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*Municipal Class Environmental Assessment for  
Road Improvements near Derry Road East and Alstep Drive:  
Environmental Study Report*

**Appendix H: Natural Environment Report**



## Natural Environment Report

### Bombardier Class EA

**Client:**

Bombardier Aerospace  
123 Garratt Boulevard  
Toronto, ON  
M3K 1Y5

**Type of Document:**

Final Report

**Project Name:**

Natural Environment Report  
Bombardier Class EA

**Project Number:**

STR-02018572-00

EXP Services Inc.

1595 Clark Boulevard  
Brampton, ON, L6T 4V1

t: 905.793.9800

f: 905.793.0641

**Date Submitted:**

2020-05-04

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## 1 Introduction

Bombardier Aerospace (Bombardier) plans to develop a manufacturing facility on lands adjacent to the Toronto Pearson International Airport located at 1890 Alstep Drive, Mississauga (hereafter referred to as 'Site') (**Figure 1 – Appendix A**). The Site is owned by the federal government and operated by the Greater Toronto Airports Authority (GTAA).

EXP was retained by Bombardier to complete a Class Environmental Assessment (EA) and Traffic Impact Study (EXP Services 2019a) to assess potential traffic impacts from the proposed development on the adjacent road network and recommend improvements to the local road infrastructure.

This Natural Environment Report was completed as part of the Class EA project to document existing natural conditions and assess the potential impacts from the proposed road improvements on natural features in the study area (**Figure 1 - Appendix A**). The study area includes lands within and immediately adjacent to the road sections (i.e. road allowance) in the study area. A Tree Inventory Plan (TIP) was also completed by EXP for the Class EA project (EXP Services, 2019b). The Natural Environment Report focuses on wildlife, rare species and significant natural heritage features, while the TIP focused and provided additional information on the species, size and health of individual trees within the study area.

## 2 Study Methods

### 2.1 Background Review

A search of available background natural heritage information was conducted to determine if there were any existing designated natural features or rare species occurrences associated with the study area as well as to supplement field data collected from the study area. The key information sources that were reviewed included the following:

- City of Mississauga Official Plan
- Peel Region Official Plan
- Government Species at Risk websites
- NHIC Natural Heritage Mapping Web Application
- Aurora MNRF Natural Heritage Records
- Ontario Reptile and Amphibian Atlas
- Ontario Butterfly Atlas
- Various other Public / Citizen Science Databases (FishNet2, FrogWatch, eBird, eButterfly, etc.)

### 2.2 Agency Consultation

The Ministry of Environment, Conservation and Parks (MECP) was consulted to obtain any natural heritage, rare species or other natural features data associated with the study area. A copy of the comments received from the MECP are included in **Appendix B**.

**Table 1: Site Visit Details**

Date	Start / End Time	Field Surveys	Weather Conditions	Field Personnel
May 31, 2019	9:00-12:30	<ul style="list-style-type: none"> <li>• Birds</li> <li>• Snakes</li> <li>• Incidental Wildlife Observations</li> <li>• General Wildlife Habitat</li> <li>• SAR Habitat</li> </ul>	Temperature: 14°C Wind (Beaufort Scale): 2 Cloud Cover: 0%	M. Bedford, M.E.S.
June 6, 2019	10:30-14:30	<ul style="list-style-type: none"> <li>• SAR Plants/Communities</li> <li>• Incidental Wildlife Observations</li> </ul>	Temperature: 19°C Wind (Beaufort Scale): 1 Cloud Cover: 15%	G. Reyes, Ph.D.

## 2.3 Field Surveys

Field surveys were conducted to identify, map and inventory existing features in the study area including vegetation, wildlife, surface water features and any rare, sensitive or significant species or natural features. The methods used to complete the field surveys for the study are described in the following subsections. A summary of site visit details is provided in **Table 1**.

### 2.3.1 Vegetation

Tree species were inventoried as part of the TIP (EXP Services, 2019b) completed for the project. Herbaceous plants and shrubs were inventoried and checked for rarity and status. Plant species rarity and nomenclature was based on the Natural Heritage Information Centre (NHIC) Plant Community (MNR 2000a) and Vascular Plants Lists (MNR 2019).

### 2.3.2 Wildlife

Breeding bird area searches were completed in the morning of May 31, 2019 under suitable weather conditions following the Ontario Breeding Bird Atlas survey protocol (BSC 2001). Bird breeding calls as well as visual detection and signs of breeding evidence (e.g. egg shells, nest, etc.) were recorded. Traffic noise hindered effectiveness of breeding call point count surveys, therefore bird detection was based mainly on area searches.

Visual encounter surveys for snakes were completed in the morning of May 31, 2019 under suitable weather conditions based on the methods described in MNR (2016).

Incidental observations of herpetofauna as well as mammals and invertebrates were recorded during the field surveys undertaken for the study. All wildlife (including tracks and other sign) were recorded according to the area where the animal was observed. Note, no suitable habitat for amphibians, turtles or fish occurs in the study area and therefore surveys for these species were not conducted.

### 2.3.3 Wildlife Habitat

Wildlife habitat was assessed based on natural features mapping, wildlife habitat requirements and field observations. Identification and general classification of wildlife habitat followed the guidelines in the Significant Wildlife Habitat Technical Guide (MNR 2000b) and supporting documentation.

### 2.3.4 Rare Species and Vegetation Communities

The presence of species at risk (SAR) protected under the Endangered Species Act (ESA) within and adjacent to the study area was assessed based on information obtained from the background data review, agency consultation, and

the field surveys. Habitat requirements of SAR with Ontario population distributions within the region of the study area was compared with habitat identified within and adjacent to the study area to determine whether these SAR may be present.

Provincially and regionally rare species and vegetation communities were also assessed. This included species or communities with conservation status ranks of S1, S2 or S3 assigned by the NHIC or other rarity rankings assigned by local planning and conservation agencies.

### 2.3.5 Surface Water Features

Surface water features and drainage within the study area were assessed based on field observations and interpretation of surface contour mapping obtained from online data sources.

## 2.4 Impact Assessment

Potential ecological impacts were evaluated by comparing natural features and functions with the proposed development. Measures to avoid or minimize adverse impacts as well as recommendations on ecological enhancement were then considered. Guidelines provided in MNR (2005) and MNRF (2014a) were used to assist with assessing potential impacts and mitigation options.

# 3 Existing Conditions

## 3.1 Site Description

The study area is approximately 14 ha and is located northwest of Pearson International Airport in Mississauga, Ontario. The Site includes the roadway sections and adjacent lands at the intersection of Derry Road East and Bramalea Road, as well as Telford Way, Menkes Drive, Alstep Drive, and Menway Court. (**Figure 1 - Appendix A**). The majority of the study area consists of paved roads, sidewalks, parking lots, and manicured lawns. Tree and shrub species have been planted within landscaped boulevards and on adjacent lands. The Site and adjacent properties are designated 'Employment Area' and 'Special Purpose Area' in the City of Mississauga Official Plan (OP).

Approximately 35m northeast and 400m southwest of the study area are two branches of the Etobicoke Creek. Both creek valleylands contain cultural meadow habitat with occasional trees and shrubs. The valleylands are part of the 'Green System' in the City of Mississauga OP and 'Natural Heritage System' in the Peel Region OP

## 3.2 Regulated Area

A small portion of the study area falls within TRCA Regulated Area and is subject to the policies of Ontario Regulation 166/06 (Development, Interference with Wetlands and Alterations to Shorelines and Watercourses). Any construction activities for road improvements within the Regulated Area may require a permit from the TRCA under Ontario Regulation 166/06. The Regulated Area associated with the study area is shown in **Figure 2 - Appendix A**.

## 3.3 Biophysical Features

### 3.3.1 Vegetation

The study area contains mainly manicured lawn with scattered native and cultivar urban trees along the landscaped boulevards and edges of the adjacent commercial and industrial lands. Dominant tree species include immature to semi-mature Honeylocust, Norway Maple, Basswood, Austrian Pine, White Spruce and Blue Spruce. Details on tree species and location in the study area is provided in the TIP (EXP Services 2019b). A swath of cultural meadow occurs

within the study area between the east end of Alstep Drive and Bramalea Road. The meadow is dominated by a dense cover of herbaceous species including Goldenrod, Cowvetch, Timothy, and Wild Rye.

### 3.3.2 Wildlife

Evidence of bird breeding activity was observed in the study area. Breeding evidence documented for bird species was as follows: 9 Possible. Other bird species were observed during the field surveys however suitable nesting habitat for these species was boulevard not present in the study area. European Starling and American Robin were the most abundant bird species observed and were seen perched on tree branches or foraging on manicured lawns. Other species observed on or flying over the study area included American Crow, American Goldfinch, Blue Jay, Canada Geese, Common Yellowthroat, House Finch, House Sparrow, Killdeer, Red-winged Blackbird, and Yellow Warbler.

The vast majority of deciduous trees adjacent to the roadway were young and fell below the size requirements (<25cm DBH) for potential bat maternity roost trees. One Sugar Maple, however was observed that met the diameter requirements and had potential bat roosting features, including peeling bark and cavities. This tree was located along Alstep Drive. Given the highly urbanized location and sparsity of the surrounding vegetation, however, it was deemed unlikely that this tree would be utilized by a bat maternity colony.

No mammals, herpetofauna, or invertebrates were observed at the time of the field surveys. A list of wildlife observed in the study area is provided in **Appendix B**. Definitions for the terms used in the wildlife list is provided at the end of the species lists in the appendix.

### 3.3.3 Wildlife Habitat

No SWH was observed in the study area during field investigations. The study area is heavily urbanized and did not meet the candidate or confirmed SWH requirements outlined in the Significant Wildlife Habitat Technical Guide (MNR 2000b). Potential SWH within the naturalized areas east and west of the study area was not assessed as it will not be impacted by the proposed development.

### 3.3.4 Surface Water Features

No surface water features (watercourses, ponds, roadside ditches, etc.) occur within the study area. Two branches of Etobicoke Creek, however, are present east and west of the study area. The main branch of the Etobicoke Creek is approximately 400 m southwest of the study area. A tributary of the main branch is approximately 35 m northeast of the study area. Both watercourses are permanent, fast-moving with wetted widths between approximately 5 and 11 m. Neither watercourse is anticipated to be impacted by the proposed road improvements.

## 3.4 Rare Species and Vegetation Communities

### 3.4.1 Species At Risk

A SAR analysis was conducted to determine if habitat for species protected under the Endangered Species Act (ESA) was present in the study area. Thirty (30) species designated as Endangered, Threatened, or Special Concern under the ESA have population distributions in proximity to the study area. ELC community types and habitat requirements for each SAR species was considered based on information obtained from digital aerial imagery, background sources, and field investigations. Of the thirty (30) species considered, it was determined that four (4) SAR could potentially utilize the study area at some point in their life cycle. The species with potential habitat in the study area are listed below in **Table 2**. No plant SAR were identified in the study area.

**Table 2: SAR with Potential Suitable Habitat in the Study Area**

Species Group	Common Name	Scientific Name	ESA <sup>1</sup>	SARA <sup>2</sup>	NHIC <sup>3</sup>
<b>Birds</b>	Chimney Swift	<i>Chaetura pelagica</i>	THR	THR	S4B, S4N
	Common Nighthawk	<i>Chordeiles minor</i>	SC	THR	S4B
<b>Insects</b>	Monarch Butterfly	<i>Danaus plexippus</i>	SC	SC	S4B
	Yellow-banded Bumble Bee	<i>Bombus terricola</i>	SC	SC	S3S5

<sup>1</sup> Ontario Endangered Species Act (ESA): END = Endangered; THR= Threatened; SC = Special Concern; “-” = No Status  
<sup>2</sup> Federal Species At Risk Act (SARA): END = Endangered; THR= Threatened; SC = Special Concern; “-” = No Status  
<sup>3</sup> Ontario Natural Heritage Information Centre (NHIC): S1 = Extremely rare; S2 = Very rare; S3 = Rare to uncommon; S4 = Common; S5 = Very common; SE = Exotic; S#S# = range of uncertainty between ranks; SH = Possibly extirpated; SX= Extirpated; SNR = Not yet ranked; SNA = Not suitable for conservation; SU = Insufficient data; S? = Status Uncertain

Common Nighthawk and Chimney Swift are both aerial insectivores that are known to nest in urban and suburban areas. Common Nighthawk breed in a wide range of open habitats, including open forests, grasslands, gravel roofs, and some landscaped areas such as parks, airports, and cultivated fields (Environment Canada, 2016). Similarly, Chimney Swifts are common in urban environments where they nest in chimneys and other anthropogenic structures (MNRF, 2019). The presence of landscaped areas, gravel roofs, and other anthropogenic structures in proximity to the study area represent potential suitable nesting habitat for Common Nighthawk.

Suitable nesting habitat does not appear to be present in the study area for Chimney Swift. Based on digital aerial imagery, the commercial and industrial buildings in the study area are relatively modern and do not contain old open chimney structures that would be suitable for Chimney Swift nesting.

The open field adjacent to Bramalea Road contains common wildflower and grass species which may support foraging and / or breeding habitat for Monarch and Yellow-banded Bumble Bee.

Despite the presence of potentially suitable habitat for the SAR mentioned above, no SAR were observed, and no evidence of habitat use (i.e. eggs, nests, burrows, dens, etc.) for SAR was documented in the study area during field surveys.

### 3.4.2 Provincially Rare Species and Vegetation Communities

Provincial ranks (S1 - S5) are used by the NHIC to set protection / conservation priorities for rare species and vegetation communities in Ontario, however the ranks are not legal designations. No provincially rare species or vegetation communities were identified in the study area.

## 3.5 Natural Heritage Features

The Provincial Policy Statement (PPS) (2014) was issued under the authority of Section 3 of the Planning Act (2013) and provides policy direction on matters of provincial interest related to land use planning and development and sets the policy foundation for regulating the development and use of land in Ontario. The PPS contains policies to protect natural heritage features and areas. Development and site alteration is not permitted in the following natural heritage features unless it can be demonstrated that there will be no negative impacts on the natural features or their ecological functions:

- Significant Wetlands;
- Significant Woodlands;
- Significant Valleylands;
- Significant Wildlife Habitat; and,
- Significant Areas of Natural and Scientific Interest

### 3.5.1 Significant Wetlands

No significant wetlands are found within the study area.

### 3.5.2 Significant Woodlands

No significant woodlands are found within the study area.

### 3.5.3 Significant Valleylands

No significant valleylands are found within the study area.

### 3.5.4 Significant Wildlife Habitat

There are four main categories of significant wildlife habitat (SWH), as described in the Significant Wildlife Habitat Technical Guide (MNR 2000):

- Seasonal Concentration Areas;
- Rare and Specialized Habitat;
- Habitat for Species of Conservation Concern (excluding Endangered or Threatened Species); and,
- Animal Movement Corridors

No candidate or confirmed SWH was observed within the study area during field investigations.

### 3.5.5 Significant Areas of Natural and Scientific Interest

No significant Areas of Natural and Scientific Interest were found within the study area.

## 4 Project Description

The proposed development will involve road improvements along multiple roadways within the study area. The road improvements will include enhancements of existing turning lanes, drive widenings, drive extensions, and the installation of a new signalized traffic signal (EXP Services, 2019a). The location of the proposed improvements is shown in **Figure 3 – Attachment A**.

In summary, the road improvements will include:

- Adding turning lanes at the intersection of Derry Road East and Menkes Drive;
- Adding turning lanes at the intersection of Derry Road East and Bramalea Road;
- Widening Menkes Drive to three lanes between Alstep Drive and Derry Road East;

- Widening Bramalea Road to five lanes between the Fed-Ex Truck Entrance and Derry Road East;
- Extending Alstep Drive easterly to connect to Bramalea Road; and,
- Installation of new traffic signal at intersection of Bramalea Road and Alstep Drive extension.

## 5 Potential Impacts and Mitigation

This section discusses potential ecological impacts that may occur from the proposed road improvements. Measures to reduce and / or mitigate potential impacts are provided as required.

Potential environmental impacts from the development will be insignificant due to the minor scale and location of the proposed road improvements as well as absence of natural heritage features and rare species in the study area.

Some urban wildlife (e.g. song birds, small mammals, etc.) may be indirectly affected by construction activities required for the road improvements. Timing windows for construction activities (vegetation clearing, topsoil stripping, etc) can be implemented to minimize noise disturbance and potential harm to breeding birds and other urban wildlife during sensitive periods. To protect any nesting birds in the study area, no vegetation clearing should occur between May 1st and July 30th, which is the core nesting period for open habitat birds in southern Ontario. If site clearing occurs during the core bird nesting period, construction work areas should be inspected by a qualified biologist or environmental consultant prior to each day that site clearing is scheduled to ensure that no nesting birds (or other wildlife) are harmed from construction activity. This will ensure that the project is in adherence with the Migratory Birds Convention Act (MBCA) and the Fish and Wildlife Conservation Act (FWCA).

## 6 Conclusions and Recommendations

There are limited natural features located in the study area and nothing that would present a major constraint to development. No environmental permits / approvals (i.e. MNRF, MECP, DFO, TRCA) are expected to be required for the proposed development. Based on the field surveys and impact assessment, the proposed road improvements will not result in negative impacts to any significant natural features and functions in the study area. The following general recommendations should be considered for the planned road improvements:

1. If feasible, vegetation clearing should not occur during sensitive bird breeding periods. Vegetation clearing (if required) should not occur between May 1<sup>st</sup> and July 30<sup>th</sup>, which covers the core nesting period for open habitat birds in southern Ontario. If vegetation clearing occurs during the core bird nesting period and trees or shrubs are present, construction work areas should be inspected by a qualified biologist or environmental consultant prior to each day that site clearing is scheduled to ensure that no nesting birds (or other wildlife) are harmed from construction activity.
2. Implement standard best management practices (e.g. OPS 182, 518, 807) to mitigate potential noise, dust, erosion and pollution impacts for construction sites. This should include a Spills Prevention and Management Plan to prevent contamination to the environment. The plan would lay out requirements for preventing and responding to spills and leaks (i.e. designated refuelling areas, primary and secondary fuel containment, spill clean-up kits, machinery maintenance program, spill absorption booms, etc.). This is to be done by the site contractor. Air pollution can be reduced by ensuring construction vehicles, machinery and equipment are well maintained and in good operating condition. Idling time is to be minimized in an effort to decrease the amount of emissions entering the atmosphere. Construction vehicles and machinery should be checked for leaks each day prior to entering the construction site.

3. Salt reduction best management practices should be implemented into road improvement designs where feasible in order to minimize use and impacts from road de-icing salts (e.g. sodium chloride) on groundwater and receiving waterbodies.

## 7 General Limitations

Information in this report is considered to be privileged and confidential and has been prepared for **Bombardier Aerospace**. The information is based on baseline data designed to provide ecological information to support the client in proceeding forward with their proposed development. The conclusions and recommendations presented within this report reflect Site conditions existing at the time of the study. Should changes occur that potentially impact the condition of the Site, the conclusions presented by EXP may need to be re-evaluated.

## 8 Closure

We trust this report is satisfactory for your purposes. Should you have any questions, please do not hesitate to contact this office.

Yours truly,

EXP Services Inc.



Michael Bedford, M.E.S.  
Biologist  
Environmental Services



Les Misch, B.E.S., Env. Tech.  
Team Lead – Senior Ecologist  
Environmental Services

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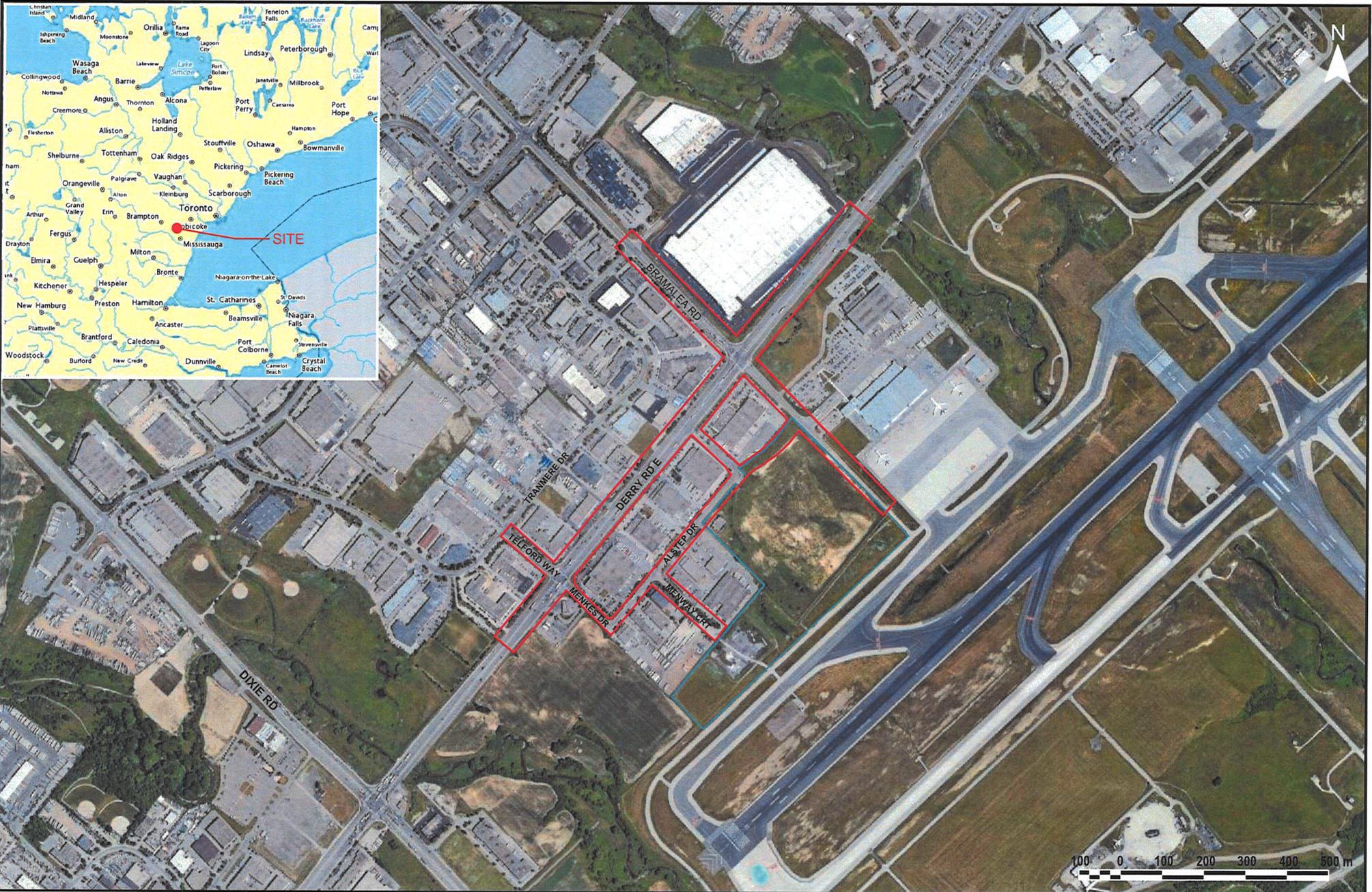
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May 2020*

## Appendix A - Figures



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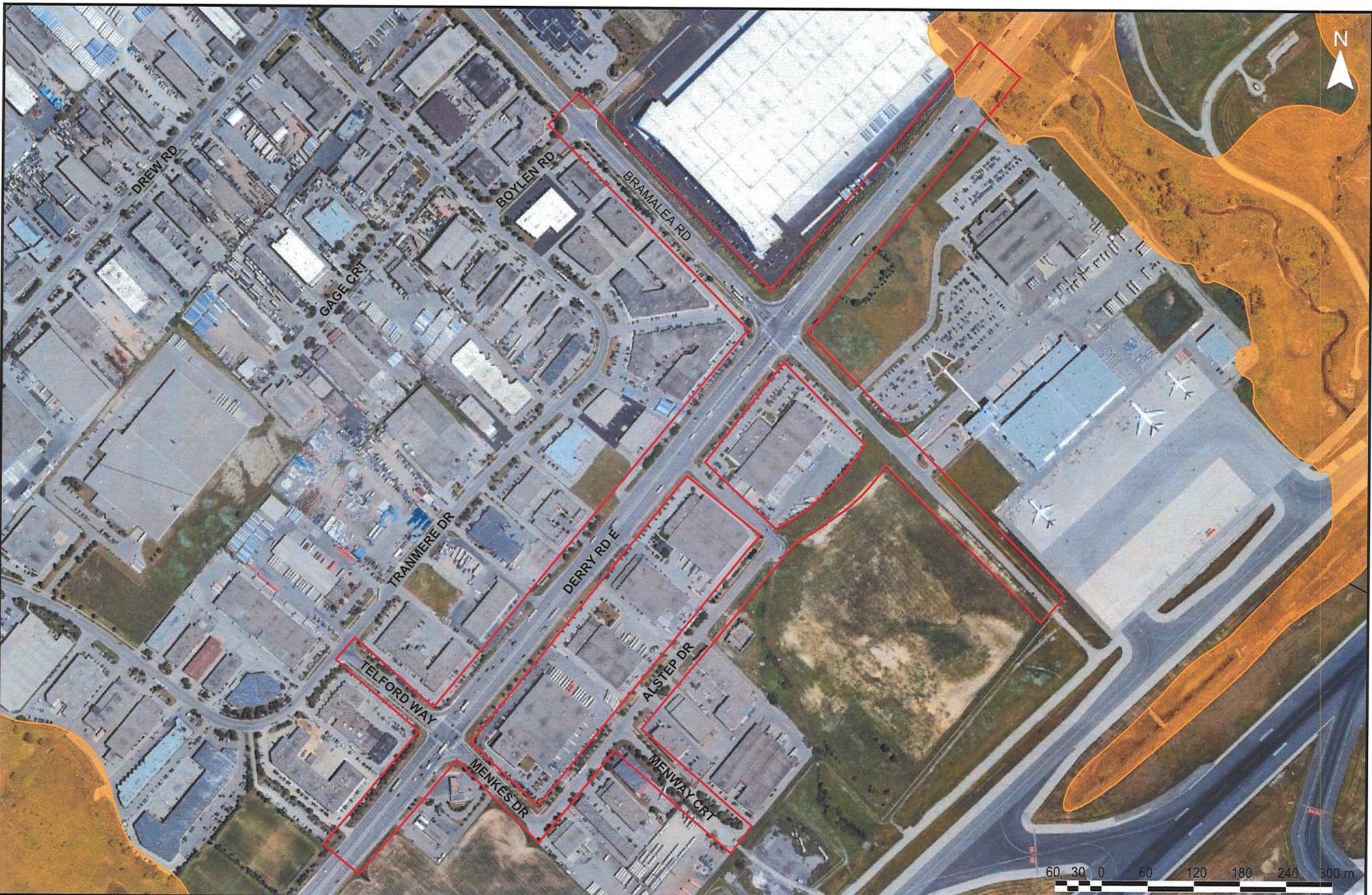
**EXP Services Inc.**  
 t: +1.905.793.9800 | f: +1.905.793.0641  
 1595 Clark Boulevard  
 Brampton, ON L6T 4V1  
 Canada  
  
[www.exp.com](http://www.exp.com)

**LEGEND:**  
 STUDY AREA  
 SITE BOUNDARY

• BUILDINGS • EARTH & ENVIRONMENT • ENERGY •  
 • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

**TITLE AND LOCATION:**  
**SITE LOCATION AND STUDY AREA**  
 NATURAL ENVIRONMENT ASSESSMENT  
 BOMBARDIER CLASS EA  
 MISSISSAUGA, ON

PROJECT NO.:	DWN.:
STR-02018572-00	K.G.
SCALE:	CK:
AS NOTED	LM
DATE:	FIG. NO.:
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EXP Services Inc.  
 t: +1.905.793.9800 | f: +1.905.793.0641  
 1595 Clark Boulevard  
 Brampton, ON L6T 4V1  
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LEGEND:  
 STUDY AREA  
 TRCA REGULATED AREA

• BUILDINGS • EARTH & ENVIRONMENT • ENERGY •  
 • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

TITLE AND LOCATION:  
**DESIGNATED FEATURES AND AREAS**  
 NATURAL ENVIRONMENT ASSESSMENT  
 BOMBARDIER CLASS EA  
 MISSISSAUGA, ON

PROJECT NO.:	DWN.:
STR-02018572-00	K.G.
SCALE:	CK:
AS NOTED	LM
DATE:	FIG. NO.:
JANUARY 2020	2



- Proposed Improvements**
1. Derry Road East @ Menkes Drive/Telford Way:  
Add Turning Lanes
  2. Derry Road East @ Bramalea Road:  
Add Turning Lanes
  3. Menkes Drive: Roadway Widening
  4. Bramalea Road: Roadway Widening
  5. Alstep Drive: Roadway Extension
  6. Bramalea Road @ Alstep Drive extension:  
Add New Traffic Signals

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**EXP Services Inc.**  
 t: +1.905.793.9800 | f: +1.905.793.0641  
 1595 Clark Boulevard  
 Brampton, ON L6T 4V1  
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LEGEND:

TITLE AND LOCATION:

**PROPOSED ROAD IMPROVEMENTS  
 NATURAL ENVIRONMENT ASSESSMENT  
 BOMBARDIER CLASS EA  
 MISSISSAUGA, ON**

PROJECT NO.:	DWN.:
STR-02018572-00	K.G.
SCALE:	CK:
AS NOTED	LM
DATE:	FIG. NO.:
JANUARY 2020	3

EXP Services Inc.

*Bombardier Class EA  
Natural Environment Report  
STR-02018572-00  
May 2020*

## Appendix B - Species Lists

Common Name	Scientific Name	Rarity/Status <sup>1</sup>			Location Observed		BE <sup>2</sup>	Comments
		National	Provincial		Study Area (NE)	Study Area (SW)		
		SARA	ESA	NHIC				
<b>MAMMALS</b>								
No mammals recorded								
<b>BIRDS</b>								
American Crow	<i>Corvus brachyrhynchos</i>			S5B	x		PO	
American Goldfinch	<i>Spinus tristis</i>			S5B	x	x	PO	
American Robin	<i>Turdus migratorius</i>			S5B	x	x	PO	
Blue Jay	<i>Cyanocitta cristata</i>			S5		x	PO	
Canada Goose	<i>Branta canadensis</i>			S5		x	OB	
Common Yellowthroat	<i>Geothlypis trichas</i>			S5B		x	OB	
European Starling	<i>Sturnus vulgaris</i>			SNA	x	x	PO	
House Finch	<i>Carpodacus mexicanus</i>			SNA	x		PO	
House Sparrow	<i>Passer domesticus</i>			SNA		x	PO	
Killdeer	<i>Charadrius vociferus</i>			S5B,S5N	x		PO	
Red-winged Blackbird	<i>Agelaius phoeniceus</i>			S4	x	x	OB	
Yellow Warbler	<i>Dendroica petechia</i>			S5B	x		PO	
<b>REPTILES</b>								
No reptiles recorded								
<b>AMPHIBIANS</b>								
No amphibians recorded								
<b>FISH AND MOLLUSCS</b>								
No fish recorded								
<b>LEPIDOPTERA</b>								
No lepidoptera recorded								
<b>ODONATA</b>								
No odonata recorded								
<b>Other Invertebrate Species</b>								
None recorded								

\* See end of appendix for definition of terms used in wildlife species list

## WILDLIFE SPECIES LIST TERMS AND DEFINITIONS:

### <sup>1</sup> RARITY / POPULATION STATUS

National	Provincial		Regional (if applicable)
SARA	ESA	NHIC <sup>a</sup>	
<b>END</b> - Endangered	<b>END</b> - Endangered	<b>S1</b> - Critically imperiled	<b>Municipal</b> - Rare in county or regional municipality as determined by the municipality  <b>CA</b> - Rare in regional watershed as determined by the local conservation authority (CA)
<b>THR</b> - Threatened	<b>THR</b> - Threatened	<b>S2</b> - Imperiled	
<b>EXP</b> - Extirpated	<b>EXP</b> - Extirpated	<b>S3</b> - Vulnerable	
<b>SC</b> - Special Concern	<b>SC</b> - Special Concern	<b>S4</b> - Apparently secure	
<b>NAR</b> - Not at Risk	<b>NAR</b> - Not at Risk	<b>S5</b> - Secure	
<b>DD</b> - Data Deficient	<b>DD</b> - Data Deficient	<b>SE</b> - Exotic (non-native) <b>?</b> - uncertain about status	

### <sup>2</sup> BE (BREEDING EVIDENCE)\*

#### Anurans (Frogs and Toads) Breeding Call Levels:

- L1** - Call Level 1      Calls of individual frogs or toads do not overlap and individuals can be counted
- L2** - Call Level 2      Calls of individuals sometimes overlap but the number of individuals can reasonably be counted
- L3** - Call Level 3      Calls are continuous and overlapping and a count estimate is not possible

#### Birds:

- OB** - Observed              Species observed in its breeding season; but no breeding evidence observed
- PO** - Possible                Indicated by presence of species or singing male during the breeding season in suitable habitat
- PR** - Probable                Indicated by territorial/courtship displays; presence of mating pair; agitated behavior or nest building; visiting nest site
- C** - Confirmed                Indicated by presence of eggs; fledglings; distraction displays; active nest; fecal/food carrying; etc.
- NH** - No Habitat              Species observed during breeding season, but no suitable breeding habitat in study area
- SO** - Outside Season        Species observed outside of the breeding season
- NB** - Non-breeding Migrant    Migrant species (breeds outside of region containing study area)

#### Other Wildlife:

- CO** - Confirmed              Indicated by presence of eggs, larvae, young, defensive behavior, food carrying, active nest/den/redd, etc.
- RS** - Resident Species        Species likely breeding within the study area due to localized home range, site fidelity and/or site conditions

*\* Breeding evidence terminology for anurans is based on Marsh Monitoring Program. Terminology for birds is derived from Ontario Breeding Bird Atlas. Breeding evidence shown for anurans and birds in species list is the highest breeding evidence observed during field surveys*

## Appendix C - SAR Screening Table

**Species At Risk Screening Table**

Species Group	Common Name	Scientific Name	Status <sup>1</sup>			Habitat Requirements / Description <sup>2</sup>	Potential Habitat Present on Site	Species Observed on or Adjacent to Site
			ESA	SARA	NHIC			
<b>Birds</b>	Chimney Swift	<i>Chaetura pelagica</i>	Threatened	Threatened	S4B, S4N	Chimney Swifts are very small birds that forage for insects exclusively while in flight, mostly in open terrain, but also over urban and suburban areas, rivers, lakes, ponds, forests, and fields. Chimney Swifts breed in urban and suburban habitats, and are thus most common in areas with a large concentration of chimneys for nest sites and roosts. In rural areas they may still nest in hollow trees, tree cavities, or caves.	Yes. Potential foraging habitat present on Site.	No.
	Common Nighthawk	<i>Chordeiles minor</i>	Special Concern	Threatened	S4B	The Common Nighthawk is a crepuscular species that feeds on insects while in flight. Nighthawks roost and nest in a variety of open habitats, including gravel beaches, rocky outcrops, open forests, recently burned woodlands, logged forests, prairies, plains, sagebrush, grasslands, and in urban parks and structures such as flat gravel roofs, railways, and gravel roads.	Yes. Potential nesting / foraging habitat present on Site.	No.
<b>Insects</b>	Monarch Butterfly	<i>Danaus plexippus</i>	Special Concern	Special Concern	S4B	Monarchs use three different types of habitat during their lifetime. Only the larva feed on milkweed plants ( <i>Asclepias syriaca</i> ) and are thus confined to meadows, fields, and other open areas where milkweed grows. Adult butterflies are found in more diverse habitats where they feed on nectar from a variety of wildflowers. Goldenrods ( <i>Solidago</i> spp.), asters ( <i>Aster</i> spp., <i>Symphytrichum</i> spp., <i>Doellingeria</i> spp., <i>Virgulus</i> spp., and <i>Oclemena</i> spp.) and Purple Loosestrife ( <i>Lythrum salicaria</i> L.), as well as milkweeds ( <i>Asclepias</i> spp.), are most frequently used as nectar sources.	Yes. Potential breeding / foraging habitat present on Site.	No.
	Yellow-banded Bumble Bee	<i>Bombus terricola</i>	Special Concern	Special Concern	S3S5	The Yellow-banded Bumble Bee ranges from the Mixedwood Plains of southern Ontario to the Hudson Bay Lowlands in the north. The bee is a habitat generalist and utilizes open coniferous, deciduous and mixed forest, wet and dry meadows, prairie grasslands, meadows bordering riparian zones, roadsides, taiga adjacent to wooded areas, urban parks and gardens, agricultural areas, subalpine habitats and more isolated natural areas. They are generalist pollen foragers and feed on a number of different plant species. Queens overwinter by burrowing into rotting trees or loose soil. Nests are built underground, frequently in abandoned rodent burrows 15 to 45 cm deep and downward sloping entrances; nest sites have been located in old fields.	Yes. Potential habitat present on Site.	No.

**SAR Screening Information Sources**

<sup>1</sup>Status:

Species at Risk Ontario List (SARO). <https://www.ontario.ca/environment-and-energy/species-risk-region?name=Lennox%20and%20Addington>  
 Species at Risk Public Registry (SARA) - Schedule 1 Listed Species. <https://www.registrelep-sararegistry.gc.ca>

<sup>2</sup>Habitat Requirements:

Species at Risk Public Registry (SARA). <https://www.registrelep-sararegistry.gc.ca>  
 Species at Risk in Ontario List (SARO). <https://www.ontario.ca/environment-and-energy/species-risk-region?name=Lennox%20and%20Addington>  
 The Natural History of Canadian Mammals (Naughton, 2012)  
 Atlas of the Breeding Birds of Ontario (BSC, 2007)  
 Birds of Ontario, Volume 1 (Sandilands, 2007)  
 Birds of Ontario, Volume 2 (Sandilands, 2010)  
 Amphibians and Reptiles of the Great Lakes Region (Harding and Mifsud, 2017)  
 Ontario Nature. [https://www.ontarionature.org/protect/species/reptiles\\_and\\_amphibians](https://www.ontarionature.org/protect/species/reptiles_and_amphibians)  
 The Snakes of Ontario (Rowell, 2013)  
 Freshwater Fishes of Canada (Scott and Crossman, 1998)  
 The Butterflies of Canada (Layberry et al., 1998)  
 Dragonflies and Damselflies (Odonata) of Ontario (Catling and Brownell, 2000)