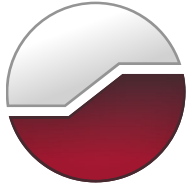




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**Environmental Impact Statement
Proposed Senior's Complex
347 Franktown Road
Carleton Place, Ontario**



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Submitted to:

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Proposed Senior's Complex
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Carleton Place, Ontario**

August 13, 2021
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1.0 INTRODUCTION

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by McIntosh Perry to complete an Environmental Impact Statement (EIS) for the property located at 347 Franktown Road, Carleton Place, Ontario (hereafter referred to as “the subject property”). The location of the subject property is illustrated on Figure A.1 in Appendix A.

1.1 Purpose

The proponent is seeking to develop the existing property for future institutional purposes, principally as a senior’s complex; the proposed project is detailed in Section 5 of this EIS. To support *Planning Act* approvals, including a *development permit amendment* and future *class 2 development permit* application, *Section 4.1 – Green Infrastructure* of the Town of Carleton Place Official Plan (Carleton Place, 2014) requires an EIS demonstrating that the proposed development will not negatively impact any potential natural heritage features, which may be present within the study area.

In accordance with the Provincial Policy Statement (MMAH, 2020) and the Nature Heritage Reference Manual (MNR, 2010) the study area for the EIS is defined as the property boundary and the adjacent lands encompassing an area of 120 m beyond the property boundary. The subject project and the extents of the study area are illustrated on Figure A.2, Site Layout, in Appendix A.

1.2 Objective

The 2020 Provincial Policy Statement (MMAH, 2020) issued under Section 3 of the Planning Act states that “development and site alteration shall not be permitted in: significant woodlands, significant valleylands, significant wildlife habitat and significant areas of natural and scientific interest unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.” Similarly, the 2020 Provincial Policy Statement states that development and site alteration shall not be permitted in fish habitat or habitats of species at risk except in accordance with provincial and federal requirements.” Furthermore, the 2020 Provincial Policy Statement states, “development and site alteration shall not be permitted on adjacent lands to natural heritage features unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. “

The objective of the work presented herein is twofold; 1) to identify and evaluate the significance of any natural heritage features, as defined in the Provincial Policy Statement (MMAH, 2020), on the subject property and within the broader study area and; 2) to assess the potential impacts from the proposed development on any natural heritage features identified and to recommended appropriate and defensible mitigation measures to ensure the long-term protection of any natural heritage features identified.

To meet these objectives, the EIS presented herein has been completed in accordance with the following provincial and municipal policies and guidelines:

- Provincial Policy Statement (MMAH, 2020);
- Endangered Species Act (Ontario, 2007);
- Conservation Authorities Act (Ontario, 1990);
- Natural Heritage Reference Manual (OMNR, 2010); and
- Town of Carleton Place Official Plan (Carleton Place, 2014);

1.3 Physical Setting

The approximately 1.9 hectare (ha) subject property is located on Part of Lot 15, Concession 11 in the geographic township of Beckwith and is municipally addressed as 347 Franktown Road, Carleton Place, Ontario. The subject property currently consists of single residential dwelling and an approximately 1.6 ha vacant woodland. The subject property is bound to the east by a portion of the Coleman Street Subdivision and to the west by Franktown Road. To the north and south the site is bound by vacant woodlands of Concession 11.

1.3.1 Land Use Context

The subject property is situated within a larger residential and light commercial area consisting of low density single family units and commercial plazas. The existing land use designation from Schedule A of the Town of Carleton Place Official Plan is 'residential district'.

2.0 METHODOLOGY

2.1 Desktop Review

A desktop information gathering exercise was completed to aid in the scoping of field investigations and to gather information relating to natural heritage features that may be present on the subject project or within 1 km of the subject property. An additional component of the desktop review was to assess the potential presence of SAR to occur on the subject property or within the study boundary based on a review of publicly accessible occurrence records and a review of SAR habitat requirements and range maps.

Information regarding the potential presence of natural heritage features and SAR within the vicinity of the site was obtained from the following sources:

- Make a Map: Natural Heritage Areas (OMNRF, 2014a)
- Land Information Ontario (OMNRF, 2011);
- Town of Carleton Place Official Plan (Carleton Place, 2014)
- Ontario Geological Survey (OGS, 2019);
- Fisheries and Oceans Canada SAR Maps (DFO, 2019);
- Mississippi Valley Conservation Authority Regulation Mapping (MVCA, 2021).
- Breeding Bird Atlas of Ontario (Cadman et al., 2007)
- Atlas of Mammals of Ontario (Dobbyn, 1994); and
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019).

2.2 Field Investigations

Field investigations were undertaken to describe in general, the natural and physical setting of the subject property with a focus on natural heritage features and to identify any potential SAR or their habitat that may exist at the subject property.

Field investigations completed in support of this EIS are outlined in Table 2.1 below. Photographs of site features taken during field investigations are provided in Appendix B.

Table 2.1 Summary of Field Investigations

Date	Time	Weather	Purpose
June 29, 2021	12:30- 15:00	24°C, clear skies (1/10), no precipitation, Beaufort wind 2	Ecological Land Classification & Tree Conservation Survey
July 19, 2021	15:00- 16:30	27°C, partly cloudy, no precipitation, Beaufort wind 4	Ecological Land Classification

2.2.1 Ecological Land Classification

Vegetation communities on the subject property were delineated during the desktop review stage of this EIS using publicly available air photos and confirmed in the field on June 29 and July 19, 2021, following the Ecological Land Classification System for Southern Ontario (Lee et al., 2008). Vegetation communities were confirmed in the field by employing the random meander methodology while documenting dominant vegetation species within the various vegetation community forms.

2.3 Data Analysis

An evaluation of the significance of natural heritage features, the sensitivity of identified flora and fauna and the potential impacts posed by the proposed development was undertaken through an analysis of desktop and field investigation data using the approaches and criteria outlined in the following documents:

- Natural Heritage Reference Manual (OMNR, 2010);
- Significant Wildlife Habitat Technical Guide (OMNR, 2000);
- Significant Wildlife Habitat Ecoregion Criterion Schedules (OMNRF, 2015); and
- Significant Wildlife Habitat Mitigation Support Tool (OMNRF, 2014b).

3.0 EXISTING ENVIRONMENT

3.1 Ecoregion

The site is situated Ecoregion 6E-11 (Lake Simcoe-Rideau), which extends from Lake Huron in the west to the Ottawa River in the east. The climate of Ecoregion 6E is categorized as humid, high to moderate temperate ecoclimate with a mean annual temperature range between 4.9°C to 7.8°C with annual precipitation ranging between 759 mm to 1,087 mm (Crins et al., 2009).

The eastern portion of the Ecoregion, which the subject property is located, is underlain by glaciomarine deposits as a result of the brief post-glacial incursion of salt water from the Champlain Sea along the St. Lawrence Valley. This Ecoregion falls with Rowe's (1972) Great Lakes-St. Lawrence Forest Region, including its Huron-Ontario and Upper St. Lawrence sections, and a small part of the Middle Ottawa Forest section (Crins et al., 2009).

3.2 Landforms, Soils and Bedrock Geology

The topography of the site is relatively flat with a gentle downward slope from the southwest to the northeast, from a topographical high of 136 mASL to a topographical low of 133 mASL.

A single topographical landform, as mapped by Chapman and Putman (1984) is described on the subject property, the limestone plains of the Smiths Falls Limestone Plain physiographic region.

The Ontario Geological Survey (OGS, 2019) identifies two surficial soil unit on the subject property, organic deposits occurring the central portion of the site and paleozoic bedrock occurring throughout the remainder of the subject property.

Bedrock at the site is composed of the March formation of the Beekmantown Group comprise of sandstone and dolostone.

3.3 Surface Water, Groundwater and Fish Habitat

No surface water features, including wetlands, are present on the subject property. A small meadow marsh wetland is located approximately 100 m off-site to the southeast as illustrated on Figure A.2. This small marsh-type wetland is a natural detention area for overland flow and the origin of an ephemeral stream which discharges to Lavallee Creek and associated wetlands approximately 875 m east of the subject property.

As there is no surface water features present on site, fish habitat is also absent from the subject property.

Groundwater investigations were not completed in support of this EIS.

3.4 Vegetation Communities

Vegetation communities on-site were characterized by GEMTEC in 2021 following protocols utilized in the Southern Ontario Ecological Land Classification System (Lee et al., 2008). Vegetation communities are illustrated on Figure A.3 in Appendix A.

The general habitat with the study area represents a mosaic of coniferous and deciduous vegetation of both upland and lowland species, with the site being mostly divided between dense European buckthorn (*Rhamnus cathartica*) in the west (THDM2-6 on Figure A.3) and lowland ash forest type in the east (FOD7-2). Other vegetation communities included a dry scrubby area dominated by eastern white cedar (*Thuja occidentalis*) bordering the southern property line (FOCS3-1 on Figure A.3).

Throughout the entire site, dominant tree species included European buckthorn, black ash (*Fraxinus nigra*), eastern white cedar, basswood (*Tilia americana*), American elm (*Ulmus americana*), and trembling aspen (*Populus tremuloides*). The majority of the observed ash trees were noted as being heavily infested by emerald ash borer (an invasive insect detrimental to ash trees), or dead standing.

A total of six individual trees with a diameter at breast height (DBH) of greater than 30 cm were observed during the site investigations. Four of these specimens were clustered together near the center of the property, while the other two were located elsewhere on their own. The DBH for these specimens ranged from 32 cm – 49 cm. It is worth noting that five (5) of the identified larger trees were identified as trembling aspen or large tooth aspen (*Populus grandidentata*), both of which are early successional (pioneer) species, that are short lived and often found growing in areas of previous disturbances.

The locations of all trees identified above are illustrated on Figure A.3. Photos taken during the site investigation are included in Attachment B.

4.0 NATURAL HERITAGE FEATURES

Natural heritage features are defined in the PPS as “features and areas, including *significant wetlands, significant coastal wetlands, fish habitat, significant woodlands* south and east of the Canadian Shield, *significant valleylands* south and east of the Canadian shield, *habitats of endangered species and threatened species, significant wildlife habitat* and *significant areas of natural and scientific interest*, which are important for their environmental and social values as a legacy of the natural landscape of an area”.

4.1 Significant Wetlands

As described in the Natural Heritage Reference Manual (OMNR, 2010), wetlands mean “lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface.” While *significant* in regards to wetlands means “an area

identified as provincially significant by the Ontario Ministry of Natural Resources and Forestry using evaluation procedures established by the Province, as amended from time to time.”

No provincially significant wetlands were identified during the desktop review, nor were any local wetlands identified on-site during the site investigations. A single local wetland was identified adjacent to site during the desktop review as described in Section 3.3 above. As no PSW's have been identified on-site or within 120 m for the site, PSW are not present within the study area and are not discussed or evaluated further in this EIS.

Potential impacts to local wetlands are discussed in Section 6.

4.2 Significant Woodlands

Significant woodlands are defined in the natural heritage reference manual (OMNR, 2010) as “an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history.”

At the local scale, significant woodlands are defined and designated by the local planning authority. Generally, most planning authorities have defined significant woodlands as any woodland that contains any of the four criteria listed in Section 7.2 of the natural heritage reference manual (OMNR, 2010), including: woodland size, ecological functions, uncommon characteristics and economic and social functional values.

Contiguous woodlands covering the site and adjacent properties comprise an area of approximately 7 ha and are fully contained within the urban area of the Town of Carleton Place with little to no linkage functions to distant greenspaces.

As identification of significant woodlands is a local planning authority responsibility and no significant woodlands have been identified on Schedule A or Schedule B of the Town of Carleton Place Official Plan, woodlands on-site are not considered to be significant. However, local woodlands on-site do provide ecological functions, primarily as breeding bird habitat for common urban avian species.

Impacts to local woodlands from the proposed development are discussed in Section 6.

4.3 Significant Valleylands

Valleylands are defined in the natural heritage reference manual (OMNR, 2010) as ‘a natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of time’. The identification and evaluation of significant valleys lands in Ontario is based on the recommended criteria from the MNRF and is the responsibility of local planning authorities.

In Southern Ontario, conservation authorities have identified valleylands as part of their regulation mapping (i.e., floodplain mapping); however, where valleys lands have not been defined, their physical boundaries are generally determined as the 'top-of-bank' or 'top-of-slope' associated with a watercourse. For less well-defined valleys, the physical boundary may be defined by riparian vegetation, flooding hazard limits, ordinary high water marks or the width of the stream meander belt (OMNR, 2010).

As outlined in Section 3.2 above, the subject property is relatively flat with no distinguishable topographical features, accordingly no significant valleylands are present. Therefore, valleylands are no discussed or evaluated further in this EIS.

4.4 Significant Areas of Natural and Scientific Interest

The MNRF identifies two types of areas of natural and scientific interest (ANSI) in Ontario: life sciences ANSIs typically represent significant segments of Ontario's biodiversity and natural landscapes, while earth science ANSIs typically represent significant examples of bedrock, fossils or landforms in Ontario (OMNR, 2010).

No ANSI have been identified on-site or adjacent to the site during the desktop review or during site investigations. Therefore, ANSI are not discussed or evaluated further in this EIS.

4.5 Significant Wildlife Habitat

The natural heritage reference manual (OMNR, 2010), in combination with the significant wildlife habitat technical guide (MNRF, 2000) and the significant wildlife habitat ecoregion criterion schedules (MNRF, 2015) were used to identify and evaluated potential significant wildlife habitat on-site. The significant wildlife habitat is broadly categorized as habitats of seasonal concentration of animals, rare vegetation communities, specialized habitats for wildlife, habitats of species of conservation concern and animal movement corridors. Table C.1, C.2, C.3 and C.4 in Appendix C, provide the screening rationale for each category of significant wildlife habitat, respectively.

4.5.1 Habitats of Seasonal Concentrations of Animals

Seasonal concentration areas are habitats where large numbers of species congregate at one particular time of the year. The significant wildlife habitat technical guides (OMNR, 2000) and significant wildlife habitat ecoregion criterion schedules (OMNRF, 2015) identify 12 types of seasonal concentration habitats that may be considered significant wildlife habitat. These 12 types of seasonal habitat are presented in Table C.1 in Appendix C, including a brief description of the rationale as to why they are or are not assessed further in this EIS.

Following review of Table C.1 in Appendix C, no habitats of seasonal concentrations of animals were identified on-site, as such they are not discussed or evaluated further in this EIS.

4.5.2 Rare Vegetation Communities

Rare vegetation communities in the province are described generally as those with an S1 to S3 ranking by the NHIC, and typically include communities such as sand barrens, alvars, old growth forests, savannahs and tallgrass prairies.

The vegetation communities identified on-site and described in Section 3.4 of this report are not ranked by the NHIC as S1, S2 or S3 and are therefore not considered to be rare vegetation communities. As such, rare vegetation communities are not discussed or evaluated further in this EIS.

4.5.3 Specialized Habitats for Wildlife

Specialized wildlife habitats are microhabitats that provide a critical resource to some groups of wildlife. The significant wildlife habitat technical guide (OMNR, 2000), defines eight specialized habitats that may constitute significant wildlife habitat, these eight types of specialized wildlife habitats are evaluated in Table C.2 in Appendix C.

Following review of Table C.2 in Appendix C, no specialized habitats for wildlife have been identified on-site or within the study area; as such they are not discussed or evaluated further in this EIS.

4.5.4 Habitats of Species of Conservation Concern

Provincial rankings are used by the Natural Heritage Information Centre to set protection priorities for rare species, similar to those described in Section 4.5.2 above for vegetation communities. Provincial rankings (S-ranks), are not legal designations such as those used to define the various protection statuses of species at risk, they are only intended to consider factors within the political boundaries of Ontario that might influence a particular species abundance, distribution or population trend.

Based on the guidance provided in the Significant Wildlife Habitat Ecoregion Criterion Schedules (OMNRF, 2015a), when a plant or animal element occurrence is recorded for any species with an S-rank of S1 (extremely rare), S2 (very rare), S3 (rare to uncommon) or SH (historically present), the corresponding vegetation ecosite is considered to provide *candidate* habitat for species of conservation concern and further consideration within the EIS is warranted.

The Significant Wildlife Habitat Ecoregion Criterion Schedules (OMNRF, 2015a), provides five general habitat types known to support a wide range of species of conservation concern in Ontario. The five general habitat types for Ecoregion 6E-11 are provided in Table C.6 in Appendix C, including a brief rationale as to why they are or are not considered further in this EIS.

Following review of Table C.3 in Appendix C, no habitats of species of conservation concern occur on-site. As such they are not discussed or evaluated further in this EIS.

4.5.5 Animal Movement Corridors

Animal movement corridors are elongated areas used by wildlife to move from one habitat to another and allow for the seasonal migration of animals (OMNRF, 2015). The Significant Wildlife Habitat Ecoregion Criterion Schedules for Ecoregion 6E-11 (OMNRF, 2015), identifies two types of animal movement corridors: amphibian movement corridors and deer movement corridors. As per guidance presented in MNRF, 2015, animal movement corridors should only be identified as significant wildlife habitat when a *confirmed or candidate* significant wildlife habitat has been identified by the MNRF district office or by the regional planning authority.

Following review of Table C.4 in Appendix C, no animal movement corridors have been identified on-site. As such they are not discussed or evaluated further in this EIS.

4.6 Fish Habitat

The protection of fish and fish habitat is a federal responsibility and is administered by the Department of Fisheries and Oceans Canada (DFO). Fish habitat as defined in the Fisheries Act (Canada, 1985) means, “spawning grounds and nursery, rearing food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes.”

When development is unable to avoid resulting in a harmful alteration, disturbance or destruction of fish habitat, or the death of fish from typical project impacts such as temperature change, sedimentation, infilling, reduction of nutrient and food supply, etc., an authorization under the Fisheries Act is required for the project to proceed.

As outlined in Section 3.3, there are no surface water features present on-site, accordingly, there is no fish habitat present on site.

In support of this EIS, GEMTEC reviewed the EIS and Tree Conservation Report (MPL, 2010) prepared in support of the Coleman Street Subdivision located immediately adjacent to the east. As part of that EIS several surface water features east of the subject property were evaluated and sampled to determine the presence or absence of fish habitat. As a result of the MPL EIS (2010), the small local wetland and associated watercourse draining towards Lavallee Creek were found to support small-bodied fish species.

Potential impacts to off-site fish habitat are assessed in Section 6 below.

4.7 Species at Risk

The probability of occurrence for species at risk to occur on-site and within the broader study area was determined through the desktop review stage of this EIS, as described in Section 2.1, and through the site-specific surveys conducted as part of this EIS, outlined in Section 2.2.

Table C.5 in Appendix C, provides a summary of all species at risk which were determined to have the potential to occur on-site or within the broader study area, their protection status under

the provincial Endangered Species Act (Ontario, 2007), their regional distribution, their probability of occurrence and a brief rationale of that probability. Impacts to endangered or threatened SAR determined to have a moderate or high potential to occur on-site or within the broader study area are discussed further in the Section 6.3.

5.0 PROPOSED PROJECT

The proposed project assessed for potential impacts on the natural heritage features determined to be present within the broader study area includes the development of a retirement home, senior's apartment building, commercial plaza and townhouse development. The proposed project is intended to occupy the entirety of the subject property. The proposed development is intended to be constructed in a phased approach, beginning with construction of the retirement home with remaining project elements being constructed over a two to four year period. The proposed development is illustrated on Figure A.4.

The proposed development will be serviced by municipal potable water and sewer. Stormwater management for the retirement home, seniors apartment and medical clinic is contemplated to be provided by a combination of roof, surface and subsurface storage to allow the site to release stormwater at a controlled rate to existing storm sewers within the future public right-of-way (ROW). The ROW and townhouse components will surface drain to the catch basins within the ROW and will utilize surface storage to attenuate flow before discharging to the existing wetland and associated watercourse south of the proposed development.

The proposed project is anticipated to result in the loss of all woodlands from the subject site, fill placement and grading, excavations of foundations and utilities, construction of structures, paving of surfaces and landscaping activities.

6.0 IMPACT ASSESSMENT

Potential impacts to natural heritage features on-site and within the broader study area are assessed for direct, indirect and cumulative effects based on the proposed project outlined in Section 5. Natural heritage features identified in Section 4 of this report as present or likely to be present are discussed in the subsections below.

Potential effects to the environment of the site from the proposed development outlined in Section 5 include: an increased impervious surface, increased stormwater generation, and loss of woodlands and associated bird habitat.

6.1 Local Wetlands

As outlined in Section 3.3, a small, unevaluated wetland is present approximately 100 m down gradient and off-site to the southeast. No direct impacts are anticipated to the local wetland due to the separation distance from the proposed development. However; potential impacts to the local wetlands may include alterations to the hydraulic regime and increased sedimentation if stormwater generated from the site is not managed effectively. Based on the proposed stormwater management measures outlined in Section 5 above, it is unlikely that operation of the proposed project will result in any long-term impacts on the wetland; however, there is the potential for short term impacts resulting from construction.

Mitigation measures to protect off-site wetlands are discussed in Section 7 below.

6.2 Woodlands

Woodlands on-site are not considered significant woodlands, however as discussed in Section 4.2, the woodlands do provide some ecological functions primarily for urban avian breeding habitat. As the proposed project will result in the loss of 1.6 ha of urban woodland habitat there will be a corresponding loss of 1.6 ha of breeding bird habitat for common urban avian species.

As no avian species of conservation concern or avian species identified as threatened or endangered have been identified as having a moderate or high potential to occur on-site based on historical occurrences and site investigations, loss of local woodlands on-site complies with the Provincial Policy Statement and the Town of Carleton Place Official Plan.

Accordingly, no avoidance or mitigation measures or compensation measures are required to address expected woodland loss. General mitigation measures for tree retention are provided in Section 7 below.

6.3 Fish Habitat

According to the Provincial Policy Statement (MMAH, 2020), “development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.” Fish habitat as defined in the Fisheries Act (Canada, 1985) means “spawning

grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes.”

Section 35 (1) of the Fisheries Act (Canada, 1985) states that “no person shall carry on any work, undertaking or activity that results in harmful alteration, disturbance or destruction (HADD) of fish habitat, or the death of fish” from typical project impacts such as temperature change, sedimentation, infilling, reduction of nutrient and food supply, etc. When development is unable to avoid or mitigate serious harm to fish from typical project impacts such as temperature regime alteration, sedimentation, infilling, reduction of nutrients or food supply, an authorization under Subsection 35 (2) of the Fisheries Act is required for the project to proceed.

As no in-water work is anticipated as part of the proposed project, potential impacts to down gradient fish habitat within the off-site local wetland are anticipated to be indirect in nature. Potential indirect impacts to water quality and fish habitat from the proposed development may include short-term increases in overland flow and concomitant sediment transport during construction and increased nutrient and/or contaminant loading from landscaping practices. However; based on the proposed stormwater management for the development, as discussed in Section 5, it is unlikely that the future operation of the proposed development will negatively impact on off-site fish habitat.

Mitigation measures to protect against short-term impacts on down gradient fish habitat during construction are presented in Section 7.

6.4 Species at Risk

As outlined in the Endangered Species Act (Ontario, 2007), only species listed as threatened or endangered and their general habitat receive automatic protection. When a species-specific recovery strategy is developed, a specific habitat regulation will be established, which eventually replaces the automatic habitat protection. Species of special concern and their habitat do not receive protection under the ESA.

Potential impacts associated with the proposed project to threatened or endangered species identified as having a moderate or high potential to occur on-site in Section 4.7, are discussed on a species-by-species basis in the subsections below.

6.4.1 Eastern Small-footed Myotis

Eastern small-footed Myotis (*Myotis leibii*) is the smallest (typically 3-5 g), insectivorous bat found in Ontario. The fur of an eastern small-footed Myotis is golden-brown in colour, with a distinct black mask across the face. The eastern small-footed Myotis is very similar in appearance to the little brown Myotis, and is distinguishable by their small foot and keeled calcar (Fraser, MacKenzie & Davy, 2007).

The eastern small-footed *Myotis* is found throughout eastern North America. In Ontario the species has been observed in the areas south of Lake Superior across to the Ontario-Quebec border (Humphrey, 2017).

Eastern small-footed *Myotis* overwinter primarily in caves and abandoned mines with low humidity and temperatures and stable microclimates (Humphrey, 2017). In comparison to other Ontario bat species, they are able to tolerate much colder temperatures, drier conditions and draftier locations for hibernating (Humphrey, 2017). During the spring and summer months, they utilize a variety of habitats for roosting, including under rocks or rock outcrops, in buildings, under bridges, or in caves, mines or hollow trees (Ontario, 2019a).

Although the forest habitat on-site does not meet the requirements to support bat maternity colonies, given the availability of habitat and buildings on-site and within the study area, there is a potential for eastern small-footed myotis to occur on the property, primarily for foraging or non-maternal roosting. As no development is proposed to occur in the woodland, impacts to eastern small-footed myotis are primarily associated with encroachment and increased wildlife-human interaction. Mitigation measures intended to protect eastern small-footed *Myotis* from impacts of the proposed development are discussed in Section 7.

6.4.2 Little Brown Myotis

Little Brown Myotis (*Myotis lucifugus*) is a small (typically 4-11 g), insectivorous bat. The fur of a Little Brown Myotis is bi-coloured; fur is a glossy brown with a darker coloured base. The tragus of the Little Brown Myotis is long and thin, with a rounded tip (Fraser, MacKenzie & Davy, 2007).

In Canada, Little Brown Myotis occur throughout all of the provinces and territories (except Nunavut), with its range extending south through the majority of the United States as well. In Ontario, the Little Brown Myotis is widespread in southern Ontario and has been found as far north as Moose Factory and Favourable Lake (Ontario, 2019b).

Little Brown Myotis overwinter in caves and abandoned mines, they require highly humid conditions and temperatures that remain above the freezing mark (Ontario, 2019b). During the summer months, maternity colonies are often located in buildings or large-diameter trees. Little Brown Myotis roost in trees and buildings. Foraging occurs over water and along waterways, forest edges and in gaps in the forest. Open fields and clear-cuts are not typically utilized for foraging (COSEWIC, 2013b).

Although the forest habitat on-site does not meet the requirements to support bat maternity colonies, given the availability of habitat and buildings on-site and within the study area, there is a potential for little brown myotis to occur on the property, primarily for foraging or non-maternal roosting. As no development is proposed to occur in the woodland, impacts to little brown myotis are primarily associated with encroachment and increased wildlife-human interaction. Mitigation

measures intended to protect little brown myotis from impacts of the proposed development are discussed in Section 7.

6.4.3 Tri-colored Bat

Tri-colored bat (*Perimyotis subflavos*) is a small (typically 5-7 g), insectivorous bat. The fur is uniformly coloured on the ventral and dorsal sides, however when parted fur shows three distinct colour bands. The base of the hair is blackish, with a blonde middle and brownish tip. The snout of the tri-coloured bat is also distinct, with swollen bulbous glands present (Fraser, MacKenzie & Davy, 2007).

In Canada, the tri-colored bat has only been recorded in southern parts of Nova Scotia, New Brunswick, Quebec and central Ontario. In Ontario it occurs primarily from the southern edge of Lake Superior across to the Ontario-Quebec border and south (COSEWIC, 2013).

Tri-colored bat overwinter in caves or mines, and have very rigid habitat requirements; they typically roosting the deepest parts where temperatures are the least variable, and have the strongest correlation with humidity levels and warmer temperatures (COSEWIC, 2013). In the spring and summer, tri-colored bat utilize trees, rock crevices and buildings for maternity colonies. Foraging is mainly done over watercourses and streamside vegetation (COSEWIC, 2013).

Although the woodlands on-site do not meet minimum snag density requirements to support bat maternity colony habitat, given the availability of habitat on-site there is a potential for tri-colored bat to occur on the property, primarily for foraging or non-maternal roosting. As no development is proposed to occur in the woodland, impacts to tri-colored bat are primarily associated with encroachment and increased wildlife-human interaction. Mitigation measures intended to protect tri-colored bat from impacts of the proposed development are discussed in Section 7.

6.4.4 Butternut

Butternut (*Juglans cinerea*) is a short lived, medium-sized tree that can reach up to 30 m in height. Butternut is easily recognized by its compound leaves, made up of 11 to 17 leaflets, each 9 to 15 centimetres long, arranged in a feather-like pattern. The bark is grey and smooth in younger trees, and becomes rigid with age. Butternut is a member of the walnut family and produces edible nuts in the fall.

The range of butternut trees in Canada extends from southern Ontario into southern Quebec and New Brunswick (COSEWIC, 2003). It is shade intolerant and prefers riparian habitats or sites with rich, moist, well-drained loams and gravels with limestone origin. Common associates for butternut include: basswood, black cherry, beech, black walnut, elm, hickory, oak, red maple, sugar maple, yellow poplar, white ash and yellow birch.

No butternut trees were observed on-site during any of the site investigations. Furthermore, no butternut observation records were provided by the NHIC for the single 1 km grid square that

encompasses the site. As no butternuts were documented on-site no mitigation measures are provided in Section 7 in relation to butternut and they are not discussed or evaluated further in this EIS.

6.5 Cumulative Impacts

Potential cumulative impacts associated with the proposed project include an increase in storm water generation, increases in nutrient loading to adjacent aquatic features and the loss of urban woodland habitat, primarily for common avian species.

Cumulative impacts to the natural environment at the site due to increased human presence are expected to be negligible given the nature of the development within a larger urban residential and commercial land use area.

Cumulative impacts such as those listed above can be mitigated by implementing the proposed setbacks and recommended mitigation measures outlined in Section 7 below.

7.0 RECOMMENDED AVOIDANCE AND MITIGATION MEASURES

The following avoidance and mitigation measures have been recommended by GEMTEC in order to minimize or eliminate potential environmental impacts identified in Section 6. As such, the following avoidance and mitigation measures should be enforced throughout the development through application of Site Plan Controls.

7.1 Local Wetlands and Fish Habitat

The following general mitigation measures are recommended for the protection of off-site local wetlands and associated fish habitat:

- All future development and construction should be completed in accordance with Ontario Provincial Standard Specification 182 and 805.
- A Sediment and Erosion Control Plan should be developed and implemented prior to commencement of construction activities at the site and maintained until all disturbed ground has been permanently stabilised.
- When native soil is exposed, sediment and erosion control work in the form of heavy-duty sediment fencing shall be positioned along the down gradient edge of construction areas.
- If required, ensure that the water being pumped from any future excavations on-site is filtered prior to release and that energy dissipation measures are implemented at the point of release.
- Maintain as much permeable surface area as reasonably possible in future development plans to limit the generation of stormwater generation.
- Stormwater and snow melt water generated from the development is to be managed on-site such that discharge is equal to pre-development.

7.2 Woodlands

As the proposed development is anticipated to result in the loss of all woodland habitat from the site the following general measures are provided for the protection of adjacent trees areas and to aid in landscape design considerations:

- To protect trees identified to be retained during construction, the Critical Root Zone (CRZ) should be identified and fenced. The CRZ is defined as 10 cm from the base of the tree for every centimetre in diameter of the tree trunk measured at breast height.
- In effort to offset the effect of vegetation clearing, consideration should be given to landscape planting with native tree species indicative of the Great Lakes – St. Lawrence Forest Region, such as white cedar, white spruce, red maple and bur oak.

7.3 Species at Risk

7.3.1 Eastern Small-footed Myotis, Little Brown Myotis & Tri-colored Bat

To protect roosting and foraging bats, tree removal where required should take place outside of the spring and summer active season (typically May 1 to September 1), when bats are more likely to be using forest habitat. If tree clearing must be conducted during the spring and summer timing window than a roost survey should be conducted by a qualified professional.

7.4 Wildlife

The following avoidance and mitigation measures are provided in effort to minimize impacts to on-site and off-site wildlife:

- Vegetation removal should occur outside the key breeding bird period (typically April 15 to August 15) as identified by Environment Canada for the protection of migratory birds and to avoid contravention of the Migratory Bird Convention Act. If vegetation clearing activities must take place during the aforementioned timing window than a nest, survey shall be conducted by a qualified professional.
- Installation of silt fence barriers around the entire construction envelope to prohibit the emigration of wildlife into the construction area; silt fencing should be inspected daily and immediately after each precipitation event.
- Cover all stock piled material with a geotextile to prevent turtles from nesting in the material between May 1 and August 1 of any year.
- Perform daily pre-work sweeps of the construction area to ensure no species at risk are present and to remove any wildlife from inside the construction area.
- Should any species at risk be discovered throughout the course of the proposed works, the species at risk biologist with the local MECP district should be contacted immediately and operations and construction activities cease to avoid any negative impacts to species at risk or their habitat until further direction is provided by the MECP.

8.0 CONCLUSIONS

The proposed project supported by this EIS is the development of a senior's complex comprised of several distinct buildings to be constructed in phases over a two to four year period.

Based on the results of the impact analysis, impacts to the natural environment are anticipated to be minimal. Provided that mitigation measures recommended in Section 7 are implemented as proposed, no significant residual negative impacts are anticipated from the proposed future development.

Following review of the information pertaining to the natural heritage features of the site, the following general conclusions are provided by GEMTEC in regards to the EIS.

- No significant negative impacts to natural heritage features identified on-site, including habitat of species at risk, from the proposed project are anticipated.
- The proposed project complies with the natural heritage policies of the Provincial Policy Statement.
- The proposed development complies with the natural heritage policies of the Town of Carleton Place Official Plan.

9.0 LIMITATION OF LIABILITY

This report and the work referred to within it have been undertaken by GEMTEC Consulting Engineers and Scientists Ltd (GEMTEC), and prepared for McIntosh Perry and is intended for the exclusive use of McIntosh Perry. This report may not be relied upon by any other person or entity without the express written consent of GEMTEC and McIntosh Perry. Nothing in this report is intended to provide a legal opinion.

The investigation undertaken by GEMTEC with respect to this report and any conclusions or recommendations made in this report reflect the best judgements of GEMTEC based on the site conditions observed during the investigations undertaken at the date(s) identified in the report and on the information available at the time the report was prepared.

This report has been prepared for the application noted and it is based, in part, on visual observations made at the site, all as described in the report. Unless otherwise stated, the findings contained in this report cannot be extrapolated or extended to previous or future site conditions, or portions of the site that were unavailable for direct investigation

Should new information become available during future work or other studies, GEMTEC should be requested to review the information and, if necessary, re-assess the conclusions presented herein.

We trust this report provides sufficient information for your present purposes. If you have any questions concerning this report, please do not hesitate to contact our office.

Sincerely,



Taylor Warrington, B.Sc.
Biologist



Drew Paulusse, B.Sc.
Senior Biologist

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APPENDIX A

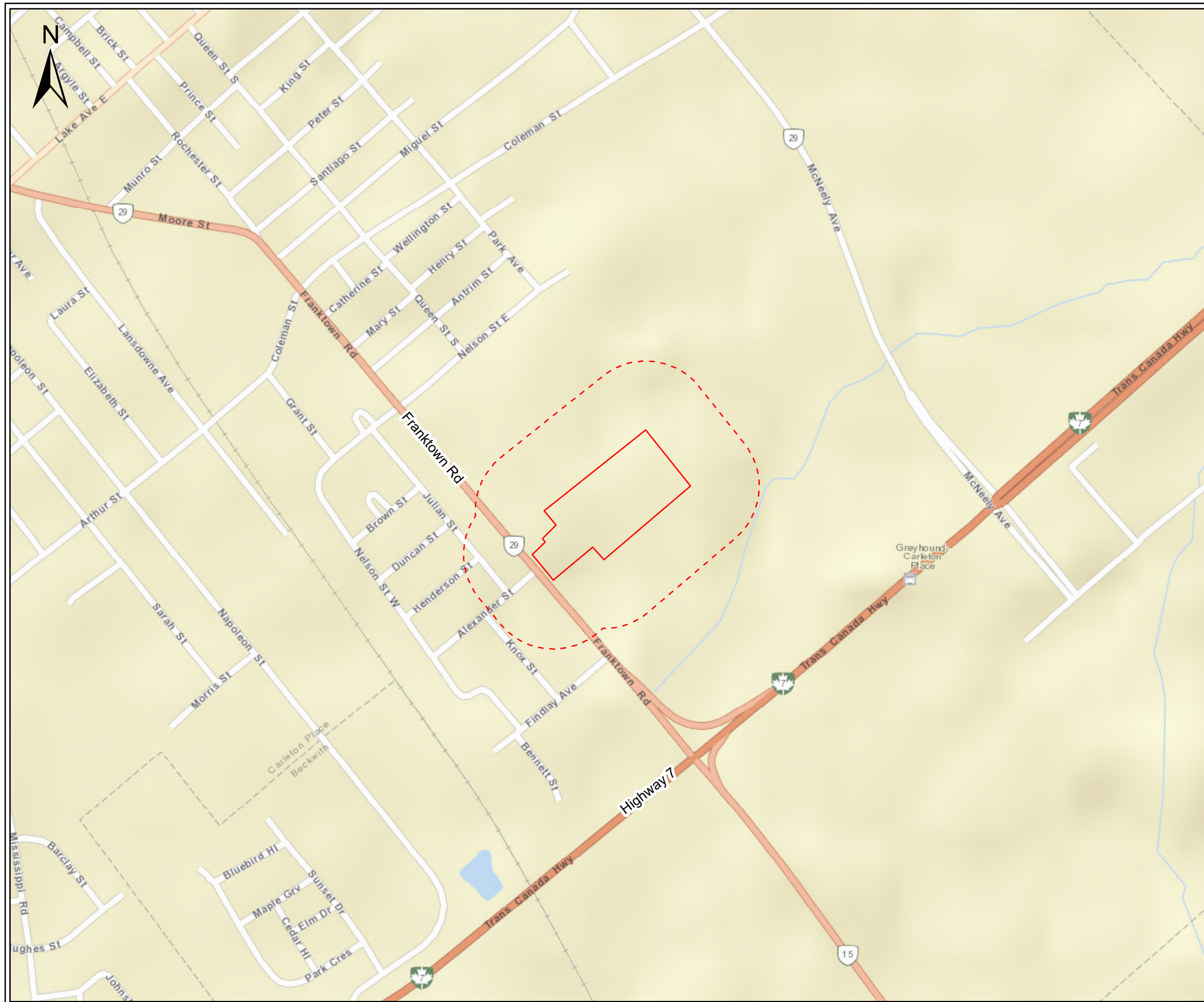
Report Figures

Figure A.1 – Site Location

Figure A.2 – Site Layout

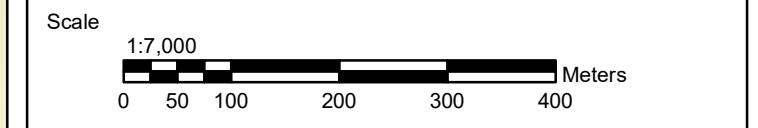
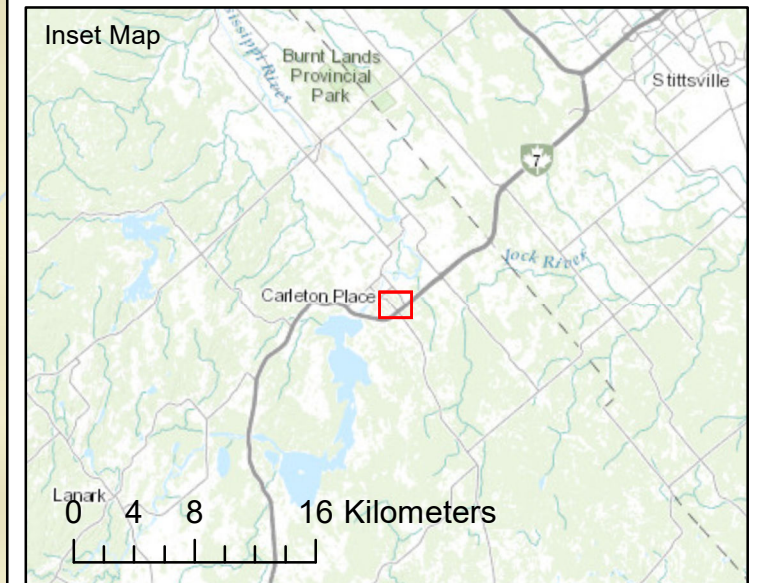
Figure A.3 – Vegetation Community

Figure A.4 – Development Concept



Legend

- Property Boundary
- Study Area



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Client: McIntosh Perry	Project: 100165.013
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Location
347 Franktown Road
Carleton Place, Ontario

Drwn By: JD	Chkd By: DP	Site Location
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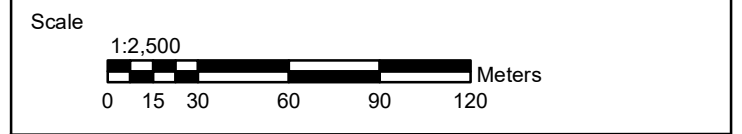
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 Coordinate System: NAD 1983 UTM Zone 18N
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



Legend

- Property Boundary
- Study Area
- Local Wetland



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Location
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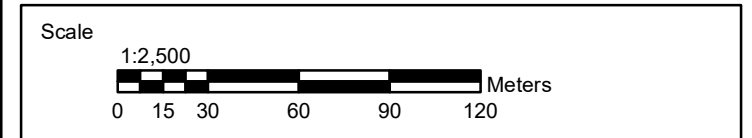
Drwn By: JD	Chkd By: DP	Site Layout
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Date: August 2021	Rev.	Figure A.2
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Legend

- Property Boundary
 - Study Area
 - Vegetation Community
- FOD7-2 = Fresh-Moist Green Ash - Hardwood Lowland Deciduous Forest
 FOC3-1 = Dry White Cedar Calcareous Bedrock Coniferous Forest
 THDM2-6 = Buckthorn Deciduous Shrub Thicket
 CVR_3 = Single Family Residential
- Large Tooth Aspen DBH = 34 cm
 - Multistem Basswood DBH = 49 cm
 - Rock Pile
 - Trembling Aspen DBH = 32 cm
 - Trembling Aspen DBH = 34 cm
 - Trembling Aspen DBH = 36 cm
 - Wildlife tree/Candidate Snag



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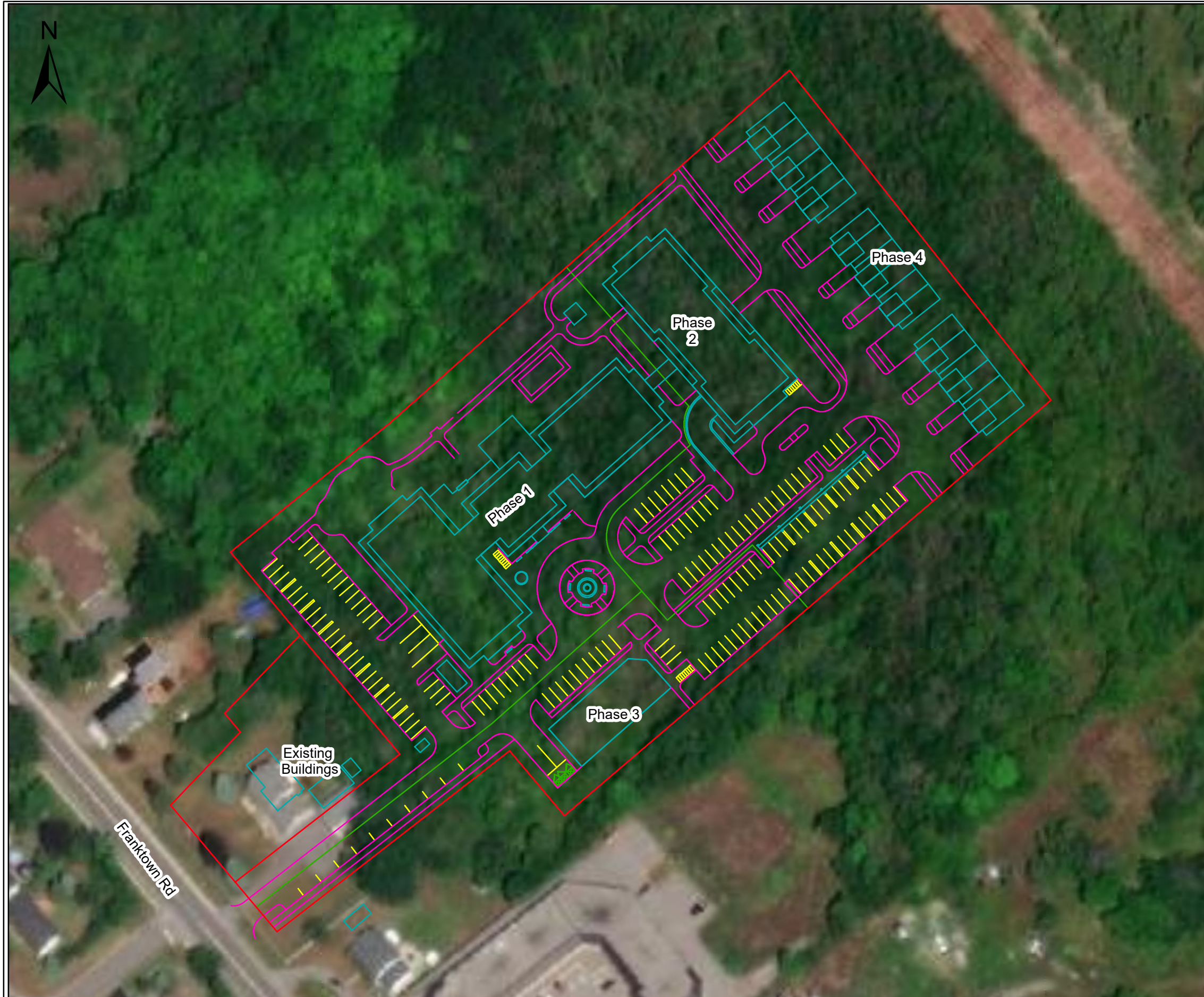
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Location
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Drwn By: JD	Chkd By: DP	Vegetation Communities
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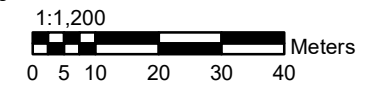
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Legend

- Property Boundary
- Buildings
- Roads
- Paved Surface
- Parking Area

Scale



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Development Concept

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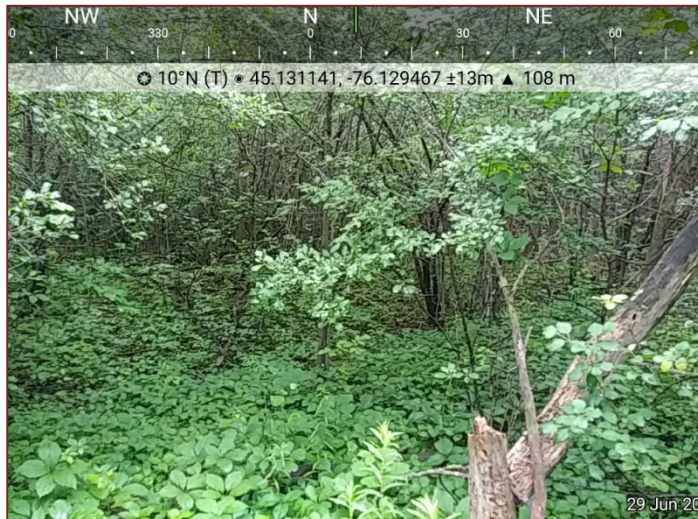
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Figure A.4

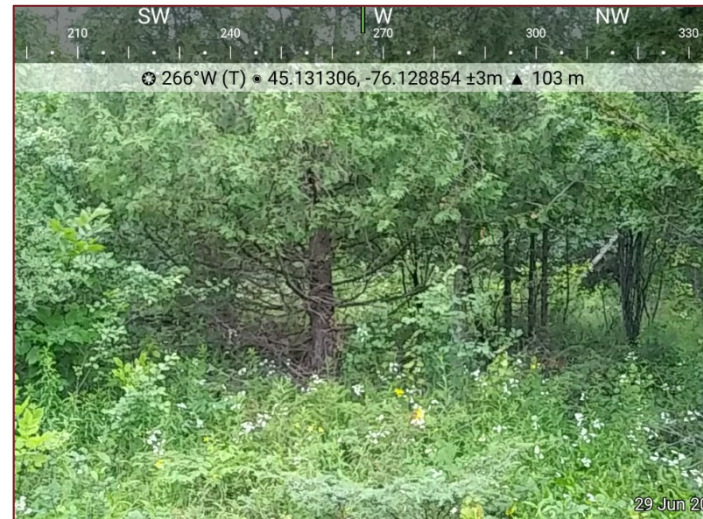


APPENDIX B

Site Photographs



Site Photograph 1 – Example of dense buckthorn growth (THDM2-6).



Site Photograph 2 – Example of dry, scrubby eastern white cedar growth (FOCS3-1).



Site Photograph 3 – Example of lowland ash woodland (FOD7-2).



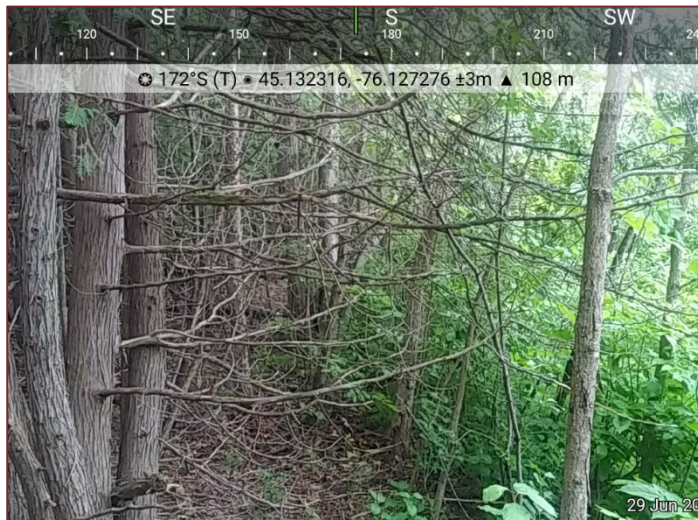
Site Photograph 4 – Wet Inclusion within Lowland Ash Forest



Site Photograph 5 – Candidate snag/wildlife tree



Site Photograph 6 – Single trembling aspen with DBH greater than 30cm, with small specimens



Site Photograph 7 – Transition from lowland ash woodland to cedar forest.



Site Photograph 8 – Cleared and graded land, at eastern property line.



Project
 Environmental Impact Statement
 347 Franktown Road
 Carleton Place, Ontario

Appendix B

File No.
 100165.013

Site Photographs



APPENDIX C

Report Summary Tables

**TABLE C.1
SCREENING RATIONALE FOR HABITATS OF SEASONAL CONCENTRATION OF ANIMALS**

Wildlife Habitat	Further Considered in EIS	Rationale
Winter Deer Yard	No	No significant stands of mast producing trees, no large coniferous forest stands on-site to provide protection and cover from winter elements.
Colonial Bird Nesting Habitat	No	No suitable habitat located on-site or within the study area to support colonial bird nesting (i.e. no eroding banks, cliff faces, sandy hills, swamps, rocky islands/peninsula, etc.).
Waterfowl Stopover and Staging Areas	No	No suitable habitat located on-site or within the study area to meet the defining use criteria for waterfowl use (i.e. no fields with sheet water).
Shorebird Migratory Stopover Area	No	Shorebird stopover sites are typically well-known and have a long history of use. The site does not contain suitable shoreline habitat for shorebird foraging.
Raptor Wintering Area	No	The site does not contain a suitable mix of forest and upland habitat to meet the defining use criteria for raptor wintering.
Bat Hibernacula	No	Cave and crevice habitat is not present on-site or within the study area.
Bat Maternity Colonies	No	Woodlands on-site do not provide the required density of snag trees (10/hectare) to provide bat maternity colony SWH.
Turtle Wintering Area	No	No suitable waterbody on-site of adequate depth to protect from winter elements or provide turtle wintering area SWH.
Reptile Hibernaculum	No	No structures such as large rock piles, cervices or other karstic features have been identified on-site. The observed bedrock outcrops on-site consist of a pavement like structure with no apparent voids for hibernacula habitat.
Migratory Butterfly Stopover Area	No	The site is not located within 5 km of Lake Ontario and therefore does not meet the defining criteria.
Landbird Migratory Stopover Area	No	The site is not located within 5 km of Lake Ontario and therefore does not meet the defining criteria.

**TABLE C.2
SCREENING RATIONALE FOR SPECIALIZED WILDLIFE HABITATS**

Specialized Wildlife Habitat	Further Considered in EIS	Rationale
Waterfowl Nesting Area	No	The site lacks suitable upland habitat adjacent to wetlands necessary to support waterfowl nesting.
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	No	The site lacks suitable forest community adjacent to a riparian area to support nesting, foraging and perching habitat for Bald Eagle and Osprey.
Woodland Nesting Raptor Habitat	No	No suitable forested habitat has been identified on-site.
Turtle Nesting Habitat	No	No suitable soft gravel or sand substrate available on-site to provide turtle nesting SWH.
Seeps and Springs	No	No seeps or spring were identified on-site during the preliminary site investigation.
Woodland Amphibian Breeding Habitat	No	Based off observations from the site investigations, no vernal pools of sufficient size (>50 m ²) to provide woodland amphibian breeding SWH.
Wetland Amphibian Breeding Habitat	No	No suitable wetland habitat has been identified on-site to support wetland amphibian breeding habitat.
Woodland Area-Sensitive Bird Breeding Habitat	No	No woodlands of adequate size occur on-site to support woodland area-sensitive bird breeding habitat. Needs large mature forest > 30 ha, with interior habitat at least 200 m from forest edge.

**TABLE C.3
SCREENING RATIONALE FOR HABITAT FOR SPECIES OF CONSERVATION CONCERN**

General Habitats of Species of Further Considered Conservation Concern	Further Considered in EIS	Rationale
Marsh Breeding Bird Habitat	No	No suitable wetlands have been identified on-site or adjacent to site to support marsh breeding bird habitat.
Open Country Breeding Bird Habitat	No	No suitable meadow habitat on-site to support open country bird breeding due to recent (< 5 years) agricultural disturbances.
Shrub/Early Successional Breeding Bird Habitat	No	Candidate early successional breeding bird habitat typically includes fallow fields transitioning to early successional forest habitats that are > 10 ha but have not been actively used for farming. Habitat on-site does not meet the defining use criteria to support shrub/early successional breeding bird habitat.
Terrestrial Crayfish Habitat	No	Terrestrial crayfish are only found within southwestern Ontario (MNR, 2012).
Special Concern and Rare Wildlife Species	No	Observation data from the NHIC indicates no special concern or rare wildlife species have been observed on-site.

**TABLE C.4
SCREENING RATIONALE FOR ANIMAL MOVEMENT CORRIDORS**

Animal Movement Corridor	Further Considered in EIS	Rationale
Amphibian Movement Corridor	No	No wetland or woodland amphibian breeding habitat has been identified on-site or within the study area.
Deer Movement Corridor	No	While the natural landscape linkage is likely to provide a corridor for deer and other small mammals, a deer-specific movement corridor has not been identified on-site, furthermore, no Stratum I or Stratum II deer yards have been identified in the area.

TABLE C.5
SCREENING RATIONALE FOR POTENTIAL SPECIES AT RISK ON-SITE OR WITHIN STUDY AREA

Species	ESA Status	Regional Distribution	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Avian					
Bald Eagle	Special Concern	Confirmed nest at Shirley's bay since 2012.	Nest in mature forests near open water.	Low	Site lacks suitable forest habitat adjacent to suitable open water and foraging area to support Bald Eagle activity.
Bank Swallow	Threatened	12 confirmed, 2 probable and 8 possible nests in recent OBBA.	Colonial nester, burrows in eroding silt, to sand banks, sand pit walls, etc.	Low	No suitable sand banks, pit walls or cliff walls to support bank swallow nesting.
Barn Swallow	Threatened	33 confirmed, 2 probable, and 3 possible nests in recent OBBA.	Nests in barns and other semi-open structures. Forages over open fields and meadows.	Low	No suitable nesting structures on-site or adjacent to site. Potentially suitable foraging habitat located on-site and in broader study area. Species was not observed on-site during any of the site investigations.
Bobolink	Threatened	Widespread in the Ottawa region, confirmed and probable nests found in 39 or 40 local atlas squares during recent OBBA.	Nests in dense tall grass fields and meadows, low tolerance for woody vegetation.	Low	No suitable grassland habitat on-site and adjacent to site in agricultural fields to support Bobolink.
Canada Warbler	Special Concern	1 confirmed, 2 probable, 6 possible nests during recent OBBA. No critical habitat identified in region.	Prefers wet forests with dense shrub layers	Low	Preferred wet forest habitat is not present on-site.
Cerulean Warbler	Threatened	No nests reported during recent OBBA. SARO and SARA range maps include part of Ottawa.	Prefers mature deciduous forest habitat.	Low	Preferred mature deciduous forest habitat is not present on-site or within study area.
Chimney Swift	Threatened	3 confirmed, 2 probable, and 11 possible nests in recent OBBA.	Nests in traditional-style open brick chimneys.	Low	Suitable nesting structures are not present on-site or within the broader study area.
Common Nighthawk	Special Concern	6 probable, 5 possible nests reported in recent OBBA. No critical habitat identified in Ottawa	Nests in a variety of open sites: beaches, fields and grave rooftops.	Low	No suitable nesting habitat present on-site.
Eastern Meadowlark	Threatened	Sporadic occurrences in Ottawa region, more common in rural areas with pasture or fallow fields.	Nests and forages in dense tall grass fields and meadows, higher tolerance to woody vegetation.	Low	No suitable grassland habitat on-site and adjacent to site in agricultural fields to support Eastern Meadowlark.
Eastern Whip-poor-will	Threatened	Primary breeding range located east, west and south of the Precambrian shield. 7 probable and 10 possible nests in recent OBBA. Critical habitat tentatively identified in 4 squares in western Ottawa.	Nests on the ground in open deciduous or mixed woodlands with little underbrush, and bedrock outcrops.	Low	No suitable woodland habitat occurs on-site or within study area.
Eastern Wood-Pewee	Special Concern	4 possible, 15 probable and 19 confirmed nests in recent OBBA for Ottawa area	Woodland species, often found near clearings and edge habitat.	Moderate	Woodland habitat on adjacent properties may provide suitable habitat for eastern wood-pewee.
Golden Eagle	Endangered	Migrant only in Ottawa area.	Nests on remote, bedrock cliffs, overlooking large burns, lakes or tundra's	Low	Suitable nesting habitat is not present on-site.
Golden-winged Warbler	Special Concern	1 confirmed, 1 probable nest in recent OBBA. Critical habitat identified in Quebec, northwest of Ottawa.	Ground nesting, edge species. Breeds in successional scrub habitats surrounded by forests. Nests in trees or large shrubs, preference to large coniferous forests, will use deciduous. Overwinters in Ottawa.	Low	Preferred scrub habitat is not present on-site or within the study area.
Evening Grosbeak	Special Concern	5 confirmed, 6 probable, 8 possible nests in recent OBBA.	Forest edge species, forages in open areas from high vantage points in	Low	Suitable habitat does not occur on-site.
Henslow's Sparrow	Endangered	No nests in recent OBBA.	Prefers open, moist, tallgrass fields.	Low	Preferred grassland habitat is not present on-site or within the study area.
Loggerhead shrike	Endangered	1 possible nest in recent OBBA. Critical habitat in Montague Township, however no confirmed nests from MNRF since 2002.	Prefers grazed pastures with short grass and scattered shrubs, especially hawthorn.	Low	Preferred pasture habitat and shrub vegetation does not occur on-site.
Olive-sided Flycatcher	Special Concern	1 probable, 1 possible nest in recent OBBA.	Forest edge species, forages in open areas from high vantage points in	Low	Preferred grassland habitat is not present on-site or within study area.
Peregrine Falcon	Special Concern	1 confirmed nest in recent OBBA and second nest established in 2011 in the Ottawa downtown.	Nests on cliffs near water and on more anthropogenic structures such as tall buildings, bridges, and smokestacks.	Low	Site lacks suitable nesting structure for peregrine falcon.
Red Knot	Endangered	Migrant only in region, found along Ottawa River shorelines, and area lagoons,	Nests in the far north, migrant along the shorelines and lagoons of the Ottawa River.	Low	Site does not provide suitable habitat for migrant red knot.
Red-headed Woodpecker	Special Concern	1 confirmed, 1 probable and 1 possible during recent OBBA. Nesting pair reported from village of Constance Bay in recent years.	Prefers open deciduous woodlands.	Low	Preferred woodland habitat is not present on-site.
Rusty Blackbird	Special Concern	No nests in recent OBBA. Primarily observed during migration only.	Wet wooded or shrubby areas (nests at edges of Boreal wetlands)	Low	Suitable habitat does not occur on-site.
Short-eared Owl	Special Concern	1 confirmed, 2 probable, 2 possible nests in recent OBBA.	Ground nester, prefers open habitats, fields and marshes.	Low	No suitable open field or open marsh habitat on-site.
Wood Thrush	Special Concern	5 possible, 15 probable, and 16 confirmed nests in recent OBBA for Ottawa area.	Prefers deciduous or mixed woodlands.	Low	The site lacks suitable deciduous or mixed woodland habitat to support Wood Thrush.

Mammalian

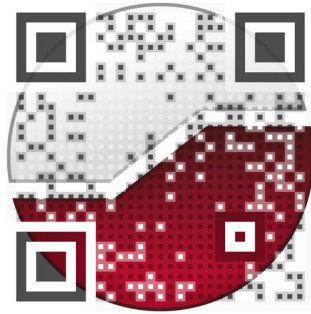
**TABLE C.5
SCREENING RATIONALE FOR POTENTIAL SPECIES AT RISK ON-SITE OR WITHIN STUDY AREA**

Species	ESA Status	Regional Distribution	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Eastern small-footed Myotis	Endangered	Rare throughout its range. Historical records in downtown Ottawa.	Roosts in rock crevices, barns and sheds. Overwinters in abandoned mines. Summer habitats are poorly understood in Ontario, elsewhere prefers to roost in open, sunny rocky habitat and occasionally in buildings (Humphrey, 2017).	Moderate	Potentially suitable anthropogenic structures adjacent to site. Potential summer habitat present within study area.
Little Brown Myotis	Endangered	Various sites in central and western parts of the Ottawa area. No critical habitat (hibernacula) identified in Ottawa to date.	Maternal colonies known to use buildings, may also roost in trees during summer. Affinity towards anthropogenic structures for summer roosting habitat and exhibit high site fidelity (Environment Canada, 2015).	Moderate	Potentially suitable anthropogenic structures adjacent to site. Potential summer habitat present within study area.
Northern myotis (Northern Long-eared Bat)	Endangered	Historical records in downtown Ottawa, more recently in sites to east (Orleans, Clarence-Rockland). No critical habitat (hibernacula) identified in Ottawa to date. Ottawa and region is at southern most limit of range.	Occurs throughout eastern North America in associated with Boreal forests. Roosts mainly in trees, occasionally anthropogenic structures during summer (Environment Canada, 2015). Overwinters in caves and abandoned mines.	Low	Species affinity is for Boreal forests and species rarely roosts in anthropogenic structures.
Tri-colored Bat	Endangered	Provincially Uncommon, only 26 documented occurrences in Ontario from pre-1980 to present (MNR, 2016). Unknown distribution in Ottawa; historical records from sites in urban Ottawa and Lanark County.	Roosts in trees, rock crevices and occasionally buildings during summer. Overwinters in caves and mines.	Moderate	Potentially suitable anthropogenic structures adjacent to site. Potential summer habitat present within study area.
Reptilian					
Blanding's Turtle	Threatened	Provincial range extends from Manitoulin Island south and east. Scattered occurrence records in central Ontario. Scattered throughout Ottawa and National Capital Region, with numerous sites in western half of region. Critical habitat present in Ottawa.	Inhabits quiet lakes, streams and wetlands with abundant emergent vegetation. Frequently occurs in adjacent upland forests.	Low	No historic occurrence data for species on NHIC or HerpAtlas database for the site. The site lacks suitable wetland and aquatic habitat to provide adequate habitat for Blanding's turtle.
Snapping Turtle	Special Concern	Widespread and abundant in Ottawa and surrounding region.	Highly aquatic species, found in a wide variety of wetlands, water bodies and watercourses.	Low	The site lacks suitable wetland and aquatic habitat to provide adequate habitat for Snapping Turtle.
Plants					
American Ginseng	Endangered	Critical habitat broadly identified in the Ottawa area. Specific locations are confidential.	Rich, moist, relatively mature deciduous forests.	Low	Suitable habitat does not occur on-site.
Butternut	Endangered	Range is confined to eastern and southern Ontario. Widespread in Ottawa and region.	Inhabits a wide range of habitats including upland and lowland deciduous and mixed forests.	Moderate	No specimens were noted during site investigations; however, species is generally known to occur within the region.
Lichens					
Pale-bellied Frost Lichen	Endangered	Historical records in downtown area (extirpated locally). No critical or regulated habitat identified in Ottawa.	Grows on the bark of hardwood trees such as white ash, black walnut, American elm and ironwood. Can also be found growing on fence posts and boulders.	Low	Species believed to be extirpated from the Ottawa area.
Insects					
Bogbean Buckmoth	Endangered	Richmond Fen	Preferred food plant is bog bean, present in a variety of wetlands including bogs, swamps and fens.	Low	Preferred wetland habitat is not present on-site.
Gypsy Cuckoo Bumble Bee	Endangered	Historic occurrences only. Range in Ontario uncertain.	Inhabits a wide range of habitats: open meadows, agricultural and urban areas, boreal forests and woodlands.	Low	Currently the only known population is in Pinery Provincial Park
Monarch Butterfly	Special Concern	Widespread in the region	Caterpillars require milkweed plants confined to meadow and open areas. Adult butterflies use more diverse habitat with a variety of wildflowers	Low	No suitable foraging habitat for monarch butterflies occurs on-site.
Mottled Duskywing	Endangered	Constance Bay area, Burnt Lands Alvar	Larval food plant (New Jersey Tea) found in sandy areas and alvars.	Low	Sandy areas and alvars not present in the study area.
Nine-spotted Lady Beetle	Endangered	Historically present but no reports in Ontario since mid-1990s	Habitat generalist	Low	No recent occurrence reports in the area, thought to be locally extirpated.
Rusty-patched Bumble Bee	Endangered	Historic records in Ottawa and Gatineau	Habitat generalist	Low	Currently the only known population occurs in Pinery Provincial Park.

**TABLE C.5
SCREENING RATIONALE FOR POTENTIAL SPECIES AT RISK ON-SITE OR WITHIN STUDY AREA**

Species	ESA Status	Regional Distribution	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Traverse Lady Beetle	Endangered	Unknown in Ottawa region. No southern Ontario records since 1985	Habitat generalist	Low	No new records of traverse lady beetle in Ontario, species thought to be absent in former habitats.
West Virginia White Butterfly	Special Concern	Unknown. No NESS or NHIC records. SARO range map includes Ottawa.	Requires mature moist deciduous woods with larval host plant toothwort.	Low	Necessary vegetation and toothwort plant not present on-site or within study area.
Yellow-banded Bumble Bee	Special Concern	Unknown. Historic occurrences and a few recent occurrences in Eastern Ontario/Western Quebec region.	Habitat generalist; mixed woodlands, variety of open habitat	Moderate	Potentially suitable foraging habitat for yellow-banded bumble bee occurs on-site.

experience • knowledge • integrity



civil	civil
geotechnical	géotechnique
environmental	environnementale
field services	surveillance de chantier
materials testing	service de laboratoire des matériaux

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