

# **Penn Energy – Hamilton\_Port Hope-4 SOLAR ENERGY FACILITY**

**In the  
Township of HAMILTON  
Fit Contract No. F-000687-SPV-130-505  
FIT Application No. FIT-FQWKQZF  
COD: May 5, 2012**

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## **Natural Heritage Assessment Part I: Records Review**

***DRAFT***

**Prepared for:**  
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## 1.0 INTRODUCTION

Penn Energy Trust (Penn) has executed a Feed-in-Tariff (FIT) contract with the Ontario Power Authority (OPA) for the construction of a 10 MW (peak AC) solar energy facility near the Town of Baltimore, northeast of Cobourg, Ontario. The subject lands are located in Lot 3 Concession 2 of the Township of Hamilton. The proposed Renewable Energy Generation Facility (REGF) would consist of a collection of solar photovoltaic (PV) modules (each approximately 1.00 m x 1.67 m in dimension) that are grouped into arrays tilted and facing south. These stationary arrays are strung together forming a series of rows oriented east to west. The Environmental Protection Act (EPA) administered by the Ministry of the Environment (MOE) regulates Renewable Energy Approvals (REA) under Part V.0.1 of the act, pursuant to Ontario Regulation 359/09. As part of this act, a Natural Heritage Assessment (NHA) is required in order to identify potential impacts to the natural area. Bowfin Environmental Consulting Inc. (Bowfin) has been retained by Penn to conduct the NHA.

A NHA study includes three activities: a review of records (background information), a site investigation and an evaluation of the significance of each natural feature identified. The decisions on the significance of the natural feature are based on methods accepted by the Ontario Ministry of Natural Resources (OMNR). This records review includes the identification of the presence of natural features on or up to 120 m (depending on the feature) from the REGF project location. These features would include:

- Areas of natural and scientific interest (ANSI) (earth or life science);
- wetlands (coastal, northern, southern);
- valleylands;
- wildlife habitat;
- woodlands;
- Certain additional Natural features in the Oak Ridges Moraine Conservation Plan Area;
- Certain additional Natural features in the Greenbelt Plan's Protected Countryside;
- Provincial parks; and
- Conservation Reserves.

Should any significant natural features be found within the REGF project location or the appropriate adjacent lands to the feature, then an Environmental Impact Study (EIS) is required to identify and assess the potential environmental effects of the project on the natural feature, Provincial Park or conservation reserve.

The following report provides a summary of the Records Review, the first of three parts of the project's Natural Heritage Assessment.



Figure 1 Location of the Study area and Records Review Area

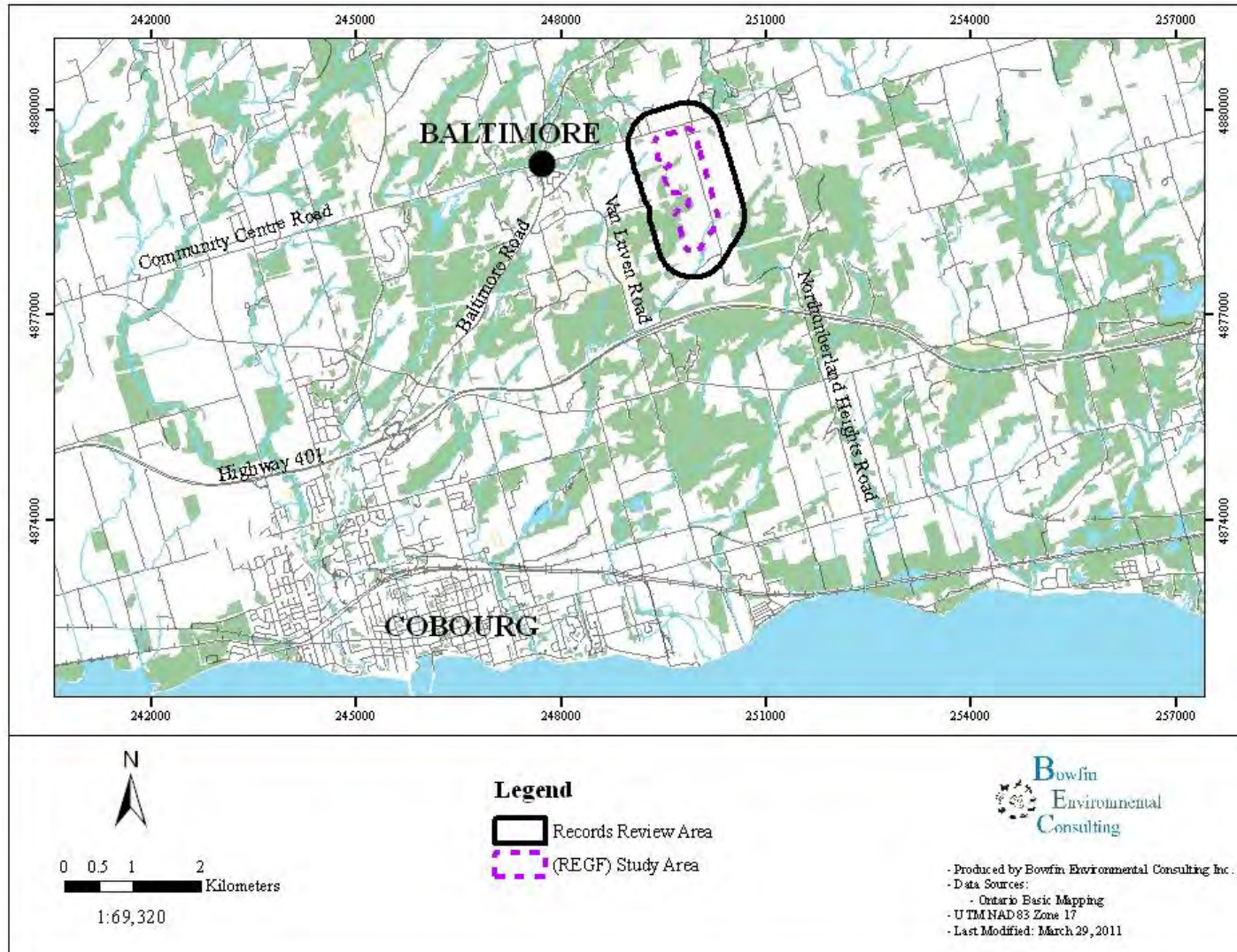
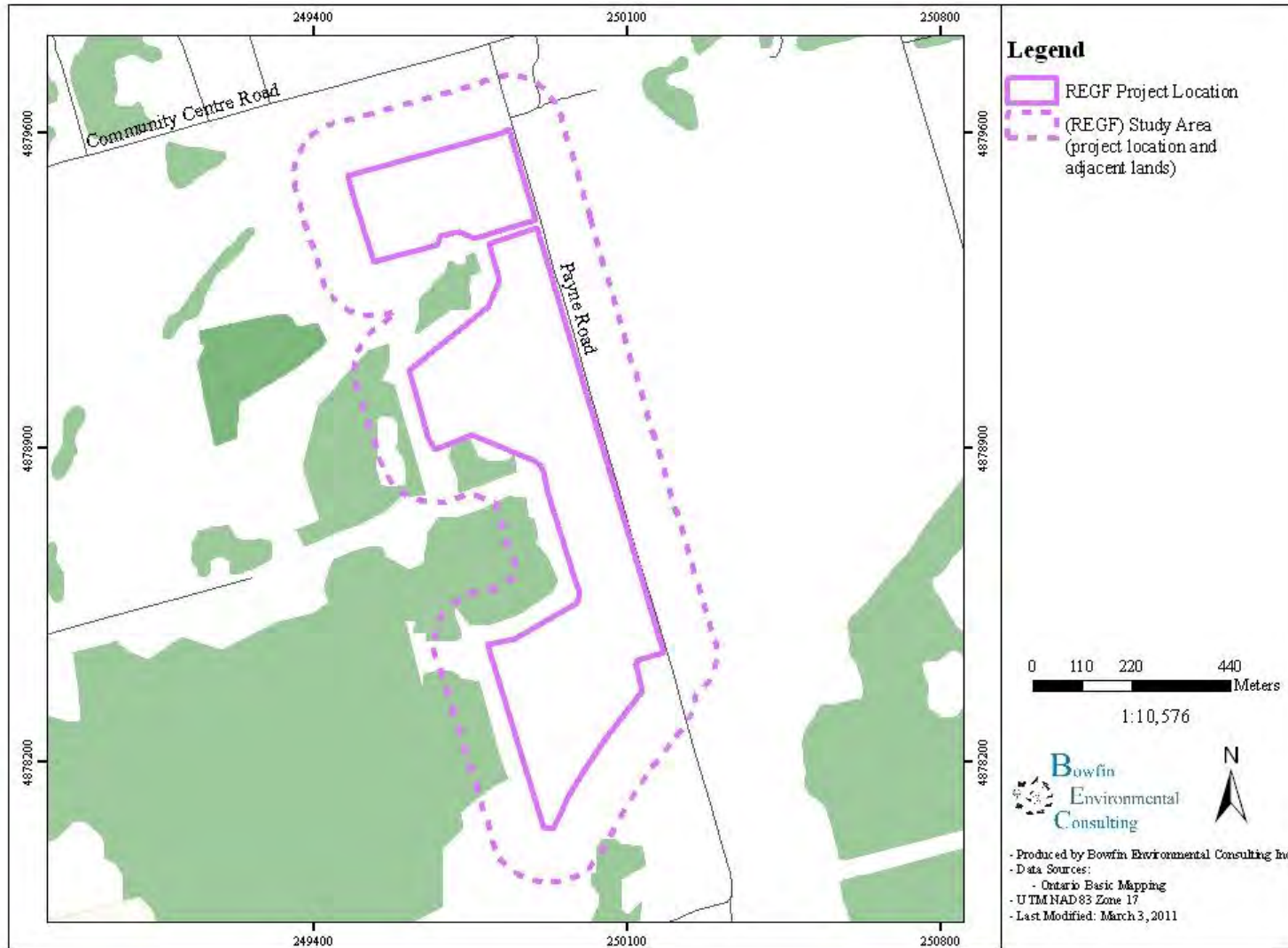


Figure 2 REGF Study Area (including the Project Location and adjacent lands within 120 m)



## 2.0 METHODOLOGY

As recommended in the *Natural Heritage Assessment Guide for Renewable Energy Projects* (NHAG) (December 2010), records were searched for an area that is larger than mandated by REA. This area is referred to as the “records review area” on Figure 1. Under regulation, the “study area” includes the REGF project location as well as all adjacent lands within 120 m (Figures 1 & 2). The REGF project location includes the portion of the subject lands where any construction activities, including support facilities and staging areas, would take place (Figure 2).

### 2.1 Description of All Records Reviewed and Organizations Contacted

The records review was conducted in order to identify potential environmental concerns and included identifying natural heritage features within the study area. The natural heritage features examined were: wetlands, areas of natural and scientific interest (ANSIs), woodlands, valleylands and wildlife habitat. This would include the identification of sand barrens, savannah, tallgrass prairie and alvars.

Numerous records related to provincial parks, conservation reserves and natural features were searched and analyzed, including those maintained by:

- OMNR;
- Federal Government;
- Conservation Authority;
- Municipal Planning Authority;
- Local and upper-tier municipalities;
- Local Roads board;
- Local services board; and
- Niagara Escarpment Commission

These records included: Natural Heritage Information Centre (NHIC), Land Information Ontario (LIO), Ontario Crown Land Use Atlas, Ontario Wind Resource Atlas, Conservation Ontario, Township of Hamilton Official Plan (OP), Niagara Escarpment Plan, *Ontario Breeding Bird Atlas* (OBBA) (2005) and the Ontario herpetofaunal summary atlas.

Organizations which were contacted included: Ganaraska Region Conservation Authority (GRCA), Township of Hamilton, OMNR Peterborough and LIO. This study area is not located within the jurisdiction of any planning boards, municipal planning authority, local roads boards, local services board or the Niagara Escarpment Plan. Data layers which were requested from LIO were:

- ANSI
- breeding zone
- calving fawning site



- conservation area
- den site
- feeding area wildlife
- FRI wetland
- Mast producing area
- mineral lick
- nesting site
- nursery area, wildlife
- resting area
- significant ecological area
- staging area wildlife
- travel corridor, wildlife
- wetland unit
- wintering area

Note: Neither species and/or their habitats that are protected under the Provincial *Endangered Species Act* nor fish and/or fish habitat are included within the REA process, pursuant to O. Reg. 359/09. These subjects will all be dealt with in a parallel but separate process.

### 3.0 FINDINGS

The proposed REGF site is located within the Township of Hamilton, to the east of the Town of Baltimore. It is located outside of the Oak Ridges Moraine, the Greenbelt Protected Countryside and the Niagara Escarpment. This study area is not located within the jurisdiction of any planning boards, municipal planning authority, local roads boards or local services boards. The project location is not in (nor within 120 m of) a provincial park or conservation reserve.

The site is bordered by Community Centre Road to the north, Payne Road to the east and south, and cropland and natural areas to the west. It is divided roughly in half by an easement containing two underground pipelines (Trans-Canada gas and Enbridge oil). The habitat within the study area consisted primarily of crop land. Aquatic features included the headwaters of tributaries to Brook Creek including an isolated pond, but no named watercourses on or adjacent to the study area were identified.

The Ganaraska Region Conservation Authority (GRCA) indicated that there are four valleys containing unstable slopes associated with headwater tributaries of Brook Creek (Appendix A, Figure 3). These areas are also designated as Environmentally Sensitive Areas on the OP.

A summary of the records review results pertaining to the presence of known and candidate natural heritage features in the study area is provided in Table 1 (Figures 3 & 4). Those natural heritage features that occur within the study area require a natural heritage evaluation of significance (under a separate cover).



**Table 1 Summary of Known and Candidate Natural Features Located within the REGF Project Location or the Adjacent Lands (based on the records review)**

Natural Heritage Feature	In or within 120 m of Project Location?	Discussion (based on records review)
<b>Wetlands</b>	No	<ul style="list-style-type: none"> <li>No PSW are identified within the study area on the OP or during the records analyzed.</li> </ul>
<b>ANSIs – Earth Science</b>	No	<ul style="list-style-type: none"> <li>No significant ANSIs are listed as occurring within the study area on the OP or the records analyzed.</li> <li>REGF project location is not located within 50 m of an ANSI</li> </ul>
<b>ANSIs – Life Science</b>	No	<ul style="list-style-type: none"> <li>No significant ANSIs are listed as occurring within the study area on the OP or the records analyzed.</li> <li>REGF project location is not located within 50 m of an ANSI</li> </ul>
<b>Woodlands</b>	Yes (Figure 3)	<ul style="list-style-type: none"> <li>OP and the records analyzed did not list any significant woodlands within the study area.</li> <li>Satellite imaging identified a large woodland within 120 m of the REGF project location.</li> </ul>
<b>Valleylands</b>	Yes (Figure 3)	<ul style="list-style-type: none"> <li>The four headwater tributaries to Brook Creek are located within valleys that are designated as Environmentally Sensitive Areas on the OP.</li> </ul>
<b>Wildlife Habitat</b>	Yes (Figure 4)	<ul style="list-style-type: none"> <li>Located within an OMNR listed deer overwintering area.</li> <li>More information is required in order to assess the potential for wildlife habitat to occur. This will be addressed in the Site Investigations Report.</li> </ul>
<b>Sand Barrens, Savannah, Tallgrass Prairie and/or Alvars</b>	Unknown	<ul style="list-style-type: none"> <li>None were identified as occurring within the records review.</li> <li>This will be addressed in the Site Investigations Report.</li> </ul>
<b>Provincial Park or</b>	No	<ul style="list-style-type: none"> <li>REGF project location is not within a</li> </ul>





Natural Heritage Feature	In or within 120 m of Project Location?	Discussion (based on records review)
Conservation Reserve		provincial park or conservation reserve.

OP = official plan of the Township of Hamilton

The NHIC records identified 36 species of conservation value (those species that are ranked as S1-S3 but are not listed as Endangered or Threatened provincially or federally) as potentially occurring within the subject lands. These included: 3 dragonflies, 3 butterflies, 3 reptiles, 8 birds and 19 plants (Appendix B).

The OBBA identified 133 bird species as nesting within 18VQ43 or 18VQ44. The OBBA categories of observations were: 1 observed, 89 confirmed, 29 probable and 14 were possible (Appendix C).

#### 4.0 SUMMARY

Based on the records review: woodlands, valleylands and wildlife habitat occur in or within 120 m of the REGF project location. There were no records of wetlands or provincial park or conservation reserves in or within 120 m of the REGF project location and no ANSIs (earth science or life science) within 50 m of the REGF project location. The potential for additional natural features, wildlife habitat and sand barrens, savannahs, tallgrass prairie and alvars require site investigations. Multiple site investigations were conducted during the 2010 field season in order to confirm the presence/absence of these features as well as to determine if additional features were present. The findings of the site investigations are provided in a separate report, Part II of this project's Natural Heritage Assessment.

#### 5.0 REFERENCES

Ainley Group (2003) *Official Plan of the Township of Hamilton*. Adopted on October 21, 2003.

OMNR (2010) *Natural Heritage Assessment Guide for Renewable Energy Projects*. December 2010.



Figure 3 Location of Candidate Significant Natural Features (based on Records Review)

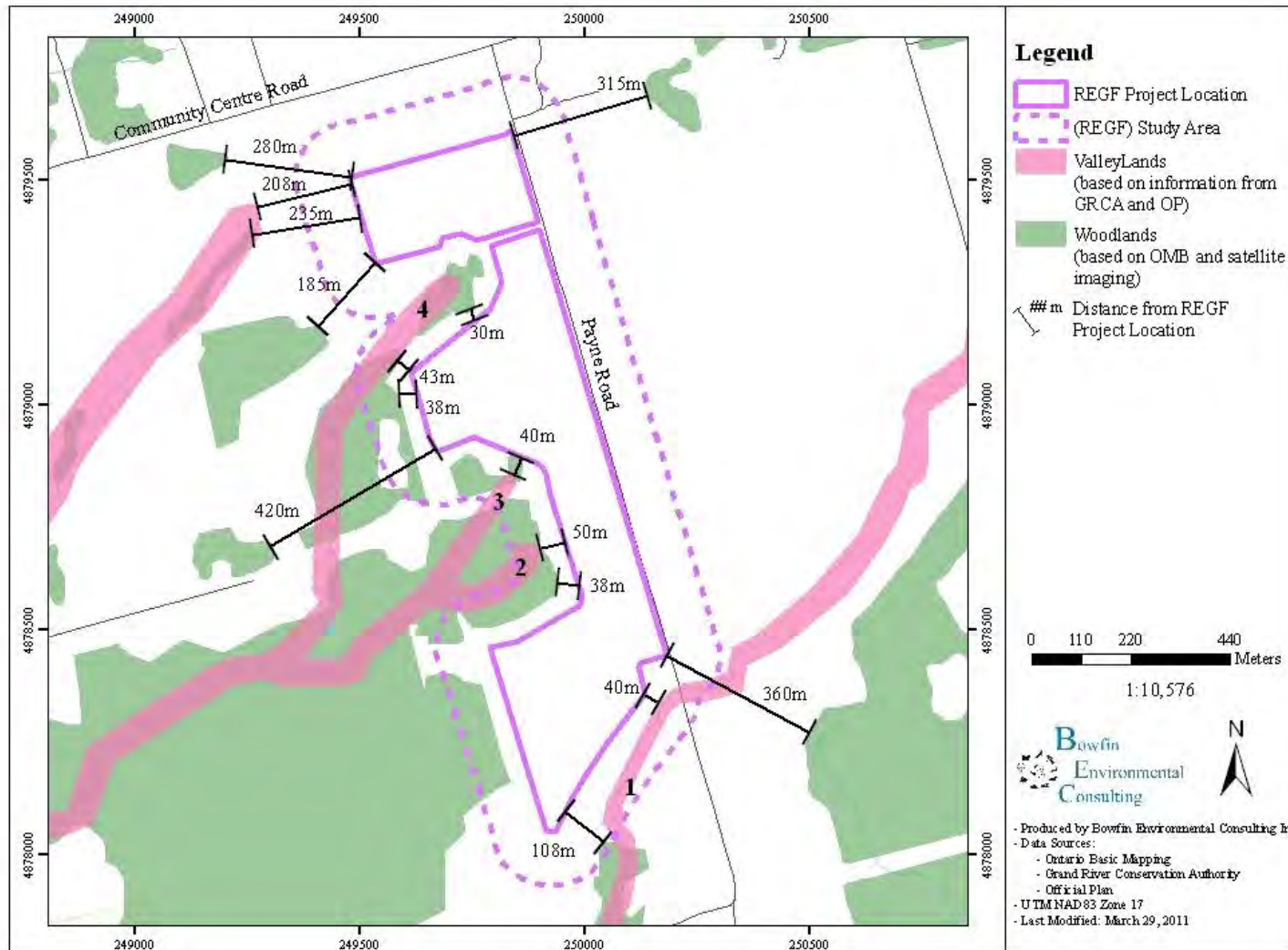
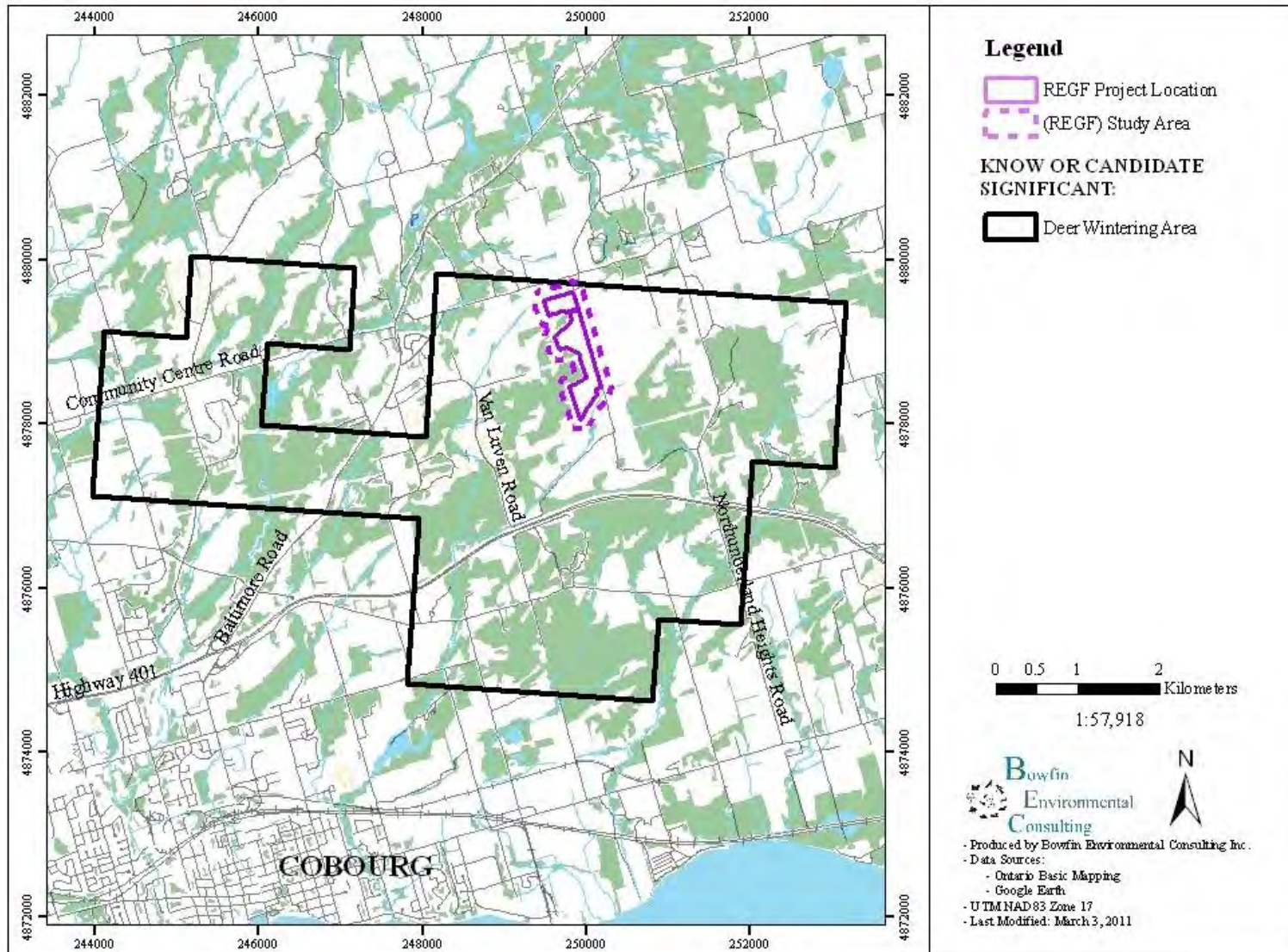


Figure 4 Location of OMNR Listed Deer Wintering Area (obtained from LIO)



## Appendix A – Correspondence from GRCA

**Ganaraska Region  
Conservation Authority**

2216 County Road 28  
P.O. Box 328  
Port Hope, ON L1A 3W4

Phone: 905-885-8173  
Fax: 905-885-9824  
[www.grca.on.ca](http://www.grca.on.ca)

MEMBER OF  
CONSERVATION ONTARIO

March 23, 2010

GRCA File: HAM1 11 2010

Robert Gray  
Penn Energy Trust  
620 Righters Ferry Road  
Bala Cynwyd, PA  
19004

Dear Mr. Gray:

**Re: Information Request  
Part Lot 3, Concession 2 (Community Centre Rd. & Payne Rd.) and  
Part Lots 3,4,& 5, Concession 1 (Payne Road & Cherry Hill Farm Rd.)  
Township of Hamilton**

We have completed our review of your information request regarding the above noted lands and your plan to develop a solar power generating facility. With respect to the subject lands we would like to note the following:

1. The northern parcel adjacent to Payne Road is traversed by three headwater tributaries of Brook Creek. A permit from this Authority is required prior to the alteration of or interference in any way with the channel of an identified watercourse.
2. Portions of the subject property adjacent to the watercourses on site are located within the regulatory jurisdiction of the Ganaraska Region Conservation Authority. A permit is required under this Authority's Development, Interference with Wetlands, Alteration to Shorelines and Watercourses Regulation (Ontario Reg. 168/06) prior to any construction or site alteration within the regulated portions of the property.
3. Portions of the subject property contain areas of steep and potentially unstable slopes, associated with the valley containing the watercourse noted above. Generally development is directed away from erosion hazards, such as steep slopes.

Although no detailed plan has been prepared at this time, we have attached a map indicating the approximate limits of the regulated portions of the lands in question. The regulation limit associated with confined (apparent) valley systems is made up of the sum of a stable slope allowance (3:1), a toe erosion allowance, and an allowance not exceeding 15 metres. Depending on the proximity of works proposed to the limits shown on the attached plan, detailed site investigation and/or survey information may be required.



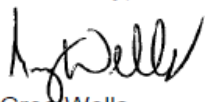
March 23, 2010  
Penn Energy Trust  
Page 2 of 2

Should all development and site alteration be proposed outside of the GRCA's regulation limits, no permits would be required, and no objection would be raised should a rezoning or re-designation of the lands be required.

Following a query of the Ministry of Natural Resources NHIC database for this area, it does not appear any known occurrences of rare species exist on or adjacent to the subject lands.

Once a concept plan for the development of the solar farm is available, we would be pleased to provide further input. I trust this meets your information requirements at this time. Should you have any further questions, please do not hesitate to contact the undersigned.

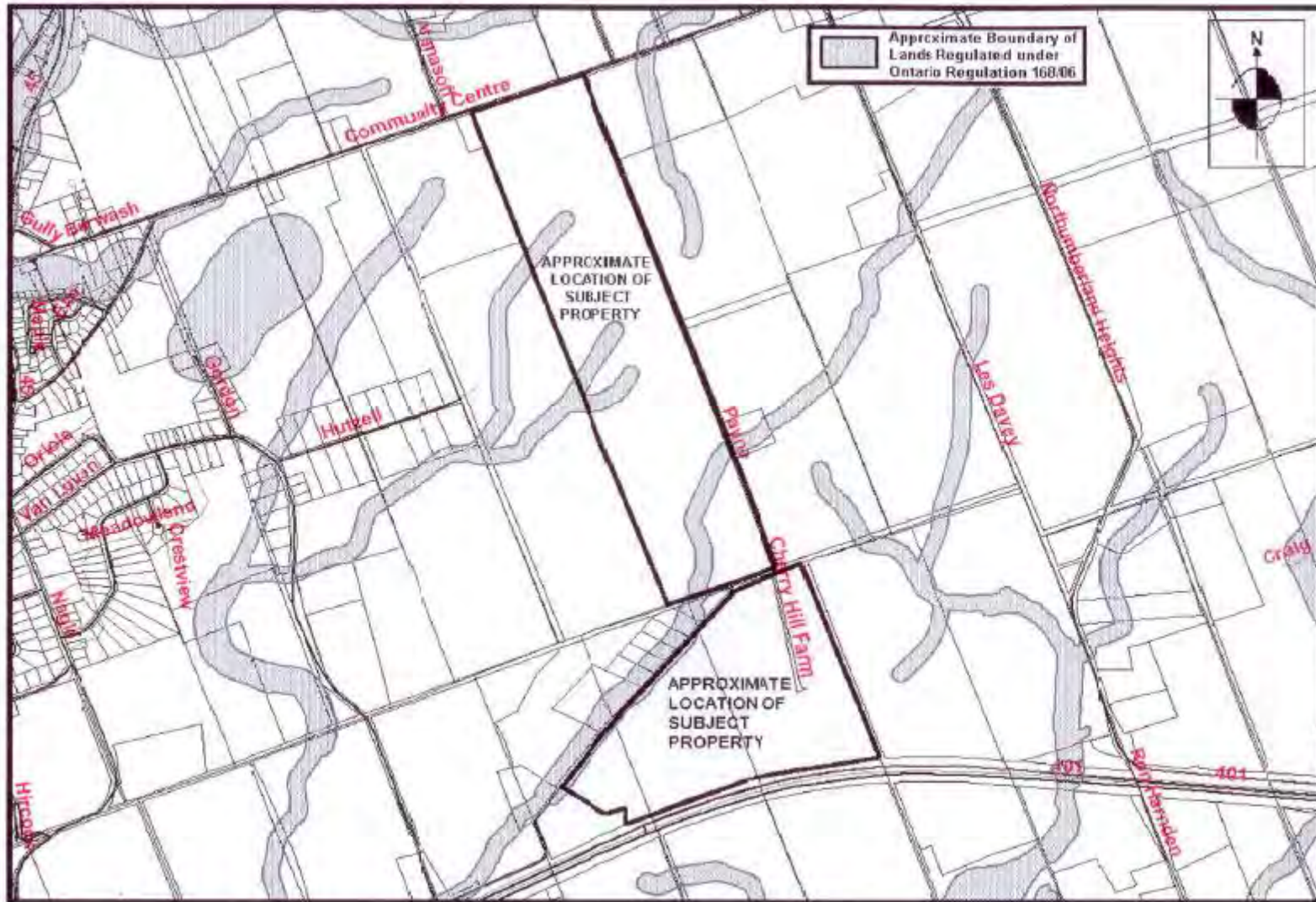
Yours truly,



Greg Wells  
Manager, Planning & Regulations

Encl.(1)





## Appendix B – Potential Species of Conservation Value for the Study Area based on Records Review

Common Name	Scientific Name	SRANK	Status*	Preferred Habitat
<b>Dragonflies</b>				
swamp darner	<i>Epiaeschna heros</i>	S2S3		Slow streams and shady woodland ponds.
mottled darner	<i>Aeshna clepsydra</i>	S3		Found within small lakes or in bays of largerivers that have marsh or bog habitat along the shoreline. Often associated with water lilies and clear soft water.
arrowhead spiketail	<i>Cordulegaster obliqua</i>	S2		Spring-fed, headwaters with substrate consisting of muck.
<b>Butterflies</b>				
monarch	<i>Danaus plexippus</i>	S2N, S4B	SC	Old fields, meadows, roadsides.
sleepy duskywing	<i>Erynnis brizo</i>	S1		Oak woods.
juniper hairstreak	<i>Callophrys gryneus</i>	S2		Near junipers.
<b>Reptiles</b>				
northern map turtle	<i>Graptemys geographica</i>	S3	SC	Large waterbodies.
eastern ribbonsnake	<i>Thamnophis sauritus</i>	S3	SC	Prefers meadows or forest edge, often around permanent waterbodies
milksnake	<i>Lampropeltis triangulum</i>	S3	SC	Found within open forest, forest edges, meadows, and cultivated areas.
<b>Birds</b>				
great egret	<i>Casmerodius albus</i>	S2B		Marshes, ponds, shores and flats.
black-crowned night-heron	<i>Nycticorax nycticorax</i>	S3B,S3N		Marshes, and shores.
bald eagle	<i>Haliaeetus leucocephalus</i>	S2N, S4B	SC	Associated with large lakes and rivers. Frequently observed on dead branches overlooking water.
yellow rail	<i>Coturnicops noveboracensis</i>	S4B	SC	Grassy marshes and wet meadows.
great black-backed gull	<i>Larus marinus</i>	S2B		Coastal waters.



Common Name	Scientific Name	SRANK	Status*	Preferred Habitat
Caspian tern	<i>Sterna caspia</i>	S3B		Open area near lake, rivers, and beaches.
black tern	<i>Chlidonias niger</i>	S3B	SC	Breed in freshwater marshes
white-eyed vireo	<i>Vireo griseus</i>	S2B		Wood edges, brush, bramble and undergrowth.
<b>Plants</b>				
a moss	<i>Astomum muehlenbergianum</i>	S2		Thin soil over outcrops and in open prairie.
a moss	<i>Bryum gemmiparum</i>	S1		Low-elevation and subalpine sites.
lurking leskea	<i>Plagiothecium latebricola</i>	S2		Prefers moist habitats in hardwood swamps and other wetlands with rotting humus.
riverbank quillwort	<i>Isoetes riparia</i>	S3		Pond margins, cobble shorelines of large rivers, tidal mudflats, and shallow gravelly areas of lakes.
bushy aster	<i>Aster dumosus</i>	S2		Sandy soil.
slender blazing-star	<i>Liatris cylindracea</i>	S3		Dry sandy jack pine, oak, aspen woodland, fields, dunes and prairies.
wild lupine	<i>Lupinus perennis</i>	S3		Dry sandy ground, from prairies and clearings to oak, jack pine and aspen woodlands.
grooved yellow flax	<i>Linum sulcatum</i>	S3		Prairies and dry open ground.
giant pinedrops	<i>Pterospora andromedea</i>	S2		Associated with dry woods containing conifers and a well-developed needle duff.
evening primrose	<i>Oenothera pilosella</i>	S2		Dry to moist ground of fields, roadsides, woodlands, clearings and ditches.
bristly buttercup	<i>Ranunculus hispidus</i> var. <i>hispidus</i>	S3		Variety of habitats
rue-anemone	<i>Thalictrum thalictroides</i>	S3		Deciduous woods, banks, and thickets.
rough hawthorn	<i>Crataegus scabrada</i>	S3?		Little information available, classification uncertain.
limestone swamp bedstraw	<i>Galium brevipes</i>	S2S3		Conifer thickets on marshy ground.





Common Name	Scientific Name	SRANK	Status*	Preferred Habitat
large purple agalinis	<i>Agalinis purpurea</i>	S1		Sandy, gravelly, rocky shores and interdunal swales.
Schweinitz's flatsedge	<i>Cyperus schweinitzii</i>	S3		Prefers sandy and loamy soils with moist or wet soils. Shade intolerant.
Eastern few-fruited sedge	<i>Carex oligocarpa</i>	S3		Deciduous woods.
ribbed sedge	<i>Carex virescens</i>	S3		Dry, sandy woods
blunt-scaled bulrush	<i>Scirpus smithii</i>	S3		Sandy or muddy shores, beaches, interdunal swales, mudflats.

(Brownell and Catling 2000, Cosewic 2000, Cosewic 2001, Cosewic 2002, Cosewic 2003, Cosewic 2007, Dunkle 2000, eFlora 2009, Farrar 1995, Hughes 2001, Layberry et al. 1998, MacCulloch 2002, NatureServe 2009, Peterson 1980, Scott and Crossman 1998, Voss 1985)

\* For the purposes of this report the status includes species designated as special concern provincially or are listed as endangered, threatened or special concern federally AND not listed as endangered or threatened provincially.

Updated: January 17, 2011

#### **SRANK DEFINITIONS**

**S1** Critically Imperiled, Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.

**S2** Imperiled, Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.

**S3** Vulnerable, Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

**S4** Apparently Secure, Uncommon but not rare; some cause for long-term concern due to declines or other factors.

**S#S#** Range Rank, A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).

**SAB** Breeding accidental.

**SAN** Non-breeding accidental.

**SZB** Breeding migrants/vagrants.

**SZN** Non-breeding migrants/vagrants.

#### **SARO STATUS DEFINITIONS**

**SC** Special Concern: A species with characteristics that make it sensitive to human activities or natural events.

#### **REFERENCE**

Brownell, V. R. and P.M. Catling. 2000. Update COSEWIC status report on Eastern Prairie Fringed-orchid (*Platanthera leucophaea*). COSEWIC.

COSEWIC 2000. COSEWIC assessment and update status report on the American ginseng *Panax quinquefolius* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 17 pp.



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## Appendix C – OBBA Bird List for General Area (18VQ43 and 18VQ44)

Common Name	Scientific Name	OBBA Category	Status*	SRank
Common Loon	<i>Gavia immer</i>	probable		S5B, S5N
Pied-billed Grebe	<i>Podilymbus podiceps</i>	confirmed		S4B, S4N
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	confirmed		S5B
Great Blue Heron	<i>Ardea herodias</i>	probable		S4
Green Heron	<i>Butorides virescens</i>	confirmed		S4B
Black-crowned night Heron	<i>Nycticorax nycticorax</i>	observed		S3B, S3N
American Bittern	<i>Botaurus lentiginosus</i>	possible		S4B
Canada Goose	<i>Branta canadensis</i>	confirmed		S5
Mallard	<i>Anas platyrhynchos</i>	confirmed		S5
American Black Duck	<i>Anas rubripes</i>	probable		S4
Green-winged Teal	<i>Anas crecca</i>	possible		S4
Blue-winged Teal	<i>Anas discors</i>	confirmed		S4
Wood Duck	<i>Aix sponsa</i>	confirmed		S5
Ring-Necked Duck	<i>Aythya collaris</i>	probable		S5
Ruddy Duck	<i>Oxyura jamaicensis</i>	possible		S4B, S4N
Hooded Merganser	<i>Lophodytes cucullatus</i>	probable		S5B, S5N
Common Merganser	<i>Mergus merganser</i>	probable		S5B, S5N
Turkey Vulture	<i>Cathartes aura</i>	confirmed		S5B
Northern Goshawk	<i>Accipiter gentilis</i>	confirmed		S4
Sharp-shinned Hawk	<i>Accipiter striatus</i>	probable		S5
Cooper's Hawk	<i>Accipiter cooperii</i>	confirmed		S4
Broad-winged Hawk	<i>Buteo platypterus</i>	confirmed		S5B
Red-tailed Hawk	<i>Buteo jamaicensis</i>	confirmed		S5
Northern Harrier	<i>Circus cyaneus</i>	confirmed		S4B
Osprey	<i>Pandion haliaetus</i>	possible		S5B
American Kestrel	<i>Falco sparverius</i>	confirmed		S4
Ruffed Grouse	<i>Bonasa umbellus</i>	confirmed		S4
Ring-necked Pheasant	<i>Phasianus colchicus</i>	possible		SNA
Wild Turkey	<i>Meleagris gallopava</i>	confirmed		S5
Virginia Rail	<i>Rallus limicola</i>	confirmed		S5B
Sora	<i>Porzana carolina</i>	probable		S4B
Killdeer	<i>Charadrius vociferus</i>	confirmed		S5B, S5N
Upland Sandpiper	<i>Bartramia longicauda</i>	possible		S4B
Spotted Sandpiper	<i>Actitis macularia</i>	confirmed		S5
American Woodcock	<i>Scolopax minor</i>	probable		S4B



Common Name	Scientific Name	OBBA Category	Status*	SRank
Common Snipe	<i>Gallinago delicata</i>	possible		S5B
Rock Pigeon	<i>Columba livia</i>	confirmed		SNA
Mourning Dove	<i>Zenaida macroura</i>	confirmed		S5
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	probable		S5B
Eastern Screech-Owl	<i>Megascops asio</i>	probable		S4
Great Horned Owl	<i>Bubo virginianus</i>	probable		S4
Barred Owl	<i>Strix varia</i>	probable		S5
Long-eared Owl	<i>Asio otus</i>	possible		S4
Chimney Swift	<i>Chaetura pelagica</i>	probable	THR	S4B, S4N
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	confirmed		S5B
Belted Kingfisher	<i>Ceryle alcyon</i>	confirmed		S4B
Northern Flicker	<i>Colaptes auratus</i>	confirmed		S4B
Pileated Woodpecker	<i>Dryocopus pileatus</i>	probable		S5
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	probable		S4
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	confirmed	SC	S4B
Hairy Woodpecker	<i>Picoides villosus</i>	confirmed		S5
Downy Woodpecker	<i>Picoides pubescens</i>	confirmed		S5
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	confirmed		S5B
Eastern Kingbird	<i>Tyrannus tyrannus</i>	confirmed		S4B
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	confirmed		S4B
Eastern Phoebe	<i>Sayornis phoebe</i>	confirmed		S5B
Willow Flycatcher	<i>Empidonax traillii</i>	confirmed		S5B
Alder Flycatcher	<i>Empidonax alnorum</i>	confirmed		S5B
Least Flycatcher	<i>Empidonax minimus</i>	probable		S4B
Eastern Wood-Pewee	<i>Contopus virens</i>	confirmed		S4B
Horned Lark	<i>Eremophila alpestris</i>	probable		S5B
Tree Swallow	<i>Tachycineta bicolor</i>	confirmed		S4B
Bank Swallow	<i>Riparia riparia</i>	confirmed		S4B
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	confirmed		S4B
Barn Swallow	<i>Hirundo rustica</i>	confirmed		S4B
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	confirmed		S4B
Purple Martin	<i>Progne subis</i>	possible		S4B
Blue Jay	<i>Cyanocitta cristata</i>	confirmed		S5
Common Raven	<i>Corvus corax</i>	probable		S5
American Crow	<i>Corvus brachyrhynchos</i>	confirmed		S5B
Black-capped Chickadee	<i>Poecile atricapilla</i>	confirmed		S5



Common Name	Scientific Name	OBBA Category	Status*	SRank
<b>White-breasted Nuthatch</b>	<i>Sitta carolinensis</i>	confirmed		S5
<b>Red-breasted Nuthatch</b>	<i>Sitta canadensis</i>	probable		S5
<b>Brown Creeper</b>	<i>Certhia familiaris</i>	confirmed		S5B
<b>House Wren</b>	<i>Troglodytes aedon</i>	confirmed		S5B
<b>Winter Wren</b>	<i>Troglodytes troglodytes</i>	probable		S5B
<b>Carolina Wren</b>	<i>Thryothorus ludovicianus</i>	confirmed		S4
<b>Marsh Wren</b>	<i>Cistothorus palustris</i>	probable		S4B
<b>Northern Mockingbird</b>	<i>Mimus polyglottos</i>	possible		S4
<b>Gray Catbird</b>	<i>Dumetella carolinensis</i>	confirmed		S4B
<b>Brown Thrasher</b>	<i>Toxostoma rufum</i>	confirmed		S4B
<b>American Robin</b>	<i>Turdus migratorius</i>	confirmed		S5B
<b>Wood Thrush</b>	<i>Hylocichla mustelina</i>	confirmed		S4B
<b>Veery</b>	<i>Catharus fuscescens</i>	confirmed		S4B
<b>Eastern Bluebird</b>	<i>Sialia sialis</i>	confirmed		S5B
<b>Blue-gray Gnatcatcher</b>	<i>Poliophtila caerulea</i>	probable		S5B
<b>Cedar Waxwing</b>	<i>Bombycilla cedrorum</i>	confirmed		S5B
<b>European Starling</b>	<i>Sturnus vulgaris</i>	confirmed		SNA
<b>Red-eyed Vireo</b>	<i>Vireo olivaceus</i>	confirmed		S5B
<b>Warbling Vireo</b>	<i>Vireo gilvus</i>	confirmed		S5B
<b>Black-and-white Warbler</b>	<i>Mniotilta varia</i>	confirmed		S5B
<b>Blue-winged Warbler</b>	<i>Vermivora pinus</i>	possible		S4B
<b>Nashville Warbler</b>	<i>Vermivora ruficapilla</i>	confirmed		S5B
<b>Yellow Warbler</b>	<i>Dendroica petechia</i>	confirmed		S5B
<b>Pine Warbler</b>	<i>Dendroica pinus</i>	probable		S5B
<b>Magnolia Warbler</b>	<i>Dendroica magnolia</i>	confirmed		S5B
<b>Black-throated Blue Warbler</b>	<i>Dendroica caerulescens</i>	probable		S5B
<b>Blackburnian Warbler</b>	<i>Dendroica fusca</i>	confirmed		S5B
<b>Yellow-rumped Warbler</b>	<i>Dendroica coronata</i>	possible		S5B
<b>Black-throated Green Warbler</b>	<i>Dendroica virens</i>	confirmed		S5B
<b>Chestnut-sided Warbler</b>	<i>Dendroica pensylvanica</i>	probable		S5B
<b>Ovenbird</b>	<i>Seiurus aurocapillus</i>	probable		S4B
<b>Northern Waterthrush</b>	<i>Seiurus noveboracensis</i>	confirmed		S5B
<b>Mourning Warbler</b>	<i>Oporornis philadelphia</i>	confirmed		S4B
<b>Common Yellowthroat</b>	<i>Geothlypis trichas</i>	confirmed		S5B
<b>Hooded Warbler</b>	<i>Wilsonia citrina</i>	possible	SC	S3B
<b>Canada Warbler</b>	<i>Wilsonia canadensis</i>	confirmed		S4B



Common Name	Scientific Name	OBBA Category	Status*	SRank
American Redstart	<i>Setophaga ruticilla</i>	confirmed		S5B
House Sparrow	<i>Passer domesticus</i>	confirmed		SNA
Bobolink	<i>Dolichonyx oryzivorus</i>	confirmed		S4B
Eastern Meadowlark	<i>Sturnella magna</i>	confirmed		S4B
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	confirmed		S4
Orchard Oriole	<i>Icterus spurius</i>	confirmed		S4B
Baltimore Oriole	<i>Icterus galbula</i>	confirmed		S4B
Common Grackle	<i>Quiscalus quiscula</i>	confirmed		S5B
Scarlet Tanager	<i>Piranga olivacea</i>	probable		S4B
Brown-headed Cowbird	<i>Molothrus ater</i>	confirmed		S4B
Northern Cardinal	<i>Cardinalis cardinalis</i>	confirmed		S5
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	confirmed		S4B
Indigo Bunting	<i>Passerina cyanea</i>	confirmed		S4B
Purple Finch	<i>Carpodacus purpureus</i>	possible		S4B
House Finch	<i>Carpodacus mexicanus</i>	confirmed		SNA
American Goldfinch	<i>Carduelis tristis</i>	confirmed		S5B
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	probable		S4B
Savannah Sparrow	<i>Passerculus sandwichensis</i>	confirmed		S4B
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	confirmed		S4B
Vesper Sparrow	<i>Pooecetes gramineus</i>	confirmed		S4B
Chipping Sparrow	<i>Spizella passerina</i>	confirmed		S5B
Clay-colored Sparrow	<i>Spizella pallida</i>	confirmed		S4B
Field Sparrow	<i>Spizella pusilla</i>	confirmed		S4B
White-throated Sparrow	<i>Zonotrichia albicollis</i>	confirmed		S5B
Swamp Sparrow	<i>Melospiza georgiana</i>	confirmed		S5B
Song Sparrow	<i>Melospiza melodia</i>	confirmed		S5B

\* For the purposes of this report the status includes species designated as special concern provincially or are listed as endangered, threatened or special concern federally AND not listed as endangered or threatened provincially.

#### **SRANK DEFINITIONS**

S3: **Vulnerable**—Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

S4: **Apparently Secure**—Uncommon but not rare; some cause for long-term concern due to declines or other factors.

S5: **Secure**—Common, widespread, and abundant in the nation or state/province.

SNA: **Not Applicable**—A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

S#S#: **Range Rank**—A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).

S?: **Not Ranked Yet**; or if following a ranking, Rank Uncertain (e.g. S3?). S? species have not had a rank assigned.



SZB : **Breeding migrants/vagrants.**

SZN: **Non-breeding migrants.**

**SARA STATUS DEFINITIONS**

**Threatened (THR)** – A species that may become endangered in Ontario if limiting factors are not reversed.

**Special Concern (SC)** - A wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.

