD6, FOD7, FOD9	Pawpaw (<i>Asimina triloba</i>) - S3 <u>Bloom</u> Time – March-May	Occurs in moist deciduous woods and stream banks.	(Y) N UTM: n/o
FOM8, FOD6, FOD7, FOD9, CUM1	Pilose Evening Primrose (<i>Oenothera pilosella</i>) - S2 <u>Bloom</u> Time – Late Spring – Early Summer	Moist edges of woods and open, disturbed ground.	(Y) N UTM: n/o
TPW1, FOM1, FOM2, FOD1, FOD2, FOD3	Prostrate Tick-trefoil (<i>Desmodium rotundifolium</i>) - S2 <u>Bloom</u> Time – July-September	Dry, sandy or rocky woods	(Y) N UTM:
FOD7, SWD	Pumpkin Ash (<i>Fraxinus profunda</i>) - S2? <u>Bloom</u> Time – March – June	Swamps and floodplains	(Y) N UTM: n/o
CUW1, ALO, FET1, SWC	Ram's-head Lady's-slipper (<i>Cypripedium arietinum</i>) - S3 <u>Bloom</u> Time – mid May to mid June	Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry sandy woods, and limestone barren	(Y) N UTM:
FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5	Rattlesnake Hawkweed (<i>Hieracium venosum</i>) - S2 <u>Bloom</u> Time – April – September	Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands	(Y) N UTM:
FOD6, FOD7, FOD9	Round-leaved Groundsel (<i>Packera obovata</i>) - S3 <u>Bloom</u> Time – May – June	Found in moist woods	(Y) N UTM: n/o
CUM1, CUT1, CUS1	Round-leaved hawthorn (<i>Crataegus lumaria</i>) - S3?	Species occurs in old fields, poorly managed pastures, fence lines and roadsides	(Y) N UTM:
FOD6, FOD7, FOD8, FOD9, SWT2, SWT3	Scarlet Beebalm (<i>Monarda didyma</i>) - S3 <u>Bloom</u> Time – May to October	Found in moist, rich woods, thicket swamps, banks and floodplains.	(Y) N UTM: n/o
ALO, ALS, ALT, TPO, TPS, TPW	Slender Blazing Star (<i>Liatris cylindracea</i>) - S3	Species occurs in limestone and dolostone pavement, prairies, open woods, alvars and moist sandy meadows.	(Y) N UTM:
SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2	Slender Knotweed (<i>Polygonum tenue</i>) - S2	Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows; at edges of sand pits	(Y) N UTM:
SDT1, FOD5, FOD9	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:
BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Stiff Gentian (<i>Gentiana quinquefolia</i>) - S2 <u>Bloom</u> Time – late summer to mid fall	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bays, and wooded hillsides.	(Y) N UTM: n/o
TPS1, TPW1, CUW1, RBO, SBO	Sundial Lupine (<i>Lupinus perennis</i>) - S3 <u>Bloom</u> Time – mid-March to mid-June	Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen.	(Y) N UTM:

Species Conservation Concern Habitat and Incidental Wildlife – Goshen

ELC	Species	Habitat Description	Habitat Present (Y/N); UTM; description of habitat if present
TP01, TPS1, TPW1, CUM1	Tall Blazing Star (<i>Liatris aspera</i>) - S3/SC	Occurs in open, sandy woods, dry roadsides and sandy prairies	Y <input type="radio"/> N <input checked="" type="radio"/> UTM
FEO, 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 <input type="radio"/> N <input checked="" type="radio"/> UTM
FOC1, FOC2, FOC3, FOC4	Woodland Pinedrops (<i>Pterospora andromedea</i>) - S2 Bloom Time – summer	Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch.	Y <input type="radio"/> N <input checked="" type="radio"/> UTM
CUM1, CUT1, CUW1, RBO1, SBO1	Yellow Ladies'-tresses (<i>Spiranthes ochroleuca</i>) - S2 Bloom Time – August to November	Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields.	Y <input type="radio"/> N <input checked="" type="radio"/> 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 <input type="radio"/> N <input checked="" type="radio"/> 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 <input type="radio"/> N <input checked="" type="radio"/> UTM
FOD, CUW, CUT	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC	Species inhabits open woodland/ edges (oak savannahs and riparian forest), open, deciduous forest with little 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 <input type="radio"/> N <input checked="" type="radio"/> UTM
-	Short Eared Owl (<i>Asio flammeus</i>) - SC	Assessed as SWH. Record species if found.	not required.
CUT1	Yellow-breasted Chat (<i>Icteria virens</i>) - SC	Inhabits thickets, tall tangles of shrubby beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines	Y <input type="radio"/> N <input checked="" type="radio"/> 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, SMM, SWD	Azure Bluet (<i>Enallagma aspersum</i>) - S3	Species inhabits fishless ponds, lakes and boggy swamps	Y <input type="radio"/> N <input checked="" type="radio"/> UTM
TPS, TPW	Sleepy Duskywing (<i>Erynnis brizeo</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 <input type="radio"/> N <input checked="" type="radio"/> 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 <input type="radio"/> N <input checked="" type="radio"/> UTM
TPS, CUW	Mottled Duskywing (<i>Erynnis martialis</i>) - S2	Usually seen nectaring on or wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present	Y <input type="radio"/> N <input checked="" type="radio"/> UTM
SWT, SWD, SMM, FOM, FOD4-3, TPW, TPS, CUM1	Tawny Emperor (<i>Asterocampa clyton</i>) - S3	Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant	Y <input type="radio"/> N <input checked="" type="radio"/> UTM
FOD5	West Virginia White (<i>Pteris virginensis</i>) - SC	This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur	Y <input type="radio"/> N <input checked="" type="radio"/> UTM

Goshen Feature: 189 GSH1023/1559

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

Leased

GSH1023

(Accessible)

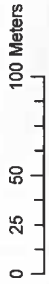
GSH1515

GSH1559

GSH1514

GSH1091

GSH1594



October 28, 2011



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



1892 GSH1023

Goshen ELC, GE64



1892 GSH1023

GSH1023

map #24/35
Not Shangbank
(440036
478967)

Wetland
packet

FWD with
SWAMP
MORIC
very undulating
topography

ELC
 Community Description and Classification
 Polygon: GEG4
 Surveyor(s): Joe Goshen
 Date: July 12, 2011
 Time start: 1:27 PM
 Time finish: 3:40 PM
 UTMZ: 17
 UTMN:

Polygon Description 24°C - sunny, overcast

System	Substrate	Topographic Feature	Plant Form	Community
<input checked="" type="checkbox"/> Terrestrial <input type="checkbox"/> Wetland <input type="checkbox"/> Aquatic Site <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock History <input type="checkbox"/> Natural <input type="checkbox"/> Cultural Cover <input type="checkbox"/> Open <input type="checkbox"/> Shrub <input type="checkbox"/> Tree	<input type="checkbox"/> Organic <input type="checkbox"/> Mineral Soil <input type="checkbox"/> Parent Min. <input type="checkbox"/> Acidic Bedrk <input type="checkbox"/> Basic Bedrk <input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Bottomland <input type="checkbox"/> Terrace <input type="checkbox"/> Valley Slope <input type="checkbox"/> Tableland <input type="checkbox"/> Roll. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> A/Var <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD. <input type="checkbox"/> Graminoid <input type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Mixed <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> Plantation	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Marsh <input type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> 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		4	ACE-SACC > THAMEX > CARDVAT > OSTVIG
2			
3			
4	6	3	GRG-COBC > GR-ARCC > MAL-RACE

HT Codes: 7 < 0.2m 8 > 0.2-0.5m 9 > 0.5-1m 4 > 1-2m 3 > 2-5m 2 > 6-25m 1 > 25m
 CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 > 50%

Stand Composition:	Size Class Analysis:	Standing Snags:	Deadfall / Logs:
	<input type="checkbox"/> < 10 <input type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input type="checkbox"/> > 50	<input type="checkbox"/> < 10 <input type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input type="checkbox"/> > 50	<input type="checkbox"/> < 10 <input type="checkbox"/> 10-24 <input type="checkbox"/> 25-50 <input type="checkbox"/> > 50

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

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

Ecocite: DEADWOOD FOREST
 Vegetation Type: CUPR Maple-Hickory Fresh-Moist
 Inclusion: ~~ACE-SACC~~
 Complex:

Community Profile Diagram/Comments

* Disturbed wetland mixture throughout

Notes:

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
THAMEX	11				11	
ACE-SACC	11				11	
GR-ARCC	1				1	
THAMEX	1				1	
ACE-SACC	1				1	
Total	12				12	100
Basal Area (BA)	24					
Dead						

Soils Ontario and ELC Soils Description

Site Metrics		Pit/Auger #	Soils Description				Summary
Slope		Zone					Moisture Regime
Aspect		Easting					
Percent		Northing					Drainage
Slope Length		Position					
Mottles							Effective Texture (Indicate below)
Gley							
Water Table							% CF
Carbonates							
Bedrock							% CF
1		Depth from zero	17cm	% CF			
2		Texture	Clay	% CF			
3		Depth from zero		% CF			
4		Texture		% CF			
		% Surface Stone/Rock					
		Moisture Regime					
		Drainage					



1989

993000 310 935217M1142

189-051091

Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
Bitter Nut	1111					
Shady Bark	11					
Iron Wood	11					
Dead Wood	1					
White Ash	11					
Total						100
Basal Area (BA)						
Deed						

Site: GJH GS Polygon: V1
 Surveyor(s): km Date: July 13, 2011 Time start: 2pm finish:
 UTMZ: UTMN:

ELC
 Community Description and Classification

Polygon Description

System	Substrate	Topographic Feature	Plant Form	Community
<input type="checkbox"/> Terrestrial <input type="checkbox"/> Wetland <input type="checkbox"/> Aquatic Site <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock	<input type="checkbox"/> Organic <input type="checkbox"/> Mineral Soil <input type="checkbox"/> Parent Min. <input type="checkbox"/> Acidic Bedrk <input type="checkbox"/> Basic Bedrk <input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Floating-LVD. <input type="checkbox"/> Graminoid <input type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Avar <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Scuff	<input type="checkbox"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD. <input type="checkbox"/> Graminoid <input type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Mixed <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> Plantation	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Marsh <input type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> Plantation

Stand Description

Species in Order of Decreasing Dominance (up to 4 sp)
 > Much Greater Than; > Greater Than; = About Equal To

Layer	HT	CVR
1	2	4
2	3	2
3	6	3
4		

HT Codes: 7 < 0.2m 8 > 0.2-0.5m 9 > 0.5-1m 4 > 1-2m 2 > 2-4m 1 > 25m
 CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 50%
 Stand Composition: Size Class Analysis: A < 10 10-24 25-50 > 50
 Standing Snags: A < 10 10-24 25-50 > 50
 Deadfall / Logs: A < 10 10-24 25-50 > 50
 BA:
 Abundance Codes: N = None R = Rare O = Occasional A = Abundant
 Com. Age: Pioneer Young Mid-Age Mature Old Growth

Community Profile Diagram/Comments

Ecocline:
 Vegetation Type:
 Inclusion:
 Complex:

Code:
 Code:
 Code:
 Code:



Soils Ontario and ELC Soils Description

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

189-65H1023

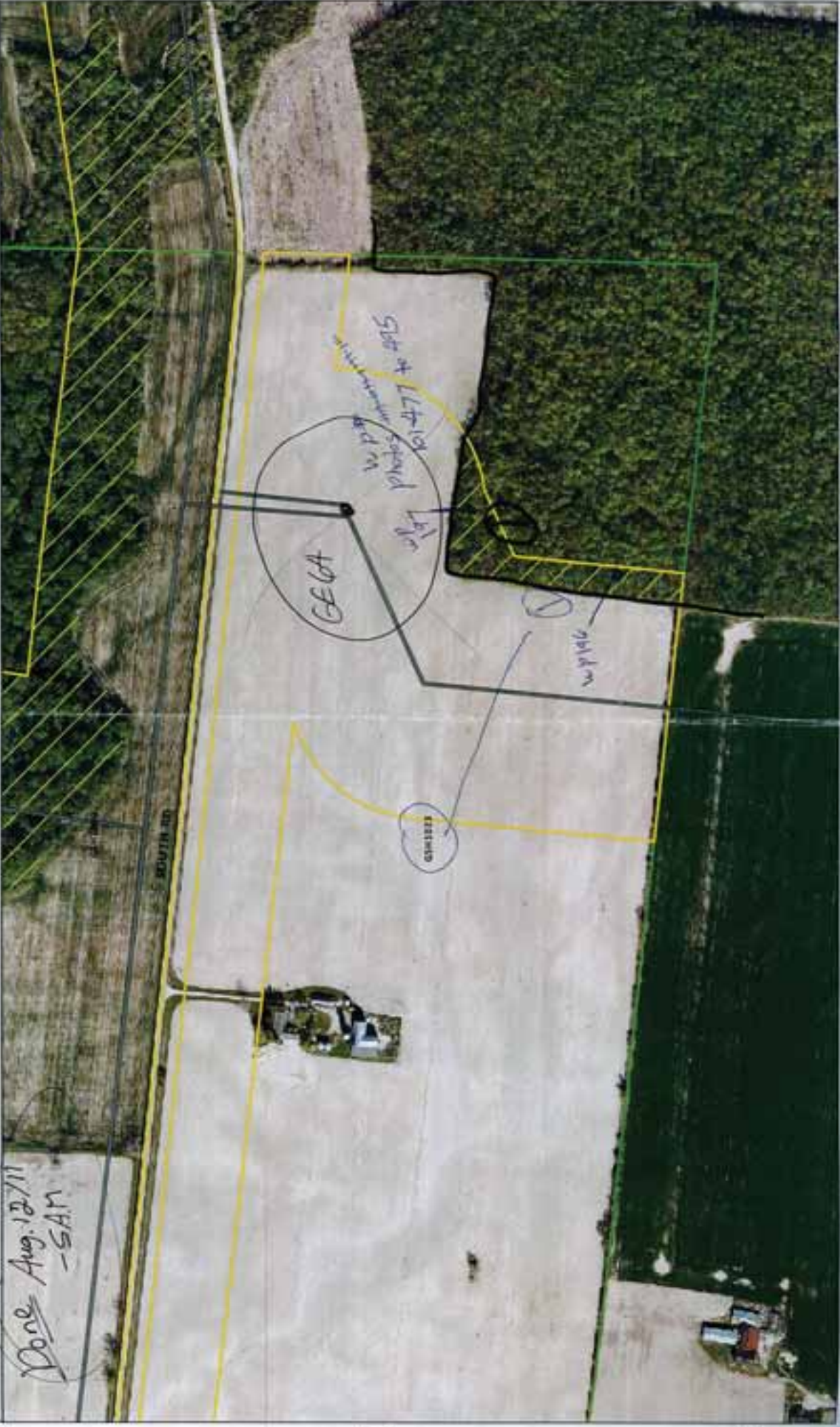
GE64 Turbine EIC Completed July 12/11 -JP

189-65H1023

Goshen Access Road / Collection Lines



- Roads
- Access/Collection Line
- No Access (as of August 2011)
- Access
- EIC to Evaluate
- Windshadows
- Goshen Wind Energy Center
- 120m Buffer



Done Aug. 12/11
-SAM

ELC Community Description and Classification

Site: GSH 1023 Polygon: 1

Surveyor(s): SAM Date: Aug. 12/11 Time start/finish: 09:47 / 11:16

UTMZ: 17 UTMZ: W P197 UTMN:

Polygon Description

<input checked="" type="checkbox"/> Terrestrial	<input type="checkbox"/> Organic	<input type="checkbox"/> Lacustrine	<input type="checkbox"/> Plankton	<input type="checkbox"/> Lake
<input type="checkbox"/> Wetland	<input checked="" type="checkbox"/> Mineral Soil	<input type="checkbox"/> Riverine	<input type="checkbox"/> Submerged	<input type="checkbox"/> Pond
<input type="checkbox"/> Aquatic	<input type="checkbox"/> Parent Min.	<input type="checkbox"/> Bottomland	<input type="checkbox"/> Floating-LVD	<input type="checkbox"/> River
<input type="checkbox"/> Site	<input type="checkbox"/> Acidic Bedrk	<input type="checkbox"/> Terrace	<input type="checkbox"/> Graminoid	<input type="checkbox"/> Stream
<input type="checkbox"/> Open Water	<input type="checkbox"/> Basic Bedrk	<input type="checkbox"/> Valley Slope	<input type="checkbox"/> Forb	<input type="checkbox"/> Marsh
<input type="checkbox"/> Shallow Water	<input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Strabelland	<input type="checkbox"/> Lichen	<input type="checkbox"/> Swamp
<input type="checkbox"/> Surficial Dep.		<input type="checkbox"/> Roll Upland	<input type="checkbox"/> Bryophyte	<input type="checkbox"/> Fen
<input type="checkbox"/> Bedrock		<input type="checkbox"/> Cliff	<input checked="" type="checkbox"/> Deciduous	<input type="checkbox"/> Bog
<input type="checkbox"/> History		<input type="checkbox"/> Talus	<input type="checkbox"/> Coniferous	<input type="checkbox"/> Barren
<input checked="" type="checkbox"/> Natural		<input type="checkbox"/> Crevice/Cave	<input type="checkbox"/> Mixed	<input type="checkbox"/> Meadow
<input type="checkbox"/> Cultural		<input type="checkbox"/> Avar		<input type="checkbox"/> Prairie
<input type="checkbox"/> Cover		<input type="checkbox"/> Rockland		<input type="checkbox"/> Thicket
<input type="checkbox"/> Open		<input type="checkbox"/> Beach / Bar		<input type="checkbox"/> Savannah
<input type="checkbox"/> Shrub		<input type="checkbox"/> Sand Dune		<input type="checkbox"/> Woodland
<input checked="" type="checkbox"/> Tree		<input type="checkbox"/> Bluff		<input checked="" type="checkbox"/> Forest
				<input type="checkbox"/> 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	3	4	MS > BD > AW > MH
2	3	3	BD > AW > BE > MH
3	4	4	BE > BD > AW > HS
4	5	3	BD = HS

HT Codes: 7 < 0.2m 8 > 0.2-0.5m 9 > 0.5-1m 4 > 1-2m 3 > 2-5m 2 > 5-25m 1 > 25m
 CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 50 - 60%

Stand Composition: Size Class Analysis: <10 10-24 25-50 >50

MS 19-BD 15-AW 15-MH Standing Snags: <10 10-24 25-50 >50

BA: 26 Deadfall / Logs: <10 10-24 25-50 >50

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

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

Ecosite: Fresh-Twist Sugar Maple-Deciduous Forest Code: FDD6

Vegetation Type: Fresh-Twist Sugar Maple-Hardwood Deciduous Forest Type Code: FDD6-5

Inclusion: Code: /

Complex: Code: /

Community Profile Diagram/Comments

Notes:

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Tree Tally by Species

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg
BD	2	2			4	15
HS	2	2			4	8
MH	1	2			3	12
AW	3	1			4	8
MS	1	2			3	14
BE	2	2			4	8
Total	14	14			28	100
Basal Area (BA)	28	28			56	20
Dead						

Soils Ontario and ELC Soils Description

PI/Auger #	Site Metrics	Soil Horizon Description	Moisture Regime	Drainage	Effective Texture (Indicate below)	% CF
WP 196	Zone					
WP 197	Easting					
	Northing					
	Position					
	Aspect					
	Percent					
	Slope					
	Slope Length					
	Mottles					
	Gley					
	Water Table					
	Carbonates					
	Bedrock					
1	Depth from zero	0-8	% CF	0	% CF	
	Texture	LC		WFLC		
2	Depth from zero	8+	% CF	16	% CF	
	Texture	C		WFLC		
3	Depth from zero		% CF	76	% CF	
	Texture	C				
4	Depth from zero		% CF		% CF	
	Texture					
	% Surface Stoner/Rock					
	Moisture Regime	Very Moist (6)		Very Moist (6)		
	Drainage	Poor (6)		Imperfect (5)		

