

RE MIDHURST 2 SOLAR PROJECT

Natural Heritage
Records Review Report

September 12, 2011

RECURRENT
ENERGY





RE Midhurst 2 ULC

Natural Heritage
Records Review Report

RE Midhurst 2 Solar Project

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Project Report

September 12, 2011

RE Midhurst 2 ULC
RE Midhurst 2 Solar Project

Natural Heritage Records Review Report

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1. Introduction

1.1 Project Description

RE Midhurst 2 ULC is proposing to develop and operate a 3.5-megawatt (MW) solar photovoltaic (Solar PV) facility, on portions of an approximately 35-hectare (ha) parcel of land located about 18 km north-northwest of Barrie in the Township of Springwater in County of Simcoe (Figure 1.1); herein referred to as “RE Midhurst 2” 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 name plate 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

- a) in or within 120 m of a provincial park or conservation reserve
- b) in a natural feature
- c) within 50 m of an area of natural and scientific interest (earth science), or
- d) 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. It has also been prepared in accordance with the Ministry of Natural Resource’s Natural Heritage Assessment Guide for Renewable Energy Projects (December 2010).

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 natural features listed in Section 1.2 are identified on or within 120 m of the Project. The sections are organized as identified in Column 1 of the Table in Section 25 of the REA Regulation.

Records covering areas within a minimum distance of 1 km from the Project location and lands within 120 m were searched. 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 planning boards, local roads boards or local services boards within the jurisdiction of the Project location and lands within 120 m. Also, the Project location and lands within 120 m are not located within the Niagara Escarpment Commission Plan Area. Therefore, no records review for these governing bodies was conducted.

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

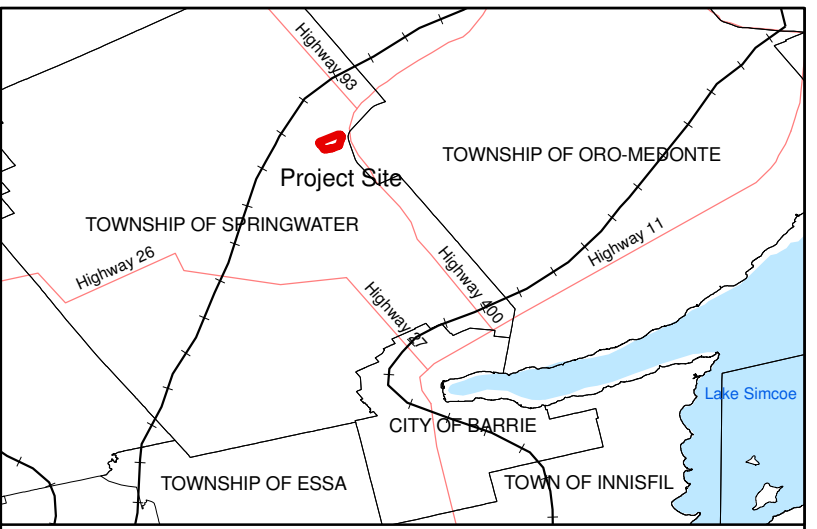
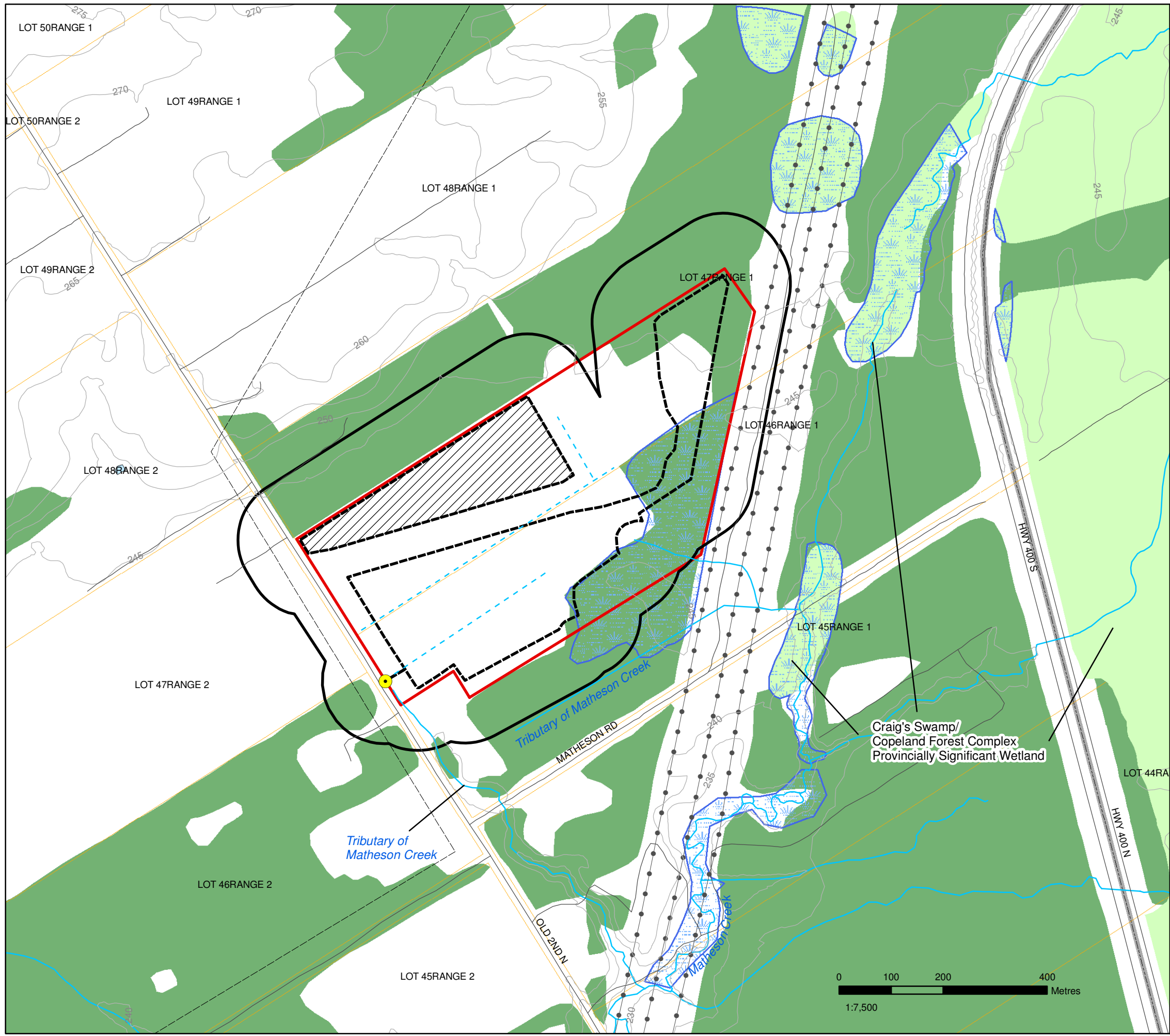
2.1 Ministry of Natural Resources Records

2.1.1 Methodology

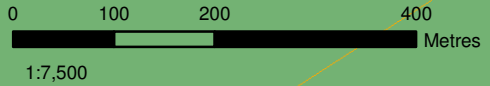
The following Ministry of Natural Resources (MNR) on-line records were reviewed:

- Ontario Base Maps and natural feature layers from Land Information Ontario (LIO)
(<http://www.geographynetwork.ca/website/obm/viewer.htm>)
- Natural Heritage Information Center (NHIC) Database - Biodiversity Explorer
(<http://www.biodiversityexplorer.mnr.gov.on.ca/nhicWEB/main.jsp>)
- Ontario Crown Lands Use Mapping
(<http://crownlanduseatlas.mnr.gov.on.ca/clupa.html>)
- 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).



- Legend**
- Connection Point With Existing Distribution Line
 - Roads
 - - - Trail
 - Topographic Contour(5m interval)
 - Watercourse
 - - - Excavated Drains
 - Available Lands
 - Project Location
 - Temporary Construction Laydown Area
 - 120 m From Project Location
 - Provincially Significant Wetlands
 - Woodland
- Nottawasaga Valley Conservation Authority Data**
- Wetlands



Notes: Base data downloaded from www.geographynetwork.ca, other environmental data from LIO, UTM NAD83, July 2010.

Figure 1.1
 Recurrent Energy
RE Midhurst 2
 Natural Heritage Features

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2.1.2 Results

MNR LIO Mapping

Mapping data obtained from LIO has been summarized in Figure 1.1. Key natural features identified in this figure include

- woodlands on and within 120 m of the Project location
- wetland on and within 120 m of the Project location
- Copeland-Craighurst-Guthrie Provincially Significant Wetland (PSW) complex is located more than 120 m east of the Project location
- no ANSIs, specific wildlife habitat features or valleylands were identified within 120 m of the Project location
- no Crown land, and therefore Crown Forest Resources, were identified within 120 m of the Project location
- no provincial parks or conservation reserves on or within 120 m of the Project location.

Midhurst District MNR Office Information

Information provided by Midhurst District MNR office did not identify any natural features that had not been previously identified (MNR, 2010).

Natural Heritage Information Center (NHIC) Database

The NHIC database (NHIC, 2010) was accessed on February 12, 2010 and a geographic search using the Biodiversity Explorer tool was completed for a 1-km radius surrounding the Project location. The Biodiversity Explorer tool provides information on rare/uncommon species and plant communities, wildlife concentration areas, natural areas and invasive species occurrences.

The query identified that the following species of conservation concern has records from within 1 km of the Project location:

- Milksnake (*Lampropeltis triangulum*) – Listed as Special Concern under the Endangered Species Act (ESA).
- Cerulean Warbler (*Dendroica cerulea*) – Listed as Special Concern under the ESA
- Broad Beech Fern (*Phegopteris hexagonoptera*) – Listed as Special Concern under the ESA
- Prairie Warbler (*Dendroica discolor*) – A S3 species in the province
- Hackberry Emperor (*Asterocampa celtis*) – A S2 species in the province
- Forked Three-awned Grass (*Aristida basiramea*) – A S2 species in the province
- Nerveless Muhlenberg's Sedge (*Carex muehlenbergii* var. *enervis*) – A S1S2 species in the province
- Schweintz's Sedge (*Carex schweinitzii*) – A S3 species in the province
- Beaked Spike-Rush (*Eleocharis rostellata*) – A S3 species in the province.

As species of conservation concern, habitat for those species listed above, if present on or within 120 m of the Project location, would be considered candidate significant wildlife habitat.

Beyond these records, there are no records of wildlife concentration areas, rare vegetation communities or natural areas within 1 km of the Project location.

NHIC Ontario Herpetofaunal Summary Atlas

The Ontario Herpetofaunal Summary Atlas identified several species of reptile and amphibian whose ranges may overlap with the Project location and lands within 120 m (Table 2.1). Of these species, several species of conservation concern were identified:

- Milksnake
- Snapping Turtle (*Chelydra serpentina*) – Listed as Special Concern under ESA
- Western Chorus Frog (*Pseudacris triseriata*) – Listed as Threatened under Species At Risk Act (SARA).

As species of conservation concern, 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.

2.2 Conservation Authority Records

2.2.1 Methodology

The proposed Project is situated within the jurisdiction of the Nottawasaga Valley Conservation Authority (NVCA). The NVCA was asked to provide any information available regarding the natural features on or within 120 m of the Project location.

2.2.2 Results

GIS information was provided by NVCA to Hatch on April 9, 2010. This information included details regarding locations of wetlands, which were identified on or within 120 m of the Project location (see Figure 1.1).

Table 2.1 Reptiles and Amphibians Potentially Occurring on or within 120 m of the Project Location and their Conservation Status¹

Species		Conservation Status ²
Common Name	Scientific Name	Ontario SRANK ³
Salamanders		
Mudpuppy	<i>Necturus maculosus</i>	S4
Yellow-spotted Salamander	<i>Ambystoma maculatum</i>	S4
Four-toed Salamander	<i>Hemidactylium scutatum</i>	S4
Eastern Red-backed Salamander	<i>Plethodon cinereus</i>	S5
Eastern Newt	<i>Notophthalmus viridescens</i>	S5
Frogs and Toads		
American Toad	<i>Bufo americanus</i>	S5
Western Chorus Frog	<i>Pseudacris triseriata</i>	S3
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
Pickerel Frog	<i>Rana palustris</i>	S4
Northern Leopard Frog	<i>Rana pipiens</i>	S5
Wood Frog	<i>Rana sylvatica</i>	S5
Turtles		
Snapping Turtle	<i>Chelydra serpentina</i>	S5
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	S5
Snakes		
Eastern Milksnake	<i>Lampropeltis triangulum</i>	S3
Smooth Green Snake	<i>Opheodrys vernalis</i>	S4
Dekay's Brownsnake	<i>Storeria dekayi</i>	S5
Red-bellied Snake	<i>Storeria occipitomaculata</i>	S5
Eastern Gartersnake	<i>Thamnophis sirtalis sirtalis</i>	S5
Northern Watersnake	<i>Nerodia sipedon sipedon</i>	S5
Northern Ring-necked Snake	<i>Diadophis punctatus edwardsii</i>	S4

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

² Accessed from NHIC, 2008b

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

2.3 Federal Government Records

2.3.1 Methodology

A review of federal government sources included Natural Resources Canada's Amphibians and Reptiles of Ontario Climate Domain Maps, along with the websites of the Canadian Wildlife Service (www.cws-scf.ec.gc.ca) and Environment Canada (www.ec.gc.ca). Findings are discussed in the following section.

2.3.2 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.

No information relevant to the Project location or lands within 120 m of the Project location was available from the Canadian Wildlife Service or Environment Canada.

2.4 Municipal Records

2.4.1 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 Midhurst 2 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 Springwater

The Project is also located within the lower tier municipality of the Township of Springwater. Information regarding natural features was requested from Township staff from the planning department during a meeting between the Township of Springwater, Hatch, and RE Midhurst 2 ULC on March 8, 2010. No information was available; however, it was recommended that the zoning by-law be reviewed.

The Springwater Zoning By-Law was searched to find any records that may identify natural features on or within 120 m of the Project location (TSW 2005).

2.4.2 Results

County of Simcoe

Mapping available on the County's website did not identify any natural features beyond those already discussed.

Township of Springwater

Schedule A of the Zoning By-Law identifies the Project location as agricultural with small portions of environmental protection (TSW, 2005).

2.5 Other Records

2.5.1 Methodology

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

- Ontario Breeding Bird Atlas (Bird Studies Canada et al., 2006)
- Atlas of the Mammals of Ontario (Dobbyn, 1994)
- Important Bird Areas of Canada (<http://www.ibacanada.ca/mapviewer.jsp?lang=en>).

2.5.2 Results

Map square 17PK93 in the Ontario Breeding Bird Atlas overlaps the Project location and lands within 120 m of the Project location. Results from surveys within this square were reviewed to determine the bird species potentially present within the Study Area. The breeding bird list for map square 17PK93 is provided in Appendix B. Of the species that were recorded, several species of conservation concern were identified. These species are as follows:

- Olive-sided Flycatcher (*Contopus cooperi*) – Listed as Special Concern under the ESA
- Red-headed Woodpecker (*Melanerpes erythrocephalus*) – Listed as Special Concern under the ESA
- Cerulean Warbler (*Dendroica cerulea*)- Listed as Special Concern under the ESA
- Golden-winged Warbler (*Vermivora chrysoptera*) – Listed as Special Concern under the ESA
- Canada Warbler (*Wilsonia canadensis*) – Listed as Special Concern under the ESA.

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

No Important Bird Areas are identified within the vicinity of the Project location and land within 120 m.

The Atlas of the Mammals of Ontario (Dobbyn, 1994) identified several species of mammals that may overlap with the Project location and land 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 Study Area¹

Species		Conservation Rank ²
Common Name	Scientific Name	Ontario SRANK ³
Shrews and Moles		
Smoky Shrew	<i>Sorex fumeus</i>	S5
Common Shrew	<i>Sorex cinereus</i>	S5
Northern Short-tailed Shrew	<i>Blarina brevicauda</i>	S5
Star-nosed Mole	<i>Condylura cristata</i>	S5
Bats		
Little Brown Bat	<i>Myotis lucifuga</i>	S5
Silver-haired Bat	<i>Lasionycteris noctivagans</i>	S4
Big Brown Bat	<i>Eptesicus fuscus</i>	S5
Eastern Red Bat	<i>Lasiurus borealis</i>	S4
Hoary Bat	<i>Lasiurus cinereus</i>	S4
Rabbits and Hares		
Eastern Cottontail	<i>Sylvilagus floridanus</i>	S5
Snowshoe Hare	<i>Lepus americanus</i>	S5
Rodents		
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
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
Meadow Jumping Mouse	<i>Zapus hudsonius</i>	S5
Carnivores		
Coyote	<i>Canis latrans</i>	S5
Grey Wolf	<i>Canis lupus</i>	S4
Red Fox	<i>Vulpes vulpes</i>	S5
Raccoon	<i>Procyon lotor</i>	S5
Fisher	<i>Martes pennanti</i>	S5
Ermine	<i>Mustela erminea</i>	S5
Mink	<i>Mustela vison</i>	S5
Striped Skunk	<i>Mephitis mephitis</i>	S5
Ungulates		
White-tailed Deer	<i>Odocoileus virginianus</i>	S5

¹ Based on Range Maps provided in Dobbyn, 1994.

² Accessed from NHIC, 2008b

³ SRANK = Provincial Status (NHIC, 2008b); S = Sub-national Rank (Ontario), E = Exotic species, 2 = Imperilled, 3 = Vulnerable, 4 = Apparently Secure, 5 = Secure, ? = Rank Uncertain

3. Summary of Results

Table 3.1 summarizes the results of the records review according to the features identified in Section 2.1.2. 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 are woodlands and unevaluated wetlands on 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 are woodlands and unevaluated wetlands 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

- Bird Studies Canada, Ontario Field Ornithologists, Environment Canada, Ontario Nature, and Ontario Ministry of Natural Resources. 2006. Ontario Breeding Bird Atlas Internet Site. Available on-line at www.birdsontario.org/atlas/atlasmain.html. Accessed February 16, 2010.
- County of Simcoe. 2009. Simcoe County Interactive Mapping. Available on-line at <http://maps.simcoe.ca>. Accessed February 24, 2010; Last Updated December 2009.
- Dobbyn, J. S. 1994. Atlas of the Mammals of Ontario. Federation of Ontario Naturalists. 122 pp.
- Geography Network Canada (GNC). 2010. Ontario Base Mapping. Available on-line at <http://www.geographynetwork.ca/website/obm/viewer.htm>. Accessed February 12, 2010.
- Government of Canada. 2009a. Species Profile – Red-headed Woodpecker. Government of Canada, Species at Risk Public Registry, Available on-line at http://www.sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=57. Accessed February 24, 2010; Last Updated January 11, 2010.
- Government of Canada. 2009b. Species Profile – Olive-sided Flycatcher. Government of Canada, Species at Risk Public Registry, Available on-line at

http://www.sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=999. Accessed February 24, 2010; Last Updated January 11, 2010.

Important Birding Areas (IBA 2009). 2009. Important Birding Areas Canada. Available on-line at <http://www.ibacanada.ca/mapviewer.jsp?lang=en>. Accessed March 8, 2010; Last Updated 2009.

McKenney, D., M. Oldham, J. Bogart, and B. Mackey. 2007. Amphibians and Reptiles of Ontario. Natural Resources Canada. Available on-line at <http://cfs.nrcan.gc.ca/subsite/glfc-amphibians>. Accessed February 17, 2010; Last Updated November 30, 2007.

Ministry of Natural Resources (MNR). 2010. Letter. A. McLachlan (District Planner, MNR) to N. Boucher (Aquatic Biologist, Hatch Ltd.). May 4, 2010.

Natural Heritage Information Centre (NHIC). 2008. Geographic Query. Ontario Ministry of Natural Resources, Queen's Printer for Ontario. Available on-line at http://nhic.mnr.gov.on.ca/MNR/nhic/queries/geographic_areas.cfm. Accessed February 12, 2010, Last Updated June 27, 2008.

Natural Heritage Information Centre (NHIC). 2010. Biodiversity Explorer. Ontario Ministry of Natural Resources, Queen's Printer for Ontario. Available on-line at http://nhic.mnr.gov.on.ca/MNR/nhic/queries/geographic_areas.cfm. Accessed February 12, 2010, Last Updated 2010.

Nottawasaga Valley Conservation Authority (NVCA). 2007. Planning Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Mapping. Available on-line at <http://www.nvca.on.ca/OurProgramsandServices/Planning/PlanningDevelopmentInterferencewithWetlandsandAlterationstoShorelinesandWatercoursesRegulation/index.htm>. Accessed March 2, 2010; Last Updated 2006.

Oldham, M., and W. Weller. 2002. Ontario Herpetofaunal Summary Atlas. Natural Heritage Information Center. Available on-line at http://nhic.mnr.gov.on.ca/MNR/nhic/herps/range_maps.html. Accessed February 12, 2010, Last Updated September 11, 2002.

Ontario Oil, Gas, and Salt Resource Library (OGS). 2009. Ontario Oil, Gas and Salt Wells GIS on-line. Accessed February 12, 2010; Last Updated 2009.

Township of Springwater (TSW). 2005. Comprehensive Zoning By-Law Township of Spring Water – Schedule A. Available on-line at <http://www.springwater.ca/Services/Planning/ZoningBy-Law/index.htm>. Accessed February 25, 2010.

Appendix A

Ontario Breeding Bird Data



Square Summary (17NK93)

#species (1st atlas)				#species (2nd atlas)			#hours		#pc done		
poss	prob	conf	total	poss	prob	conf	total	1st	2nd	road	offrd
15	40	41	96	16	30	47	93	52	73	43	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: 20 road side, 5 off road (2 in deciduous forest, 1 in coniferous forest, 2 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		%	
	1st	2nd	1st	2nd
Canada Goose	FY	FY	58	95
Trumpeter Swan †			0	43
Wood Duck	T		76	78
Gadwall ‡			6	4
American Wigeon			6	12
American Black Duck	P		44	47
Mallard	FY	FY	93	95
Blue-winged Teal	NE		79	53
Northern Shoveler			11	10
Northern Pintail			14	7
Green-winged Teal			0	18
Redhead †			3	1
Ring-necked Duck		FY	4	21
Lesser Scaup ‡			1	1
Hooded Merganser	P		25	30
Common Merganser			36	46
Red-breast Merganser			9	20
Gray Partridge ‡			0	1
Ring-necked Pheasant			15	10
Ruffed Grouse	FY	H	92	81
Wild Turkey		NE	0	81
Common Loon		S	28	52
Pied-billed Grebe			22	32
Double-crest Cormorant §			11	27
American Bittern	S	S	50	44
Least Bittern †			12	23
Great Blue Heron §	H		77	63
Great Egret †			0	1
Green Heron §	N	H	84	70

SPECIES	Code		%	
	1st	2nd	1st	2nd
Black-crown N.-Heron † §			12	9
Yellow-crn N.-Heron †			0	0
Turkey Vulture	T		77	84
Osprey	H		42	53
Northern Harrier	FY	P	76	66
Sharp-shinned Hawk	H	H	50	60
Cooper's Hawk		H	17	47
Northern Goshawk			15	27
Red-should Hawk †			17	44
Broad-winged Hawk	CF		58	66
Red-tailed Hawk	NY	FY	92	81
American Kestrel	NE	CF	85	76
Merlin ‡			1	21
Yellow Rail †			3	3
King Rail †			3	3
Virginia Rail	S		36	47
Sora	S		31	43
Common Moorhen			17	12
American Coot			15	12
Coot/Moorhen			0	0
Sandhill Crane ‡			0	21
Killdeer	NY	DD	96	96
Rock Dove	FY	FY	87	84
Spotted Sandpiper	A	FY	95	78
Upland Sandpiper	T	FY	60	38
Common Snipe	T	T	79	61
American Woodcock	NE	T	79	72
Ring-billed Gull §			6	33
Herring Gull §	H		49	38

SPECIES	Code		%	
	1st	2nd	1st	2nd
Caspian Tern †			1	3
Black Tern † §	T		30	21
Common Tern §			34	23
Forster's Tern † §			0	1
Mourning Dove	AE	FY	95	95
Yellow-billed Cuckoo			6	18
Black/Yell-billed Cuckoo			0	18
Black-billed Cuckoo	S	S	58	75
Eastern Screech-Owl			12	49
Great Horned Owl	S	H	74	55
Barred Owl		FY	20	49
Long-eared Owl ‡			3	4
Short-eared Owl †			1	4
North Saw-whet Owl			9	12
Common Nighthawk	T		63	40
Whip-poor-will	T		60	38
Chimney Swift	AE		63	32
Ruby-thr Hummingbird	CF	FY	88	95
Belted Kingfisher	CF	CF	95	92
Red-headed Woodpecker †	H		65	29
Yellow-bellied Sapsucker	P	FY	80	95
Downy Woodpecker	FY	AE	95	96
Hairy Woodpecker	P	AE	95	93
Northern Flicker	AE	V	98	95
Pileated Woodpecker	V	P	80	93
Olive-sided Flycatcher			22	20
Eastern Wood-Pewee	T	S	96	96
Alder Flycatcher			47	76
Willow Flycatcher			42	55

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Ontario Breeding Bird Atlas - Summary Sheet for Square 17NK93 (page 2 of 3)

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

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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	CF	FY	96	96
<u>Brown-head Cowbird</u>	NY		98	95
Orchard Oriole ‡			0	1
Baltimore Oriole	AE	S	96	96
Purple Finch		A	66	73
House Finch		FY	3	72
Red Crossbill ‡			7	1
White-winged Crossbill ‡			1	3
Pine Siskin			17	18
American Goldfinch	T	AE	98	96
<u>Evening Grosbeak</u>	P		15	15
House Sparrow	AE	AE	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 17NK93 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=17NK93>

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