

# RE WAUBAUSHENE 4 SOLAR PROJECT

Natural Heritage Records Review Report

March 18, 2011

RECURRENT  
ENERGY





RE Waubaushene 4 ULC

Natural Heritage  
Records Review Report

RE Waubaushene 4 Solar Project

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Project Report

March 18, 2011

**RE Waubaushene 4 ULC**  
**RE Waubaushene 4 Solar Project**

**Natural Heritage Records Review Report**

**Table of Contents**

**1. Introduction ..... 3**

    1.1 Project Description ..... 3

    1.2 Legislative Requirements..... 3

    1.3 MNR Approval and Permitting Requirements ..... 4

**2. Methodology and Results ..... 4**

    2.1 Ministry of Natural Resources Records ..... 4

        2.1.1 Methodology..... 4

        2.1.2 Results..... 7

    2.2 Federal Government Records ..... 8

        2.2.1 Methodology..... 8

        2.2.2 Results..... 9

    2.3 Municipal Records ..... 9

        2.3.1 Methodology..... 9

        2.3.2 Results..... 9

    2.4 Other Records..... 9

        2.4.1 Methodology..... 9

        2.4.2 Results..... 10

**3. Summary of Results..... 11**

**4. References..... 12**

**Appendix A Ontario Breeding Bird Data**

## List of Tables

Table 2.1	Reptiles and Amphibians Potentially Occurring on or within 120 m of the Project Location and their Conservation Status <sup>1</sup> .....	8
Table 2.2	Mammal Species Potentially Occurring in the Project Location <sup>1</sup> .....	10
Table 3.1	Summary of Records Review Determinations .....	12

## List of Figures

Figure 1.1	Natural Heritage Features .....	5
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## 1. Introduction

### 1.1 Project Description

RE Waubaushene 4 ULC is proposing to develop and operate an 8-megawatt (MW) solar photovoltaic (Solar PV) facility, on an approximately 32-hectare (ha) parcel of land located about 7 km northeast of Coldwater, Ontario, in the Township of Severn, County of Simcoe (Figure 1.1); herein referred to as “RE Waubaushene 4” or the “Project”.

### 1.2 Legislative Requirements

Ontario Regulation (O. Reg.) 359/09 – *Renewable Energy Approvals Under Part V.0.1 of the Act*, (herein referred to as the REA Regulation) made under the *Environmental Protection Act* identifies the Renewable Energy Approval (REA) requirements for renewable energy projects in Ontario. As per Section 4 of the REA Regulation, ground-mounted solar facilities with a nameplate capacity greater than 10 kilowatts (kW) are classified as Class 3 solar facilities and do require an REA.

Section 25 of the REA Regulation requires proponents of Class 3 solar projects to undertake a natural heritage records review to identify whether the Project is

1. in or within 120 m of a provincial park or conservation reserve
2. in a natural feature
3. within 50 m of an area of natural and scientific interest (earth science), or
4. within 120 m of a natural feature that is not an area of natural and scientific interest (earth science).

Natural Features are defined in Section 1.1 of the REA Regulation to be all or part of

- a) an area of natural and scientific interest (ANSI) (earth science)
- b) an ANSI (life science)
- c) a coastal wetland
- d) a northern wetland
- e) a southern wetland
- f) a valleyland
- g) a wildlife habitat, or
- h) a woodland.

Subsection 3 of Section 25 of the REA Regulation requires the proponent to prepare a report “setting out a summary of the records searched and the results of the analysis” (O. Reg. 359/09). This Natural Heritage Records Review Report has been prepared to meet these requirements.

### 1.3 MNR Approval and Permitting Requirements

Beyond the REA legislative requirements identified in Section 1.2, additional information on site conditions must be identified in order to determine if Ministry of Natural Resources (MNR) approvals and permits separate from the REA are required. Consideration of the following features is needed in order to make this determination:

- Presence of natural hazard lands – Hazardous lands are defined in Section 28 (25) of the *Conservation Authorities Act* as “land that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable soil or bedrock”. If Project components are to be located in these areas, approval must be obtained from the MNR.
- Presence of petroleum resource operations – Approval is required if Project components are to be located within 75 m of a petroleum resource operation.
- Crown-owned forest resources – If Project components are located in an area of Crown-owned forest resources, then authorization must be obtained from MNR prior to clearing of timber on that land.

## 2. Methodology and Results

The following sections document the records that were searched and analyzed and the results of the analysis, with the focus on identifying whether any of the natural features listed in Section 1.2 are located on or within 120 m of the Project location. The sections are organized as identified in Column 1 of the table in Section 25 of the REA Regulation.

Records were searched within a minimum distance of 1 km from the Project location. Results are discussed below in relation to the distances specified between the Project and natural features as defined in Section 25 of the REA Regulation (see Section 1.2).

There are no conservation authorities, planning boards, local roads boards or local services boards within the jurisdiction of the Project location. Also, the Project location and lands within 120 m are not located within the Niagara Escarpment Commission Plan Area. Therefore, records review for these governing bodies was not conducted.

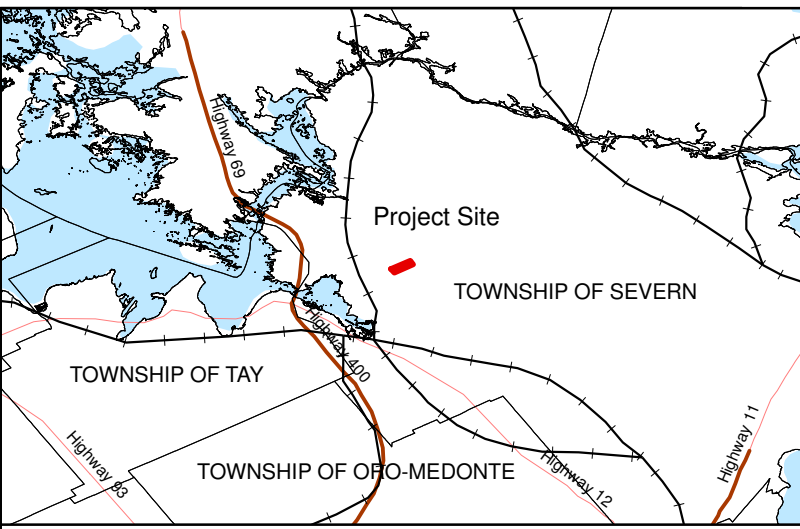
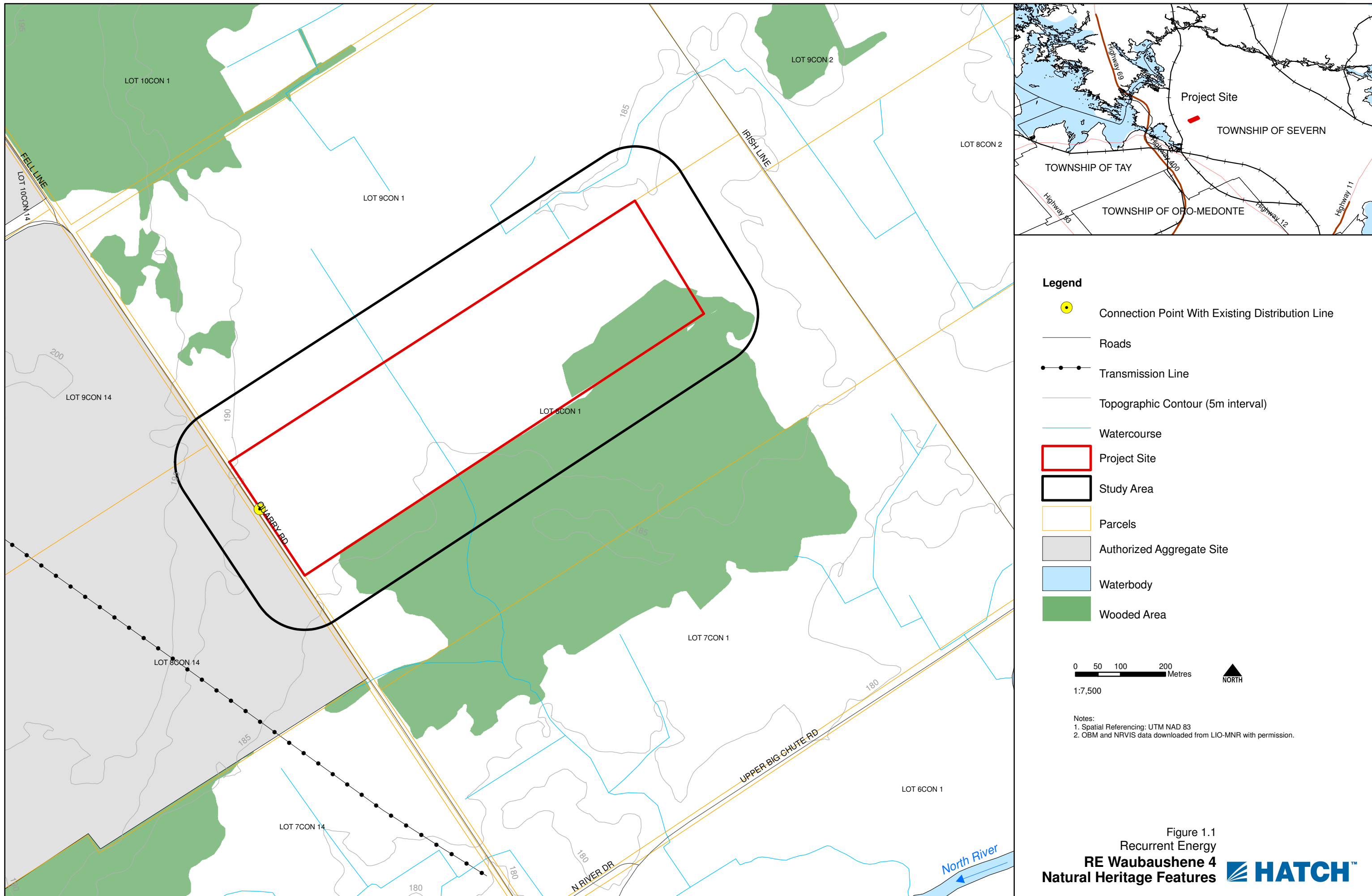
Municipal planning authorities are discussed below in relation to the relevant upper and lower tier municipality.

### 2.1 Ministry of Natural Resources Records

#### 2.1.1 Methodology

The following MNR on-line records were reviewed:

- Ontario Crown Land Use Mapping (<http://crownlanduseatlas.mnr.gov.on.ca/clupa.html>)
- Ontario Base Maps and natural feature layers from Land Information Ontario (LIO) (<http://www.geographynetwork.ca/website/obm/viewer.htm>)



- Legend**
- Connection Point With Existing Distribution Line
  - Roads
  - Transmission Line
  - Topographic Contour (5m interval)
  - Watercourse
  - Project Site
  - Study Area
  - Parcels
  - Authorized Aggregate Site
  - Waterbody
  - Wooded Area



Notes:  
 1. Spatial Referencing: UTM NAD 83  
 2. OBM and NRVIS data downloaded from LIO-MNR with permission.

Figure 1.1  
 Recurrent Energy  
**RE Waubaushene 4**  
 Natural Heritage Features

Back of figure

- Natural Heritage Information Centre (NHIC) on-line mapping ([http://nhic.mnr.gov.on.ca/nhic\\_.cfm](http://nhic.mnr.gov.on.ca/nhic_.cfm))
- NHIC Biodiversity Explorer (<http://www.biodiversityexplorer.mnr.gov.on.ca/nhicWEB/main.jsp>)
- NHIC Ontario Herpetofaunal Summary Atlas (<http://nhic.mnr.gov.on.ca/MNR/nhic/herps/ohs.html>).

The Midhurst District MNR office was also asked to provide any information they had available regarding natural features on or adjacent to the Project area. This information was received on May 4, 2010 (MNR, 2010).

### 2.1.2 Results

Mapping data obtained from LIO and through MNR Midhurst has been summarized in Figure 1.1. Key natural features identified in this figure include the following:

- There is a woodland located along the southern boundary of the Project location, with minor occurrence in the southeastern portion of the Project location.
- No specific wildlife habitat features, valleylands, wetlands, or ANSI's were identified within 120 m of the Project location.
- No Crown land and, therefore, Crown Forest Resources were identified within the vicinity of the Project location.
- There are no provincial parks or conservation reserves on or within 120 m of the Project location.

Records reviewed from the NHIC did not identify any occurrences of species at risk or species of conservation concern on or within 120 m of the Project location (NHIC, 2008a).

The Ontario Herpetofaunal Summary Atlas identified several species of reptile and amphibian whose ranges may overlap with the Project location (Table 2.1). Of these, several species at risk/species of conservation concern were identified:

- Milksnake (*Lampropeltis triangulum*)
- Massasauga (*Sistrurus catenatus*)
- Eastern Hog-nosed Snake (*Heterodon platirhinos*)
- Snapping Turtle (*Chelydra serpentina*)
- Blanding's Turtle (*Emydoidea blandingii*)
- Western Chorus Frog (*Pseudacris triseriata*).

Habitat for Blanding's Turtle, Eastern Hog-nosed Snake and Massasauga are protected under the Endangered Species Act, and therefore are considered separately from the Natural Heritage Assessment conducted herein.

As species of conservation concern, potential habitat for Milksnake, Western Chorus Frog, and Snapping Turtle, if present on or within 120 m of the Project location, would be considered candidate significant wildlife habitat.

**Table 2.1 Reptiles and Amphibians Potentially Occurring on or within 120 m of the Project Location and their Conservation Status<sup>1</sup>**

Species		Conservation Status <sup>2</sup>
Common Name	Scientific Name	Ontario SRANK <sup>3</sup>
<b>Salamanders</b>		
Mudpuppy	<i>Necturus maculosus</i>	S4
Yellow-spotted Salamander	<i>Ambystoma maculatum</i>	S4
Four-toed Salamander	<i>Hemidactylum scutatum</i>	S4
Eastern Red-backed Salamander	<i>Plethodon cinereus</i>	S5
Eastern Newt	<i>Notophthalmus viridescens</i>	S5
<b>Frogs and Toads</b>		
American Toad	<i>Bufo americanus</i>	S5
Western Chorus Frog	<i>Pseudacris triseriata</i>	S4
Gray Treefrog	<i>Hyla versicolor</i>	S5
Spring Peeper	<i>Pseudacris crucifer</i>	S5
American Bullfrog	<i>Rana castebiana</i>	S4
Green Frog	<i>Rana clamitans</i>	S5
Pickereel Frog	<i>Rana palustris</i>	S4
Northern Leopard Frog	<i>Rana pipiens</i>	S5
Wood Frog	<i>Rana sylvatica</i>	S5
<b>Turtles</b>		
Snapping Turtle	<i>Chelydra serpentina</i>	S5
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	S5
Blanding's Turtle	<i>Emydoidea blandingi</i>	S3
<b>Snakes</b>		
Eastern Milksnake	<i>Lampropeltis triangulum</i>	S3
Smooth Green Snake	<i>Opheodrys vernalis</i>	S4
Dekay's Brownsnake	<i>Storeria dekayi</i>	S5
Massasauga	<i>Sistrurus catenatus</i>	S3
Northern Watersnake	<i>Nerodia sipedon</i>	S5
Eastern Hog-nosed Snake	<i>Heterodon platirhinos</i>	S3
Red-bellied Snake	<i>Storeria occipitomaculata</i>	S5
Eastern Gartersnake	<i>Thamnophis sirtalis sirtalis</i>	S5

<sup>1</sup> As determined from potential climatic domain maps in McKenney et al. (2007) and range maps provided in Oldham and Weller (2000).

<sup>2</sup> Accessed from NHIC, 2008b.

<sup>3</sup> SRANK = Provincial Status (NHIC, 2008b); S = Sub-national Rank (Ontario), 2 = Imperilled, 3 = Vulnerable, 4 = Apparently Secure, 5 = Secure, E = Exotic, U = Unknown.

## 2.2 Federal Government Records

### 2.2.1 Methodology

Natural Resources Canada's Amphibians and Reptiles of Ontario Climate Domain Maps were reviewed.

The websites of the Canadian Wildlife Service ([www.cws-scf.ec.gc.ca](http://www.cws-scf.ec.gc.ca)) and Environment Canada ([www.ec.gc.ca](http://www.ec.gc.ca)) were also reviewed. No information relevant to the Project location and lands within 120 m was available.

### 2.2.2 Results

The Natural Resources Canada's Amphibians and Reptiles of Ontario Climate Domain Maps was reviewed and compared with the results of the Ontario Herpetofaunal Summary Atlas (discussed in Section 2.1); no additional information was discovered in the federal records.

## 2.3 Municipal Records

### 2.3.1 Methodology

#### *County of Simcoe*

The Project is located within the upper tier municipality of County of Simcoe. Information regarding natural features was requested from County staff from the planning department during a meeting between the County of Simcoe, Hatch, and RE Waubaushene 4 ULC on March 2, 2010. The County recommended reviewing their on-line mapping database (<http://maps.simcoe.ca/index.html>), which shows the general environmental and infrastructure features within the County, as well as high-resolution satellite imagery.

This information was obtained and reviewed (County of Simcoe, 2009).

#### *Township of Severn*

The Project is also located within the lower tier municipality of the Township of Severn. Information regarding natural features was requested from Township staff from the planning department during a meeting between the Township of Severn, Hatch, and RE Waubaushene 4 ULC on March 3, 2010. No information was available, however it was recommended that the Official Plan be reviewed.

The Township of Severn Official Plan was reviewed for any records that may identify natural features on or within 120 m of the Project location (Township of Severn, 2006).

### 2.3.2 Results

Based on a review of municipal information, natural features identified in these sources were already known from LIO mapping information, and are shown in Figure 1.1.

The Official Plan of the Township of Severn did not identify any Flood Hazards on or within 120 m of the Project location.

## 2.4 Other Records

### 2.4.1 Methodology

In addition to the sources identified above, the following records were also reviewed:

- Ontario Breeding Bird Atlas data (Bird Studies Canada et al., 2006)
- Atlas of the Mammals of Ontario (Dobbyn, 1994)
- Important Bird Areas of Canada website (<http://www.ibacanada.ca/mapviewer.jsp?lang=en>)
- Ontario Oil, Gas and Salt Petroleum Well Mapping (<http://maps.ogsrlibrary.com/>).

### 2.4.2 Results

No active petroleum resource operations were identified within 300 m of the Project location.

Map square 17PK05 in the Ontario Breeding Bird Atlas overlaps the Project location and lands within 120 m. Results from surveys within this square were reviewed to determine what bird species can be expected to occur on or within 120 m of the Project location (results of the surveys within this square are provided in Appendix A). Of the species that were recorded, three species at risk/species of conservation concern were identified whose ranges overlap that of the Project location:

- Olive-sided Flycatcher (*Contopus cooperi*)
- Red-headed Woodpecker (*Melanerpes erythrocephalus*)
- Bobolink (*Dolichonyx oryzivorus*).

Habitat for Bobolink are protected under the Endangered Species Act, and therefore is considered separately from the Natural Heritage Assessment conducted herein.

As species of conservation concern, potential habitat for Olive-sided Flycatcher and Red-headed Woodpecker, if present on or within 120 m of the Project location, would be considered candidate significant wildlife habitat.

No Important Bird Areas were identified within the vicinity of the Project location.

The Atlas of the Mammals of Ontario (Dobbyn, 1994) identified several species of mammals that may overlap with the Project location and lands within 120 m. This list of these species is provided in Table 2.2. None of these species are considered to be species at risk or species of conservation concern.

**Table 2.2 Mammal Species Potentially Occurring in the Project Location<sup>1</sup>**

Species		Conservation Rank <sup>2</sup>
Common Name	Scientific Name	Ontario SRANK <sup>3</sup>
<b>Shrews and Moles</b>		
Smoky Shrew	<i>Sorex fumeus</i>	S5
Common Shrew	<i>Sorex cinereus</i>	S5
Hairy-tailed Mole	<i>Parascalops breweri</i>	S4
Star-nosed Mole	<i>Condylura cristata</i>	S5
Northern Short-tailed Shrew	<i>Blarina brevicauda</i>	S5
<b>Bats</b>		
Little Brown Bat	<i>Myotis lucifuga</i>	S5
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	S4
Big Brown Bat	<i>Epstesicus fuscus</i>	S5
<b>Rabbits and Hares</b>		
Eastern Cottontail	<i>Sylvilagus floridanus</i>	S5
Snowshoe Hare	<i>Lepus americanus</i>	S5
<b>Rodents</b>		
Eastern Chipmunk	<i>Tamias striatus</i>	S5
Woodchuck	<i>Marmota monax</i>	S5
Grey Squirrel	<i>Sciurus carolinensis</i>	S5
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	S5

Species		Conservation Rank <sup>2</sup>
Common Name	Scientific Name	Ontario SRANK <sup>3</sup>
Northern Flying Squirrel	<i>Glaucomys sabrinus</i>	S5
Beaver	<i>Castor canadensis</i>	S5
White-footed Mouse	<i>Peromyscus leucopus</i>	S5
Deer Mouse	<i>Peromyscus maniculatus</i>	S5
Meadow Vole	<i>Microtus pennsylvanicus</i>	S5
Muskrat	<i>Ondatra zibethicus</i>	S5
Porcupine	<i>Erethizon dorsatum</i>	S5
Norway Rat	<i>Rattus norvegicus</i>	SE
House Mouse	<i>Mus musculus</i>	SE
Woodland Jumping Mouse	<i>Napaeozapus insignis</i>	S5
Meadow Jumping Mouse	<i>Zapus hudsonius</i>	S5
<b>Carnivores</b>		
Coyote	<i>Canis latrans</i>	S5
Grey Wolf	<i>Canis lupus</i>	S4
Black Bear	<i>Ursus americanus</i>	S5
Red Fox	<i>Vulpes vulpes</i>	S5
Raccoon	<i>Procyon lotor</i>	S5
Ermine	<i>Mustela erminea</i>	S5
Fisher	<i>Martes pennanti</i>	S5
Mink	<i>Mustela vison</i>	S5
River Otter	<i>Lontra Canadensis</i>	S5
Striped Skunk	<i>Mephitis mephitis</i>	S5
<b>Ungulates</b>		
Moose	<i>Alce alces</i>	S5
White-tailed Deer	<i>Odocoileus virginianus</i>	S5

<sup>1</sup> Based on Range Maps provided in Dobbyn, 1994.

<sup>2</sup> Accessed from NHIC, 2008b.

<sup>3</sup> SRANK = Provincial Status (NHIC, 2008b); S = Sub-national Rank (Ontario), E = Exotic species, 2 = Imperilled, 3 = Vulnerable, 4 = Apparently Secure, 5 = Secure, ? = Rank Uncertain, NA = Not Applicable.

### 3. Summary of Results

Table 3.1 summarizes the results of the records review according to the features identified in Section 1.2. A map depicting the identified natural features on and in proximity to the site is provided in Figure 1.1.

**Table 3.1 Summary of Records Review Determinations**

Determination to be Made	Yes/No	Description
Is the Project in or within 120 m of a provincial park or conservation reserve?	No	
Is the Project in a natural feature?	Yes	There is a woodland overlapping the Project location.
Is the Project within 50 m of an ANSI (earth science)?	No	The nearest earth science ANSI is located several kilometres from the Project location.
Is the Project within 120 m of a natural feature that is not an ANSI (earth science)?	Yes	There is a woodland within 120 m of the Project location.

As per Section 26 of the REA Regulation, a site investigation will be required to confirm the features identified during this records review. The site investigation will (i) identify if any corrections to the information presented herein are required, (ii) determine whether any additional natural features exist on or adjacent to the Project location, (iii) confirm the boundaries of the natural features within 120 m of the Project, and (iv) determine the distance from the Project to the natural feature boundary.

## 4. References

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Township of Severn (Severn). 2006. Severn Township Official Plan. Available on-line at <http://www.townshipofsevern.com/officialplan.asp>. Accessed February 26, 2010.

# Appendix A

## Ontario Breeding Bird Data



**Square Summary (17PK05)**

#species (1st atlas)				#species (2nd atlas)				#hours		#pc done	
poss	prob	conf	total	poss	prob	conf	total	1st	2nd	road	offrd
37	35	18	90	32	32	54	118	27	55	37	0

**Region summary (#13: Simcoe County)**

#squares	#sq with data		#species		#pc done	target #pc
	1st	2nd	1st	2nd		
68	63	65	181	190	2075	850

Target number of point counts in this square: 22 road side, 3 off road (1 in open wetlands, 1 in deciduous forest, 1 in mixed forest). Please try to ensure that each off-road station is located such that the entire 100m radius circle is within the prescribed habitat.

SPECIES	Code		%		SPECIES	Code		%		SPECIES	Code		%	
	1st	2nd	1st	2nd		1st	2nd	1st	2nd		1st	2nd	1st	2nd
Canada Goose		AE	58	95	Black-crown N.-Heron † §			12	9	Caspian Tern †			1	3
Trumpeter Swan †		FY	0	43	Yellow-crn N.-Heron †			0	0	Black Tern † §	H	NY	30	21
Wood Duck		FY	76	78	Turkey Vulture	T	H	77	84	Common Tern §	H		34	23
Gadwall ‡			6	4	Osprey	P	NY	42	53	Forster's Tern † §			0	1
American Wigeon		H	6	12	Northern Harrier	S	D	76	66	Mourning Dove	S	NY	95	95
American Black Duck	P		44	47	Sharp-shinned Hawk	H	H	50	60	Yellow-billed Cuckoo		S	6	18
Mallard	P	FY	93	95	Cooper's Hawk			17	47	Black/Yell-billed Cuckoo			0	18
Blue-winged Teal	P	FY	79	53	Northern Goshawk	H	NY	15	27	Black-billed Cuckoo		T	58	75
Northern Shoveler	P		11	10	Red-should Hawk †		T	17	44	Eastern Screech-Owl			12	49
Northern Pintail			14	7	Broad-winged Hawk	P	H	58	66	Great Horned Owl	P	NY	74	55
Green-winged Teal		P	0	18	Red-tailed Hawk		T	92	81	Barred Owl		S	20	49
Redhead †			3	1	American Kestrel	P	H	85	76	Long-eared Owl ‡			3	4
Ring-necked Duck			4	21	Merlin ‡			1	21	Short-eared Owl †			1	4
Lesser Scaup ‡			1	1	Yellow Rail †			3	3	North Saw-whet Owl			9	12
Hooded Merganser		AE	25	30	King Rail †			3	3	Common Nighthawk	H		63	40
Common Merganser	P		36	46	Virginia Rail	S	NE	36	47	Whip-poor-will	T		60	38
Red-breast Merganser			9	20	Sora	S	NE	31	43	Chimney Swift	P		63	32
Gray Partridge ‡			0	1	Common Moorhen		NE	17	12	Ruby-thr Hummingbird	H	T	88	95
Ring-necked Pheasant			15	10	American Coot		H	15	12	Belted Kingfisher	AE	P	95	92
Ruffed Grouse	NU	FY	92	81	Coot/Moorhen			0	0	Red-headed Woodpecker †	H	AE	65	29
Wild Turkey		FY	0	81	Sandhill Crane ‡		H	0	21	Yellow-bellied Sapsucker	P	NY	80	95
Common Loon			28	52	Killdeer	DD	D	96	96	Downy Woodpecker	T	D	95	96
Pied-billed Grebe	H	FY	22	32	Rock Dove		NE	87	84	Hairy Woodpecker	T	H	95	93
Double-crest Cormorant §			11	27	Spotted Sandpiper		P	95	78	Northern Flicker	AE	AE	98	95
American Bittern	S	T	50	44	Upland Sandpiper	T	H	60	38	Pileated Woodpecker	D	NY	80	93
Least Bittern †		NY	12	23	Common Snipe	FY	D	79	61	Olive-sided Flycatcher	S		22	20
Great Blue Heron §	H	NY	77	63	American Woodcock	NE	NY	79	72	Eastern Wood-Pewee	S	FY	96	96
Great Egret †			0	1	Ring-billed Gull §		S	6	33	Alder Flycatcher		T	47	76
Green Heron §	H	P	84	70	Herring Gull §	H		49	38	Willow Flycatcher			42	55

[next page >>](#)

Ontario Breeding Bird Atlas - Summary Sheet for Square 17PK05 (page 2 of 3)

SPECIES	Code		%		SPECIES	Code		%		SPECIES	Code		%	
	1st	2nd	1st	2nd		1st	2nd	1st	2nd		1st	2nd	1st	2nd
Least Flycatcher	H	T	88	89	Marsh Wren	S	NE	42	33	Kirtland's Warbler †			1	0
Eastern Phoebe	NY	NY	95	96	Golden-crown Kinglet			7	21	Prairie Warbler †			6	9
Gr Crested Flycatcher	T	B	98	96	Ruby-crown Kinglet			6	7	Bay-breasted Warbler ‡			1	3
Eastern Kingbird	P	NY	98	95	Blue-gr Gnatcatcher ‡		P	14	24	Cerulean Warbler †			12	16
Loggerhead Shrike †			15	3	Eastern Bluebird	AE	H	57	73	Black-white Warbler	T	S	84	93
Yellow-throated Vireo ‡			30	26	Veery	S	CF	95	96	American Redstart	T	T	85	90
Blue-headed Vireo			9	38	Swainson's Thrush		NE	14	20	Ovenbird	T	T	98	96
Warbling Vireo	S	NY	92	93	Hermit Thrush		S	39	69	North Waterthrush		A	61	86
Philadelphia Vireo ‡			1	4	Wood Thrush	T	T	90	92	Mourning Warbler		T	63	81
Red-eyed Vireo	S	T	93	96	American Robin	NY	NE	98	96	Common Yellowthroat	S	FY	92	95
Blue Jay	H	NB	96	96	Gray Catbird	S	NE	98	96	Canada Warbler		S	46	56
American Crow	H	NB	98	96	Northern Mockingbird			6	18	Scarlet Tanager		D	79	86
Common Raven			7	55	Brown Thrasher	CF	CF	96	92	Eastern Towhee		S	53	73
Horned Lark			68	47	European Starling	P	FY	98	96	Chipping Sparrow	NE	FY	96	96
Purple Martin	AE	AE	61	27	Cedar Waxwing	H	H	98	96	Clay-colored Sparrow			14	36
Tree Swallow	CF	NY	98	96	Blue-winged Warbler		S	4	24	Field Sparrow	FY	S	84	87
North Rgh-wing Swallow		H	68	56	Golden-winged Warbler		S	30	43	Vesper Sparrow	H		84	70
Bank Swallow §	H		88	58	Blue/Gold-wing Warbler ‡			0	15	Savannah Sparrow	H	S	88	81
Cliff Swallow §	H	FY	82	63	Brewster's Warbler †			0	3	Grasshopper Sparrow			38	41
Barn Swallow	NY	H	96	95	Nashville Warbler	S	S	74	84	Song Sparrow	S	CF	98	96
Black-capped Chickadee	T	NB	96	96	Northern Parula			12	21	Swamp Sparrow	A	NE	84	86
Tufted Titmouse †			1	0	Yellow Warbler	NY	NY	98	92	White-throat Sparrow	T	A	95	87
Red-breast Nuthatch		S	52	90	Chestn-sided Warbler		FY	68	95	Dark-eyed Junco			25	21
White-breast Nuthatch	V	AE	87	93	Magnolia Warbler			20	58	Northern Cardinal		T	66	84
Brown Creeper		S	55	60	Black-thr Blue Warbler		S	22	63	Rose-breast Grosbeak	S	FY	95	93
Carolina Wren ‡			1	6	Yellow-rumped Warbler			41	78	Indigo Bunting		P	90	93
House Wren	V	FY	87	95	Black-thr Green Warbler	T	S	34	90	Bobolink	T	D	87	83
Winter Wren	T	S	68	95	Blackburnian Warbler			28	58	Red-wing Blackbird	P	NY	96	96
Sedge Wren			19	20	Pine Warbler		T	26	80	Eastern Meadowlark	T	S	88	83

[<< previous page](#)

[next page >>](#)

## Ontario Breeding Bird Atlas - Summary Sheet for Square 17PK05 (page 3 of 3)

SPECIES	Code		%	
	1st	2nd	1st	2nd
Western Meadowlark ‡			6	1
Yellow-h Blackbird †			1	0
Rusty Blackbird ‡			1	1
Brewer's Blackbird ‡			3	7
Common Grackle	FY	CF	96	96
Brown-head Cowbird	T	P	98	95
Orchard Oriole ‡			0	1
Baltimore Oriole	NY	FY	96	96
Purple Finch		P	66	73
<u>House Finch</u>			3	72
Red Crossbill ‡			7	1
White-winged Crossbill ‡			1	3
Pine Siskin			17	18
American Goldfinch	S	P	98	96
Evening Grosbeak			15	15
House Sparrow	H	S	88	75

This list includes all species found during the Ontario Breeding Bird Atlas (1st atlas: 1981-1985, 2nd atlas: 2001-2005) in the region #13 (Simcoe County). Underlined species are those that you should try to add to this square. They have not yet been reported during the 2nd atlas, but were found during the 1st atlas in this square or have been reported in more than 50% of the squares in this region during the 2nd atlas so far. In the species table, "BE 2nd" and "BE 1st" are the codes for the highest breeding evidence for that species in square 17PK05 during the 2nd and 1st atlas respectively. The % columns give the percentage of squares in that region where that species was reported during the 2nd and 1st atlas (this gives an idea of the expected chance of finding that species in region #13). Rare/Colonial Species Report Forms should be completed for species marked: § (Colonial), ‡ (regionally rare), or † (provincially rare). Current as of 16/02/2010. An up-to-date version of this sheet is available from <http://www.birdsontario.org/atlas/summaryform.jsp?squareID=17PK05>

[<< previous page](#)

