



2019-12-10

Mr. Yuen Lee, PQS, GSC
Capital Projects Manager
Construction Management & Claims
Real Property Asset Management
Corporate Services
Region of Peel
10 Peel Centre Drive, Suite B
Brampton, ON
L6T 4B9

**Subject: Environmental Impact Study - Species at Risk
958-960 East Avenue, Mississauga, Ontario**

Dear Mr. Lee,

WSP Canada Inc (WSP) is pleased to provide you with the attached Environmental Impact Study (EIS) memo report for the site described as 958-960 East Avenue, Mississauga, Ontario.

This report outlines the existing conditions within the Site at the time of the site investigation as well as an assessment of Species at Risk and their habitat.

INTRODUCTION

WSP was retained to conduct an EIS – Species at Risk Study for the property described as 958-960 East Avenue, Mississauga, Ontario. The property is herein referred to the “Site”. The scope of work for this report was developed to help determine if any Species at Risk were present on site.

This report provides a description of the existing conditions in the Site as determined through reviews of secondary source information, and direct observation during the site investigation, an impact analysis, and a discussion of measures to avoid, minimize or mitigate the identified impacts.

INFORMATION RESOURCES

Relevant information resources were consulted over the course of the report preparation, as documented below:

- Aerial photographs;
- Atlas of the Breeding Birds of Ontario online (Bird Studies Canada et al., 2006);
- Conservation Authorities Act, Ontario Regulation 160/06: Credit Valley Conservation Authority;
- Ecological Land Classification for Southern Ontario: 1st approximation (Lee et al. 1998);

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- Ecological Land Classification for Southern Ontario: 2nd approximation (OMNR, 2008);
- Ecoregion 6E Significant Wildlife Habitat Criterion Schedule (OMNRF, 2015b);
- Endangered Species Act, 2007 (Government of Ontario, 2007);
- Natural Heritage Information Centre (NHIC) Mapping and Databases (OMNRF, 2019a);
- Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005 (OMNR, 2010);
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019);
- Provincial Policy Statement (OMMAH, 2014);
- Significant Wildlife Habitat: Technical Guide (OMNR, 2000);
- Species at Risk in Canada (SARA) list (Government of Canada, 2019);
- Species at Risk in Ontario (SARO) list (Government of Ontario, 2019);
- City of Mississauga Official Plan (2019); and,
- Region of Peel Official Plan (2018).

SPECIES OF CONSERVATION CONCERN

The term “species of conservation concern” (SCC) include species that are:

- Listed under the federal Species at Risk Act (SARA);
- Listed under Ontario’s Endangered Species Act (ESA 2007); and
- Provincially rare species (NHIC S-rank of S1 to S3), as well as regionally recognized species (as indicated by MNRF and local municipalities).

Prior to undertaking the field survey, a list of SCC with potential to be present within the general vicinity of the site was generated based on background resources (i.e. NHIC records and MNRF resources). The following section discusses both SCC and SAR.

SPECIES AT RISK SCREENING

SAR includes species that are listed under the ESA or SARA. The SAR Screening table is provided and attached. The review of the MNRF NHIC Database (MNRF, 2019), Atlas of the Breeding Birds of Ontario (Bird Studies Canada et al., 2006), the Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019), and interpretation of aerial photographs provided insight on species that have potential to occur within or in the vicinity of the site, and the habitat potential for these species.

The known records of SAR to occur include:

- Barn Swallow (THR);
- Bank Swallow (THR);
- Bobolink (THR);
- Common Nighthawk (SC);
- Chimney Swift (THR);
- Eastern Meadowlark (THR);
- Wood Thrush (SC);
- Peregrine Falcon (SC);

- Little Brown Bat (END);
- Northern Long-eared Bat (END);
- Tri-coloured Bat (END);
- Small-footed Bat (END); and
- Eastern Musk Turtle (SC).

These SAR are ‘screened’ (assessed) for their potential to be present on site due to the presence of suitable habitat and the likelihood of impacts from the potential development. The SAR screening is shown in Table 1.

Based on the screening process Barn Swallow could potentially be found on site, however there was no evidence of cup nest on the buildings during the site investigation. The site also provides limited foraging opportunity.

METHODOLOGY

Prior to the field visit, the terrestrial environment was reviewed using aerial imagery. A site visit was conducted on September 26, 2019 to confirm and document existing conditions within the Site and identify flora and fauna within and immediately adjacent to the site that could be impacted by site alteration and development.

EXISTING CONDITIONS

The site consists of two (2), two-storey residential buildings and one parking lot. Surrounding the residential buildings were young tree species of Manitoba Maple (*Acer negundo*) and Common Buckthorn (*Rhamnus cathartica*), Canada Goldenrod (*Solidago canadensis*) and overgrown planted ornamental species such as various Viburnum species. Tree species surrounding the buildings were Honey Locust (*Gleditsia triacanthos*), Silver Maple (*Acer saccharinum*), Horsechestnut (*Aesculus hippocastanum*), Austrian Pine (*Pinus nigra*) and Little-leaf Linden (*Tilia cordata*). The south-west portion of the Site consist of manicured lawn and a small treed area of Norway Maples and limited understory. Majority of the trees found on the subject Site were non-native species.

WILDLIFE AND WILDLIFE HABITAT

Wildlife potential in the study area and specifically the site was low due to the disturbances associated with the urbanization of the area. Many of the wildlife species encountered during the site investigation were common species found in urban environments.

MAMMALS

Eastern Chipmunk (*Tamias striatus*) and Gray Squirrel (*Sciurus carolinensis*) were encountered during the site investigation. No bats were identified during the site investigation. The buildings were accessed in 2018 and in September 2019 and there was no evidence of bat or bat guano were encountered. The buildings are abandoned but are kept in good condition where there is limited access for bats to enter inside of the buildings. No snags were found on trees located on the Site.

BIRDS

American Crow (*Corvus brachyrhynchos*), Ring-billed Gull (*Larus delawarensis*) and European Starling (*Sturnus vulgaris*) were encountered during the site investigation. Three (3) American Robin (*Turdus migratorius*) stick nests were found on window ledges and on a downspout pipe leading down from an eavestrough on the north side of the buildings. These nests were unoccupied during the time of the investigation.



HERPETOFAUNA

No amphibian or reptiles were encountered during the site visit.

ASSESSMENT OF IMPACTS

It is understood that approval is sought to develop a new seven-storey mixed used building and parking lot (**Figure 1**). The following sections, describe the impacts, if any, to vegetation and wildlife.

VEGETATION AND FLORA

Vegetation on site will be removed. The majority of the trees and vegetation found on site were non-native and invasive species. For the most part the impacts will be associated with the tree removals. The tree removals should follow the recommendations of the Arborist Report, provided under a separate cover. The proposed works may result in indirect impacts to the vegetation features adjacent to the Site which occurs mostly on adjacent residential properties. Typical potential indirect impacts to vegetation beyond the working area can occur during vegetation clearing as well as stock piling and release of construction-generated sediment to these areas.

WILDLIFE

Impacts on vegetation and the removal of the buildings may affect wildlife. Removal of vegetation should it occur during the period when most birds in the area breed (April 1 to August 31), may destroy bird nests. The nests and nesting activity of most species of birds are protected under the federal *Migratory Birds Convention Act* (MBCA), 1994. Similarly, the building removals occurring during the bird breeding period will impact nests attached to the buildings.

Impacts are expected to be nominal, given the lack of natural environmental features and no direct impact to the SAR, Barn Swallow and its habitat. For the most part, these indirect impacts will be addressed through the mitigation measures provided below.

MITIGATION MEASURES

The following mitigation measures are recommended to reduce potential impacts to terrestrial features and to the wildlife:

- The construction access, work areas, and associated requirements for removal of vegetation will be minimized to the extent required. These areas will be clearly identified in the Contract Documents, and then delineated in the field using properly installed protective erosion and sediment control (ESC) fencing.
- Follow the recommendations of the Arborist Report, provided as a separate cover, for additional mitigation measures regarding tree removals. Where warranted, tree protection fencing as specified in the Arborist Report will be installed to protect retained trees adjacent to development.
- Ensure that timing constraints are applied to avoid all vegetation clearing (including grubbing) during the breeding bird season (approximately April 1 to August 31). It should be noted that occasionally bird species will precede (e.g., late March nesting) or exceed (e.g., September) the approximate breeding bird season window. The Contractor shall not destroy active nests (nests with eggs or young birds) of protected migratory

birds, including SAR protected under the ESA (2007). When these nests are encountered, the Contract Administrator must be contacted.

- If a nesting migratory bird is identified within, or adjacent to, the construction site and the construction activities are such that continuing construction in that area would result in a contravention of the MBCA (1994) or ESA (2007), all activities will stop and the Contract Administrator/ Environment Canada will be contacted to discuss mitigation options, and/or to obtain direction from MNR for species listed under the ESA (2007).
- In the event that a SAR bird is found in the construction area, all activities that could potentially harm the animal will cease immediately in the area and the Contract Administrator will be notified. The Contract Administrator will then contact the MECP for direction, as these animals are protected under the ESA (2007).

SUMMARY

The purpose of this EIS was to document existing conditions, to identify if any SAR species could be present, identify potential impacts associate with the construction and to recommend mitigation measures.

The proposed works will not result in significant negative environmental impacts. Impacts to vegetation and wildlife are minimal and manageable with the implementation of standard mitigation measures as discussed above.

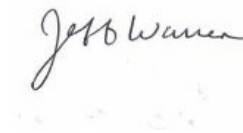
Please contact the undersigned with questions or comments.

Yours sincerely,



Whitney Black, H.B.Sc
Ecologist

WB/ham



Jeff Warren, B.Sc
Senior Ecologist

WSP ref.: 181-11306-00



LEGEND

APPROXIMATE SITE BOUNDARY

Data Source: Ministry of Natural Resources, Ontario Base Mapping, October 2016.



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PROJECT:	ENVIRONMENTAL IMPACT STUDY - SPECIES AT RISK 958 - 960 EAST AVENUE MISSISSAUGA, ONTARIO	
TITLE:	SITE LOCATION	
CLIENT:	REGION OF PEEL	

SCALE:	1:1,250	
DRAWN BY:	TP	CHECKED BY: WB
PROJECT NO:	181-11306-00	
DATE:	DECEMBER 2019	
FIGURE NO:	1	REV.: -

TABLE 1: SAR SCREENING TABLE

Species At Risk Designations							
ENDANGERED							
THREATENED							
SPECIAL CONCERN							
EXTIRPATED							
Species	ESA Status ¹ and Regional Occurrence	ESA Protection ²	Source of Record (Date)	Key Habitats Used by Species in Ontario	Reasonable Likelihood of Presence on Site	Results of Field Surveys	Likelihood and Magnitude of Impacts to Species or Habitat
BIRDS							
Bank Swallow <i>(Riparia riparia)</i>	THR	Species and General Habitat Protection	OBBA (2019)	It nests in a wide variety of naturally and anthropogenically created vertical banks, which often erode and change over time including aggregate pits and the shores of large lakes and rivers (MNRF Guelph - Waterloo List, 2014).	None.	No observation.	None: Species would not be present.
Barn Swallow <i>(Hirundo rustica)</i>	THR	Species and General Habitat Protection	NHIC, OBBA (2019)	Prefers farmland; lake/river shorelines; wooded clearings; urban populated areas; rocky cliffs; and wetlands. They nest inside or outside buildings; under bridges and in road culverts; on rock faces and in caves etc. (MNRF Guelph - Waterloo List, 2014).	Moderate: There is some opportunity for nesting on the buildings.	No observation.	Minimal: May nest on buildings yet minimal foraging habitat.
Bobolink <i>(Dolichonyx oryzivorus)</i>	THR	Species and General Habitat Protection	OBBA (2019)	Generally prefers open grasslands and hay fields. In migration and in winter uses freshwater marshes and grasslands (MNRF Guelph - Waterloo List, 2014)	None: No suitable habitat present.	No observation.	None: Species would not be present.

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Common Nighthawk (<i>Chordeiles minor</i>)	SC	N/A	OBBA (2019)	Generally prefer open, vegetation-free habitats, including dunes, beaches, recently harvested forests, burnt-over areas, logged areas, rocky outcrops, rocky barrens, grasslands, pastures, peat bogs, marshes, lakeshores, and river banks. This species also inhabits mixed and coniferous forests. Can also be found in urban areas (nest on flat roof-tops) (MNRG Guelph - Waterloo List, 2014)	Low: In cities it prefers to nest on flat gravel roofs. No gravel roofs were found on buildings.	No observation.	None: Habitat not present.
Chimney Swift (<i>Chaetura pelagica</i>)	THR	Species and General Habitat Protection	NHIC, OBBA (2019)	Historically found in deciduous and coniferous, usually wet forest types, all with a well-developed, dense shrub layer; now most are found in urban areas in large uncapped chimneys (MNRG Guelph - Waterloo List, 2014)	Moderate: May nest and forage around Site.	No observation.	Minimal: No chimneys were located on buildings, may forage in the Site.
Eastern Meadowlark (<i>Sturnella magna</i>)	THR	Species and General Habitat Protection	NHIC, OBBA (2019)	Generally prefers grassy pastures, meadows and hay fields. Nests are always on the ground and usually hidden in or under grass clumps (MNRG	None: No suitable habitat present.	No observation.	Minimal: Not expected to be present.

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				Guelph - Waterloo List, 2014).			
Wood Thrush <i>(Hylocichla mustelina)</i>	SC	N/A	OBBA (2019)	Nests mainly in second-growth and mature deciduous and mixed forests, with saplings and well-developed understory layers. Prefers large forest mosaics, but may also nest in small forest fragments (MNRG Guelph - Waterloo List, 2014).	None: Suitable forest not found on the Site.	No observation.	None: Habitat not present.
Peregrine Falcon <i>(Falco peregrinus)</i>	SC	N/A	NHIC (2019)	Generally nest on tall, steep cliff ledges adjacent to large waterbodies; some birds adapt to urban environments and nest on ledges of tall buildings, even in densely populated downtown areas (MNRG Guelph - Waterloo List, 2014).	Some potential: There is some opportunity for nesting on the buildings.	No observation.	Minimal: Large waterbodies not present within the Site.
MAMMALS							

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Little Brown Bat (Little Brown Myotis) (<i>Myotis lucifugus</i>)	END	Species and General Habitat Protection	MNRF (2019)	Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: Often associated with buildings (attics, barns etc.). Occasionally found in trees (25-44 cm dbh) (MNRF Guelph - Waterloo List, 2014).	Some potential: Bats may inhabit the buildings and forage around the Site.	No observation.	Minimal: No preferred habitat as buildings are in good condition and showed no evidence of access; and no snags on Site.
Northern Long-eared Bat (Northern Myotis) (<i>Myotis septentrionalis</i>)	END	Species and General Habitat Protection	MNRF (2019)	Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: Often associated with cavities of large diameter trees (25-44 cm dbh). Occasionally found in structures (attics, barns etc.) (MNRF Guelph - Waterloo List, 2014).	Some potential: Bats may inhabit the buildings and forage around the Site.	No observation.	Minimal: No preferred habitat as buildings are in good condition and showed no evidence of access; and no snags on Site.
Tri-colored Bat (<i>Perimyotis subflavus</i>)	END	Species and General Habitat Protection	MNRF (2019)	Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: Manmade structures or tree cavities. Foraging over still water, rivers, or in forest gaps (COSEWIC 2013f).	Some potential: Bats may inhabit the buildings and forage around the Site.	No observation.	Minimal: No preferred habitat as buildings are in good condition and showed no evidence of access; and no snags on Site.

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Small-footed Bat <i>(Myotis leibii)</i>	END	Species and General Habitat Protection	MNRF (2019)	Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: Manmade structures or tree cavities. Foraging over still water, rivers, or in forest gaps (COSEWIC 2013f).	Some potential: Bats may inhabit the buildings and forage in the Site.	No observation.	Minimal: No preferred habitat as buildings are in good condition and showed no evidence of access; and no snags on Site.
HERPETILE							
Eastern Musk Turtle <i>(Sternotherus odoratus)</i>	SC	N/A	NHIC (2019)	Found in ponds, lakes, marshes and rivers that are generally slow-moving, have abundant emergent vegetation, and muddy bottoms. Nesting is in soil, decaying vegetation and rotting wood close to the water and exposed to direct sunlight (MNRF Species Profile Online 2014).	None: No suitable habitat present.	No observation.	None: Habitat not present.

Status Sources:

¹ESA (Endangered Species Act) Status (provincial status from MNRF 2019)

²ESA (Endangered Species Act) Protection (provincial status from MNRF 2019)