



Northland Power Inc. on behalf of Northland Power Solar Burk's Falls East Toronto, Ontario

DRAFT Natural Heritage Records Review Report

Burk's Falls East Solar Project

H334844-0000-07-124-0156 Rev. D February 24, 2011

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Project Report

February 24, 2011

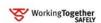
Northland Power Inc. Burk's Falls East Solar Project

DRAFT Natural Heritage Records Review Report

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1. Introduction

1.1 Project Description

Northland Power Solar Burk's Falls East L.P. (hereinafter referred to as "Northland") is proposing to develop a 10-megawatt (MW) solar photovoltaic project titled Burk's Falls East Solar Project (hereinafter referred to as the "Project"). The Project will be located on approximately 40 hectares (ha) of land.

The Study Area for the Burk's Falls East Solar Project is located at 827 Chetwynd Road, southeast of Burk's Falls, within Armour Township, a single-tier municipality (Figure 1.1).

1.2 **REA Legislative Requirements**

Ontario Regulation (O. Reg.) 359/09 – Renewable Energy Approvals Under Part V.O.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. 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 require a REA.

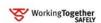
Section 25 of the REA Regulation requires proponents of Class 3 solar projects to undertake a natural heritage records review to identify whether the Project is

- 1. in a provincial park or conservation reserve 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.

In respect of woodlands and valleylands, Section 1 (1) of O. Reg. 359/09 requires that these features be located south and east of the Canadian Shield as shown in Figure 1.1 in the Provincial Policy





Statement issued under section 3 of the *Planning Act*. This figure shows that the proposed Project is located on the Canadian Shield, and therefore valleylands and woodlands as defined by O. Reg. 359/09 cannot be identified on the Project location.

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.

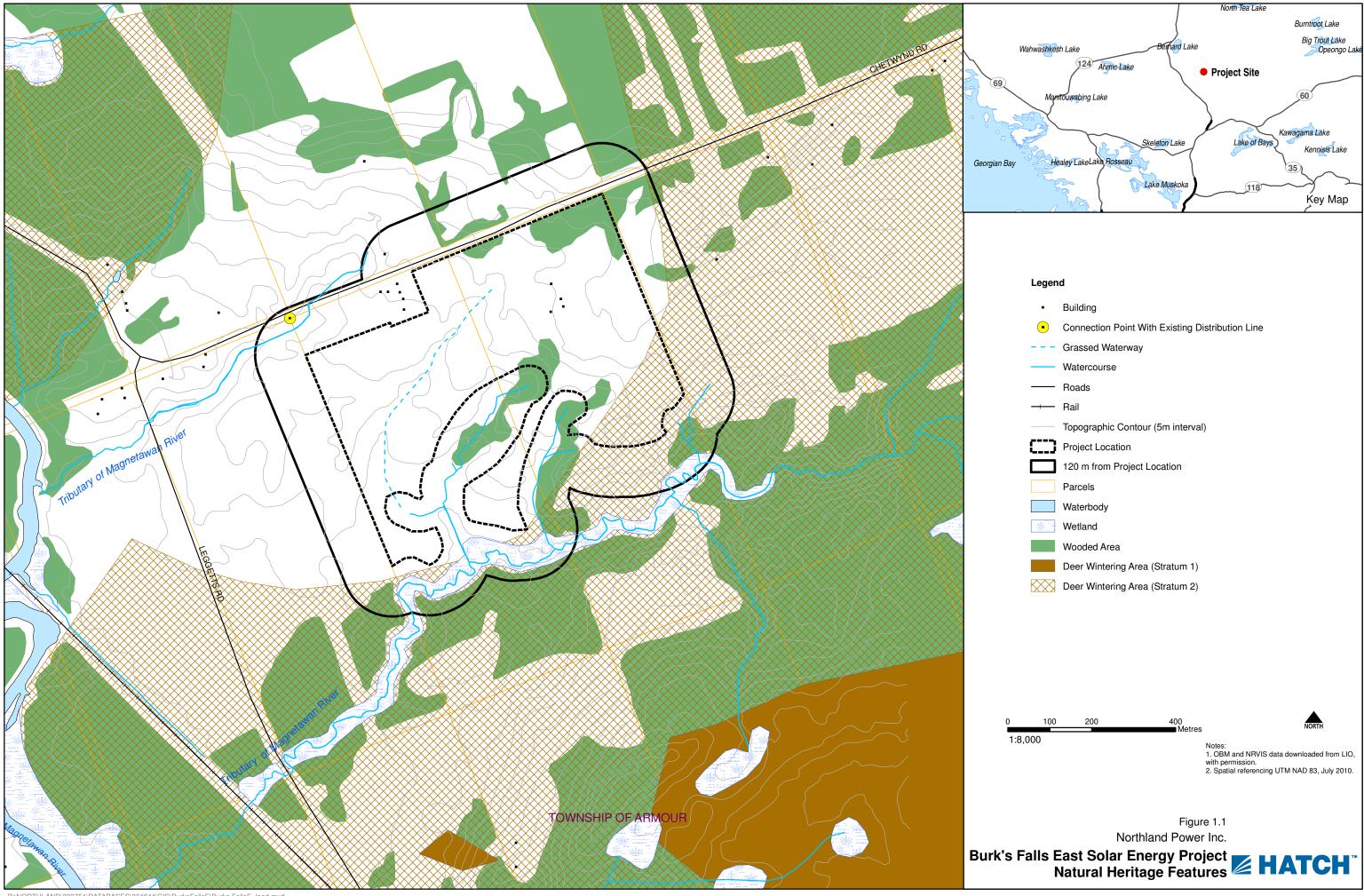
1.3 MNR Approval and Permitting Requirements

Beyond the REA legislative requirements identified in Section 1.2, additional information on site conditions must be identified in order to determine if 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 local Conservation Authority/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.
- Presence of endangered and threatened species and their habitat Protected under the
 Endangered Species Act. If these species or their habitat are documented on or near the Project
 location a permit may be required to permit construction and/or operations of the Project.

Other requirements may be needed under the *Fish and Wildlife Conservation Act, 1997,* the *Public Lands Act,* and the *Lakes and Rivers Improvement Act.* Information relating to these requirements is not identified within this report.







Back of Figure





2. Background Information Review and Results

This Records Review Report is based on a review of published and unpublished information on natural heritage features and species at risk identified on or within 120 m of the Project location. The background documents reviewed were obtained from the municipality, local planning staff, local conservation authority, and provincial and federal government agencies.

Records covering areas within a minimum distance of 1 km from the Project location 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).

The following sections document the records that were searched and analyzed and the results of the analysis, with the focus on identifying whether or not the Project was located within or adjacent to any of the natural features listed in Section 1.2. The sections are organized as identified in Column 1 of the table in Section 25 of the REA Regulation.

There are no conservation authorities, local roads boards or local services boards with jurisdiction over the Project location. Also, the Project location is not located within the Niagara Escarpment Commission Plan Area. Therefore, records review for these governing bodies was not conducted.

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

2.1 Ministry of Natural Resources Records

The following Ministry of Natural Resources (MNR) online records were reviewed:

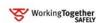
- Ontario Crown Lands Use Atlas Mapping (http://crownlanduseatlas.mnr.gov.on.ca/clupa.html)
- Ontario Base Maps and natural feature layers from Land Information Ontario (LIO) (http://www.geographynetwork.ca/website/obm/viewer.htm)
- NHIC Biodiversity Explorer
 (http://www.biodiversityexplorer.mnr.gov.on.ca/nhicWEB/main.jsp)
- NHIC Ontario Herpetofaunal Summary Atlas (http://nhic.mnr.gov.on.ca/MNR/nhic/herps/ohs.html).

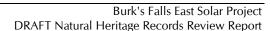
In addition, a meeting between representatives of MNR Parry Sound District, Hatch, and Northland was held on May 28, 2010, at which time information relating to natural heritage features was requested from MNR Parry Sound District.

2.1.1 Results

Ontario Crown Land Use Atlas Mapping

A review of the Crown Land Use Policy Atlas interactive map, accessed on May 17, 2010, indicated the presence of a Winter Deer Range near the Project location. It indicates that the Project area is in private land.







MNR LIO Mapping

Mapping data provided by LIO identified the following natural features within 1 km of the Project location:

- There are watercourses located on and within 1 km of the Project location.
- A wetland borders the tributary of the Magnetewan River, which is within 120 m of the Project location.
- Four woodlands occur on the Project location.
- Four woodlands occur within 120 m of the Project location.
- There are deer wintering areas identified on or within 1km of the Project location.
- There are no ANSIs or valleylands in the vicinity of the Project location.
- No provincial parks or conservation reserves were identified on or within 120 m of the Project location.

Natural Heritage Information Centre (NHIC) Database

The NHIC database was accessed on June 1, 2010 and a geographic search using the Biodiversity Explorer tool was completed for areas within a 1 km radius surrounding the Project location. The Biodiversity Explorer tool provides information on rare species, plant communities, wildlife concentration areas and natural areas occurrences.

The results of the queries determined that there was an occurrence of [Peregrine Falcon (*Falco peregrinus*)] within 1 km of the Project location. There were no records of plant communities or wildlife concentration areas within 1 km of the Project location.

In addition to searching the NHIC database, a request for natural heritage and species at risk information was requested from the Parry Sound District MNR office. As of August 3, 2010 this information has not been received.

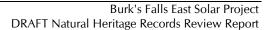
Information Provided by MNR Parry Sound District

During the meeting on May 28, 2010, MNR provided the following input into the records review:

- There is a wetland identified within 120 m of the Project location.
- There are no records of species at risk for this area.
- It is unlikely that either Hog-nosed Snakes (*Heterodon platirhinos*) or Blanding's Turtle (*Emydoidea blandingi*), both Species at Risk, would be of concern on this site.
- There is a strong likelihood that Bobolink (*Dolichonyx oryzivorus*), a Species at Risk, will occur on the Project location.

Following the meeting, a map identifying Stratum 2 Deer Wintering habitat on and within 120 m of the Project location, as identified by MNR through aerial surveys conducted in March 2010, was provided to Hatch (MNR, 2010). Stratum 2 Deer winter habitat is habitat used in the early winter, or occasionally all winter during mild winters when snow cover is light, fluffy, and less than 30 cm.







Ontario Herpetofaunal Summary Atlas

The Ontario Herpetofaunal Summary Atlas identified several species of reptiles and amphibians whose ranges may include the Project location (Table 2.1). Of these, several species of conservation concern/species at risk were identified. These species are as follows, and are discussed further in Section 3:

- Eastern Musk Turtle (Sternotherus odoratus)
- Blanding's Turtle
- Milksnake (Lampropeltis triangulum)
- Eastern Hog-nosed Snake
- Five-lined Skink (Eumeces fasciatus)
- Western Chorus Frog (Pseudacris triseriata)
- Northern Map Turtle (Graptemys geographica).

Table 2.1 Reptiles and Amphibians Potentially Occurring within the Project Area and their Conservation Status¹

Species		Con	servation R	ank ²	At Risk Status			
Common Name	Global GRANK	Canada NRANK ⁴	Ontario SRANK ³	COSEWIC	SARO	SARA		
Salamanders	Scientific Name		l					
Mudpuppy	Necturus maculosus	G5	N4	S4	NAR	NAR	-	
Red-spotted Newt	Notophthalmus viridescens viridescens	G5	N5	S 5	-	-	-	
Blue-spotted Salamander Complex	Ambystoma jeffersonianum- laterale "complex	-	-	-	-	-	-	
Jefferson / Blue- spotted Salamander polyploids	Ambystoma jeffersonianum - laterale polyploids	-	-	-	-	-	-	
Yellow-spotted Salamander	Ambystoma maculatum	G5	N5	S4	-	-	-	
Northern Two- lined Salamander	Eurycea bislineata	G5	N5	S4	-	-	-	
Eastern Red- backed Salamander	Plethodon cinereus	G5	N5	S 5	-	-	-	
Eastern Newt	Notophthalmus viridescens	G5T5	N5	S5	-	-	-	
Frogs and Toads								
American Toad	Bufo americanus	G5	N5	S5	-	-	-	
Spring Peeper	Pseudacris crucifer	G5	N5	S 5	-	-	-	





Species		Con	servation R	ank ²	At Risk Status			
Species		Global Canada Ontario		COSEWIC	COSEWIC SARO SARA			
Common Name	Scientific Name	GRANK	NRANK ⁴	SRANK ³	COSEWIC	SAKO	SAKA	
Western Chorus								
Frog (Great Lakes /	Pseudacris	G5TNR		S 3	THR	NAR	THR	
St. Lawrence	triseriata	GOTINK		33	HIIK	INAK	(Schedule 1)	
population)								
Gray Treefrog	Hyla versicolor	G5	N5	S5	-	-	-	
Wood Frog	Rana sylvatica	G5	N5					
American Bullfrog	Rana castebiana	G5	N5	S4	-	-	-	
Green Frog	Rana clamitans	G5	N5	S5	-	-	-	
Pickerel Frog	Rana palustris	G5	N5	S4	NAR	NAR	-	
Northern Leopard Frog	Rana pipiens	G5	N5	S 5	NAR	NAR	-	
Mink Frog	Rana septentrionalis	G5	N5	S 5	-	-	-	
Wood Frog	Rana sylvatica	G5	N5	S5	-	-	-	
Turtles								
Snapping Turtle	Chelydra serpentina	G5	N5	S 3	SC	SC	-	
Eastern Musk Turtle	Sternotherus odoratus	G5	-	S 3	THR	THR	THR (Schedule 1)	
Midland Painted Turtle	Chrysemys picta marginata	G5T5	N5	S5	-	-	-	
Northern Map Turtle	Graptemys geographica	G5	-	S 3	SC	SC	SC (Schedule 1)	
Blanding's Turtle	Emydoidea blandingi	G4	N4	S 3	THR	THR	THR (Schedule 1)	
Lizards	U		I				,	
Five-Lined Skink	Eumeces fasciatus	G5T4	N4	S 3	SC	SC	SC (Schedule 1)	
Snakes	•		•	•				
Eastern Gartersnake	Thamnophis sirtalis	G5T5	N5	S5	-	-	-	
Eastern Ribbonsnake	Thamnophis sauritus septentrionalis	G5	-	\$3	SC	SC	SC (Schedule 1, Great Lakes Population)	
Northern Watersnake	Nerodia sipedon sipedon	G5T5	N5	S5	NAR	NAR		
Red-bellied Snake	Storeria occipitomaculata	G5T5	N5	S 5	-	-	-	
Dekay's Brownsnake	Storeria dekayi	G5	N5	S 5	NAR	NAR	-	
Smooth Green Snake	Opheodrys vernalis	G5	N5	S4	-	-	-	
Northern Ring- necked Snake	Diadophis punctatus edwardsii	G5	N5	S4	-	-	-	
Eastern Hog-nose Snake	Heterodon platirhinos	G5	N5	S 3	THR	THR	THR (Schedule 1)	





Snor	Conservation Rank ²			At Risk Status			
Species		Global	obal Canada		COSEWIC	SARO	SARA
Common Name	Scientific Name	GRANK	NRANK ⁴	SRANK ³	COSLVIC	SARO	JAKA
Milksnake	Lampropeltis triangulum	G5	N5	S 3	SC	SC	SC (Schedule 1)

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

2.2 Federal Government Records

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) and Environment Canada (www.ec.gc.ca) were also reviewed.

2.2.1 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.

A review of the Canadian Wildlife Service and Environment Canada websites produced no further information about the Project location.

2.3 Southeast Parry Sound District Planning Board

A review of the internet sites related to the Southeast Parry Sound District Planning Board was performed and the office was contacted for any information about the Project location.

2.3.1 Results

No references to natural heritage information related to the Project location were found on websites associated with the Southeast Parry Sound District Planning Board. The Southeast Parry Sound District Planning Board does not maintain records relating to natural features.

2.4 Municipal Records

The Project location is located within the Armour Township, a single-tiered municipality. A review of the official township website (http://www.armourtownship.ca/) was undertaken. Information relating to natural features was requested during a meeting with the clerk of the township on July 9, 2010.

2.4.1 **Results**

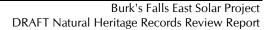
The review of the Armour Township website did not result in any further natural heritage information about the Project location. No records relating to natural features were available from the township.



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

⁴ NRANK = National Status (NatureServe (www.natureserve.org), in conjunction with Conservation Data Centres, such as NHIC); N = National Rank (Canada), 2 = Imperilled, 3 = Vulnerable, 4 = Apparently Secure, 5 = Secure, E = Exotic





2.5 Other Records

In addition to the information sources previously discussed, the following documents were reviewed:

- Ontario Breeding Bird Atlas (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 Resources Petroleum Well Mapping (http://maps.ogsrlibrary.com/).

2.5.1 *Results*

2.5.1.1 Ontario Breeding Bird Atlas

The Ontario Breeding Bird Atlas on-line database was accessed on May 17, 2010 to determine which breeding bird species have been recorded within the vicinity of the Project location. The database is organized by regions and each region is divided into 10-km² blocks which are given a map square number. The Project location is located within map square 17PL34. The square coverage summary sheet was downloaded and the results are provided in Appendix A. Of the species that were recorded, there were seven species of conservation concern/species at risk identified whose ranges include the Project location:

- Common Nighthawk (Chordeiles minor)
- Whip-poor-will (Caprimulgus vociferus)
- Chimney Swift (Chaetura pelagica)
- Olive-sided Flycatcher (Contopus cooperi)
- Golden-winged Warbler (Vermivora chrysoptera)
- Canada Warbler (Wilsonia canadensis)
- Bobolink (Dolichonyx oryzivorus).

2.5.1.2 Atlas of the Mammals of Ontario

The Atlas of the Mammals of Ontario (Dobbyn, 1994) identified several species of mammals whose ranges may include the Project location. The list of these species is provided in Table 2.2. None of these species are considered to be species of conservation concern or species at risk.

Table 2.2 Mammals Potentially Occurring within the Project Area and their Conservation Status¹

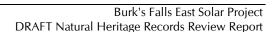
Ç., c	Con	servation Ra	ınk²	At Risk Status						
Species		Global	Canada	Ontario	COSEWIC	SARO	SARA			
Common Name	Scientific Name	GRANK NRANK		SRANK ³			SAKA			
Shrews and Moles	Shrews and Moles									
Common Shrew	Sorex cinereus	G5	N5	S5	-	-	-			
Northern Short- tailed Shrew	Blarina brevicauda	G5	N5	S5	-	-	-			
Smoky Shrew	Sorex fumeus	G5	N5	S5	-	-	-			





Species			servation Ra		At Risk Status			
-		Global Canada Ontario				ARO SARA		
Common Name	Scientific Name	GRANK	NRANK ⁴	SRANK ³		571110	0,110,1	
Hairy-tailed Mole	Parascalops	G5	N4	S4	_	_	_	
	breweri		·					
Star-nosed Mole	Condylura cristata	G5	N5	S5	-	-	-	
Bats								
Northern Long-	Myotis	G4	N4	S3?	-	_	_	
eared Bat	septentrionalis	U4	114		1	_	_	
Little Brown Bat	Myotis lucifuga	G5	N5	S5	-	-	-	
Big Brown Bat	Epstesicus fuscus	G5	N5	S5	-	-	-	
Hoary Bat	Lasiurus cinereus	G5	N5	S4	-	-	-	
Rabbits and Hares								
Eastern Cottontail	Sylvilagus	G5	N5	S5		_		
	floridanus		143			_		
Snowshoe Hare	Lepus americanus	G5	-	S5	-	-	-	
European Hare	Lepus	G5	NE	SE	-	-	-	
Rodents	europeanus							
Least Chipmunk	Tamias minimus	G 5	N5	S5				
Eastern Chipmunk	Tamias minimus Tamias striatus	G5	N5	S5	-	-	-	
Woodchuck	Marmota monax	G5	N5	\$5 \$5		-		
vvoouchuck	Sciurus	Go	IND	33	-	-	-	
Gray Squirrel	carolinensis	G5	N5	S5	-	-	-	
Red Squirrel	Tamiasciurus	G5	N5	S5	_	_	-	
	hudsonicus							
Northern Flying Squirrel	Glaucomys sabrinus	G5	-	S 5	-	-	-	
	Castor			o-				
Beaver	canadensis	G5	N5	S5	-	-	-	
White-footed	Peromyscus	O.=	\=	C=				
Mouse	leucopus	G5	N5	S 5	-	-	-	
Deer Mouse	Peromyscus maniculatus	G5	N5	S 5	-	-	-	
Southern Red-	Clethrionomys							
backed Vole	gapperi	G5	N5	S5	-	-	-	
Dacked voie	Microtus							
Meadow Vole	pennsylvanicus	G5	N5	S5	-	-	-	
	Ondatra							
Muskrat	zibethicus	G5	N5	S5	-	-	-	
Southern Bog	Synaptomys			_				
Lemming	cooperi	G5	N5	S4	-	-	-	
Norway Rat	Rattus norvegicus	G5	NE	SE	-	_	-	
House Mouse	Mus musculus	G5	NE	SE	-	_	-	
Meadow Jumping								
Mouse	Zapus hudsonius	G5	N5	S5	-	-	-	
Woodland	Napaeozapus	CF	k I m	CE				
Jumping Mouse	insignis	G5	N5	S5	-	-	-	
Porcupine	Erethizon	G5	_	S5	-	-	_	
•	dorsatum			33				
Carnivores		<u> </u>		c-				
Coyote	Canis latrans	G5	N5	S5	-	-	-	
Gray Wolf	Canis lupus	G4	N4	S4	-	-	-	
Red Fox	Vulpes vulpes	G5	N5	S5	-	-	-	
Black Bear	Ursus americanus	G5	N5	S5	-	-	-	







Ç.,	Con	servation Ra	ınk²	At Risk Status			
Common Name	Species		Canada NRANK ⁴	Ontario SRANK ³	COSEWIC	SARO	SARA
Raccoon	Procyon lotor	G 5	N5	S5	_	_	_
Marten	Martes americana	G5	N5	S5	-	_	-
Fisher	Martes pennanti	G5	N5	S 5	-	-	-
Ermine	Mustela erminea	G5	N5	S5	-	-	-
Long-tailed Weasel	Mustela frenata	G5	N5	S4	-	-	-
Least Weasel	Mustela nivalis	G5	N5	SU	-	-	-
Mink	Mustela vison	G5	N5	S4	-	-	-
Striped Skunk	Mephitis mephitis	G5	N5	S5	-	-	-
River Otter	Lontra canadensis	G5	N5	S5	-	-	-
Canada Lynx	Lynx canadensis	G5	N5	S5	-	-	-
Ungulates							
White-tailed Deer	Odocoileus virginianus	G5	N5	S5	-	_	-
Moose	Alces alces	G5	N5	S 5	-	-	-

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

2.5.1.3 Important Bird Areas of Canada

A review of the Project area indicates that the Project is not near or within any important bird areas of Canada.

2.5.1.4 Ontario Oil, Gas and Salt Resources – Petroleum Well Mapping
A review of the Oil, Gas & Salt Resources Library resulted in no references to the Project area.

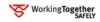
3. Species of Conservation Concern/Species at Risk

As identified above in Section 2, several species of conservation concern/species at risk may potentially occur on the Project location. These species and their likelihood of occurrence on the Project location are addressed below.

3.1.1 **Birds**

The following bird Species at Risk were identified during the records review:

Peregrine Falcon – Listed as being of special concern on SARA and threatened on the ESA. The
Peregrine Falcon can be found throughout Canada in urban and rural areas. It typically nests
about 50 m to 200 m off the ground in cliff ledges or crevices, though they are also known to
nest on building ledges (Government of Canada, 2009a). Discussion with MNR Parry Sound



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.

⁴ NRANK = National Status (NatureServe (www.natureserve.org), in conjunction with Conservation Data Centres, such as NHIC); N = National Rank (Canada), 2 = Imperilled, 3 = Vulnerable, 4 = Apparently Secure, 5 = Secure, E = Exotic.



District, and the absence of suitable nesting sites on the Project location, have determined that these species are not expected to occur.

- Whip-poor-will Listed as threatened under ESA and COSEWIC. Whip-poor-wills nest in a mix of open and forested areas. This type of habitat may be available within the woodlands adjacent to the Project location, but not on the Project location.
- Chimney Swift Listed as threatened under SARA and ESA. This species can be found in cave
 walls, hollow trees as well as man-made structures, such as chimneys. Suitable nesting habitat is
 not found within the Project location, and therefore Chimney Swifts are not expected to occur on
 the Project location.
- Bobolink Listed as threatened under ESA. Bobolink are commonly observed on pasturelands
 and hayfields. Suitable habitat may be available on the agricultural lands of and near the Project
 location.

The following bird Species of Conservation Concern were identified during the records review:

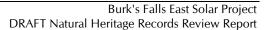
- Common Nighthawk Listed as being of special concern on the ESA and threatened on SARA. Common Nighthawk are commonly observed foraging on the wing for insects over clearings, fields, ponds, and other open areas. Preferred nesting sites are bare ground in open areas or gravel rooftops in urban environments (Poulin et al, 1996). Suitable habitat for Common Nighthawk may be found within the agricultural lands of the Project location, and they have been observed during OBBA surveys within the 10 x 10-km survey square that overlaps the Project location.
- Olive-sided Flycatcher Listed as threatened on SARA and special concern on the ESA. This species is found in natural or man-made open areas containing tall live trees or snags for perching (Government of Canada, 2009b). Habitat of this type is available within the local area, though not found on the Project location itself. No Olive-sided Flycatchers have been observed during OBBA surveys within the 10 x 10-km survey square that overlaps the property (Bird Studies Canada et al., 2006).
- Canada Warbler Canada Warbler are listed as being of special concern under SARA and
 threatened under ESA, and are known to occur in the 10 x 10-km Ontario Breeding Bird Atlas
 survey square which overlaps the Project location. Suitable habitat for Canada Warbler may be
 found within the woodlands within 120 m of the Project location.
- Golden-winged Warbler Golden-winged Warbler are listed as being of special concern under SARA and threatened under ESA, and are known to occur in the 10 x 10-km Ontario Breeding Bird Atlas survey square which overlaps the Project location. Suitable early successional habitat for Golden-winged Warbler may be found on or within 120 m of the Project location.

3.1.2 Reptiles and Amphibians

The following reptile and amphibian Species at Risk were identified during the records review:

• Eastern Hog-nosed Snake – Listed as threatened under SARA and ESA. The Eastern Hog-nosed Snake favours open vegetative cover, such as open woods, brushland, forest edge and disturbed sites with sandy soils (Government of Canada, 2009c). Suitable habitat may be found on the







Project location, however as previously discussed in Section 2.1.1, the MNR considers the probability of occurrence to be low.

• **Blanding's Turtle and Eastern Musk Turtle** – Listed as threatened under SARA and ESA. These species may be found associated with the watercourses on the Project location.

The following reptile and amphibian Species of Conservation Concern were identified during the records review:

- Milksnake Listed as being of special concern under SARA and ESA. This species lives in open woodlands, fields and farm buildings (McKenney et al, 2007). Habitat of this type is available on and within 120 m of the Project location.
- Northern Ribbonsnake Listed as being of special concern under SARA and ESA. The Northern
 Ribbonsnake is commonly found in wet areas, including weedy shorelines. Habitat of this type
 may be available along the shoreline of the watercourse. Ribbonsnake are not expected to occur
 away from the shoreline of the watercourse.
- Northern Map Turtle and Snapping Turtle Northern Map Turtle are listed as being of special concern under SARA and ESA, while Snapping Turtle are listed as being of special concern under ESA alone. These species may be found associated with the watercourses on the Project location.
- Five-lined Skink Listed as being of special concern under SARA and ESA. The Five-lined Skink prefers rocky outcrops where there is access to sunlight within fields or mixed deciduous forest and coniferous forests (Government of Canada, 2009d). Suitable habitat may be found within the woodlands within 120 m of the Project location.
- Western Chorus Frog Listed as threatened under SARA, the western chorus frog is commonly found in humid prairie, moist woods or meadows, with reproduction occurring in vernal pools within woodlands. Such habitat may be found within the woodlands within 120 m of the Project location.

4. Summary of Results

Table 4.1 summarizes the results of the records review according to the features identified in Section 1.3. A map depicting the identified natural features on and in proximity to the site is provided in Figure 1.1.

Table 4.1 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	The nearest such features are located more than 120 m away from the Project location.
Is the Project in a natural feature?	Yes	A deer wintering area, a type of wildlife habitat, is present on the Project location.





Determination to be Made	Yes/No	Description
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	Wetlands and deer wintering area, a type of wildlife habitat, are present on and 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.

5. References

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Appendix A Ontario Breeding Bird Atlas Results



Square Summary (17PL25)

#species (1st atlas)	#species (2nd atlas) #hours #pc done
poss prob conf total	poss prob conf total 1st 2nd road offrd
33 36 36 105	60 26 34 120 23 34 19 6

Region summary (#28: Parry Sound)

#squares	#sq w	ith data	#spe	cies	#no dono	target #pc	
#Squares	1st	2nd	1st	2nd	#pc done	larger #pc	
85	85	85	169	182	1292	531	

Target number of point counts in this square: 19 road side, 6 off road (2 in deciduous forest, 4 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 %		Code %	SPECIES	Code	%
	1st 2nd 1st 2nd	SPECIES	1st 2nd 1st 2nd		1st 2nd	1st 2nd
Canada Goose	NE 1 74	Osprey	35 42	Caspian Tern †		4 1
Trumpeter Swan †	0 1	Bald Eagle †	1 4	Black Tern † §		1 1
Wood Duck	T FY 58 80	Northern Harrier	H H 38 32	Common Tern §		14 16
Gadwall	1 2	Sharp-shinned Hawk	H 27 41	Mourning Dove	P P	30 69
American Wigeon ‡	0 1	Cooper's Hawk	H 9 18	Yellow-billed Cuckoo		2 3
American Black Duck	T FY 58 51	Northern Goshawk	12 23	Black/Yell-billed Cuckoo		0 14
Mallard	FY FY 75 85	Red-should Hawk †	H 27 41	Black-billed Cuckoo	T	31 64
Blue-winged Teal	T H 23 9	Broad-winged Hawk	CF H 85 89	Eastern Screech-Owl ‡		0 0
Northern Shoveler	FY H 1 4	Red-tailed Hawk	H H 50 48	Great Horned Owl		10 23
Northern Pintail	1 1	American Kestrel	CF AE 54 44	Northern Hawk Owl ‡		0 0
Green-winged Teal	0 10	Merlin	T 1 48	Barred Owl	PT	45 58
Ring-necked Duck	11 25	Yellow Rail †	0 0	Long-eared Owl ‡		0 2
Bufflehead †	0 0	Virginia Rail	17 16	Short-eared Owl †		0 1
Common Goldeneye ‡	0 2	<u>Sora</u>	T 5 14	Boreal Owl ‡		0 3
Hooded Merganser	37 49	Common Moorhen	0 0	North Saw-whet Owl	НН	47 28
Common Merganser	FY 63 70	American Coot	0 0	Common Nighthawk	T	45 27
Red-breast Merganser	10 10	Sandhill Crane	1 37	Whip-poor-will		42 25
Ruffed Grouse	FY 72 87	Killdeer	FY H 81 57	Chimney Swift	T H	74 28
Spruce Grouse	5 15	Rock Dove	H H 34 47	Ruby-thr Hummingbird	H FY	91 92
Wild Turkey ‡	0 11	Spotted Sandpiper	FY H 75 68	Belted Kingfisher	NU NU	83 84
Common Loon	A T 91 95	Solitary Sandpiper	0 1	Red-headed Woodpecker †		3 2
Pied-billed Grebe	10 20	Upland Sandpiper	3 8	Red-bell Woodpecker ‡		0 0
Double-crest Cormorant §	10 17	Common Snipe	T T 57 48	Yellow-bellied Sapsucker	FY NY	89 90
American Bittern	H 49 58	American Woodcock	D 50 52	Downy Woodpecker	H CF	78 88
Least Bittern †	0 0	Wilson's Phalarope †	0 0	Hairy Woodpecker	P H	87 92
Great Blue Heron §	H H 96 90	Little Gull †	1 0	Black-backed Woodpecker	H[25 29
Green Heron §	H H 10 11	Ring-billed Gull §	7 17	Northern Flicker	NU FY	95 94
Black-crown NHeron † §	1 2	Herring Gull §	H AE 83 88	Pileated Woodpecker		74 89
Turkey Vulture	H H 55 88	Great Black-backed Gull †	0 1	Olive-sided Flycatcher	S	62 51

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Ontario Breeding Bird Atlas - Summary Sheet for Square 17PL25 (page 2 of 3)

SPECIES	Code %	SPECIES	Code %	SPECIES	Code	%
SPECIES	1st 2nd 1st 2nd	SPECIES	1st 2nd 1st 2nd	SPECIES	1st 2nd	1st 2nd
Eastern Wood-Pewee	S S 87 70	House Wren	S S 23 48	Black-thr Green Warbler	s s	88 95
Yellow-bellied Flycatcher	25 38	Winter Wren	S S 81 91	Blackburnian Warbler	CF S	90 90
Alder Flycatcher	A S 74 87	Sedge Wren	21 14	Pine Warbler	s s	36 80
Willow Flycatcher	S 1 7	Marsh Wren	3 9	Prairie Warbler †		4 7
Least Flycatcher	S S 88 84	Golden-crown Kinglet	P S 57 72	Bay-breasted Warbler		5 12
Eastern Phoebe	A S 83 94	Ruby-crown Kinglet	S T 65 52	Cerulean Warbler †		0 0
Gr Crested Flycatcher	P H 91 94	Eastern Bluebird	AE 30 44	Black-white Warbler	SP	94 98
Eastern Kingbird	CF H 97 83	Veery	A S 94 92	American Redstart	A S	95 98
Yellow-throated Vireo	5 7	Swainson's Thrush	T 64 67	Ovenbird	A DD	91 96
Blue-headed Vireo	S A 44 81	Hermit Thrush	FY S 85 82	North Waterthrush	s s	71 74
Warbling Vireo	D S 62 51	Wood Thrush	S S 82 76	Louis Waterthrush †		0 1
Philadelphia Vireo	H 10 24	American Robin	FY NY 94 92	Mourning Warbler	CF S	83 75
Red-eyed Vireo	A S 96 98	Gray Catbird	CF S 89 77	Common Yellowthroat	CF A	97 98
Gray Jay	T 35 37	Northern Mockingbird ‡	1 4	Wilson's Warbler ‡		1 1
Blue Jay	FY A 90 96	Brown Thrasher	T S 74 65	Canada Warbler	A S	80 78
American Crow	FY FY 91 94	European Starling	NY CF 83 78	Scarlet Tanager	S	75 80
Common Raven	FY CF 85 95	Cedar Waxwing	D P 94 97	Eastern Towhee	Н	25 28
Horned Lark	4 2	Golden-winged Warbler	S 40 20	Chipping Sparrow	A CF	91 92
Purple Martin	P 30 9	Blue/Gold-wing Warbler	0 8	Clay-colored Sparrow ‡		2 5
Tree Swallow	FY FY 97 85	Brewster's Warbler †	1 0	Field Sparrow	Н	20 15
North Rgh-wing Swallow	FY H 35 18	Tennessee Warbler	10 12	Vesper Sparrow	FY	41 23
Bank Swallow §	NU NY 56 23	Nashville Warbler	FY S 89 94	Savannah Sparrow	CF FY	61 61
Cliff Swallow §	V AE 62 29	Northern Parula	S 8 38	Grasshopper Sparrow ‡		1 3
Barn Swallow	FY FY 90 74	Yellow Warbler	S S 96 94	Le Conte's Sparrow ‡		0 1
Black-capped Chickadee	P CF 91 96	Chestn-sided Warbler	FY CF 94 96	Song Sparrow	CF DD	98 98
Boreal Chickadee	T 3 12	Magnolia Warbler	A NE 84 95	Lincoln's Sparrow		11 27
Red-breast Nuthatch	S CF 88 92	Cape May Warbler	P S 25 28	Swamp Sparrow	CF S	91 89
White-breast Nuthatch	S T 61 74	Black-thr Blue Warbler	S S 69 89	White-throat Sparrow	A CF	95 97
Brown Creeper	P 48 68	Yellow-rumped Warbler	FY P 94 98	Dark-eyed Junco	SP	48 50

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Ontario Breeding Bird Atlas - Summary Sheet for Square 17PL25 (page 3 of 3)

SPECIES	Code			%	
SPECIES	1st	2nd	1st	2nd	
Northern Cardinal			2	10	
Rose-breast Grosbeak	Α	S	88	88	
Indigo Bunting	Α	Р	68	74	
Bobolink	CF	S	58	51	
Red-wing Blackbird	NE	Α	98	90	
Eastern Meadowlark	Т	Т	37	43	
Rusty Blackbird			5	7	
Brewer's Blackbird			1	3	
Common Grackle	CF	CF	92	92	
Brown-head Cowbird	D	Н	81	56	
Baltimore Oriole	CF		67	38	
Purple Finch	Р	FY	91	88	
House Finch		S	0	7	
Red Crossbill			10	0	
White-winged Crossbill	Н	D	16	31	
Pine Siskin	Н	Н	52	40	
American Goldfinch	Р	D	88	87	
Evening Grosbeak	Н	Н	62	67	
House Sparrow	NY	Н	31	20	

This list includes all species found during the Ontario Breeding Bird Atlas (1st atlas: 1981-1985, 2nd atlas: 2001-2005) in the region #28 (Parry Sound). 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 17PL25 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 #28). Rare/Colonial Species Report Forms should be completed for species marked: § (Colonial), ‡ (regionally rare), or † (provincially rare). Current as of 7/07/2010. An up-to-date version of this sheet is available from http://www.birdsontario.org/atlas/summaryform.jsp?squareID=17PL25

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