

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Eastern Green-violet (<i>Hybanthus concolor</i>) - S2 <i>Bloom 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.	ALT1, FOD7	Y N UTM: N/O
Green Dragon (<i>Arisaema dracontium</i>) - SC/S3 <i>Bloom Time – May and June</i>	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	FOD6 , FOD7 , FOD9	Y N UTM: N/O
Harbinger-of-spring (<i>Eriogenia bulbosa</i>) - S3 <i>Bloom Time – early to late April</i>	Occurs in rich, moist deciduous woods, especially on floodplains.	FOD6 , FOD7 , FOD8, FOD9	Y N UTM: N/O
Hazel Dodder (<i>Cuscuta coryli</i>) –SH	Occurs in open, moist tall-grass prairie and meadows - parasitic on <i>Aster</i> , <i>Heliathus</i> , <i>Monarda</i> , <i>Rubus</i> , <i>Solidago</i> .	RBO, TPO2, CUM1	Y (N) UTM:
Leonard's Small Skullcap (<i>Scutellaria parvula</i>) –S3 <i>Bloom Time – late Spring to early Summer</i>	Occurs on open, rocky ground and prairies.	ALO, TPO	Y (N) UTM:
Mead's Sedge (<i>Carex meadii</i>) –S2 <i>Bloom Time –late spring to early summer</i>	Occurs in prairies and moist or dry open areas.	TPO, CUM1	Y (N) UTM:
Ovate Beak Grass –S1 <i>Bloom Time- mid Summer</i>	prefers riparian woodlands ¹⁴ ; floodplain swamps and river banks.	FOD6 , FOD7 , FOD9, SWD	Y N UTM: N/O
Pawpaw (<i>Asimina triloba</i>) –S3 <i>Bloom Time – March-May</i>	Occurs in moist deciduous woods and stream banks.	FOD6 , FOD7 , FOD9	Y N UTM: N/O
Perfoliate Tinker's-weed (<i>Triosteum perfoliatum</i>) – S1 <i>Bloom Time – May, June, July</i>	Grows in rich, deciduous woods.		Y N UTM: N/O
Pumpkin Ash (<i>Fraxinus profunda</i>) – S2?	This species is a wetland obligate and only grows in bottomland swamps and floodplains. Distinctive Feature: the base of the trunk swells outward, resembling a pumpkin in larger trees.		Y (N) UTM:
Riddell's Goldenrod (<i>Oligoneuron riddellii</i>)-SC	Riddell's Goldenrod grows in wet habitats such as wet marshes, moist prairies, fens, old fields and seepy banks.	ALO, TPO, CUM1	Y (N) UTM:
Shellbark Hickory (<i>Carya laciniosa</i>) – S3	Typically found in wet or wet -mesic deciduous forests and along stream banks. Similar Species: Shagbark Hickory. Distinctive Feature: Larger leaves and leaflets of 7.		Y N UTM: N/O
Shumard Oak (<i>Quercus shumardii</i>) –SC	Species inhabits mesic and mesic -hydric sites on clay and clay-loam soils with poor drainage.		Y N UTM: N/O
Slim-flowered Muhly (<i>Muhlenbergia tenuiflora</i>) – S2	Found in rich deciduous forest dominated by either oak or beech-maple. It can also occur on rocky or sandy soils, wooded dunes, hillsides, and riverbanks.	SDT1, FOD5, FOD9	Y N UTM: N/O
Southern Tickseed (<i>Bidens coronata</i>)-S2	Inhabits dry to moist sandy fields and sandy openings in prairies.	TPO, CUM1	Y (N) UTM:
Stiff Gentian (<i>Gentiana quinquefolia</i>) - S2 <i>Bloom Time – late summer to mid fall</i>	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Y N UTM: N/O
Stiff Goldenrod (<i>Solidago rigida</i>) –S3 <i>Bloom Time- early June to end of November</i>	Occurs on dry open ground, particularly in prairie remnants; along roadsides and railway, and waste places.	TPO1, CUM1	Y (N) UTM:
Tall Tickseed (<i>Coreopsis tripteris</i>)-S2 <i>Bloom Time-late summer to early fall.</i>	Occurs in prairies and open woods, and thickets.	TPO, TPS, TPW, FOD1, FOD2, FOD3, FOD4, FOD5, CUT1	Y (N) UTM:
Winged –Loosestrife (<i>Lythrum alatum</i>)-S3 <i>Bloom Time- mid to late summer</i>	found in prairies, meadows, open woods, thickets and wet disturbed areas.	TPO, CUM1, FOM, FOD, CUM1, CUT1, MAM2	Y (N) UTM:
Woodland Bulrush (<i>Scirpus expansus</i>) - S1	Grows in seepage areas, stream banks, and marshes. It is predominately found in the Asuable River.		Y (N) UTM:

MAMMALS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Little Brown Bat (<i>Myotis lucifugus</i>)-SC	This species roosts in caves, quarries, tunnels, hollow trees or buildings but requires nearby wetlands and forest edges for hunting.	FOD, SWD	Y (N) UTM: Very few hollow trees
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)-SC	The Northern Long-eared Bat roosts and hibernates in mines, caves, and man-made structures but prefers hollow trees in wooded areas	FOD, SWD	Y (N) UTM: Very few hollow trees
Tri-colored Bat (<i>Perimyotis subflavus</i>)-SC	The Tricoloured Bat is one of the common bats in Ontario. It prefers to roost in trees, cliff crevices, and caves usually in open woodlands that are near water	FOD, SWD	Y (N) UTM: Very few hollow trees

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Woodland Vole (<i>Microtus pinetorum</i>)-SC	The Woodland Vole inhabits mature deciduous forests where it can burrow into loose sandy soils and deep humus. Other habitats also include grasslands, meadows, and orchards	FOD	Y (N) UTM:

REPTILES

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	MAM, MAS	not required.
Milksnake (<i>Lampropeltis triangulum</i>) -SC	Assessed as SWH. Record species if found.	CUM, CUT	not required.
Northern Map Turtle (<i>Graptemys geographica</i>) -SC	Large water bodies with soft bottoms & aquatic veg; basks on logs, rocks, beaches, grassy edges; may nest at some distance from water; aquatic corridors (e.g. stream) required for movement.	OAO, SA	Y (N) UTM:

INSECTS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Azure Bluet (<i>Enallagma aspersum</i>)-S3	Found in fishless ponds and other small water bodies. Distinctive Features: Male – Large Blue eyespot and mostly black dorsal surface on abdomen with a blue tip; Females: Green eyespots and almost all black dorsal surface and black tip. Similar Species: Common Blue Damselfly – has more blue than black on abdomen.	OAO	Y (N) UTM: N/A
Blue-ringed Dancer (<i>Argia sedula</i>) – S2	Found in streams and rivers of small to medium size and where there is dense herbaceous vegetation along the banks or shores.		Y (N) UTM:
Dusky Dancer (<i>Argia translate</i>) –S3	Inhabits small to medium, slow flowing sandy or rocky streams or large rivers in quite open areas or with wooded banks.	OAO, SA, SWM, SWD	Y (N) UTM:

BIRDS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Bald Eagle (<i>Haliaeetus leucocephalus</i>)-SC	Assessed as SWH. Record species if found.	-	not required.
Hooded Warbler (<i>Wilsonia Citrina</i>) - SC	An area-sensitive species requiring large tracts of mature, closed canopy, deciduous forests. They generally nest above ground and prefer forests with tall trees that are along stream bottoms or at ravine edges	-	Y (N) UTM: Not large enough
Louisiana Waterthrush (<i>Seiurus motacilla</i>) -SC	<u>Mature forests</u> along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. <u>Riparian woodlands</u> are preferred stopover sites during migration.	FOD, FOM	Y (N) UTM: Not large enough

V1/V3 mosaic



Legend

	Wind Energy Centre Study Area		Project Location
	Transmission Line Study Area		GE Turbine
	Municipal Division		Permanent Meteorological Tower
	Roads		Collection Line
	Railway		Access Road
	Natural Feature		Crane Path
	Watercourse (ABCA, SCRCA)		Transmission Line
	Watercourse (MNR)		Substation & Laydown Area
	120m Area of Investigation		Disturbance Area
	Turbine Location		Natural Feature
	ELC		ELC
	Properties		Properties

* - Soil pit
 ⊗ - Soil pit w/
 Prism Sweep

V1 = FOD 9-4
 V2 = SWD 3-3
 V3 = FOD 5-2
 V4 = CUW 1
 V5 = OAO w/ wetland inclusion.

JER3445
Roe eyes

JER3332
Roe eyes

pricking
 ad
 Mobs #7
 possible
 swamps
 that
 are

nibble & pool
 sequence

nibble & pool
 sequence
 Chinese
 Crayfish
 wild
 strawberries

Transit point count survey point locations and/or
 property access status may be subject to change and
 will be confirmed at the time of field surveys
 (e.g. depending on site conditions and/or landowner
 consultation)

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Metres

0 12.5 25 50 75 100

UTM Zone 17N, NAD 83 1:4,000

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Jericho Wind Energy Centre
 Field Map
Significant Wildlife Habitat
AWO EOS Survey 173_JER1119
 April 2013
 Project 60155032

AECOM

ELC
Community Description and Classification

Map #: *Feature 293* Polygon: *V1*

Surveyor(s): *J. de Man, B. Waters* Date: *June 14, 2013* Time start: *12:30pm* finish: *1:30pm*

UTMZ: UTMZ: UTMN:

Polygon Description

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 checked="" type="checkbox"/> Surficial 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"/> Treed	<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"/> 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"/> 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

Layer	HT	CVR	Species In Order of Decreasing Dominance (up to 4 sp) (>> Much Greater Than; > Greater Than; = About Equal To)
1	2	3	<i>Carya ovata > Acer sacch > Querc macr = Tili amer</i>
2	3	4	<i>Acer sacch = Carya ovata = Cornus fee = Ribes frut</i>
3	6	3	<i>Anem cana > Alli peti > Podo peti</i>
4	7	1	<i>Mosses</i>

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%

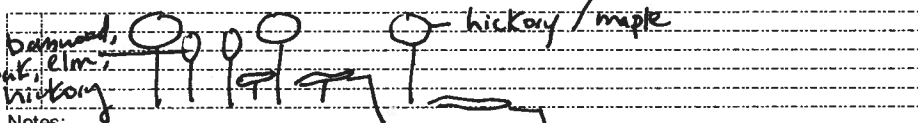
Stand Composition:	Size Class Analysis:	A <10	A 10-24	O 25-50	R >50
BA: <i>6</i>	Standing Snags:	N <10	R 10-24	N 25-50	N >50
	Deadfall / Logs:	N <10	O 10-24	N 25-50	N >50

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

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

Ecosite:	<i>Fresh-Moist Oak-Moist-Hickory</i>	Code:	<i>FOD9</i>
Vegetation Type:	<i>Fresh-Moist Shagbark Hickory Dec. Forest.</i>	Code:	<i>FOD9-4</i>
Inclusion:		Code:	
Complex:		Code:	

Community Profile Diagram/Comments



Tree Tally by Species

Prism Factor	2
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Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
<i>Carya ovata</i>	:					
<i>dead</i>	.					
Total	<i>3</i>					100
Basal Area (BA)	<i>6</i>					
Dead						

Soils Ontario and ELC Soils Description

Site Metrics	Pit/Auger #			Summary				
		1	2					
UTM	Zone			Moisture Regime				
	Easting							
	Northing							
	Slope	Position	<i>flat.</i>		<i>flat</i>	Drainage		
		Aspect	<i>0</i>		<i>east</i>			
		Percent	<i>2%</i>		<i>2%</i>			
Slope Length		<i>/</i>	<i>/</i>					
Depth to...	Mottles	<i>0</i>	<i>0</i>	Effective Texture (Indicate below)				
	Gley	<i>0</i>	<i>0</i>					
	Water Table	<i>n/a</i>	<i>n/a</i>					
	Carbonates	<i>n/a</i>	<i>n/a</i>					
	Bedrock	<i>n/a</i>	<i>n/a</i>					
Soil Horizon Description	1	Depth from zero (cm)	<i>15 cm</i>	% CF	<i>30</i>	% CF		% CF
		Texture	<i>Sa L</i>		<i>Sa L</i>			
	2	Depth from zero (cm)	<i>Silt</i>	% CF		% CF		% CF
		Texture	<i>15 cm +</i>					
	3	Depth from zero		% CF		% CF		% CF
		Texture						
	4	Depth from zero		% CF		% CF		% CF
		Texture						
		% Surface Stone/Rock						
	Moisture Regime		<i>Fresh</i>		<i>Fresh</i>			
	Drainage		<i>Well drained</i>		<i>well drained</i>			

ELC
Community Description and Classification

Map #: Feature 293 Polygon: V2

Surveyor(s): J. de Man, B. Wouke Date: June 14, 2013 Time start: 10:00 am finish: 4:00 pm

UTMZ: UTMZ: UTMN:

Polygon Description

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 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"/> 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 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	3	Acer free >> Frax nigra = Frax penn
2	2	3	Frax penn > Carp coal = Ulmus amer
3	4	2	Lind benz >> Corn foem
4	6	4	Carex sp. > Onoc sensi = Hydro virgi

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%

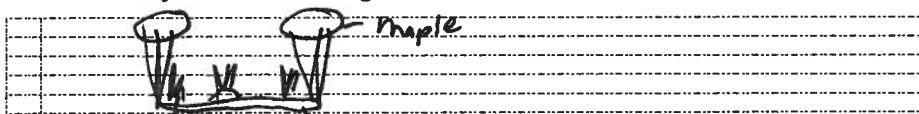
Stand Composition:	Size Class Analysis:	R < 10	O 10-24	A 25-50	O > 50
BA: 14	Standing Snags:	N < 10	O 10-24	N 25-50	N > 50
	Deadfall / Logs:	N < 10	O 10-24	N 25-50	N > 50

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

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

Ecosite: maple Mineral Deciduous Swamp	Code: SWD3
Vegetation Type: Swamp maple Mineral Deciduous Swamp	Code: SWD3-3
Inclusion:	Code:
Complex:	Code:

Community Profile Diagram/Comments



Notes: sedges. several per

Tree Tally by Species

Prism Factor	2
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Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
Acer fremani	7	6				
Tilia americana	1					
Total	7					100
Basal Area (BA)	14					
Dead	0					

Soils Ontario and ELC Soils Description

Site Metrics	Pit/Auger #		Summary				
	UTM	Zone	Moisture Regime				
Slope	Easting		Drainage				
	Northing						
	Position	/					
	Aspect	0					
	Percent	0%					
	Slope Length	/					
Depth to...	Mottles	from 0 15 cm	Effective Texture (indicate below)				
	Gley	none					
	Water Table	surface					
	Carbonates						
	Bedrock						
Soil Horizon Description	1	Depth from zero	0-15 cm	% CF 0	% CF	% CF	% CF
		Texture	Oh				
	2	Depth from zero	15-50+ cm	% CF 0	% CF	% CF	% CF
		Texture	S&C				
	3	Depth from zero		% CF	% CF	% CF	% CF
		Texture					
	4	Depth from zero		% CF	% CF	% CF	% CF
		Texture					
			% Surface Stone/Rock				
			Moisture Regime	6-very moist			
			Drainage	Imperfect			

Plant Species List
2012

Dicot Herbs - Asteraceae					Dicot Herbs					Dicot Herbs				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Common Yarrow (<i>Achillea millefolium</i>)					Shepherd's Purse (<i>Capsella bursa-pastoris</i>)					Kidney-leaf Buttercup (<i>Ranunculus abortivus</i>)				
White Snakeroot (<i>Ageratina altissima</i>)					Cutleaf Toothwort (<i>Cardamine concatenata</i>)					Tall Buttercup (<i>Ranunculus acris</i>)				
Com. Ragweed (<i>Ambrosia artemisiifolia</i>)	U				Toothwort (<i>Cardamine diphylla</i>)					Hooked Buttercup (<i>Ranunculus recurvatus</i>)				
Giant Ragweed (<i>Ambrosia trifida</i>)	U				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>)	U				Mouse-ear Chickweed (<i>Cerastium fontanum</i>)					Bitter Dock (<i>Rumex obtusifolius</i>)				
Nodding Beggar-ticks (<i>Bidens cernua</i>)					Turtlehead (<i>Chelone glabra</i>)					Bloodroot (<i>Sanguinaria canadense</i>)				
Devil's Beggar-ticks (<i>Bidens frondosa</i>)					Spotted Water-hemlock (<i>Cicuta maculata</i>)					Black Snakeroot (<i>Sanicula marilandica</i>)				
Spotted Knapweed (<i>Centaurea biebersteinii</i>)					Water-hemlock (<i>Cicuta virosa</i>)					Bouncing Bet (<i>Saponaria officinalis</i>)				
Brown Knapweed (<i>Centaurea jacea</i>)					Enchanter's Nightshade (<i>Circaea lutetiana</i>)					Marsh Skullcap (<i>Scutellaria galericulata</i>)				
Chicory (<i>Cichorium intybus</i>)					Carolina Spring Beauty (<i>Claytonia caroliniana</i>)					Mad Dog Skullcap (<i>Scutellaria lateriflora</i>)				
Canada Thistle (<i>Cirsium arvense</i>)	U				Virginia Spring Beauty (<i>Claytonia virginica</i>)					White Campion (<i>Silene latifolia</i>)				
Bull Thistle (<i>Cirsium vulgare</i>)					Virgin's-bower (<i>Clematis virginiana</i>)					Bladder Campion (<i>Silene vulgaris</i>)				
Horseweed (<i>Conyza canadensis</i>)					Field Bindweed (<i>Convolvulus arvensis</i>)					Hemlock Water-parsnip (<i>Sium suave</i>)				
Daisy Fleabane (<i>Erigeron annuus</i>)					Dog-strangling Vine (<i>Cynanchum rossicum</i>)					Bitter Nightshade (<i>Solanum dulcamara</i>)				
Philadelphia Fleabane (<i>Erig. philadelphicus</i>)	U				Wild Carrot (<i>Daucus carota</i>)					Black Nightshade (<i>Solanum ptychanthum</i>)				
<i>Erigeron</i>					Deptford Pink (<i>Dianthus armeria</i>)					Grassleaf Stitchwort (<i>Stellaria graminea</i>)				
Joe-pye-weed (<i>Eupatorium maculatum</i>)					Squirrel-com (<i>Dicentra canadensis</i>)					Common Chickweed (<i>Stellaria media</i>)				
Boneset (<i>Eupatorium perforatum</i>)					Dutchman's-breeches (<i>Dicentra cucullaria</i>)					Early Meadow-rue (<i>Thalictrum dioicum</i>)				
Large-leaved Aster (<i>Eurybia macrophylla</i>)					Wild Teasel (<i>Dipsacus fullonum</i>)					Tall Meadow-rue (<i>Thalictrum pubescens</i>)				
Flat-top Goldenrod (<i>Euthamia graminifolia</i>)					Wild Cucumber (<i>Echinocystis lobata</i>)					Field Penny-cress (<i>Thlaspi arvense</i>)				
Orange Hawkweed (<i>Hieracium aurantiacum</i>)					Viper's Bugloss (<i>Echium vulgare</i>)					Foamflower (<i>Tiaralia cordifolia</i>)				
Field Hawkweed (<i>Hieracium caespitosum</i>)					Northern Willow-herb (<i>Epiobium ciliatum</i>)					Star-flower (<i>Trientalis borealis</i>)				
<i>Hieracium</i>					Hairy Willow-herb (<i>Epiobium hirsutum</i>)					Red Clover (<i>Trifolium pratense</i>)				
Elecampene (<i>Inula helenium</i>)					Small-fl. Willow-herb (<i>Epiobium parviflorum</i>)					White Clover (<i>Trifolium repens</i>)				
Prickly Lettuce (<i>Lactuca serriola</i>)					<i>Epiobium</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>)	U				<i>Euphorbia</i>					Greater Bladderwort (<i>Utricularia vulgaris</i>)				
Pineapple-weed (<i>Matricaria discoidea</i>)					Hemp Nettle (<i>Galeopsis tetrahit</i>)					Common Mullein (<i>Verbascum thapsus</i>)				
Tall White Lettuce (<i>Prenanthes altissima</i>)					Wild Madder (<i>Galium mollugo</i>)					Blue Vervain (<i>Verbena hastata</i>)				
Black-eyed Susan (<i>Rudbeckia hirta</i>)					Marsh Bedstraw (<i>Galium palustre</i>)					White Vervain (<i>Verbena urticifolia</i>)				
Tall Goldenrod (<i>Solidago altissima</i>)					Sweet-scented Bedstraw (<i>Galium triflorum</i>)					Water Speedwell (<i>Veron. anagallis-aquatica</i>)				
Blue-stem Goldenrod (<i>Solidago caesia</i>)					<i>Galium</i>					Common Speedwell (<i>Veronica officinalis</i>)				
Canada Goldenrod (<i>Solidago canadensis</i>)					Spotted Geranium (<i>Geranium maculatum</i>)					<i>Veronica</i>				
Zig-zag Goldenrod (<i>Solidago flexicaulis</i>)					Herb-robert (<i>Geranium robertianum</i>)					Cow Vetch (<i>Vicia cracca</i>)				
Giant Goldenrod (<i>Solidago gigantea</i>)	U				Yellow Avens (<i>Geum alepicum</i>)					<i>Vicia</i>				
Early Goldenrod (<i>Solidago juncea</i>)					White Avens (<i>Geum canadense</i>)					Periwinkle (<i>Vinca minor</i>)				
Gray Goldenrod (<i>Solidago nemoralis</i>)					Urban Avens (<i>Geum urbanum</i>)					Dog Violet (<i>Viola conspersa</i>)				
<i>Solidago</i>					Dame's Rocket (<i>Hesperis matronalis</i>)					Yellow Violet (<i>Viola pubescens</i>)				
Field Sow-thistle (<i>Sonchus arvensis</i>)					Virg. Water-leaf (<i>Hydrophyllum virginianum</i>)					Com. Blue Violet (<i>Viola sororia</i>)				
<i>Sonchus</i>					Com. St. John's-wort (<i>Hypericum perforatum</i>)					<i>Viola</i>				
Heart-leaf Aster (<i>Symph. cordifolium</i>)					Spotted Jewelweed (<i>Impatiens capensis</i>)									
Heath Aster (<i>Symph. ericoides</i>)	U				Wood Nettle (<i>Laportea canadensis</i>)									
Tall White Aster (<i>Symph. lanceolatum</i>)	U				Motherwort (<i>Leonurus cardiaca</i>)									
Calico Aster (<i>Symph. lateriflorum</i>)					Field Peppergrass (<i>Lepidium campestre</i>)									
New England Aster (<i>Symph. novae-angliae</i>)	U				Eur. Gromwell (<i>Lithospermum officinale</i>)									
Purple-stem Aster (<i>Symph. puniceus</i>)					Butter & Eggs (<i>Linaris vulgaris</i>)									
Common Tansy (<i>Tanacetum vulgare</i>)					Great Lobelia (<i>Lobelia siphilitica</i>)									
Common Dandelion (<i>Taraxacum officinale</i>)	U				<i>Lobelia</i>									
Com. Goatsbeard (<i>Tragopogon pratensis</i>)					Cut-leaf Bugleweed (<i>Lycopus americanus</i>)									
Coltsfoot (<i>Tussilago farfara</i>)					Northern Bugleweed (<i>Lycopus uniflorus</i>)									
					Fringed Loosestrife (<i>Lysimachia ciliata</i>)									
					Moneywort (<i>Lysimachia nummularia</i>)									
					<i>Lysimachia</i>									
					Purple Loosestrife (<i>Lythrum salicaria</i>)									
					Black Medick (<i>Medicago lupulina</i>)									
					Alfalfa (<i>Medicago sativa</i>)									
					White Sweet-clover (<i>Melilotus alba</i>)									
					Yellow Sweet-clover (<i>Melilotus officinalis</i>)									
					Wild Mint (<i>Mentha arvensis</i>)									
					Wild Bergamot (<i>Monarda fistulosa</i>)									
					Small Forget-me-not (<i>Myosotis laxa</i>)									
					Forget-me-not (<i>Myosotis scorpioides</i>)									
					Water-cress (<i>Nasturtium officinale</i>)									
					Com. Evening-primrose (<i>Oenothera biennis</i>)									
					Sweet-cicely (<i>Osmorhiza berterii</i>)									
					Yellow Wood-sorrel (<i>Oxalis stricta</i>)									
					Wild Parsnip (<i>Pastinaca sativa</i>)									
					English Plantain (<i>Plantago lanceolata</i>)									
					Common Plantain (<i>Plantago major</i>)									
					Rugel's Plantain (<i>Plantago rugelii</i>)									
					May-apple (<i>Podophyllum peltatum</i>)									
					Pale Smartweed (<i>Polygonum lepathifolium</i>)									
					Lady's-thumb (<i>Polygonum persicaria</i>)									
					Virginia Knotweed (<i>Polygonum virginianum</i>)									
					<i>Polygonum</i>									
					<i>Polygonum</i>									
					Rough Cinquefoil (<i>Potentilla norvegica</i>)									
					Rough-fruited Cinquefoil (<i>Potentilla recta</i>)									
					Common Cinquefoil (<i>Potentilla simplex</i>)									
					<i>Potentilla</i>									
					Heal-all (<i>Prunella vulgaris</i>)									
					Shinleaf (<i>Pyrola elliptica</i>)									

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

Map Number: JES 445 (A#2) 1 CUW-1 4
 Date: June 9, 2013 2
 Surveyors: RA, JS 3

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW JER <u>GSH</u>	Map #:	<u>A17 2</u>
Date:	<u>July 9, 2013</u>	Time Started:	<u>10:00am</u>
Field Staff:	<u>BA, TS</u>	Time Finished:	<u>12:00pm</u>
Weather Conditions:	<u>~30°C, 90%CC BS:1</u>		

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

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

UTMs: _____ Number of nests: _____

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

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

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

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

UTMs: _____ Area of standing water delineated on field map

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

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

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

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

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

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

Snake Hibernacula

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

UTMs: _____ Likelihood to extend below frost line: _____

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

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

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

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

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

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

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)
 (CUM1, CUT1, CUS, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1)

Eroding bank, sandy hill, pits, steep slope or rock face present:
 No Yes (if yes, photograph and complete the following)

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

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

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas
 (BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1, MAM2, MAM3, MAM4, MAM5)

Shoreline of lake, large river or large wetland present:
 No Yes (if yes, photograph and complete the following)

UTMs: _____ Rocky island or peninsula present: _____
 Mudflat present: _____ Evidence of disturbance (e.g. cattle grazing): _____

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

Raptor Winter Feeding and Roosting, Open Country or Shrub/Early Successional Bird Breeding Habitat
 CUT1, CUS1, >30ha, CUM1 >30ha, FOC, FOD, FOM with a CUM, CUT, CUS, CUW > 20ha, or a CUM, CUS, CUT, CUW > 15ha

Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, CUS, CUW) present:
 Large open habitat present: No Yes (if yes, photograph and complete the following)

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

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

Old-growth or Mature Forests, Interior Forest Breeding Birds
 (FOD, FOC, FOM, SWC, SWM, SWD. Mature forest (>60 years) present)

Mature forest present: No Yes (if yes, photograph and complete the following)

UTMs: _____ Age of oldest trees: _____

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

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

Photo #	Location or Subject	Photo #	Location or Subject

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho



Study Area: SER-AH2

Field Staff: RA, JS

Time Started: 10:00 am

Date (yyyy-mm-dd): 2013-07-09

Feature No.: 295

Time Finished: 12:00 pm

Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
BAOR		SM					
BHCO		SM					
AMGO		SM					
AMRO		SM					
SOSP		SM					

Note: Evidence Codes (EV)

Breeding Bird (Possible)

SH=Suitable Habitat, SM=Singing Male;

Breeding Bird (Probable)

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

Breeding Bird (Confirmed)

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

Other Wildlife Evidence:

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

PLANTS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
American Gromwell (<i>Lithospermum latifolium</i>) - S3 Bloom Time - Spring	Grows in rich deciduous woodlands, wooded floodplains, and shaded riverbanks as well as along the edges of woodlands	FOD7	Y (N) UTM:
A Moss (<i>Astorum muehlenbergianum</i>) - S2 Bloom Time - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie.	ALO, TPO	Y (N) UTM:
Autumn Coral-root (<i>Corallorhiza odorhiza</i>) - S2 Bloom Time - Summer to Fall	Found growing in openings of red pine or white pine plantations as well as dry sandy woods.	FOM1, FOM2, CUP3	Y (N) UTM:
Broad Beech Fern (<i>Phegopteris hexagonoptera</i>) - SC Bloom Time- not a flowering plant	Species grows in rich, mature deciduous woods in southern Ontario.		Y (N) UTM:
Burning Bush (<i>Euonymus atropurpureus</i>) - S3	Grows in dry to moist thickets, valleys, and forest edges. Similar Species: European Burning Bush (<i>Euonymus europaeus</i>). Distinctive Feature: Burning Bush has hairs on the underside of leaves while the European species does not.		Y (N) UTM:
Carey's Sedge (<i>Carex careyana</i>) - S2 Bloom Time - May and June	Occurs in rich deciduous woods, often on floodplains and slopes and mesic to dry-mesic hardwood forests.	FOD6, FOD7, FOD9, SWD	Y (N) UTM:
Caughuawaga Hawthorn (<i>Crataegus suborbiculata</i>) - S1	Occurs in old fields, poorly managed pastures (<u>fencelines</u>) and roadsides.	CUM1, CUS1, CUT1	Y (N) UTM: Not Observed
Round-leaved Hawthorn (<i>Crataegus lumaria</i>) - S3?	Occurs in old fields, poorly managed pastures (<u>fencelines</u>) and roadsides.	CUM1, CUS1, CUT1	Y (N) UTM: Not Observed
Chinese Hemlock Parsley (<i>Conioselinum chinense</i>) - S2 Bloom Time -summer to fall	Swampy places with deciduous trees, white cedars, tamarack; springy river banks, creek borders, wet borders of streams & rivers. Also calcareous seepage slopes.	SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Y (N) UTM:
Cream Violet (<i>Viola striata</i>) - S3 Bloom Time- March- June).	Inhabits rich floodplain forest and low, wet woods.	FOD6, FOD7, FOD9, SWM, SWD	Y (N) UTM:
Double-striped Bluet (<i>Enallagma basidens</i>) - S3	Inhabits fishless ponds, lakes and boggy swamps.	OAO, SA, SWM, SWD	Y (N) UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Eastern Green-violet (<i>Hybanthus concolor</i>) - S2 <i>Bloom 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.	ALT1, FOD7	Y (N) UTM:
Green Dragon (<i>Arisaema dracontium</i>) - SC/S3 <i>Bloom Time – May and June</i>	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	FOD6, FOD7, FOD9	Y (N) UTM:
Harbinger-of-spring (<i>Eriogonum bulbosum</i>) - S3 <i>Bloom Time – early to late April</i>	Occurs in rich, moist deciduous woods, especially on floodplains.	FOD6, FOD7, FOD8, FOD9	Y (N) UTM:
Hazel Dodder (<i>Cuscuta coryli</i>) –SH	Occurs in open, moist tall-grass prairie and meadows - parasitic on <i>Aster</i> , <i>Heliathus</i> , <i>Monarda</i> , <i>Rubus</i> , <i>Solidago</i> .	RBO, TPO2, CUM1	Y (N) UTM:
Leonard's Small Skullcap (<i>Scutellaria parvula</i>) –S3 <i>Bloom Time – late Spring to early Summer</i>	Occurs on open, rocky ground and prairies.	ALO, TPO	Y (N) UTM:
Mead's Sedge (<i>Carex meadii</i>) –S2 <i>Bloom Time –late spring to early summer</i>	Occurs in prairies and moist or dry open areas.	TPO, CUM1	Y (N) UTM:
Ovate Beak Grass –S1 <i>Bloom Time- mid Summer</i>	prefers riparian woodlands ¹⁴ ; floodplain swamps and river banks.	FOD6, FOD7, FOD9, SWD	Y (N) UTM:
Pawpaw (<i>Asimina triloba</i>) –S3 <i>Bloom Time – March-May</i>	Occurs in moist deciduous woods and stream banks.	FOD6, FOD7, FOD9	Y (N) UTM:
Perfoliate Tinker's-weed (<i>Triosteum perfoliatum</i>) – S1 <i>Bloom Time – May, June, July</i>	Grows in rich, deciduous woods.		Y (N) UTM:
Pumpkin Ash (<i>Fraxinus profunda</i>) – S2?	This species is a wetland obligate and only grows in bottomland swamps and floodplains. Distinctive Feature: the base of the trunk swells outward, resembling a pumpkin in larger trees.		Y (N) UTM:
Riddell's Goldenrod (<i>Oligoneuron riddellii</i>)-SC	Riddell's Goldenrod grows in wet habitats such as wet marshes, moist prairies, fens, old fields and seepy banks.	ALO, TPO, CUM1	Y (N) UTM:
Shellbark Hickory (<i>Carya laciniosa</i>) – S3	Typically found in wet or wet -mesic deciduous forests and along stream banks. Similar Species: Shagbark Hickory. Distinctive Feature: Larger leaves and leaflets of 7.		Y (N) UTM:
Shumard Oak (<i>Quercus shumardii</i>) –SC	Species inhabits mesic and mesic -hydric sites on clay and clay-loam soils with poor drainage.		Y (N) UTM:
Slim-flowered Muhly (<i>Muhlenbergia tenuiflora</i>) – S2	Found in rich deciduous forest dominated by either oak or beech-maple. It can also occur on rocky or sandy soils, wooded dunes, hillsides, and riverbanks.	SDT1, FOD5, FOD9	Y (N) UTM:
Southern Tickseed (<i>Bidens coronata</i>)-S2	Inhabits dry to moist sandy fields and sandy openings in prairies.	TPO, CUM1	Y (N) UTM:
Stiff Gentian (<i>Gentianella quinquefolia</i>) - S2 <i>Bloom Time – late summer to mid fall</i>	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Y (N) UTM:
Stiff Goldenrod (<i>Solidago rigida</i>) –S3 <i>Bloom Time-early June to end of November</i>	Occurs on dry open ground, particularly in prairie remnants; along roadsides and railway, and waste places.	TPO1, CUM1	Y (N) UTM:
Tall Tickseed (<i>Coreopsis tripteris</i>)-S2 <i>Bloom Time-late summer to early fall.</i>	Occurs in prairies and open woods, and thickets.	TPO, TPS, TPW, FOD1, FOD2, FOD3, FOD4, FOD5, CUT1	Y (N) UTM:
Winged –Loosestrife (<i>Lythrum alatum</i>)-S3 <i>Bloom Time- mid to late summer</i>	found in prairies, meadows, open woods, thickets and wet disturbed areas.	TPO, CUM1, FOM, FOD, CUM1, CUT1, MAM2	Y (N) UTM:
Woodland Bulrush (<i>Scirpus expansus</i>) - S1	Grows in seepage areas, stream banks, and marshes. It is predominately found in the Asuable River.		Y (N) UTM:

MAMMALS			
Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Little Brown Bat (<i>Myotis lucifugus</i>)-SC	This species roosts in caves, quarries, tunnels, hollow trees or buildings but requires nearby wetlands and forest edges for hunting.	FOD, SWD	Y (N) UTM:
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)-SC	The Northern Long-eared Bat roosts and hibernates in mines, caves, and man-made structures but prefers hollow trees in wooded areas	FOD, SWD	Y (N) UTM:
Tri-colored Bat (<i>Perimyotis subflavus</i>)-SC	The Tricoloured Bat is one of the common bats in Ontario. It prefers to roost in trees, cliff crevices, and caves usually in open woodlands that are near water	FOD, SWD	Y (N) UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho



Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Woodland Vole (<i>Microtus pinetorum</i>)-SC	The Woodland Vole inhabits mature deciduous forests where it can burrow into loose sandy soils and deep humus. Other habitats also include grasslands, meadows, and orchards	FOD	Y (N) UTM:

REPTILES

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	MAM, MAS	not required.
Milksnake (<i>Lampropeltis triangulum</i>) -SC	Assessed as SWH. Record species if found.	CUM, CUT	not required.
Northern Map Turtle (<i>Graptemys geographica</i>) -SC	Large water bodies with soft bottoms & aquatic veg; basks on logs, rocks, beaches, grassy edges; may nest at some distance from water; aquatic corridors (e.g. stream) required for movement.	OAO, SA	Y (N) UTM:

INSECTS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Azure Bluet (<i>Enallagma aspersum</i>)- S3	Found in fishless ponds and other small water bodies. Distinctive Features: Male – Large Blue eyespot and mostly black dorsal surface on abdomen with a blue tip; Females: Green eyespots and almost all black dorsal surface and black tip. Similar Species: Common Blue Damselfly – has more blue than black on abdomen.	OAO	Y (N) UTM:
Blue-ringed Dancer (<i>Argia sedula</i>) – S2	Found in streams and rivers of small to medium size and where there is dense herbaceous vegetation along the banks or shores.		Y (N) UTM:
Dusky Dancer (<i>Argia translata</i>) –S3	Inhabits small to medium, slow flowing sandy or rocky streams or large rivers in quite open areas or with wooded banks.	OAO, SA, SWM, SWD	Y (N) UTM: Not Observed

BIRDS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Bald Eagle (<i>Haliaeetus leucocephalus</i>)-SC	Assessed as SWH. Record species if found.	-	not required.
Hooded Warbler (<i>Wilsonia Citrina</i>) - SC	An area-sensitive species requiring large tracts of mature, closed canopy, deciduous forests. They generally nest above ground and prefer forests with tall trees that are along stream bottoms or at ravine edges	-	Y (N) UTM:
Louisiana Waterthrush (<i>Seiurus motacilla</i>) -SC	<u>Mature forests</u> along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. <u>Riparian woodlands</u> are preferred stopover sites during migration.	FOD, FOM	Y (N) UTM:

Species at Risk Threatened and Endangered Habitat Assessment – Jericho



Study Area: JER-A14 2 Field Staff: RA, JS Time Started: 10:00am
 Date (yyyy-mm-dd): 2013-07-09 Natural Area: 293 Time Finished: 12:00pm

Species	Habitat Description	Potential Habitat /Species Present (Y/N; UTM; description if present)
American Ginseng (<i>Panax quinquefolius</i>)	In relatively mature deciduous forests, often near the bottom of south-facing slopes, where the microhabitat is warm and well-drained. Deep leaf litter in undisturbed areas of neutral soil (such as over limestone or marble bedrock). Flowers May to August; fruits late summer. FOD5, FOD6, FOD7, FOD9 Soil: Moist (4,5,6) to fresh (2,3).	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):
Butternut (<i>Juglans cinerea</i>)	Deciduous forests in rich, moist, & well-drained soils often found along streams; may also be found on well-drained gravel sites, especially in limestone areas. Grows alone or in small groups. Shade intolerant, usually occurs along or near edge of deciduous woodlots and hedgerows. Flowers in May; fruits mature late summer. FOD2, FOD5, FOD6, FOD7; mature hedgerows; Soil: dry rocky or moist (4,5,6) to fresh (2,3).	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):
Drooping Trillium (<i>Trillium flexipes</i>)	Found in rich, mature, deciduous forests usually crossed by streams; grows on dry, circum-neutral, well-drained, sandy clay soils associated with limestone; prefers higher elevations of microsites on floodplains. FOD	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):
Eastern Flowering Dogwood (<i>Cornus florida</i>)	Woodland borders & sunny openings; hedgerows; understory species in semi-open dry oak-hickory to mesic maple-beech deciduous or mixed forests; sandy soil, more or less clayey. If present, likely planted. Flowers May; fruits mature fall. FOM1, FOM2, FOM3, FOD1, FOD2, FOD5, FOD6; Soil: dry (0) to fresh (1,2,3).	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):
False Rue-anemone (<i>Enemion biternatum</i>)	Grows in large colonies on open, wooded slopes, on river floodplains with rich soils, and in rich woods and thickets; found in shady areas in mature maple-beech forest; Ontario populations are found near streams in deciduous forests dominated by sugar maple. FOD2, FOD4, FOD5, FOD6, FOD7, FOD9.	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):
Goldenseal (<i>Hydrastis Canadensis</i>)	Rich moist areas of mature deciduous forests dominated by sugar maple, or in moist floodplain forests dominated by red maples and white oaks. Individuals of this species have been planted but planted individuals are not protected from kill and harm by the ESA. Blooming & fruiting: April to May. FOD5, FOD6, FOD7, FOD9; Soil: Moist (4,5,6)-Fresh (2,3).	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):
Heart-leaved Plantain (<i>Plantago cordata</i>)	Prefers swampy or seasonally flooded areas with dense overstory; moist deciduous woods, shallow streams, swamps, and wet ditches; commonly grows in cracks of bedrock or in gravel; has an association with limestone quarries and gravel pits. In Ontario, species grows along intermittent streams in mature silver maple swamps. FOD6, FOD7, FOD9, SWD, MAM2.	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):

Species	Habitat Description	Potential Habitat /Species Present (Y/N; UTM; description if present)
Blanding's Turtle (<i>Emydonidea blandingii</i>)	Freshwater lakes, permanent or temporary pools, slow-flowing streams, marshes, swamps; prefers shallow water, organic soil & dense vegetation; nest in loose substrates, including sand, organic soil, gravel, cobblestone; overwinter in permanent pools ~ 1 m deep, or in slow-flowing streams or in bogs; basks on logs, stumps, or banks. SWT2, SWT3, SWD, SWM, MAS2, SAS1, SAM1, where open water present.	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):
Eastern Hognose Snake (<i>Heterodon platirhinos</i>)	Prefers habitats with sandy, well-drained soil and open vegetative cover, such as open woods, thickets, upland fields, pastures, forest edges, savannahs, sandy beaches; dry open mixed or deciduous forest prefer forest areas > 5ha ; often found near water.. BB, SD, SB, TP, FOD1 ; potentially in any suitable habitat with sandy soils.	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):
Eastern Musk Turtle (<i>Sternotherus odoratus</i>)	Require water > 1 m deep; slow moving water of lakes, streams, marshes and ponds and soft earth to bury into for hibernation; eggs laid in debris or under stumps at water's edge and exposed to direct sunlight. MAM3, MAS2, MAS3, OAO, SA.	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):
Five-lined Skink (<i>Plestiodon fasciatus</i>)	Found under woody debris such as logs, leaf litter, and sawdust in open areas or edges associated with stabilized dune habitat, open deciduous or mixed woodlands or savanna with sandy substrate; prefers habitat with sandy soil and ground cover. Also can be found on open talus slopes and barren rock. SD, TPS, FOM, FOD; soil: sandy sites.	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):
Queensnake (<i>Regina septemvittata</i>)	Highly specialized habitat requirements: aquatic species, seldom found > 3 m from water. (1) Permanent water , flowing or still, with temp ≥18°C throughout most of the active season; (2) abundant cover , e.g. flat rock, (3) abundant crayfish . Rocky, gravelly, or stone stream-bed substrates, swift to moderate current, and woodland surroundings. OAO; adjacent terrestrial habitat. SA, MAM2, MAM3, SWT2-2, SWT3-2.	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):
Spotted Turtle (<i>Clemmys guttata</i>)	Occurs in shallow bodies of water such as streams, ponds, wet meadows, marshes or swamps with aquatic vegetation, logs or clumps of vegetation for basking; nest is dug near water; habitat contains soft, muddy soil, sphagnum moss, sedge tussocks, cattails, water lilies and water-loving shrubs; nests in groups near	Habitat: Yes / <input type="radio"/> No Species: Yes / No UTM (if required):

Species at Risk Threatened and Endangered Habitat Assessment – Jericho

Species	Habitat Description	Potential Habitat /Species Present (Y/N; UTM; description if present)
	man-made dykes, muskrat nests, base of grass tussocks. SWD, SWM, MAM3, MAS2, MAS3, OAO, SA.	
Spiny Softshell (<i>Apalone spinifera</i>)	Occurs in marshy creeks, fast-flowing rivers, lakes, impoundments, bays, marshy lagoons, ditches and ponds near rivers. Requires: sand or gravel nesting areas close to water in absence of vegetation; shallow, muddy or sandy areas to bury in; deep pools for hibernation; basking areas such as sand bars, mud flats, grassy beaches, logs or rocks exposed to sunlight; and suitable habitat for crayfish as a food source.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):

BIRDS

Species	Habitat Description	Potential Habitat /Species Present (Y/N; UTM; description if present)
Acadian Flycatcher (<i>Empidonax vireescens</i>)	Occurs in the understory of large, closed-canopy, mature, undisturbed forests (<40 ha) and well-wooded swamps and ravines; Species hang nests over water but do not occupy dry woods; has associations with maple-beech, oak-maple, and beech-hemlock forests. FOD5-2, FOD2-4, FOM3, SWD.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Barn Swallow (<i>Hirundo rustica</i>)	Nearly all nests are made on man-made structures such as barns, garages, sheds, boat houses, bridges, road culverts, eaves and wharfs. Farmlands or rural areas; forages over open country especially near bodies of water. Where Barn Swallows observed foraging only, is not Significant habitat. Forages in TPO, CUM1, MAM, MAS, OAO, SAS1, SAM1, SAF1 ; nest on suitable structures.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Bobolink (<i>Dolichonyx oryzivorus</i>)	Nests primarily in forage crops, particularly hayfields and pastures , dominated by a variety of species such as clover, tall grasses and broadleaved plants; also occurs in wet prairie, graminoid peatlands and abandoned fields; generally requires tracts of grassland >5 ha . Also nests in lightly grazed pastures, fallow and abandoned fields and shallow grassy marshes. TPO, TPS, CUM1, MAM2	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Cerulean Warbler (<i>Dendroica cerulea</i>)	Large tracts of mature deciduous forests with tall trees and an open understory; forests may be in wet bottomland areas or upland locations; also nests in older, second-growth deciduous forests and mature deciduous swamps. FOD2, FOD5, FOD6, FOD7	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Chimney Swift (<i>Chaetura pelagica</i>)	Formerly nested in the trunks of large, hollow trees. Today, mainly use chimneys or abandoned buildings as nesting sites. May forage over wide variety of habitats. It requires dead trees >30 cm for roosting and possibly nesting. Where swifts observed foraging only, is not Significant habitat. Forages in TPO, CUM1, MAM, MAS, OAO, SAS1, SAM1, SAF1 ; nest in any communities where buildings with chimneys present.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Eastern Meadowlark (<i>Sturnella magna</i>)	Most common in native grasslands, savannah, old fields, hayfields, lightly grazed pastures, weedy meadows, fields with occasional shrubs. Minimum area of grassland required is about 5 ha. TPO, TPS, CUM1, MAM2, MAS2	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Least Bittern (<i>Ixobrychus exilis</i>)	Occurs in large marshes (especially cattail) with good interspersions of emergents and open water. Nests sit on platforms of stiff stems; nests within 10m of open water. Prefers large marshes that have relatively stable water levels throughout the nesting period. MAS2-1, MAS3-1, SA, OAO.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Whip-poor-will (<i>Caprimulgus vociferus</i>)	Generally prefer semi-open deciduous or mixed forests or patchy forests with clearings; areas with little ground cover also preferred; .Generally associated with >100 ha forests. CUW, FOD, FOM, FOD1.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):

Additional Species at Risk Presence Observed:

Species Code	UTM	EV	Notes

Evidence Codes (EV)

Breeding Bird (Possible)

Breeding Bird (Probable)

Breeding Bird (Confirmed)

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)

Map Document: (N:\projects\0-aecom\60155032\2010\Final\GIS\spatial\MXDs\FinalMap\MXD\Project_ELC_Visual\JER_ELC_Only\60155032_JER_ELC_Survey_Site_34_JER3115.mxd) 5/4/2012 -- 10:07:18 AM



Legend

- Property Boundary
- Natural Feature and ID
- ELC Polygon Boundary
- ANSI
- Evaluated Wetlands - PSW
- Watercourse
- 171.5m Turbine Buffer
- 120m Area of Investigation

Project Location

- GE Turbine
- Met Tower
- Collection Line
- Access Road
- Crane Path
- Transmission Line
- Substation
- Disturbance Area

0.5 ha

Basemapping from Ontario Ministry of Natural Resources
 Orthophotography: 2010
 Turbine Layout: April 9, 2012

N
 W E
 S

Metres
 0 25 50 100
 1:3,000
 UTM Zone 17N, NAD 83

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Jericho ELC Survey
T1_JER1001/1077
 March 2013
 Project 60155032

AECOM

Plant Species List
2012

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>)	U					Shepherd's Purse (<i>Capsella bursa-pastoris</i>)						Kidney-leaf Buttercup (<i>Ranunculus abortivus</i>)					
White Snakeroot (<i>Ageratina altissima</i>)						Cutleaf Toothwort (<i>Cardamine concatenata</i>)						Tall Buttercup (<i>Ranunculus acris</i>)					
Com. Ragweed (<i>Ambrosia artemisiifolia</i>)	U					Toothwort (<i>Cardamine diphylla</i>)						Hooked Buttercup (<i>Ranunculus recurvatus</i>)					
Giant Ragweed (<i>Ambrosia trifida</i>)	U					Penn. Bitter-cress (<i>Cardamine pennsylvanica</i>)						<i>Ranunculus</i>					
Field Pussytoes (<i>Antennaria neglecta</i>)						<i>Cardamine</i>						Sheep Sorrel (<i>Rumex acetosella</i>)					
<i>Artemisia</i>						Blue Cohosh (<i>Caulophyllum thalictroides</i>)						Curly-leaf Dock (<i>Rumex crispus</i>)					
Common Burdock (<i>Arctium minus</i>)	U					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 blebersteinii</i>)						Water-hemlock (<i>Cicuta virosa</i>)						Bouncing Bet (<i>Saponaria officinalis</i>)					
Brown Knapweed (<i>Centaurea jacea</i>)						Enchanter's Nightshade (<i>Circaea lutetiana</i>)						Marsh Skullcap (<i>Scutellaria galericulata</i>)					
Chicory (<i>Cichorium intybus</i>)						Carolina Spring Beauty (<i>Claytonia caroliniana</i>)						Mad Dog Skullcap (<i>Scutellaria lateriflora</i>)					
Canada Thistle (<i>Cirsium arvense</i>)						Virginia Spring Beauty (<i>Claytonia virginica</i>)						White Campion (<i>Siene latifolia</i>)					
Bull Thistle (<i>Cirsium vulgare</i>)						Virgin's-bower (<i>Clematis virginiana</i>)						Bladder Campion (<i>Siene vulgaris</i>)					
Horseweed (<i>Coryza canadensis</i>)						Field Bindweed (<i>Convolvulus arvensis</i>)	U					Hemlock Water-parnsnip (<i>Sium suave</i>)					
Daisy Fleabane (<i>Erigeron annuus</i>)						Dog-strangling Vine (<i>Cynanchum rossicum</i>)						Bitter Nightshade (<i>Solanum dulcamara</i>)					
Philadelphia Fleabane (<i>Eng. philadelphicus</i>)	U					Wild Carrot (<i>Daucus carota</i>)						Black Nightshade (<i>Solanum ptychanthum</i>)					
<i>Erigeron</i>						Deptford Pink (<i>Dianthus ameria</i>)						Grassleaf Stitchwort (<i>Stellaria graminea</i>)					
Joe-pye-weed (<i>Eupatorium maculatum</i>)						Squirrel-com (<i>Dicentra canadensis</i>)						Common Chickweed (<i>Stellaria media</i>)					
Boneset (<i>Eupatorium perfoliatum</i>)						Dutchman's-breeches (<i>Dicentra cucullaria</i>)						Early Meadow-rue (<i>Thalictrum dioicum</i>)					
Large-leaved Aster (<i>Eurybia macrophylla</i>)						Wild Teasel (<i>Dipsacus fullonum</i>)	U					Tall Meadow-rue (<i>Thalictrum pubescens</i>)					
Flat-top Goldenrod (<i>Euthamia graminifolia</i>)						Wild Cucumber (<i>Echinocystis lobata</i>)						Field Penny-cress (<i>Thlaspi arvense</i>)					
Orange Hawkweed (<i>Hieracium aurantiacum</i>)						Viper's Bugloss (<i>Echium vulgare</i>)						Foamflower (<i>Tiarella cordifolia</i>)					
Field Hawkweed (<i>Hieracium caespitosum</i>)						Northern Willow-herb (<i>Epilobium ciliatum</i>)						Star-flower (<i>Trientalis borealis</i>)					
<i>Hieracium</i>						Hairy Willow-herb (<i>Epilobium hirsutum</i>)						Red Clover (<i>Trifolium pratense</i>)					
Elecampane (<i>Inula helenium</i>)						Small-fl. Willow-herb (<i>Epilobium parviflorum</i>)						White Clover (<i>Trifolium repens</i>)					
Prickly Lettuce (<i>Lactuca scariola</i>)						<i>Epilobium</i>						<i>Trifolium</i>					
<i>Lactuca</i>						Worm Mustard (<i>Erysimum cheiranthoides</i>)						Stinging Nettle (<i>Urtica dioica</i>)					
Ox-eye Daisy (<i>Leucanthemum vulgare</i>)	U					<i>Euphorbia</i>						Greater Bladderwort (<i>Utricularia vulgaris</i>)					
Pineapple-weed (<i>Matricaria discoidea</i>)						Hemp Nettle (<i>Galeopsis tetrahit</i>)						Common Mullein (<i>Verbascum thapsus</i>)					
Tall White Lettuce (<i>Prenanthes altissima</i>)						Wild Madder (<i>Galium mollugo</i>)						Blue Vervain (<i>Verbena hastata</i>)					
Black-eyed Susan (<i>Rudbeckia hirta</i>)						Marsh Bedstraw (<i>Galium palustre</i>)						White Vervain (<i>Verbena urticifolia</i>)					
Tall Goldenrod (<i>Solidago altissima</i>)						Sweet-scented Bedstraw (<i>Galium triflorum</i>)						Water Speedwell (<i>Veron. anagallis-aquatica</i>)					
Blue-stem Goldenrod (<i>Solidago caesia</i>)						<i>Galium</i>						Common Speedwell (<i>Veronica officinalis</i>)					
Canada Goldenrod (<i>Solidago canadensis</i>)						Spotted Geranium (<i>Geranium maculatum</i>)						<i>Veronica</i>					
Zig-zag Goldenrod (<i>Solidago flexicaulis</i>)						Herb-robert (<i>Geranium robertianum</i>)						Cow Vetch (<i>Vicia cracca</i>)					
Giant Goldenrod (<i>Solidago gigantea</i>)						Yellow Avens (<i>Geum aleppicum</i>)						<i>Vicia</i>					
Early Goldenrod (<i>Solidago juncea</i>)						White Avens (<i>Geum canadense</i>)						Pariwinkle (<i>Vinca minor</i>)					
Gray Goldenrod (<i>Solidago nemoralis</i>)						Urban Avens (<i>Geum urbanum</i>)						Dog Violet (<i>Viola conspersa</i>)					
<i>Solidago</i>						Dame's Rocket (<i>Hesperis matronalis</i>)						Yellow Violet (<i>Viola pubescens</i>)					
Field Sow-thistle (<i>Sonchus arvensis</i>)	R					Virg. Water-leaf (<i>Hydrophyllum virginianum</i>)						Com. Blue Violet (<i>Viola sororia</i>)					
<i>Sonchus</i>						Com. St. John's-wort (<i>Hypericum perforatum</i>)	U					<i>Viola</i>					
Heart-leaf Aster (<i>Symph. cordifolium</i>)						Spotted Jewelweed (<i>Impatiens capensis</i>)											
Heath Aster (<i>Symphytichum ericoides</i>)						Wood Nettle (<i>Laportea canadensis</i>)											
Tall White Aster (<i>Symph. lanceolatum</i>)	F					Motherwort (<i>Leonurus cardiaca</i>)											
Calico Aster (<i>Symphytichum lateriflorum</i>)						Field Peppergrass (<i>Lepidium campestre</i>)											
New England Aster (<i>Symph. novae-angliae</i>)	U					Eur. Gromwell (<i>Lithospermum officinale</i>)											
Purple-stem Aster (<i>Symph. puniceus</i>)						Butter & Eggs (<i>Linaria vulgaris</i>)											
Common Tansy (<i>Tanacetum vulgare</i>)						Great Lobelia (<i>Lobelia siphilitica</i>)											
Common Dandelion (<i>Taraxacum officinale</i>)						<i>Lobelia</i>											
Com. Goatsbeard (<i>Tragopogon pratensis</i>)	U					Cut-leaf Bugleweed (<i>Lycopus americanus</i>)											
Coltsfoot (<i>Tussilago farfara</i>)						Northern Bugleweed (<i>Lycopus uniflorus</i>)											
						Fringed Loosestrife (<i>Lysimachia ciliata</i>)											
<i>Cirsium</i> sp.	U					Moneywort (<i>Lysimachia nummularia</i>)											
						<i>Lysimachia</i>											
<i>Solidago</i> sp.	F					Purple Loosestrife (<i>Lythrum salicaria</i>)											
						Black Medick (<i>Medicago lupulina</i>)											
						Alfalfa (<i>Medicago sativa</i>)											
						White Sweet-clover (<i>Melilotus alba</i>)											
						Yellow Sweet-clover (<i>Melilotus officinalis</i>)											
						Wild Mint (<i>Mentha arvensis</i>)											
						Wild Bergamot (<i>Monarda fistulosa</i>)											
						Small Forget-me-not (<i>Myosotis laxa</i>)											
						Forget-me-not (<i>Myosotis scorpioides</i>)											
						Water-cress (<i>Nasturtium officinale</i>)											
						Com. Evening-primrose (<i>Oenothera biennis</i>)	R										
						Sweet-cicely (<i>Osmorhiza berterii</i>)											
						Yellow Wood-sorrel (<i>Oxalis stricta</i>)											
						Wild Parsnip (<i>Pastinaca sativa</i>)	U										
						English Plantain (<i>Plantago lanceolata</i>)											
						Common Plantain (<i>Plantago major</i>)											
						Rugel's Plantain (<i>Plantago rugelii</i>)											
						May-apple (<i>Podophyllum peltatum</i>)											
						Pale Smartweed (<i>Polygonum lapathifolium</i>)											
						Lady's-thumb (<i>Polygonum persicaria</i>)											
						Virginia Knotweed (<i>Polygonum virginianum</i>)											
						<i>Polygonum</i>											
						<i>Polygonum</i>											
						Rough Cinquefoil (<i>Potentilla norvegica</i>)											
						Rough-fruited Cinquefoil (<i>Potentilla recta</i>)											
						Common Cinquefoil (<i>Potentilla simplex</i>)											
						<i>Potentilla</i>											
						Heal-all (<i>Prunella vulgaris</i>)											
						Shinleaf (<i>Pyrola elliptica</i>)											
						<i>CHENOPADIUM album</i>	U										

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 - Uncertain (Occasional in ELC): present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category)
 R - Rare: represented in the polygon by less than about five individuals or small clumps

Map Number: JER1018+1061
 Date: July 4, 2013
 Surveyors: JP+SL

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW <u>(JER)</u> GSH	Map #:	TJER 1001/1077
Date:	July 4, 2013	Time Started:	3:00 pm
Field Staff:	Jan Kettle + Shelley Johns	Time Finished:	4:00 pm
Weather Conditions:	28°C, overcast		

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): ~ 0.2m % open water: 5% % emergent vegetation: 95%

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

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

Standing in watercourse - pair of sandhill cranes with 1 young

Area and soil/substrate of shoreline habitat: marsh/mud with some water

Type and abundance of cover in open water habitat: cattail/groves in areas outside of open water

Type and abundance of cover in surrounding habitat: surrounding areas dominated by agriculture

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

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

Observed 2 breeding sandhill cranes with 1 young

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)
 UTM: _____ 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)
 UTM: _____ 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 > 1Sha
 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)
 UTM: _____ 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)
 UTM: _____ 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
	Silver spotted Skipper - Lepidoptera		
	Widow Skimmer - Odonata		
	Red-spotted purple - Lepidoptera		
	RTHA - Ob		
	JoSP - VO		
	SACR - Ob (Breeding pair to young)		
	AMCR - Ob		
	GRSP - VO		
	COYE - VO		

Cabbage white - Lepid.
 Skipper sp. - Lepid.

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho



Study Area: Jericho

Field Staff: Jessalita Snoddy, Lohas

Time Started: 3:00 PM

Date (yyyy-mm-dd): 2013-07-04

Feature No.: JER101841001

Time Finished: 4:00 PM

Observed Species List

Species Code	UTM	Evidence Codes (EV)	Notes	Species Code	UTM	Evidence Codes (EV)	Notes
Silver spotted skipper		Ob					
Widow skimmer		Ob					
Red-spotted purple		Ob					
RTHA		Ob					
SOSP		VO					
SANDHILL CRANE		Ob	breeding pair with young				
AMCR		Ob					
GRSP		VO					
COYE		VO					
Cabbage white		Ob					
Skipper sp.		Ob					

Note: Evidence Codes (EV)

Breeding Bird (Possible)

SH=Suitable Habitat, SM=Singing Male;

Breeding Bird (Probable)

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

Breeding Bird (Confirmed)

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

Other Wildlife Evidence:

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

PLANTS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
American Gromwell (<i>Lithospermum latifolium</i>) - S3 Bloom Time - Spring	Grows in rich deciduous woodlands, wooded floodplains, and shaded riverbanks as well as along the edges of woodlands	FOD7	Y (N) UTM:
A Moss (<i>Astomum muehlenbergianum</i>) - S2 Bloom Time - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie.	ALO, TPO	Y (N) UTM:
Autumn Coral -root (<i>Corallorhiza odororhiza</i>) - S2 Bloom Time - Summer to Fall	Found growing in openings of red pine or white pine plantations as well as dry sandy woods.	FOM1, FOM2, CUP3	Y (N) UTM:
Broad Beech Fern (<i>Phegopteris hexagonoptera</i>) - SC Bloom Time- not a flowering plant	Species grows in rich, mature deciduous woods in southern Ontario.		Y (N) UTM:
Burning Bush (<i>Euonymus atropurpureus</i>) - S3	Grows in dry to moist thickets, valleys, and forest edges. Similar Species: European Burning Bush (<i>Euonymus europaeus</i>). Distinctive Feature: Burning Bush has hairs on the underside of leaves while the European species does not.		Y (N) UTM:
Carey's Sedge (<i>Carex careyana</i>) - S2 Bloom Time - May and June	Occurs in rich deciduous woods, often on floodplains and slopes and mesic to dry-mesic hardwood forests.	FOD6, FOD7, FOD9, SWD	Y (N) UTM:
Caughuawaga Hawthorn (<i>Crataegus suborbiculata</i>) - S1	Occurs in <u>old fields</u> , poorly managed pastures, fencelines and roadsides.	(CUM1), CUS1, CUT1	(Y) N UTM: not observed
Round-leaved Hawthorn (<i>Crataegus lumaria</i>) - S3?	Occurs in <u>old fields</u> , poorly managed pastures, fencelines and roadsides.	(CUM1), CUS1, CUT1	(Y) N UTM: not observed
Chinese Hemlock Parsley (<i>Conioselinum chinense</i>) - S2 Bloom Time - summer to fall	Swampy places with deciduous trees, white cedars, tamarack; springy river banks, creek borders, wet borders of streams & rivers. Also calcareous seepage slopes.	SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Y (N) UTM:
Cream Violet (<i>Viola striata</i>) - S3 Bloom Time- March-June).	Inhabits rich floodplain forest and low, wet woods.	FOD6, FOD7, FOD9, SWM, SWD	Y (N) UTM:
Double -striped Bluet (<i>Enallagma basidens</i>) - S3	Inhabits fishless ponds, lakes and boggy swamps. <u>Small Stream</u>	(OAO), SA, SWM, SWD	(Y) N UTM: not observed

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Eastern Green-violet (<i>Hybanthus concolor</i>) - S2 <i>Bloom 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.	ALT1, FOD7	Y (N) UTM:
Green Dragon (<i>Arisaema dracontium</i>) - SC/S3 <i>Bloom Time – May and June</i>	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	FOD6, FOD7, FOD9	Y (N) UTM:
Harbinger-of-spring (<i>Eriogonum bulbosum</i>) - S3 <i>Bloom Time – early to late April</i>	Occurs in rich, moist deciduous woods, especially on floodplains.	FOD6, FOD7, FOD8, FOD9	Y (N) UTM:
Hazel Dodder (<i>Cuscuta coryli</i>) –SH	Occurs in open, moist tall-grass prairie and meadows - parasitic on <i>Aster</i> , <i>Heliopsis</i> , <i>Monarda</i> , <i>Rubus</i> , <i>Solidago</i> .	RBO, TPO2, CUM1	Y (N) UTM: not observed
Leonard's Small Skullcap (<i>Scutellaria parvula</i>) –S3 <i>Bloom Time – late Spring to early Summer</i>	Occurs on open, rocky ground and prairies.	ALO, TPO	Y (N) UTM:
Mead's Sedge (<i>Carex meadii</i>) –S2 <i>Bloom Time –late spring to early summer</i>	Occurs in prairies and moist or dry open areas.	TPO, CUM1	Y (N) UTM: not observed
Ovate Beak Grass –S1 <i>Bloom Time- mid Summer</i>	prefers riparian woodlands ¹⁴ ; floodplain swamps and river banks.	FOD6, FOD7, FOD9, SWD	Y (N) UTM:
Pawpaw (<i>Asimina triloba</i>) –S3 <i>Bloom Time – March-May</i>	Occurs in moist deciduous woods and stream banks.	FOD6, FOD7, FOD9	Y (N) UTM:
Perfoliate Tinker's-weed (<i>Triosteum perfoliatum</i>) – S1 <i>Bloom Time – May, June, July</i>	Grows in rich, deciduous woods.		Y (N) UTM:
Pumpkin Ash (<i>Fraxinus profunda</i>) – S2?	This species is a wetland obligate and only grows in bottomland swamps and floodplains. Distinctive Feature: the base of the trunk swells outward, resembling a pumpkin in larger trees.		Y (N) UTM:
Riddell's Goldenrod (<i>Oligoneuron riddellii</i>)-SC	Riddell's Goldenrod grows in wet habitats such as wet marshes, moist prairies, fens, old fields and seepy banks.	ALO, TPO, CUM1	Y (N) UTM: not observed
Shellbark Hickory (<i>Carya laciniosa</i>) – S3	Typically found in wet or wet -mesic deciduous forests and along stream banks. Similar Species: Shagbark Hickory. Distinctive Feature: Larger leaves and leaflets of 7.		Y (N) UTM:
Shumard Oak (<i>Quercus shumardii</i>) –SC	Species inhabits mesic and mesic -hydric sites on clay and clay-loam soils with poor drainage.		Y (N) UTM:
Slim-flowered Muhly (<i>Muhlenbergia tenuiflora</i>) – S2	Found in rich deciduous forest dominated by either oak or beech-maple. It can also occur on rocky or sandy soils, wooded dunes, hillsides, and riverbanks.	SDT1, FOD5, FOD9	Y (N) UTM:
Southern Tickseed (<i>Bidens coronata</i>)-S2	Inhabits dry to moist sandy fields and sandy openings in prairies.	TPO, CUM1	Y (N) UTM: not observed
Stiff Gentian (<i>Gentianella quinquefolia</i>) - S2 <i>Bloom Time – late summer to mid fall</i>	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Y (N) UTM:
Stiff Goldenrod (<i>Solidago rigida</i>) –S3 <i>Bloom Time- early June to end of November</i>	Occurs on dry open ground, particularly in prairie remnants; along roadsides and railway, and waste places.	TPO1, CUM1	Y (N) UTM: not observed
Tall Tickseed (<i>Coreopsis tripteris</i>)-S2 <i>Bloom Time-late summer to early fall.</i>	Occurs in prairies and open woods, and thickets.	TPO, TPS, TPW, FOD1, FOD2, FOD3, FOD4, FOD5, CUT1	Y (N) UTM:
Winged –Loosestrife (<i>Lythrum alatum</i>)-S3 <i>Bloom Time- mid to late summer</i>	found in prairies, meadows, open woods, thickets and wet disturbed areas.	TPO, CUM1, FOM, FOD, CUM1, CUT1, MAM2	Y (N) UTM: not observed
Woodland Bulrush (<i>Scirpus expansus</i>) - S1	Grows in seepage areas, stream banks, and marshes. It is predominately found in the Asuable River.		Y (N) UTM:

MAMMALS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Little Brown Bat (<i>Myotis lucifugus</i>)-SC	This species roosts in caves, quarries, tunnels, hollow trees or buildings but requires nearby wetlands and forest edges for hunting.	FOD, SWD	Y (N) UTM:
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)-SC	The Northern Long-eared Bat roosts and hibernates in mines, caves, and man-made structures but prefers hollow trees in wooded areas	FOD, SWD	Y (N) UTM:
Tri-colored Bat (<i>Perimyotis subflavus</i>)-SC	The Tricoloured Bat is one of the common bats in Ontario. It prefers to roost in trees, cliff crevices, and caves usually in open woodlands that are near water	FOD, SWD	Y (N) UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho



Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Woodland Vole (<i>Microtus pinetorum</i>)-SC	The Woodland Vole inhabits mature deciduous forests where it can burrow into loose sandy soils and deep humus. Other habitats also include grasslands, meadows, and orchards	FOD	Y (N) UTM:

REPTILES

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	MAM, MAS	not required.
Milksnake (<i>Lampropeltis triangulum</i>) -SC	Assessed as SWH. Record species if found.	CUM, CUT	not required.
Northern Map Turtle (<i>Graptemys geographica</i>) -SC	Large water bodies with soft bottoms & aquatic veg; basks on logs, rocks, beaches, grassy edges; may nest at some distance from water; aquatic corridors (e.g. stream) required for movement.	OAO, SA	Y (N) UTM:

INSECTS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Azure Bluet (<i>Enallagma aspersum</i>)-S3	Found in fishless ponds and other small water bodies. Distinctive Features: Male – Large Blue eyespot and mostly black dorsal surface on abdomen with a blue tip; Females: Green eyespots and almost all black dorsal surface and black tip. Similar Species: Common Blue Damselfly – has more blue than black on abdomen.	OAO	Y (N) UTM: not observed
Blue-ringed Dancer (<i>Argia sedula</i>) – S2	Found in streams and rivers of small to medium size and where there is dense herbaceous vegetation along the banks or shores.		Y (N) UTM: not observed
Dusky Dancer (<i>Argia translate</i>) –S3	Inhabits small to medium, slow flowing sandy or rocky streams or large rivers in quite open areas or with wooded banks.	OAO SA, SWM, SWD	Y (N) UTM: not observed

BIRDS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Bald Eagle (<i>Haliaeetus leucocephalus</i>)-SC	Assessed as SWH. Record species if found.	-	not required.
Hooded Warbler (<i>Wilsonia Citrina</i>) - SC	An area-sensitive species requiring large tracts of mature, closed canopy, deciduous forests. They generally nest above ground and prefer forests with tall trees that are along stream bottoms or at ravine edges	-	Y (N) UTM: not observed
Louisiana Waterthrush (<i>Seiurus motacilla</i>) -SC	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.	FOD, FOM	Y (N) UTM: not observed



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 UTM Zone 17N, NAD83
 1:1,000
 This drawing has been prepared for the use of AECOM's client and is not to be used for any other purpose without the written consent of AECOM. AECOM and its client accept no responsibility for use by governmental reviewing agencies. AECOM accepts no responsibility and denies any liability whatsoever to any party for the use of this drawing for purposes not intended by AECOM.

Jencho Wind Energy Centre
 NHA Amendment
 T-Line Field Map
 July 2013
 Project 60155032

AECOM Figure 1

ELC Community Description and Classification

Map #: NA 340 - T Line Polygon: CUMI-1
 Surveyor(s): RA/AV Date: Aug 1, 2013 Time start: 10:40am finish: 11:25am
 UTMZ: UTMN:

Polygon Description

System	Substrate	Topographic Feature	Plant Form	Community
<input checked="" type="checkbox"/> Terrestrial <input 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 checked="" 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"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD. <input checked="" 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 type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input checked="" 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
Site				
<input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input checked="" type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock				
History				
<input type="checkbox"/> Natural <input checked="" type="checkbox"/> Cultural				
Cover				
<input checked="" type="checkbox"/> Open <input type="checkbox"/> Shrub <input type="checkbox"/> Tree				

Stand Description

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1		Q	
2		Q	
3			
4	6	4	B > GNIGR > SO A T I

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 - 60% 4 > 60%

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

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

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

Ecosite: Mineral Cultural Meadow Code: CUMI
 Vegetation Type: Dry Moist Old Field Meadow Code: CUMI-1
 Inclusion: Code: -
 Complex: Code: -

Community Profile Diagram/Comments

Notes:

Tree Tally by Species

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

Soils Ontario and ELC Soils Description

Pit/Auger #	UTM	Zone	Easting	Northing	Position	Aspect	Percent	Slope	Length	Summary
Site Metrics										
Depth to...										
Soil Horizon Description										
1										% CF
Texture										
2										% CF
Texture										
3										% CF
Texture										
4										% CF
Texture										
% Surface Stone/Rock										
Moisture Regime										
Drainage										

CUM-1 community

Significant Wildlife Habitat Form

AECOM

Study Area: BLW (JER) GSH Map #: 340 (T-LINE)
 Date: Aug 1 2013 Time Started: 10:40am
 Field Staff: RAYAL Time Finished: 11:25am
 Weather Conditions: Sunny/overcast

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)
 UTM's: _____ 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):

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)
 UTM's: _____ 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)

UTM's: _____ 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)
 UTM's: _____ 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)

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

UTMs: _____

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)

Rocky island or peninsula present:

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

UTMs: _____

Mudflat present: _____

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, 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:

No

Yes (if yes, photograph and complete the following)

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

UTMs: _____

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)

Age of oldest trees: _____

UTMs: _____

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

CUM-1 comm

Species of Conservation Concern Habitat and Incidental Wildlife - Jericho



Time Started: 10.40 am
Time Finished: 11.25 am

Field Staff: BA/AW
Feature No.: NA340-T-Linc

Study Area: Jericho
Date (YYYY-mm-dd): 2013-08-01

Observed Species List

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
BARS		X					
TRES		X					
WIEL		SM					
SOSP		SM					
RTHA		X					
INBA		SM					
YELA		SM					
COYE		SM					
CEWA		SH					
ANBO		SH					
TWV		X					

Note: Evidence Codes (EV)
 Breeding Bird (Possible)
 Breeding Bird (Probable)
 Breeding Bird (Confirmed)
 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)

Other Wildlife Evidence:
 SH=Suitable Habitat, SM=Singling Male;
 T-Territory, D=Display, P=Pair, N=Nest Building, V=Visiting Nest, A=Anxiety Behavior,
 DD=Distraction, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foos/Faecal sack, AE=Nest Entry

PLANTS

Species	Habitat Description	ELC	Habitat Present (Y/N); UTM; description of habitat if present)
American Gromwell (<i>Lithospermum latifolium</i>) - S3 Bloom Time - Spring	Grows in rich deciduous woodlands, wooded floodplains, and shaded riverbanks as well as along the edges of woodlands	FOD7	Y (N) UTM:
A Moss (<i>Astomum muehlenbergianum</i>) - S2 Bloom Time - Spring	Thin soil over level outcrop ledges and on soil under grasses in open prairie.	ALO, TPO	Y (N) UTM:
Autumn Coral-root (<i>Corallorhiza odoriflora</i>) - S2 Bloom Time - Summer to Fall	Found growing in openings of red pine or white pine plantations as well as dry sandy woods.	FOM1, FOM2, CUP3	Y (N) UTM:
Broad Beech Fern (<i>Phegopteris hexagonoptera</i>) - SC Bloom Time - not a flowering plant	Species grows in rich, mature deciduous woods in southern Ontario.		Y (N) UTM:
Burning Bush (<i>Euonymus atropurpureus</i>) - S3	Grows in dry to moist thickets, valleys, and forest edges. Similar Species: European Burning Bush (<i>Euonymus europaeus</i>). Distinctive Feature: Burning Bush has hairs on the underside of leaves while the European species does not. Occurs in rich deciduous woods, often on floodplains and slopes and mesic to dry-mesic hardwood forests.		Y (N) UTM:
Carex's Sedge (<i>Carex careyana</i>) - S2 Bloom Time - May and June	Occurs in old fields, poorly managed pastures, fencelines and roadsides	CUM1, CUS1, CUT1	Y (N) UTM: N/O
Caughnawaga Hawthorn (<i>Crataegus suborbiculata</i>) - S1	Occurs in old fields, poorly managed pastures, fencelines and roadsides	CUM1, CUS1, CUT1	Y (N) UTM: N/O
Round-leaved Hawthorn (<i>Crataegus lumaris</i>) - S3?	Swampy places with deciduous trees, white cedars, tamarack; springy river banks, creek borders, wet borders of streams & rivers. Also calcareous seepage slopes.	SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Y (N) UTM:
Chinese Hemlock Parsley (<i>Conioselinum chinense</i>) - S2 Bloom Time - summer to fall	Inhabits rich floodplain forest and low, wet woods.	FOD6, FOD7, FOD8, SWM, SWD	Y (N) UTM:
Cream Violet (<i>Viola striata</i>) - S3 Bloom Time - March- June)	Inhabits fishless ponds, lakes and boggy swamps.	OAO, SA, SWM, SWD	Y (N) UTM:
Double-striped Bluet (<i>Eriolagisma badius</i>) - S3			

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho



Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
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.	ALT1, FOD7	Y (N) UTM:
Green Dragon (Arisaema dracontium) - SC/S3 Bloom Time – May and June	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	FOD6, FOD7, FOD9	Y (N) UTM:
Harbinger-of-spring (Erigenia bulbosa) - S3 Bloom Time – early to late April	Occurs in rich, moist deciduous woods, especially on floodplains.	FOD6, FOD7, FOD8, FOD9	Y (N) UTM:
Hazel Dodder (Cuscuta corifl) -SH	Occurs in open, moist tall-grass prairie and meadows; parasitic on Aster, Helianthus, Monarda, Rubus, Solidago.	RBO, TPO2 (CUM1)	Y (N) UTM: N/C
Leonard's Small Skullcap (Scutellaria parvifl) -S3 Bloom Time – late Spring to early Summer	Occurs on open, rocky ground and prairies.	ALO, TPO	Y (N) UTM:
Mead's Sedge (Carex meadii) -S2 Bloom Time –late spring to early summer	Occurs in prairies and moist or dry open areas.	TPO, (CUM1)	Y (N) UTM: N/C
Ovate Beak Grass -S1 Bloom Time- mid Summer	prefers riparian woodlands ¹⁴ ; floodplain swamps and river banks.	FOD6, FOD7, FOD9, SWD	Y (N) UTM:
Pawpaw (Asimina triloba) -S3 Bloom Time – March-May	Occurs in moist deciduous woods and stream banks.	FOD6, FOD7, FOD9	Y (N) UTM:
Perfoliate Tinker's-weed (Tricostemum perfoliatum) – S1 Bloom Time – May, June, July	Grows in rich, deciduous woods.		Y (N) UTM:
Pumpkin Ash (Fraxinus profunda) – S2?	This species is a wetland obligate and only grows in bottomland swamps and floodplains. Distinctive Feature: the base of the trunk swells outward, resembling a pumpkin in larger trees.		Y (N) UTM:
Riddell's Goldenrod (Oligoneuron riddellii)-SC	Riddell's Goldenrod grows in wet habitats such as wet marshes, moist prairies, fens, old fields and seepy banks.	ALO, TPO, (CUM1)	Y (N) UTM: N/C
Shellbark Hickory (Carya laciniosa) – S3	Typically found in wet or wet - mesic deciduous forests and along stream banks. Similar Species: Shagbark Hickory. Distinctive Feature: Larger leaves and leaflets of 7.		Y (N) UTM:
Shumard Oak (Quercus shumardii) -SC	Species inhabits mesic and mesic-hydric sites on clay and clay-loam soils with poor drainage.		Y (N) UTM:
Slim-flowered Muhly (Muhlenbergia tenuiflora) – S2	Found in rich deciduous forest dominated by either oak or beech-maple. It can also occur on rocky or sandy soils, wooded dunes, hillsides, and riverbanks.	SOT1, FOD6, FOD9	Y (N) UTM:
Southern Tickseed (Bidens coronata)-S2	Inhabits dry to moist sandy fields and sandy openings in prairies.	TPO, (CUM1)	Y (N) UTM: N/C
Stiff Gentian (Gentiana quinquefolia) - S2 Bloom Time – late summer to mid fall	Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides.	BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Y (N) UTM:
Stiff Goldenrod (Solidago rigida) –S3 Bloom Time- early June to end of November	Occurs on dry open ground, particularly in prairie remnants; along roadsides and railway, and waste places.	TPO1, (CUM1)	Y (N) UTM: N/C
Tail Tickseed (Coreopsis tripteris)-S2 Bloom Time-late summer to early fall.	Occurs in prairies and open woods, and thickets.	TPO, TP9, TPW, FOD1, FOD2, FOD3, FOD4, FOD5, CUT1	Y (N) UTM:
Winged -Loosestrife (Lythrum alatum)-S3 Bloom Time – mid to late summer	found in prairies, meadows, open woods, thickets and wet disturbed areas.	TPO, (CUM1) FOM, FOD, CUM1, CUT1, MAM2	Y (N) UTM: N/C
Woodland Bulrush (Scirpus expansus) - S1	Grows in seepage areas, stream banks, and marshes. It is predominately found in the Asuaible River.		Y (N) UTM:
MAMMALS			
Little Brown Bat (Myotis lucifugus)-SC	This species roosts in caves, quarries, tunnels, hollow trees or buildings but requires nearby wetlands and forest edges for hunting.	FOD, SWD	Y (N) UTM:
Northern Long-eared Bat (Myotis septentrionalis)-SC	The Northern Long-eared Bat roosts and hibernates in mines, caves, and man-made structures but prefers hollow trees in wooded areas	FOD, SWD	Y (N) UTM:
Tri-colored Bat (Perimyotis subflavus)-SC	The Tricoloured Bat is one of the common bats in Ontario. It prefers to roost in trees, cliff crevices, and caves usually in open woodlands that are near water	FOD, SWD	Y (N) UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho

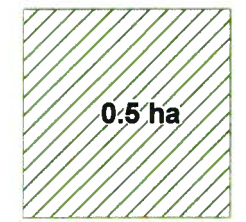


Species	Habitat Description	ELC	Habitat Present (Y/N); UTM; description of habitat if present)
Woodland Vole (<i>Microtus pinetorum</i>)-SC	The Woodland Vole inhabits mature deciduous forests where it can burrow into loose sandy soils and deep humus. Other habitats also include grasslands, meadows, and orchards	FOD	Y (N) UTM:
REPTILES			
Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	ELC	Habitat Present (Y/N); UTM; description of habitat if present)
Milksnake (<i>Lampropeltis triangulum</i>) -SC	Assessed as SWH. Record species if found.	MAM, MAS	not required.
Northern Map Turtle (<i>Graptemys geographica</i>) -SC	Large water bodies with soft bottoms & aquatic veg; basks on logs, rocks, beaches, grassy edges; may nest at some distance from water; aquatic corridors (e.g. stream) required for movement.	CUM, CUT OAO, SA	Y (N) UTM:
INSECTS			
Azure Bluet (<i>Enallagma aspersum</i>)-S3	Found in fishless ponds and other small water bodies. Distinctive Features: Male – Large Blue eyespot and mostly black dorsal surface on abdomen with a blue tip; Females: Green eyespots and almost all black dorsal surface and black tip. Similar Species: Common Blue Damselfly – has more blue than black on abdomen.	OAO	Habitat Present (Y/N); UTM; description of habitat if present)
Blue-ringed Dancer (<i>Argia sedula</i>) –S2	Found in streams and rivers of small to medium size and where there is dense herbaceous vegetation along the banks or shores.		Y (N) UTM:
Dusky Dancer (<i>Argia translata</i>) –S3	Inhabits small to medium, slow flowing sandy or rocky streams or large rivers in quite open areas or with wooded banks.	OAO, SA, SWM, SWD	Y (N) UTM:
BIRDS			
Bald Eagle (<i>Haliaeetus leucocephalus</i>)-SC	Assessed as SWH. Record species if found.	ELC	Habitat Present (Y/N); UTM; description of habitat if present)
Hooded Warbler (<i>Wilsonia Citrina</i>) - SC	An area-sensitive species requiring large tracts of mature, closed canopy, deciduous forests. They generally nest above ground and prefer forests with tall trees that are along stream bottoms or at ravine edges	-	not required. Y (N) UTM:
Louisiana Waterthrush (<i>Seiurus motacilla</i>) -SC	<u>Mature forests</u> 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.	FOD, FOM	Y (N) UTM:

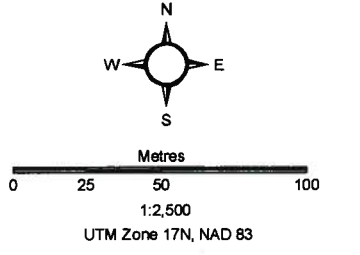
Map Document: (N:\projects\60155032\2012\01\Final\GIS\Spatial\Map\MapMXD\MapMXD\Project_ELC_Mapping\Gashen\GSH_AmphibAndELCSurvey\Sites_372_GSH1115.mxd) 4/12/2012 - 8:19:21 PM



- Legend**
- Turbine Layout
 - Access Road
 - Collection Line
 - Property Boundary
 - Natural Feature and ID
 - ELC Polygon Boundary
 - Valley Land
 - Area of Disturbance
 - ANSI
 - Evaluated Wetlands - PSW
 - Watercourse



Basemapping from Ontario Ministry of Natural Resources
Orthophotography: 2010
Turbine Layout: April 9, 2012



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Jericho ELC Survey

383_JER3418

May 2012
Project 60155032

AECOM

Figure 1

ELC Community Description and Classification	Map #: 383-VER3918	Polygon: 1	
	Surveyor(s): JBB CLH	Date: May 9/2012	Time start: 9:15 finish: 13:45
	UTMZ:	UTMZ:	UTMN:

Polygon Description

System	Substrate	Topographic Feature	Plant Form	Community
<input checked="" type="checkbox"/> Terrestrial <input 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"/> Tabledand <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"/> 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 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"/> 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

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (>> Much Greater Than; > Greater Than; = About Equal To)
1	1-2	4	FAGGRAN >> ACESACH > JUGNIGR > OSTVIRG
2	3	3	FAGGRAN > OSTVIRG > ACESACH > QUEMACK
3	4-5	2	PRUVIRG > RUBOCCI > RIBEYNO > RIBAMER
4	6-7	4	ERYAMER > PARINSE > PODPELT > GEUM sp.

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:	O < 10	O 10-24	A 25-50	O > 50
BA:	Standing Snags:	R < 10	R 10-24	R 25-50	R > 50
	Deadfall / Logs:	O < 10	R 10-24	R 25-50	N > 50

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

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

Ecosite:	Fresh-moist Sugar maple Deciduous Forest	Code:	FOD0
Vegetation Type:	Fresh-moist Sugar maple - Hard wood Deciduous Forest	Code:	FOD0-5
Inclusion:		Code:	
Complex:		Code:	

Community Profile Diagram/Comments

Notes:

Tree Tally by Species

Prism Factor 2

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

Soils Ontario and ELC Soils Description

Site Metrics	Pit/Auger #		Summary			
	UTM	Zone	17T	Moisture Regime		
Slope	Easting	042 5139	Drainage			
	Northing	477 2392				
	Position	3				
	Aspect	310°				
Depth to...	Percent	2%	Effective Texture (indicate below)			
	Slope Length					
	Mottles	50cm				
	Gley	73cm				
Soil Horizon Description	Water Table	34cm				
	Carbonates	none				
	Bedrock					
	1	Depth from zero				
2	Texture	ASL				
	Depth from zero	64	% CF	% CF	% CF	% CF
3	Texture	fSCL				
	Depth from zero	118cm	% CF	% CF	% CF	% CF
4	Texture	mSCL				
	Depth from zero		% CF	% CF	% CF	% CF
	Texture					
	% Surface Stone/Rock	0				
	Moisture Regime	S				
	Drainage	1/P				

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW <u>(JER)</u> GSH	Map #:	383-JER 3418
Date:	May 9 2012	Time Started:	0915
Field Staff:	Christy H. Jeremy B	Time Finished:	13:45
Weather Conditions: 12°C, CC 60%, No precip., Wind 2			

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: VPI 17425094 4772468 Area of standing water delineated on field map

Water depth (m): 15cm % open water: 50 % emergent vegetation: 45

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

Area and soil/substrate of shoreline habitat: Organic INDSIC

Type and abundance of cover in open water habitat: Some emergent Sedges, Acer Prunifolius, green ash.

Type and abundance of cover in surrounding habitat: FOD

Evidence of disturbance (e.g. cattle grazing): Some damaged branches are trimmings.

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: None.

*****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)
 UTM: _____ 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)
 UTM: _____ 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)
 UTM: _____ 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)
 UTM: _____ 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
1687, 1688, 1695, 1696	V P 1		
1689-1694	Rosa setigera		
1697-1699	VP2 117 472462		
~10m deep SWD.	Open water 40m Emergent Veg (Green Ash) 15m Remnants of twigs.		

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho



Study Area: JERICO
 Date (yyyy-mm-dd): 2012-05-09
 Observed Species List

Field Staff: JBB CLH
 Feature No.: 385-JER3418

Time Started: 09:15
 Time Finished: 13:45

Species Code	UTM	EV	Notes	Species Code	UTM	EV	Notes
Chimney Swift Robin	435098 4712461		Robin setiger				
Robin		S					
Blue Jay		OB					
Robin		VO					
great crested flycatcher		VO					
red breasted nuthatch		VO					
house wren		VO					
downy woodpecker		VO					
northern flicker		OB					
common grackle		OB					
goldfinch		OB					
white breasted		OB					

Note: Evidence Codes (EV)

Breeding Bird (Possible)

SH=Suitable Habitat, SM=Singing Male;

Breeding Bird (Probable)

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

Breeding Bird (Confirmed)

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

Other Wildlife Evidence:

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

PLANTS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Muehlenberg's Astomum Moss (<i>Astomum muehlenbergianum</i>) - S2	Thin soil over level outcrop ledges and on soil under grasses in open prairie.	ALO, TPO	Y N UTM:
Carey's Sedge (<i>Carex careyana</i>) - S2 Bloom Time - May and June	Occurs in rich deciduous woods, often on floodplains and slopes and mesic to dry-mesic hardwood forests.	FOD6, FOD7, FOD9, SWD	Y N UTM: N/O
Chinese Hemlock Parsley (<i>Conioselinum chinense</i>) - S2 Bloom Time - summer to fall	Swampy places with deciduous trees, white cedars, tamarack; springy river banks, creek borders, wet borders of streams & rivers. Also calcareous seepage slopes.	SWC1, SWC3, SWC4, SWM1, SWM2, SWM4, SWM5, SWM6	Y N UTM:
Cream Violet (<i>Viola striata</i>) - S3 Bloom Time - March-June	Inhabits rich floodplain forest and low, wet woods.	FOD6, FOD7, FOD9, SWM, SWD	Y N UTM: N/O
Eastern Green-violet (<i>Hybanthus concolor</i>) - S2, Bloom Time - mid March to August	Occurs in rich, wet-mesic floodplain forests as well as mesic forests over limestone. Includes floodplains and river banks.	ALT1, FOD7	Y N UTM:
Gray-headed Prairie Coneflower (<i>Ratibida pinnata</i>) - S3 Bloom Time - early June to end of November	Found in prairies and dry, sandy, open ground.	TPO, CUM1	Y N UTM:
Green Dragon (<i>Arisaema dracontium</i>) - SC/S3 Bloom Time - May and June	Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm.	FOD6, FOD7, FOD9	Y N UTM: N/O
Harbinger-of-spring (<i>Eriogonum bulbosum</i>) - S3 Bloom Time - early to late April	Occurs in rich, moist deciduous woods, especially on floodplains.	FOD6, FOD7, FOD8, FOD9	Y N UTM: N/O
Small Skullcap (<i>Scutellaria parvula</i>) - S3 Bloom Time - late Spring to early Summer	Occurs on open, rocky ground and prairies.	ALO, TPO	Y N UTM:
Longleaf Dropseed (<i>Sporobolus asper</i>) - S1S2	Dry prairies, dry, sandy meadows and shores, roadsides and railway tracks.		Y N UTM:
Mead's Sedge (<i>Carex meadii</i>) - S2 Bloom Time - late spring to early summer	Occurs in prairies and moist or dry open areas.	TPO, CUM1	Y N UTM:

Species of Conservation Concern Habitat and Incidental Wildlife – Jericho

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Ovate Beak Grass –S1 <u>Bloom Time</u> - mid Summer	prefers riparian woodlands; floodplain swamps and river banks.	FOD6, FOD7, FOD9, SWD	Y (N) UTM: <u>No stream</u>
Pawpaw (<i>Asimina triloba</i>) –S3 <u>Bloom Time</u> – March-May	Occurs in <u>moist deciduous woods</u> and stream banks.	FOD6, FOD7, FOD9	Y (N) UTM: <u>N/O</u>
Riddell's Goldenrod (<i>Oligoneuron riddellii</i>)-SC	Occurs in wet, marshy ground and old fields, prairies; favours railway tracks and right-of-ways.	ALO, TPO, CUM1	Y (N) UTM:
Schumard's Oak (<i>Quercus schumardii</i>) –SC	Species inhabits <u>mesic and mesic -hydric sites on clay and clay-loam soils with poor drainage.</u>	SWD	Y (N) UTM: <u>N/O</u>
Southern Tickseed (<i>Bidens coronata</i>)-S2	Inhabits dry to moist sandy fields and sandy openings in prairies.	TPO, CUM1	Y (N) UTM:
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.	BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7	Y (N) UTM:
Stiff Goldenrod (<i>Solidago rigida</i>) –S3 <u>Bloom Time</u> - early June to end of November	Occurs on dry open ground, particularly in prairie remnants; along roadsides and railway, and waste places.	TPO1, CUM1	Y (N) UTM:
Tall Tickseed (<i>Coreopsis tripteris</i>)-S2 <u>Bloom Time</u> -late summer to early fall.	Occurs in prairies and open woods, and thickets.	TPO, TPS, TPW, FOD1, FOD2, FOD3, FOD4, FOD5, CUT1	Y (N) UTM:
Tuberous Indian Plantain (<i>Arnoglossum plantagineum</i>) - S3 <u>Blooms</u> –mid-March - mid-June	Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats.	FEO, FES, FET, MAM2, MAM3	Y (N) UTM:
Winged –Loosestrife (<i>Lythrum alatum</i>)-S3 <u>Bloom Time</u> - mid to late summer	found in prairies, meadows, open woods, thickets and wet disturbed areas.	TPO, CUM1, FOM, FOD, CUM1, CUT1, MAM2	Y (N) UTM:

MAMMALS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Little Brown Bat (<i>Myotis lucifugus</i>)-SC	Roosts in caves, quarries, tunnels, hollow trees or buildings; maternity sites in attics and barns; feeds primarily in wetlands, forest edges.	FOD	Y (N) UTM: <u>N/O</u>
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)-SC	Hibernates in mines or caves; roosts in houses, man-made structures but prefers hollow trees or under loose bark; hunts within forests, below canopy	FOD	Y (N) UTM: <u>N/O</u>
Tri-colored Bat (<i>Perimyotis subflavus</i>)-SC	Open woods near water; roots in trees, cliff crevices, buildings or caves; hibernates in damp, draft-free, warm caves, mines or rock crevices.	FOD	Y (N) UTM: <u>N/O</u>
Woodland Vole (<i>Microtus pinetorum</i>)-SC	Mature deciduous forest in the Carolinian forest zone, with loose sandy soil and deep humus; grasslands, meadows and orchards with groundcover of duff or grass	FOD	Y (N) UTM:

REPTILES

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC	Assessed as SWH. Record species if found.	MAM, MAS	not required.
Milksnake (<i>Lampropeltis triangulum</i>) -SC	Assessed as SWH. Record species if found.	CUM, CUT	not required.
Northern Map Turtle (<i>Graptemys geographica</i>) - SC	Large water bodies with soft bottoms & aquatic veg; basks on logs, rocks, beaches; may nest at some distance from water; aquatic corridors (e.g. stream) required for movement.	OAO, SA	Y (N) UTM:

INSECTS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Dusky Dancer (<i>Argia translate</i>) –S3	Inhabits small to medium, slow flowing sandy or rocky streams or large rivers in quite open areas or with wooded banks.	OAO, SA	Y (N) UTM:

BIRDS

Species	Habitat Description	ELC	Habitat Present (Y/N; UTM; description of habitat if present)
Bald Eagle (<i>Haliaeetus leucocephalus</i>)-SC	Assessed as SWH. Record species if found.	-	not required.
Louisiana Waterthrush (<i>Seiurus motacilla</i>) -SC	<u>Mature forests</u> along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. <u>Riparian woodlands</u> are preferred stopover sites during migration.	FOD, FOM	Y (N) UTM: <u>Not mature. No stream</u>

Significant Wildlife Habitat Form

AECOM

Study Area:	BLW <u>(VER)</u> GSH	Map #:	516-JER 1013
Date:	Mar 27, 2013	Time Started:	5:55 P.m.
Field Staff:	RA + TS	Time Finished:	6:15 P.m.
Weather Conditions:	overcast, 40c BK: 1		

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): >1m % open water: 100 % emergent vegetation: 0

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

Area and soil/substrate of shoreline habitat: → banks exposed

Type and abundance of cover in open water habitat: NO cover

Type and abundance of cover in surrounding habitat: Surrounding lands include Agriculture fields and farm infrastructure

Evidence of disturbance (e.g. cattle grazing): Pond shows evidence of disturbance with barb wire fence running through feature

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds:
NO Evidence of use by waterfowl, Amphibians, Turtles 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)
 UTM: _____ 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)
 UTM: _____ 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)
 UTM: _____ 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)
 UTM: _____ 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 at Risk Threatened and Endangered Habitat Assessment – Jericho

AECOM

Study Area: Jericho

Field Staff: RA + TS

Time Started: 5:55 P.m

Date (yyyy-mm-dd): 2013-11-27

Natural Area: 516-JER1013

Time Finished: 6:15 P.m

PLANTS

Species	Habitat Description	Potential Habitat /Species Present (Y/N; UTM; description if present)
American Ginseng (<i>Panax quinquefolius</i>)	In relatively mature deciduous forests, often near the bottom of south-facing slopes, where the microhabitat is warm and well-drained. Deep leaf litter in undisturbed areas of neutral soil (such as over limestone or marble bedrock). Flowers May to August; fruits late summer. FOD5, FOD6, FOD7, FOD9 Soil: Moist (4,5,6) to fresh (2,3).	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):
Butternut (<i>Juglans cinerea</i>)	Deciduous forests in rich, moist, & well-drained soils often found along streams; may also be found on well-drained gravel sites, especially in limestone areas. Grows alone or in small groups. Shade intolerant, usually occurs along or near edge of deciduous woodlots and hedgerows. Flowers in May; fruits mature late summer. FOD2, FOD5, FOD6, FOD7; mature hedgerows; Soil: dry rocky or moist (4,5,6) to fresh (2,3).	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):
Drooping Trillium (<i>Trillium flexipes</i>)	Found in rich, mature, deciduous forests usually crossed by streams; grows on dry, circum-neutral, well-drained, sandy clay soils associated with limestone; prefers higher elevations of microsites on floodplains. FOD	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):
Eastern Flowering Dogwood (<i>Cornus florida</i>)	Woodland borders & sunny openings; hedgerows; understory species in semi-open dry oak-hickory to mesic maple-beech deciduous or mixed forests; sandy soil, more or less clayey. If present, likely planted. Flowers May; fruits mature fall. FOM1, FOM2, FOM3, FOD1, FOD2, FOD5, FOD6; Soil: dry (0) to fresh (1,2,3).	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):
False Rue-anemone (<i>Enemion biternatum</i>)	Grows in large colonies on open, wooded slopes, on river floodplains with rich soils, and in rich woods and thickets; found in shady areas in mature maple-beech forest; Ontario populations are found near streams in deciduous forests dominated by sugar maple. FOD2, FOD4, FOD6, FOD8, FOD7, FOD9.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):
Goldenseal (<i>Hydrastis Canadensis</i>)	Rich moist areas of mature deciduous forests dominated by sugar maple, or in moist floodplain forests dominated by red maples and white oaks. Individuals of this species have been planted but planted individuals are not protected from kill and harm by the ESA. Blooming & fruiting: April to May. FOD5, FOD6, FOD7, FOD8; Soil: Moist (4,5,6)-Fresh (2,3).	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):
Heart-leaved Plantain (<i>Plantago cordata</i>)	Prefers swampy or seasonally flooded areas with dense overstory; moist deciduous woods, shallow streams, swamps, and wet ditches; commonly grows in cracks of bedrock or in gravel; has an association with limestone quarries and gravel pits. In Ontario, species grows along intermittent streams in mature silver maple swamps. FOD6, FOD7, FOD8, SWD, MAM2.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):

REPTILES

Species	Habitat Description	Potential Habitat /Species Present (Y/N; UTM; description if present)
Blanding's Turtle (<i>Emydonidea blandingii</i>)	Freshwater lakes, permanent or temporary pools, slow-flowing streams, marshes, swamps; prefers shallow water, organic soil & dense vegetation; nest in loose substrates, including sand, organic soil, gravel, cobblestone; overwinter in permanent pools ~ 1 m deep, or in slow-flowing streams or in bogs; basks on logs, stumps, or banks. SWT2, SWT3, SWD, SWM, MAS2, SAS1, SAM1, where open water present.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):
Eastern Hognose Snake (<i>Heterodon platirhinos</i>)	Prefers habitats with sandy, well-drained soil and open vegetative cover, such as open woods, thickets, upland fields, pastures, forest edges, savannas, sandy beaches; dry open mixed or deciduous forest prefer forest areas > 5ha; often found near water. BB, SD, SB, TP, FOD1; potentially in any suitable habitat with sandy soils.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):
Eastern Musk Turtle (<i>Stemotherus odoratus</i>)	Require water > 1 m deep; slow moving water of lakes, streams, marshes and ponds and soft earth to bury into for hibernation; eggs laid in debris or under stumps at water's edge and exposed to direct sunlight. MAM3, MAS2, MAS3, OAO, SA.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):
Five-lined Skink (<i>Plestiodon fasciatus</i>)	Found under woody debris such as logs, leaf litter, and sawdust in open areas or edges associated with stabilized dune habitat, open deciduous or mixed woodlands or savanna with sandy substrate; prefers habitat with sandy soil and ground cover. Also can be found on open talus slopes and barren rock. SD, TPS, FOM, FOD; soil: sandy sites.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):
Queensnake (<i>Regina septemvittata</i>)	Highly specialized habitat requirements: aquatic species, seldom found > 3 m from water. (1) Permanent water, flowing or still, with temp ≥ 18°C throughout most of the active season; (2) abundant cover, e.g. flat rock, (3) abundant crayfish. Rocky, gravelly, or stone stream-bed substrates, swift to moderate current, and woodland surroundings. OAO; adjacent terrestrial habitat. SA, MAM2, MAM3, SWT2-2, SWT3-2.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):
Spotted Turtle (<i>Clemmys guttata</i>)	Occurs in shallow bodies of water such as streams, ponds, wet meadows, marshes or swamps with aquatic vegetation, logs or clumps of vegetation for basking; nest is dug near water; habitat contains soft, muddy soil, sphagnum moss, sedge tussocks, cattails, water lilies and water-loving shrubs; nests in groups near	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / <input checked="" type="radio"/> No UTM (if required):

Species at Risk Threatened and Endangered Habitat Assessment – Jericho

Species	Habitat Description	Potential Habitat /Species Present (Y/N; UTM; description if present)
	man-made dykes, muskrat nests, base of grass tussocks. SWD, SWM, MAM3, MAS2, MAS3, OAO, SA.	
Spiny Softshell (<i>Apalone spinifera</i>)	Occurs in marshy creeks, fast-flowing rivers, lakes, impoundments, bays, marshy lagoons, ditches and ponds near rivers. Requires: sand or gravel nesting areas close to water in absence of vegetation; shallow, muddy or sandy areas to bury in; deep pools for hibernation; basking areas such as sand bars, mud flats, grassy beaches, logs or rocks exposed to sunlight; and suitable habitat for crayfish as a food source.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):

Species	Habitat Description	Potential Habitat /Species Present (Y/N; UTM; description if present)
Acadian Flycatcher (<i>Empidonax virescens</i>)	Occurs in the understorey of large, closed-canopy, mature, undisturbed forests (<40 ha) and well-wooded swamps and ravines; Species hang nests over water but do not occupy dry woods; has associations with maple-beech, oak-maple, and beech-hemlock forests. FOD5-2, FOD2-4, FOM3, SWD.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Barn Swallow (<i>Hirundo rustica</i>)	Nearly all nests are made on man-made structures such as barns, garages, sheds, boat houses, bridges, road culverts, eaves and wharfs. Farmlands or rural areas; forages over open country especially near bodies of water. Where Barn Swallows observed foraging only, is not Significant habitat. Forages in TPO, CUM1, MAM, MAS, OAO, SAS1, SAM1, SAF1; nest on suitable structures.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Bobolink (<i>Dolichonyx oryzivorus</i>)	Nests primarily in forage crops, particularly hayfields and pastures, dominated by a variety of species such as clover, tall grasses and broadleaved plants; also occurs in wet prairie, graminoid peatlands and abandoned fields; generally requires tracts of grassland >5 ha. Also nests in lightly grazed pastures, fallow and abandoned fields and shallow grassy marshes. TPO, TPS, CUM1, MAM2	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Cerulean Warbler (<i>Dendroica cerulea</i>)	Large tracts of mature deciduous forests with tall trees and an open understorey; forests may be in wet bottomland areas or upland locations; also nests in older, second-growth deciduous forests and mature deciduous swamps. FOD2, FOD5, FOD6, FOD7	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Chimney Swift (<i>Chaetura pelagica</i>)	Formerly nested in the trunks of large, hollow trees. Today, mainly use chimneys or abandoned buildings as nesting sites. May forage over wide variety of habitats. It requires dead trees >30 cm for roosting and possibly nesting. Where swifts observed foraging only, is not Significant habitat. Forages in TPO, CUM1, MAM, MAS, OAO, SAS1, SAM1, SAF1; nest in any communities where buildings with chimneys present.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Eastern Meadowlark (<i>Stumella magna</i>)	Most common in native grasslands, savannah, old fields, hayfields, lightly grazed pastures, weedy meadows, fields with occasional shrubs. Minimum area of grassland required is about 5 ha. TPO, TPS, CUM1, MAM2, MAS2	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Least Bittern (<i>Ixobrychus exilis</i>)	Occurs in large marshes (especially cattail) with good interspersions of emergents and open water. Nests sit on platforms of stiff stems; nests within 10m of open water. Prefers large marshes that have relatively stable water levels throughout the nesting period. MAS2-1, MAS3-1, SA, OAO.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):
Whip-poor-will (<i>Caprimulgus vociferus</i>)	Generally prefer semi-open deciduous or mixed forests or patchy forests with clearings; areas with little ground cover also preferred; Generally associated with >100 ha forests. CUW, FOD, POM, FOD1.	Habitat: Yes / <input checked="" type="radio"/> No Species: Yes / No UTM (if required):

Additional Species at Risk Presence Observed:

Species Code	UTM	EV	Notes

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=Feces/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)

**Appendix B2. Woodland Breeding
Bird Species of
Conservation
Concern Surveys**

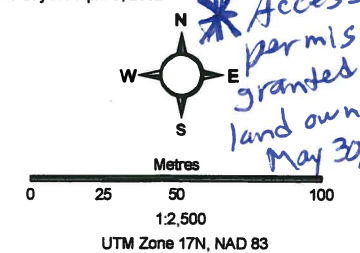
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Date Saved: 5/29/2012 12:28:10 PM



- Legend**
- Turbine Layout
 - Access Road
 - Collection Line
 - Property Boundary
 - Natural Feature and ID
 - ELC Polygon Boundary
 - Area of Investigation
 - Watercourse
 - Transmission Line
 - Transmission Line Buffer (180 m)

Basemapping from Ontario Ministry of Natural Resources
Orthophotography: 2010
Turbine Layout: April 9, 2012

Access permission granted by land owner in person May 30/12



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WOODLAND
Jericho Grassland Breeding Bird Surveys

215_JER3308
** 215_JER3357*

May 2012
Project 60155032

Woodland Breeding Bird Field Collection Form

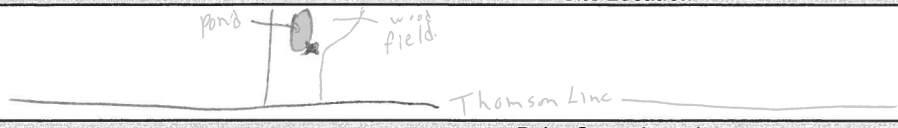
AZCOM

General Information

Study Area: Jericho Goshen Bluewater Parcel #: Jer 3357 Site ID: 215
 Date: May 30/12 Start time: 0733h End Time: 0743h

Weather Conditions:
 Wind Direction: W Wind Scale: 1
 Sky Condition: clear, bright Cloud Cover (%): 10
 Temperature C: 12
 Field Crew: Scott Martin
 Field Notes By: Scott Martin

Site Location



Point Count Locations

Easting: <u>427236</u>	Northing: <u>4778294</u>	Number: <u>1 of 1</u>
Easting: _____	Northing: _____	Number: _____
Easting: _____	Northing: _____	Number: _____
Easting: _____	Northing: _____	Number: _____
Easting: _____	Northing: _____	Number: _____
Easting: _____	Northing: _____	Number: _____

Habitat Description

Height of Vegetation (m): 10-15m
 Predominant Species: Basswood, Cottonwood, Gray Dogwood, White Ash
 Description: parkland trees surrounding homestead horse corals & dug pond, with natural small forest at N. end.

Photo Log

Picture #	Description	Picture #	Description
<u>106-330</u>	<u>looking S</u>		
<u>106-337</u>	<u>est</u>		
<u>6-8</u>	<u>North</u>		
<u>106-339</u>	<u>East</u>		

Beaufort Wind Scale

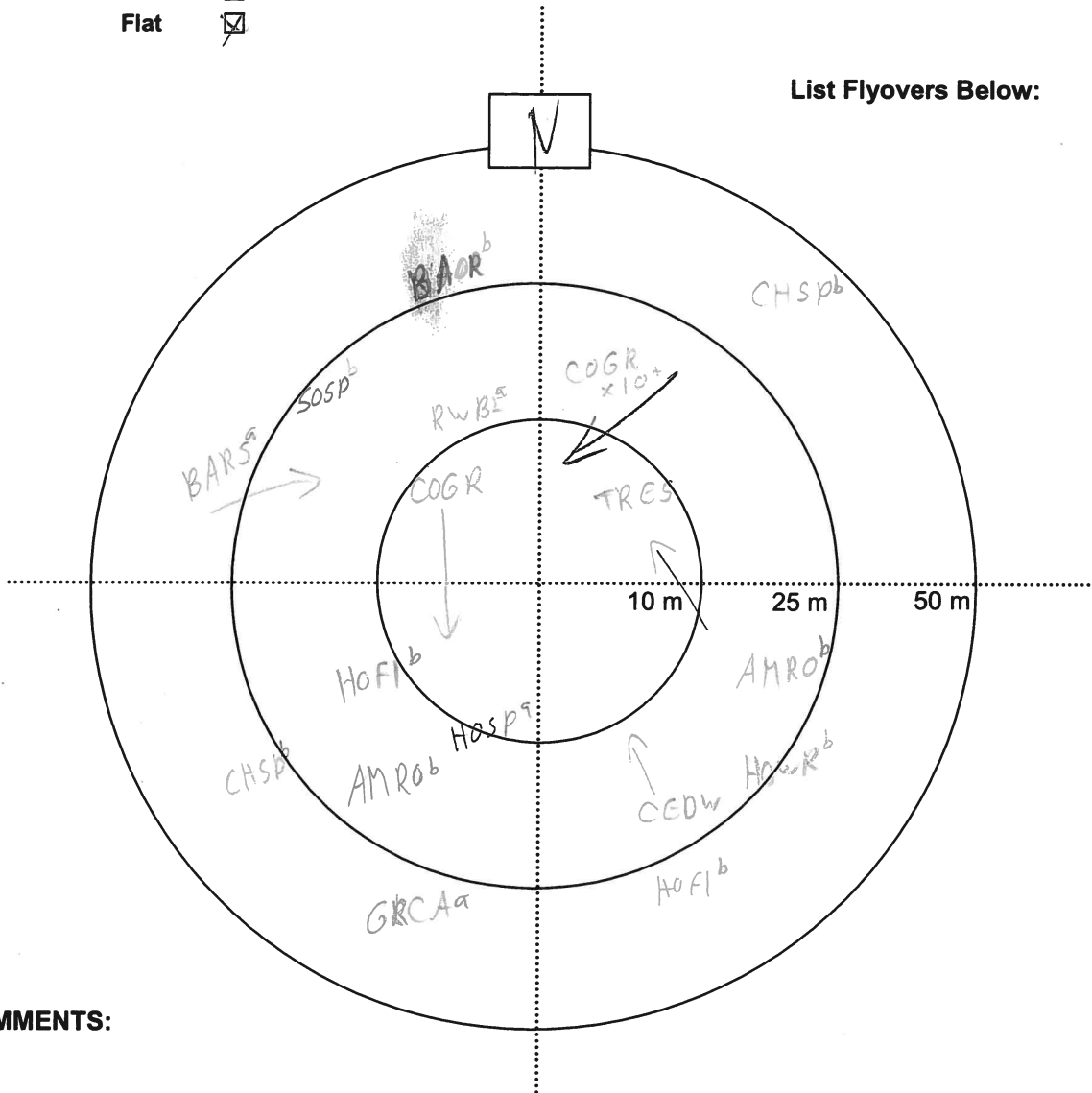
0: 0-2 km/hr - calm, smoke rises vertically	4: 20-30 km/hr - dust / loose papers blow; small branches move
1: 3-5 km/hr - light air movement	5: 31-38 km/hr - fresh breeze - moderate branch moves
2: 6-11 km/hr - wind felt on face, leaves rustle	6: 39-49 km/hr - strong breeze - large branch moves
3: 12-19 km/hr - leaves/small twigs in constant motion	

Sky Condition Indicators

0 Clear or few clouds	5 Drizzle
1 Partly cloudy	7 Snow
2 Cloudy (broken) or overcast	8 Showers
4 Fog or Smoke	

Study Area: Bluewater Goshen Jericho Parcel ID: Jer 3357
Date: May 30/12 **Surveyor:** SAW **Site ID:** 215
Time Started: 0733h **Time Ended:** 0743h **Point Number:** 1/1
Slope: Vertical Steep Gentle Flat
Direction slope faces (ex. NE): n/a

List Flyovers Below:



COMMENTS:

CLASSIFY HABITAT (within 100 m):

CLASS	SUBCLASS	STRUCTURE	MODIFICATION
A	1	C, E, F)	3, 9, 10



Woodland Breeding Bird Data Coding Card

Study Area: Bluewater Goshen
 Date: May 30/11
 Time: 0733h

Jericho
 Surveyor: SAM

Parcel ID: JER 3357
 Site ID: 215
 Point Numbers: 1/1

Start Time	Point #	Species	Obs Code	< 50 m	> 50 m	Flyovers
0733h	1	BAOR	SM	1		
		CHSP	SM	2		
		COGR	SM	1		10
		RWBL	SM	1		
		SSP	SM	1		
		TRES	SM			2
		AMRO	SM	2		
		HOWR	SM	1		
		CEDW	SM			3
		POFI	SM	2		
		GRCA	SM	1		
		HOSP	X	1		
		AMRO	SM	2		
		BARS	X			2

Start time: enter time point count began.
 Species: use standard codes for species abbreviations.
 Obs Code: enter breeding evidence according to OBBA codes.
 Flyovers: place an X to denote flyovers, and/or a number to denote individuals observed in flocks.

Initial QA/QC by: _____ Technical QA/QC by: _____