

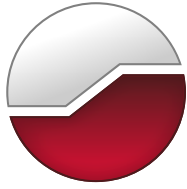


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**Environmental Impact Statement
Proposed By-law Amendment and Site
Plan Control Application
4296 Anderson Road, Carlsbad Springs
City of Ottawa, Ontario**

GEMTEC Project: 100011.121



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Submitted to:

Noel's Ottawa Snow Inc.
4296 Anderson Road
Ottawa (Carlsbad Springs), Ontario
K0A 1K0

**Environmental Impact Statement
Proposed By-law Amendment and Site
Plan Control Application
4296 Anderson Road, Carlsbad Springs
City of Ottawa, Ontario**

June 23, 2025
GEMTEC Project: 100011.121

EXECUTIVE SUMMARY

Noel's Ottawa Snow Removal (the Proponent) has retained GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) to assist with a to support the zoning by-law amendment and site plan control application for the property located at 4296 Anderson Road in Ottawa, Ontario (the Project).

To complete this Environmental Impact Statement (EIS) a desktop review and a single field investigation were completed to identify the presence or absence of natural heritage features and species at risk (SAR) on-site. The field investigation was completed April 17, 2025.

Following completion of the desktop review and field investigations the following natural heritage features were identified as being potentially found on-site or within the study area: special concern and rare wildlife habitat (Canada warbler, eastern wood-pewee, wood thrush). The following SAR and their habitat were identified as having a potential to occur on-site: eastern red bat, eastern small-foot myotis, hoary bat, little brown myotis, silver haired bat, and tri-colored bat. No floral or faunal SAR were observed on site.

Potential impacts to the natural heritage features within the study area are limited to indirect impacts to significant wildlife habitat and potential species at risk regulated habitat. No wetlands were identified on-site or within the study area. Impacts to wetlands from salt, fuel, or other pollutants are not anticipated.

Potential impacts to natural heritage features on-site are likely to be mitigated through the implementation of the proposed site plan application. Impacts to significant wildlife habitat and SAR habitat can be mitigated through adherence to timing windows for vegetation removal.

To provide protection to potential SAR and their habitat on-site, reptile and amphibian exclusion fencing should be installed around all future construction areas prior to any development or site alteration, to prevent the immigration of SAR turtles and other wildlife into the construction area. Should any SAR be discovered throughout the course of any development on-site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction. Furthermore, to ensure compliance with all applicable legislation, all best management practices and adherence to vegetation clearing windows for reptiles, birds, and bats, outlined in Section 7 should be followed to ensure no negative impacts occur to natural heritage features on-site.

The proposed project complies with the natural heritage policies of the Provincial Planning Statement and the City of Ottawa Official Plan. No significant residual negative impacts to identified natural heritage features or their ecological functions are anticipated as a result of the proposed development as long as all mitigation measures in Section 7 are enacted and best management practices followed.

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1.0 INTRODUCTION

Noel's Ottawa Snow Inc. (the Proponent) has retained GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) to assist with a proposed By-law amendment and site plan control application for a 0.46 ha existing property located on 4296 Anderson Road, City of Ottawa, Ontario (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 the required approvals for a By-law amendment and site plan control application. It is understood that the zoning of the subject property will not change to a more sensitive land use and that no new development is proposed on the property. However, as part of the approval process it is anticipated that improvements will be required, including but not limited to relocating an existing concrete block wall and shed structures. Based on *Section 4.7 – Environmental Protection* of the City of Ottawa Official Plan (Ottawa, 2022) an EIS is required showing that the proposed development will not negatively impact any potential natural heritage features, which may be present within the study area. The study area is defined as the property boundary and the adjacent lands encompassing an area of 120 m beyond the property boundary. The subject property and the extents of the study area are illustrated on Figure A.2 in Appendix A.

1.2 Objective

The 2024 Provincial Planning Statement (MMAH, 2024) issued under Section 3 of the Planning Act states that “development and site alteration shall not be permitted in: habitats of species at risk, significant wetlands, significant woodlands and significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.” Similarly, the 2024 Provincial Planning Statement dictates that ‘development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.’

The objective of the work presented herein is to identify and evaluate the significance of any natural heritage features, as defined in the Provincial Planning Statement (MMAH, 2024), on the subject property and within the broader study area. Additionally, this report will assess the potential impacts from the proposed By-law amendment and site plan control application on any natural heritage features identified and to recommend 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 regulations, policies and guidelines:

- Provincial Planning Statement (MMAH, 2024);
- Endangered Species Act (Ontario, 2007);

- Conservation Authorities Act (Ontario, 1990);
- Natural Heritage Reference Manual (OMNR, 2010);
- City of Ottawa Official Plan (Ottawa, 2022); and
- City of Ottawa EIS Guidelines (Ottawa, 2023)

1.3 Physical Setting

The subject property is located on Part Lot 16, Concession 7, Geographic Township of Gloucester, City of Ottawa, Ontario. The subject property is municipally addressed as 4296 Anderson Road and is in active commercial use. The subject property is bound to the north, south, and west by an unaddressed vacant property, and to the east by Anderson Road.

1.4 Land Use Context

The subject property is situated within a larger rural area. The existing land use designation from the City of Ottawa is Rura Area. The City of Ottawa New Colour Zoning By-law Draft zones the property Rural Countryside Zone (RU). The City of Ottawa and the Mississippi Valley Conservation Authority (MVCA) have also identified flood plains off-site within the study area.

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 which may be present on the subject property 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);
- City of Ottawa Official Plan (City of Ottawa, 2022)
- Ontario Geological Survey (OGS, 2019);
- Fisheries and Oceans Canada SAR Maps (DFO, 2019);
- Natural Heritage Information Centre Biodiversity Explorer (OMNRF, 2013);
- Breeding Bird Atlas of Ontario (Cadman et al., 2007)
- Ontario Herpetofaunal Atlas (Oldham and Weller, 2000);
- Wildlife Values Area (OMNRF, 2020a);
- Wildlife Values Site (OMNRF, 2020b);
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019); and
- South Nation Conservation Authority (SNCA) GeoPortal (undated).

2.2 Field Investigations

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
April 17, 2025	10:00 – 11:00	3°C, 0% cloud cover, Beaufort 2, no precipitation	Natural Heritage Features, Ecological Land Classification, Species at Risk

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 in April 2025, 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 and an 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 Study Area Land Use

A review of aerial photographs indicates that the subject property and surrounding area consists mainly of vacant land populated by forests, agricultural land, and commercial properties (Figure 1). Historical aerial imagery indicates that the subject property was used for agriculture in 1954. By 1976, it appears the current property boundary becomes occupied by a rural residential property or farmhouse. The surrounding land use continues to predominantly agriculture, with portions no longer being worked. By 2002 the subject property remains in the same state as 1976. The surrounding lands west of Anderson Road are no longer used for agriculture, with the eastern lands becoming a golf course. By 2024 the subject property reflects the exiting conditions. The commercial snow business is visible with the historical structures replaced with the current layout. The surrounding successional vegetation west of Anderson Road appears to have been cleared c. 2022, leaving a 40 m wide strip along Anderson Road. No additional changes to the surrounding area have occurred since the 2002 photo.

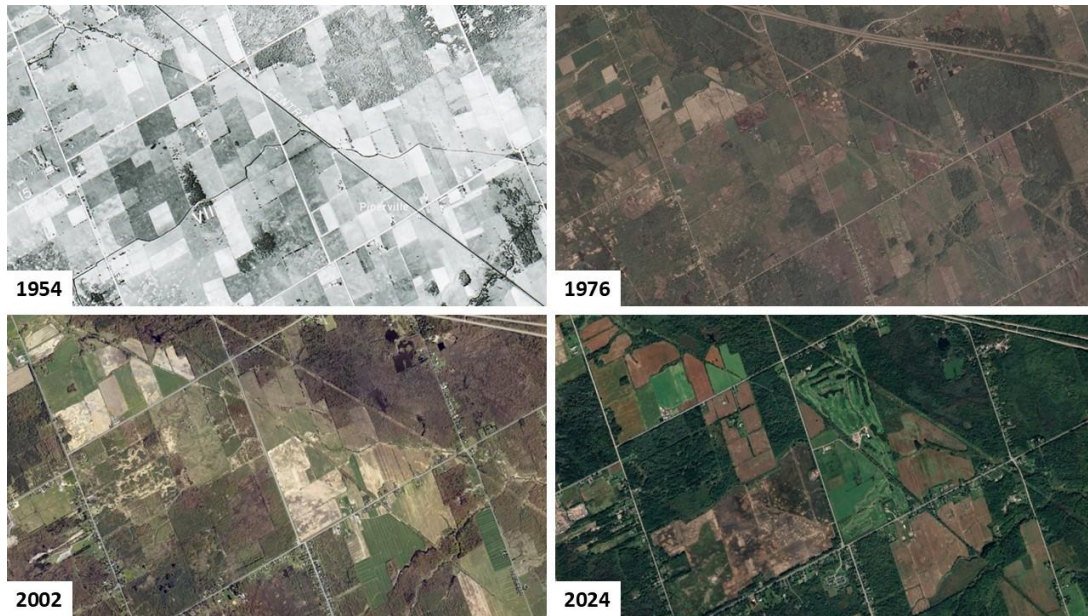


Figure 1 – Temporal Changes in Land Use within Study Area

3.3 Landforms, Soils and Bedrock Geology

The topography of the flat and graded through to accommodate existing commercial use. The topography has an average height of 80 mASL throughout.

A single topographical landform, as mapped by Chapman and Putnam (1984) is described on the subject property, sand plains of the Russell and Prescott Sand Plains physiographic region.

The Ontario Geological Survey (OGS, 2019) identifies one surficial soil unit on the subject property: fine-textured glaciomarine deposits. Located across the entire property are fine-textured glaciomarine deposits comprised of massive to well laminated silt, clay and minor sand and gravel.

Bedrock at the site, is described by OGS (2019) as shale, limestone, dolostone, and siltstone of the Georgian Bay Formation, Blue Mountain Formation, Billings Formation, Collingwood Member, and Eastview Member.

3.4 Surface Water, Groundwater and Fish Habitat

Surface water features identified as occurring within the study area are limited to the surrounding local wetland mapping. No provincially significant wetlands were identified in the study area through the desktop review.

As identified by GeoOttawa mapping and the SNCA geoportal, portions of the 1:100-year flood plain for an off-site watercourse occur within the northern portion of the study area.

Based on a review of Mississippi Valley Conservation Authority (MVCA) and City of Ottawa mapping, and following completion of the site investigations, the local wetland mapping is not reflective of existing conditions. The surrounding land use was observed to be cleared of vegetation and woodlands. As such, no local wetlands have been identified on-site or within the study area.

No other surface water features were identified within the study area following completion of the site investigation.

Groundwater investigations were not completed in support of this EIS.

3.5 Vegetation Communities

Vegetation communities on-site were confirmed by GEMTEC in 2024, following protocols utilized in the Southern Ontario Ecological Land Classification System (Lee et al., 2008). Vegetation at the site is minimal and consistent with a rural, commercial site. It is noted that the entire property is less than 0.5 ha in size, the minimum area for an ELC unit in Ontario. Table 3.1 below provides a summary of the vegetation community identified on-site.

Table 3.1 Vegetation Communities On-site

ELC Type	Description	Size (ha)
Commercial – Business Sector (CVC_1)	Occurring across the entire property is a commercial – institutional business sector community type, comprised completely of graded and paved storage area with structures. Vegetation within the study area surrounding the property included a hedgerow of white pine (<i>Pinus strobus</i>), Manitoba maple (<i>Acer negundo</i>), white birch (<i>Betula papyrifera</i>), and poplar (<i>Populus sp.</i>). The roadside ditch was dominated by cattail (<i>Typha sp.</i>). The forest north of the site had been cleared.	0.46

3.6 Wildlife

During the completed field investigation within the study area, all terrestrial wildlife, including calls and sign, were recorded. These observations are summarized in Table C.1 of Appendix C.

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 and Local 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 within the study area during the desktop review.

A desktop review of NHIC and City of Ottawa mapping indicate the surrounding lands to be local wetlands. However, as discussed in Section 3.4 above, the surrounding lands were observed to be clear of vegetation and do not reflect wetland conditions. Photos of the existing conditions surrounding the subject property are presented in Appendix B. Based on the lack of observed wetland conditions within the surrounding study area, impacts to wetlands from salt, fuel, or other pollutants are not anticipated.

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. Furthermore, the City of Ottawa provides a supplementary document *Significant Woodland: Guidelines for Identification, Evaluation, and Impact Assessment* (Ottawa, 2022), to evaluate woodlands and ensure compliance with the city’s policies.

As outlined in *Significant Woodlands: Guidelines for Identification, Evaluation and Impact Assessment* (Ottawa, 2022b), rural area woodlands are to be identified and evaluated using all the natural heritage resource manual (OMNR, 2010) criteria. For comparison of woodland criteria used in the NHRM, it is assumed that the woodland coverage within the planning area (City of Ottawa – Rural Planning Area – Ottawa East - Bearbrook) is between 15% and 30% of the land area, therefore the minimum woodland size for determining significance is 20 ha or greater.

Based on the NHRM (OMNR, 2010) screening criteria and the observed existing conditions, significant woodlands are not present on-site or within the study area.

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).

No valleylands were identified on-site during the desktop review or during the field investigation.

The mapped floodplain is 90 m from the property boundary at its closest point and is not expected to be impacted by the proposed project.

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 field investigations.

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 areas of animals, rare vegetation communities, specialized habitats for wildlife, habitats of species of conservation concern and animal movement corridors. With the exception of rare vegetation communities, Tables C.2, C.3, C.4 and C.5 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) identifies 11 types of seasonal concentration habitats that may be considered significant wildlife habitat. These 11 types of seasonal habitat are presented in Table C.2 in Appendix C, including a brief description of the rationale as to why or why they are not assessed further in this EIS.

Following review of Table C.2 in Appendix C, no habitats of seasonal concentration of animals are present on-site.

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 community identified on-site and described in Section 3.4 of this report is not ranked by the NHIC as S1, S2 or S3 and is therefore not considered to be a rare vegetation community.

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 wild habitat are evaluated in Table C.3 in Appendix C.

Following review of Table C.3 in Appendix C, no specialized habitats for wildlife are present on-site.

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 (MNR, 2015), 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 (OMNR, 2015) 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.4 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.4 in Appendix C, one habitat of species of conservation concern have been identified on-site, habitat for special concern and rare wildlife species for Canada warbler, eastern wood-pewee, and wood thrush. The *candidate* SWH is discussed in detail in the subsections below.

4.5.4.1 Special Concern and Rare Wildlife Species SWH

No species of special concern were identified on-site or within the broader study area through the site investigations. However, through the desktop analysis, one species of special concern was identified on-site or within the broader study area: Canada warbler (*Cardellina canadensis*), eastern wood-pewee (*Contopus virens*), and wood thrush (*Hylocichla mustelina*).

Canada Warbler

The Canada warbler is a small brightly coloured songbird with an S-rank of S4B (apparently secure - breeding population) and is listed as a species of special concern in Ontario. Canada warbler is a woodland species with a preference for wet forests with developed shrub understories. The Canada warbler was identified as having potential to occur within the study area based on suitable woodland edge habitat. The NHIC database indicates the presence of the species within 1 km of site. The species was not observed on-site during the field investigations. Given the abundance of forest habitat in the greater study area, and the NHIC occurrence record for the species, there is a moderate potential for Canada warbler and their habitat to occur within the study area. Impacts to the Canada warbler are discussed in Section 6 below.

Eastern Wood-Pewee

The eastern wood-pewee is a small flycatcher bird with an S-rank of S4B (apparently secure - breeding population) and is listed as a species of special concern in Ontario. Eastern wood-pewee is a woodland species that is often found near clearings and edges. The eastern wood-pewee was identified as having potential to occur within the study area based on suitable woodland edge

habitat. The NHIC database indicates the presence of the species within 1 km of site. The species was not observed on-site during the field investigations. Given the abundance of forest and open habitat in the greater study area, and the NHIC occurrence record for the species, there is a moderate potential for eastern wood-pewee and their habitat to occur within the study area. Impacts to the Eastern wood-pewee are discussed in Section 6 below.

Wood Thrush

The Wood Thrush is a medium-sized songbird with an S-rank of S4B (apparently secure – breeding population) and is listed as a species of special concern in Ontario. Wood thrush is typically found in deciduous and mixed forests with dense understory vegetation. The species prefers habitats with a combination of trees, shrubs, and leaf litter. The wood thrush was identified as having potential to occur within the study area based on suitable woodland edge habitat. The NHIC database indicates the presence of the species within 1 km of site. The species was not observed on-site during the field investigations. Given the abundance of forest and open habitat in the greater study area, and the NHIC occurrence record for the species, there is a moderate potential for wood thrush and their habitat to occur within the study area. Impacts to the wood thrush are discussed in Section 6 below.

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 by the MNR (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 MNR district office or by the regional planning authority.

Following review of Table C.5 in Appendix C, no animal movement corridors have been identified on-site. As such, animal movement corridors are not discussed or evaluated further in this EIS.

Further, the City of Ottawa has not identified any Natural Heritage System Linkage Areas on-site on Schedule 11a of the Official Plan (Ottawa, 2022).

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 the harmful alteration, disturbance or destruction of fish habitat 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 described in Section 3.4, the study area was observed to lack suitable fish bearing habitat. The nearest watercourse is over 120 m from the subject property. Based on the proposed development comprising of a by-law amendment and site plan control application with minor adjustments to existing structures, no impacts are anticipated to occur to fish habitat within the greater study area.

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.6 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 includes a zoning by-law amendment and site plan application. It is understood that no future development is proposed; however, there will be minor adjustments to existing structures. The proposed development is illustrated on figure A.3 of Appendix A.

Future components of the proposed project considered in the impact assessment presented in Section 6 include: fill placement and elevation grading, relocation of various forms of small storage structures and brick material, general landscaping activities.

It is understood by GEMTEC that stormwater management criteria for the proposed project will be 100-year post to 2-year predevelopment. Stormwater management is to be completed in accordance with the City of Ottawa Sewer Design Guidelines Revised Section 8 - Stormwater Management document (City of Ottawa, 2012). The stormwater management design is to include the entire site and will include a minimum of 80% total suspended solids removal.

Potential environmental impacts from the proposed project are discussed in relation to proposed construction in Section 6 below.

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: minor vegetation clearing, an increase in impervious surface, an increase in stormwater generation, short-term increases in sedimentation and/or erosion, and increased noise generation.

6.1 Significant Wildlife Habitat

The potential presence of significant wildlife habitat on-site and within the study area was evaluated in Section 4.5, and as a result of this assessment, one type of significant wildlife habitat was determined to be present within the study area: habitats of special concern and rare wildlife species (Canada warbler, eastern wood-pewee, and wood thrush).

Potential impacts to significant wildlife habitats are discussed in greater detail in the following subsections, while mitigation measures intended to prevent such impacts are presented in Section 7.

6.1.1 Habitats of Special Concern and Rare Wildlife Species SWH

Canada Warbler

Canada warbler observations provided by the NHIC indicate a historic species record within 1 km of the subject property. Canada warbler were not observed on-site during the field investigation.

Based on the field observations, no suitable woodland habitat is present on-site. The proposed minor relocations of existing structures are not anticipated to require tree clearing. As such, potential impacts are limited short duration construction impacts, including heavy machinery encroachment, fill placement and long-term human disturbance such as noise generation, dumping or refuse and yard waste and trampling. Standard mitigation measures recommended to protected migratory birds from indirect impacts associated with construction will be sufficient to ensure no indirect impacts to Canada warbler occur. These general migratory bird mitigation measures are presented in Section 7.

Eastern Wood-Pewee

Eastern wood-pewee observations provided by the NHIC indicate the species within 1 km of the subject property. Eastern wood-pewee were not observed on-site during the field investigation.

Based on the field observations, no woodland habitat is present on-site. The proposed minor relocations of existing structures are not anticipated to require tree clearing. As such, potential

impacts are limited short duration construction impacts, including heavy machinery encroachment, fill placement and long-term human disturbance such as noise generation, dumping or refuse and yard waste and trampling.

Wood Thrush

Wood thrush observations provided by the NHIC indicate the species within 1 km of the subject property. Wood thrush were not observed on-site during the field investigation.

Based on the field observations, no woodland habitat is present on-site. The proposed minor relocations of existing structures are not anticipated to require tree clearing. As such, potential impacts are limited short duration construction impacts, including heavy machinery encroachment, fill placement and long-term human disturbance such as noise generation, dumping or refuse and yard waste and trampling.

6.2 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 subsections below.

6.2.1 Eastern Red Bat

Eastern red bat are long distance migrants, travelling from the overwintering grounds in Mexico and the southern United States where they hibernate under leaf litter, with periods of torpor lasting several days (COSEWIC, 2023). In the summer the species makes long distance trips to summer ranges in the north, with the species showing high fidelity to small roosting areas (COSEWIC, 2023).

Based on the presence of suitable forested habitat within the study area, there is a potential for the eastern red bat to occur on the property, primarily for foraging or non-maternal roosting. The proposed minor relocations of existing structures are not anticipated to require tree clearing. As such, potential impacts are limited short duration construction impacts, including heavy machinery encroachment, fill placement and long-term human disturbance such as noise generation, dumping or refuse and yard waste and trampling. Should tree removal be required during future relocations, SAR bat species that may be using the subject property for life processes will be protected through the implementation of timing windows. These measures are discussed further in Section 7.

6.2.2 Eastern Small-footed Myotis

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, 2021a).

Based on the presence of suitable forested habitat 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. The proposed minor relocations of existing structures are not anticipated to require tree clearing. As such, potential impacts are limited short duration construction impacts, including heavy machinery encroachment, fill placement and long-term human disturbance such as noise generation, dumping or refuse and yard waste and trampling.

6.2.3 Hoary Bat

Based on the presence of suitable forested habitat within the study area, there is a potential for the hoary bat to occur on the property, primarily for foraging or non-maternal roosting. The proposed minor relocations of existing structures are not anticipated to require tree clearing. As such, potential impacts are limited short duration construction impacts, including heavy machinery encroachment, fill placement and long-term human disturbance such as noise generation, dumping or refuse and yard waste and trampling.

6.2.4 Little Brown Myotis

Little Brown Myotis overwinter in caves and abandoned mines, they require highly humid conditions and temperatures that remain above the freezing mark (Ontario, 2021b). 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, 2013).

Based on the presence of suitable forested habitat within the study area, there is a potential for there is a potential for Little Brown Myotis to occur on the property, primarily for foraging or non-maternal roosting. The proposed minor relocations of existing structures are not anticipated to require tree clearing. As such, potential impacts are limited short duration construction impacts, including heavy machinery encroachment, fill placement and long-term human disturbance such as noise generation, dumping or refuse and yard waste and trampling.

6.2.5 Silver-haired Bat

Based on the presence of suitable forested habitat within the study area, there is a potential for the silver-haired bat to occur on the property, primarily for foraging or non-maternal roosting. The

proposed minor relocations of existing structures are not anticipated to require tree clearing. As such, potential impacts are limited short duration construction impacts, including heavy machinery encroachment, fill placement and long-term human disturbance such as noise generation, dumping or refuse and yard waste and trampling.

6.2.6 Tri-colored Bat

Tri-colored Bat overwinter in 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).

Based on the presence of suitable forested habitat within the study area, there is a potential for the Tri-colored Bat to occur on the property, primarily for foraging or non-maternal roosting. The proposed minor relocations of existing structures are not anticipated to require tree clearing. As such, potential impacts are limited short duration construction impacts, including heavy machinery encroachment, fill placement and long-term human disturbance such as noise generation, dumping or refuse and yard waste and trampling.

6.3 Cumulative Impacts

Cumulative impacts to the natural environment at the site due to increased human presence, increased wildlife and human interaction and increased noise, are expected to be negligible given the existing industrial land use on-site.

Cumulative impacts such as those listed above can be mitigated by implementing the 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.

7.1 Significant Wildlife Habitat

7.1.1 Habitats of Special Concern and Rare Wildlife Species

7.1.1.1 Canada Warbler, Eastern Wood-pewee, and Wood Thrush

No tree clearing is anticipated to be required to relocate existing structures. If vegetation removal is required, tree removal should occur outside the key breeding bird period (typically March 31 to August 31) as identified by Environment Canada for the protection of nesting and foraging avian species of special concern and to avoid contravention of the Migratory Bird Convention Act. If vegetation clearing activities must take place during the timing window than a nest survey shall be conducted by a qualified professional.

7.2 Species at Risk

7.2.1 SAR Bats

As no critical habitat (i.e. overwintering caves or crevasses, or maternity roosts) were identified on-site, in accordance with MECP best management practices, to protect roosting and foraging bats, tree removal if required shall take place outside of the spring and summer active season (typically March 15 to November 30), when bats are more likely to be using forest habitat. If vegetation clearing cannot avoid the active season, the consultation with the MECP is needed to determine whether the project will require an authorization.

In GEMTECs experience on similar development applications and consultation with the MECP for projects and properties of similar size and scale, the above mitigation/avoidance measures are sufficient to ensure no negative impacts to SAR bats. In eastern Ontario habitat is not a limiting factor, as such the MECP recommends the use of avoidance timing window for clearing of trees (less than 10 cm in diameter) in order to avoid impacts to SAR bat species. As long as timing windows can be adhered to, the project will not impact SAR bats, and it is GEMTECs opinion that no further consultation with the MECP is required.

Should any components of the proposed project require tree clearing between March 15 and November 30, further consultation with the MECP is required.

7.3 Wildlife

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

- To protect wildlife during construction, construction should be completed in accordance with the best practices outlined in Protocols for Wildlife Protection During Construction from the City of Ottawa (Ottawa, 2022a).
- While there is limited vegetation on-site that is suitable for bird nesting, common ground nesting species, like killdeer (*Charadrius vociferus*), often use construction areas for nesting opportunities. Killdeer and other ground nesting bird species are protected under the Migratory Birds Convention Act. All site activities including general construction and site disturbance, should be aware of potential birds nesting on site and avoid impacts to nesting birds during the active timing window, March 31 to September 30, to avoid the key breeding bird period and turtle active season. The timing window protects migratory birds and avoids contravention of the Migratory Bird Convention Act and Endangered Species Act.
- Silt fence barriers should be installed around the entire construction envelope to prohibit the emigration of wildlife into the construction area. Silt fencing should be checked daily and following each precipitation event.
- Perform daily pre-work sweeps of the construction area to ensure no wildlife species are present and to remove any wildlife from inside the construction area.
- Should any SAR be discovered throughout the course of the proposed works, the species at risk biologist with the local MECP district shall be contacted immediately and operations ceased to avoid any negative impacts to SAR or their habitat until further direction is provided by the MECP.

7.4 Best Practice Measures for Mitigation of Cumulative Impacts

The following best management practice measures are provided for the mitigation of cumulative impacts resulting from general construction and development activities;

- 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.
- Maintain as much permeable surface as possible in future development plans to minimize the generation of stormwater runoff.
- Silt fencing should be installed along all setbacks to provide visual demarcation of the setbacks and to prevent machinery encroachment and sediment transport.
- Erosion and sediment control measures should be maintained until all disturbed ground has been permanently stabilized.
- 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 Red Oak.

8.0 CONCLUSIONS

The proposed project supported by this EIS is the proposed by-law amendment and site plan application. It is understood that no future development is proposed, however there will be minor adjustments to existing structures. The proposed development is illustrated on figure A.3 of Appendix A.

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 by-law amendment, site plan application, or the proposed minor changes to existing structures.

Following review of the information pertaining to the natural heritage features of the site, the following general conclusions are provided by GEMTEC in regard to the Environmental Impact Statement.

- No significant negative impacts to natural heritage features identified on-site, including significant wildlife habitat, fish habitat, or habitats of species at risk from the proposed by-law amendment and site plan application are anticipated.
- The proposed project complies with the natural heritage policies of the Provincial Planning Statement.
- The proposed development complies with the natural heritage policies of the City of Ottawa Official Plan (2022).

9.0 LIMITATION OF LIABILITY

This report and the work referred to within it have been undertaken by GEMTEC Consulting Engineers and Scientists Limited (GEMTEC), and prepared for Noel's Ottawa Snow Inc. and is intended for the exclusive use of Noel's Ottawa Snow Inc. This report may not be relied upon by any other person or entity without the express written consent of GEMTEC and Noel's Ottawa Snow Inc. 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,



Luca Fiorindi, B.A., G.Cert.
Junior Biologist



Zachary Anderson, B.Sc., CAN-CISEC
Biologist

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APPENDIX A

Report Figures

Figure A.1 – Site Location

Figure A.2 – Site Layout

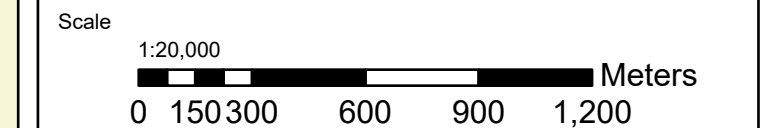
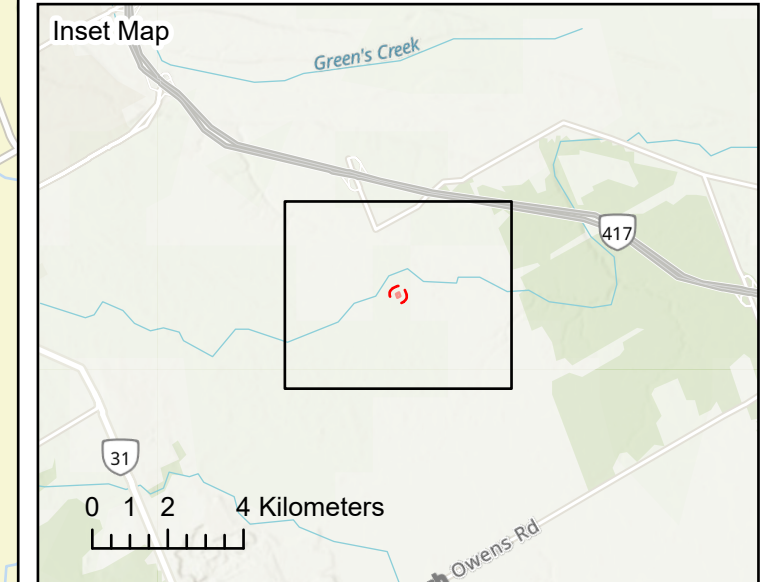
Figure A.3 – Development Concept

Figure A.4 – Natural Heritage Features



Legend

- Study Area
- Property Boundary



 <p>GEMTEC CONSULTING ENGINEERS AND SCIENTISTS</p>	32 Steacie Drive, Ottawa, ON K2K 2A9 T: (613) 836-1422 www.gemtec.ca ottawa@gemtec.ca
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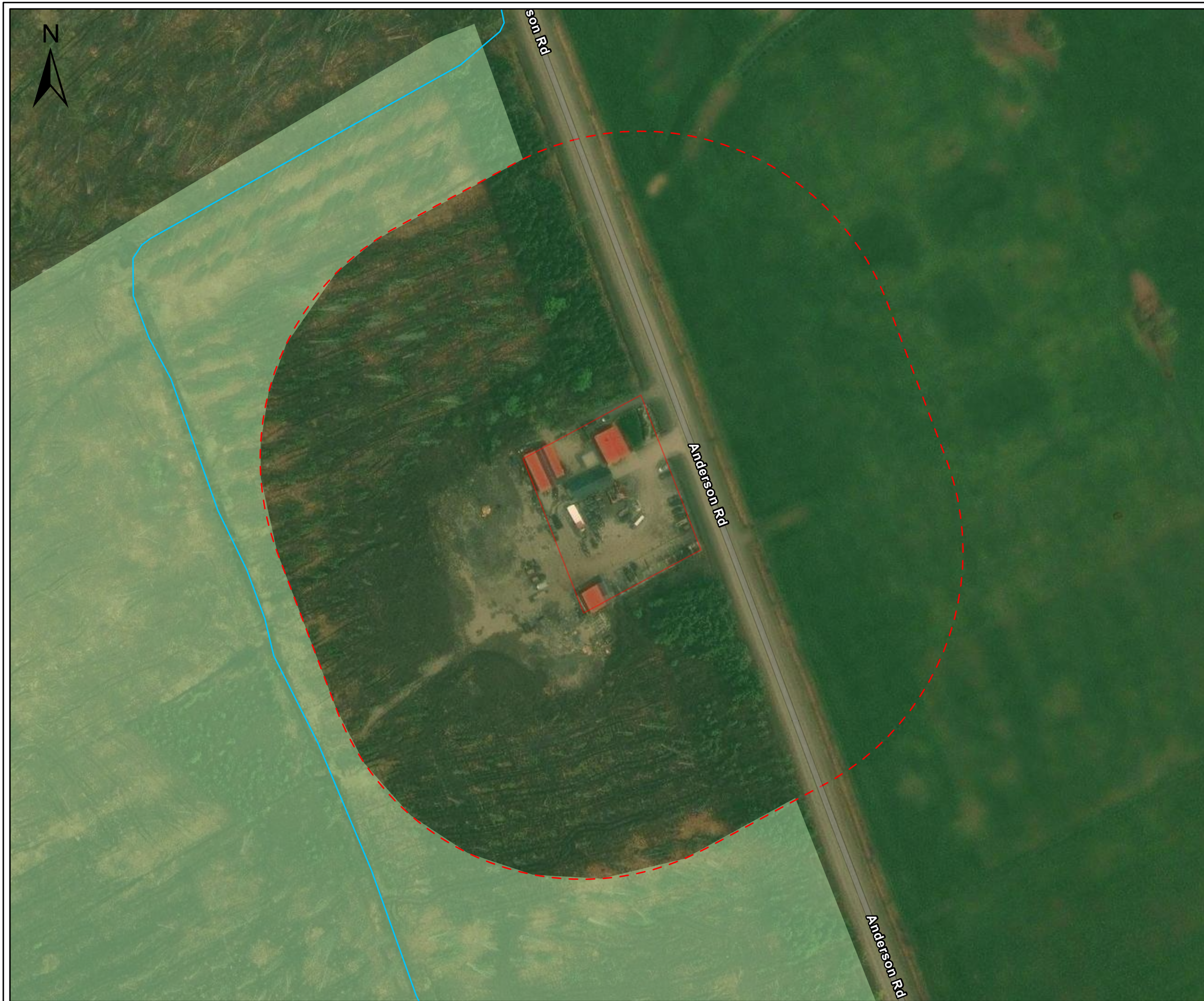
Client: Novatech	Project: 100011.121
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Location
**4296 Anderson Road,
Ottawa, Ontario**

Drwn By: LF	Chkd By: ZA	Site Location
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Date: May 2025	Rev. 0	Figure: A.1
© Queen's Printer for Ontario		

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Street Map: City of Ottawa, Province of Ontario, Esri Canada, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NRCAN, Parks Canada
World Topographic Map: Province of Ontario, Esri Canada, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, NRCAN, Parks Canada



Legend

- Study Area
- Property Boundary
- Watercourse
- Local Wetlands - GeoOttawa

Scale		1:2,600	
		32 Steacie Drive, Ottawa, ON K2K 2A9 T: (613) 836-1422 www.gemtec.ca ottawa@gemtec.ca	
Client:		Project:	
Novatech		100011.121	
Location			
4296 Anderson Road, Ottawa, Ontario			
Drwn By:	Chkd By:	Site Layout	
LF	ZA		
Date: May 2025		Rev.	Figure: A.2
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Coordinate System: NAD 1983 UTM Zone 18N
 Service Layer Credits: World Imagery: Maxar, Microsoft
 Hybrid Reference Layer: Esri Community Maps Contributors, City of Ottawa, Province of Ontario, Esri Canada, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NRCan, Parks Canada



Legend

- Study Area
- Property Boundary
- Development Plan
- Watercourse
- Local Wetlands - GeoOttawa

Scale		1:2,600	
		Meters	
		32 Steacie Drive, Ottawa, ON K2K 2A9 T: (613) 836-1422 www.gemtec.ca ottawa@gemtec.ca	
Client:	Novatech	Project:	100011.121
Location 4296 Anderson Road, Ottawa, Ontario			
Drwn By: LF	Chkd By: ZA	Site Plan Concept	
Date: May 2025		Rev. 0	Figure: A.3
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 World Imagery: Maxar, Microsoft



Legend

- Study Area
- Property Boundary
- Development Plan
- Watercourse
- Local Wetlands - GeoOttawa
- Floodplain 1100

Scale		1:2,600	
		Meters	
		32 Steacie Drive, Ottawa, ON K2K 2A9 T: (613) 836-1422 www.gemtec.ca ottawa@gemtec.ca	
Client:		Project:	
Novatech		100011.121	
Location			
4296 Anderson Road, Ottawa, Ontario			
Drwn By:	Chkd By:	Natural Heritage Features	
LF	ZA		
Date: May 2025		Rev.	Figure: A.4
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Coordinate System: NAD 1983 UTM Zone 18N
 Service Layer Credits: Tiled service layer: © OpenStreetMap (and) contributors, CC-BY-SA
 World Imagery: Maxar, Microsoft



APPENDIX B

Site Photographs

North West

☉ 328°NW (T) • 45.348967, -75.528173 ±3m ▲ 49m



17 Apr 2025, 10:15:04 a.m.

Site Photograph 1: CVC_1 – Commercial – Business Sector

South West

☉ 257°SW (T) • 45.349369, -75.528386 ±3m ▲ 49m



17 Apr 2025, 10:15:46 a.m.

Site Photograph 2: CVC_1 – Commercial – Business Sector

South

☉ 169°S (T) • 45.349061, -75.528447 ±4m ▲ 49m



17 Apr 2025, 10:16:52 a.m.

Site Photograph 3: CVC_1 – Commercial – Business Sector

North

☉ 10°N (T) • 45.348927, -75.528753 ±4m ▲ 49m



17 Apr 2025, 10:17:30 a.m.

Site Photograph 4: CVC_1 – Commercial – Business Sector



Site Photograph 5: Surrounding Lands



Site Photograph 6: CVC_1 – Commercial – Business Sector



Site Photograph 7: Surrounding Lands



Site Photograph 8: CVC_1 – Commercial – Business Sector



APPENDIX C

Report Summary Tables

**TABLE C.1
SUMMARY OF WILDLIFE OBSERVED ON-SITE AND ADJCENT TO SITE**

Common Name	Scientific Name	S-Rank	Evidence
Avian Species			
American crow	<i>Corvus brachyrhynchos</i>	S5	Heard calling
Blue jay	<i>Cyanocitta cristata</i>	S5	Heard calling
Song sparrow	<i>Melospiza melodia</i>	S5	Heard calling

Notes:

Subnational Conservation Status Ranks:

S1 - Critically Imperilled, at very high risk of extirpation, very few populations or occurrences or very steep population decline

S2 - Imperilled, at high risk of extirpation, few populations or occurrences or steep population decline

S3 - Vulnerable, at moderate risk of extirpation, relatively few populations or occurrences, recent and widespread population decline

S4 - Apparently Secure, at a family low risk of extirpation, many populations or occurrences, some concern for local population decline

S5 - Secure, at very low or no risk of extirpation, abundant populations or occurrences, little to no concern for population decline

Qualifiers:

S#B - Conservation status refers to the breeding population of the species

S#N - Conservation status refers to the non-breeding population of the species

S#M - Migrant species, conservation status refers to the aggregating transient population of the species

**TABLE C.2
SCREENING RATIONALE FOR HABITATS OF SEASONAL CONCENTRATION AREAS**

Wildlife Habitat	Further Considered in EIS	Rationale
Waterfowl Stopover and Staging Areas	No	No suitable terrestrial or wetland habitat on-site or within the study area to support waterfowl stopover SWH. No waterfowl stopover areas are mapped within the greater study area by the NHIC.
Shorebird Migratory Stopover Area	No	No suitable habitat within the study area to support shorebird migratory concentration areas. No shorebird migratory concentration areas are mapped on-site by the NHIC. Shorebird stopover sites are typically well-known and have a long history of use.
Raptor Wintering Area	No	The site does not provide a combination of forest and field habitats. No woodlands within study area.
Bat Hibernacula	No	Cave and crevice habitat is not present on-site or within the study area.
Bat Maternity Colonies	No	No woodlands present within the study area that can support bat maternity colonies.
Turtle Wintering Area	No	No suitable aquatic habitat within the study area to support turtle wintering habitat.
Reptile Hibernaculum	No	No structures such as large rock piles, bedrock outcrops, cervices or other karstic features have been identified on-site.
Colonial Bird Nesting Habitat	No	No suitable habitat located on-site or within the study area to support colonial bird nesting.
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.
Deer Yarding Areas and Winter Congregation Areas	No	No suitable stands of forested habitat present on-site, furthermore, as outlined in the Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015) winter deer yards and deer management are an MNRF responsibility. Based on review of publically available data from the UCLG OP and the OMNRF on Land Information Ontario Geo-hub, no Stratum I or Stratum II deer yards has been identified on-site or within the broader study area.

**TABLE C.3
SCREENING RATIONALE FOR SPECIALIZED WILDLIFE HABITATS**

Specialized Wildlife Habitat	Further Considered in EIS	Rationale
Waterfowl Nesting Area	No	No suitable wetland habitat within the study area to support SWH presence.
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	No	No suitable nesting, foraging, or perching habitat observed on-site. Nesting sites for these species are uncommon in Ecoregion 6E (MNR, 2012).
Woodland Nesting Raptor Habitat	No	No suitable areas of contiguous habitat within the study area.
Turtle Nesting Habitat	No	No suitable sandy, sunny areas adjacent to appropriate ELC code habitats or water features to support turtle nesting habitat.
Seeps and Springs	No	No seeps or springs are present on-site.
Woodland Amphibian Breeding Habitat	No	No wetland habitat on-site to support woodland amphibian breeding SWH.
Wetland Amphibian Breeding Habitat	No	No wetland habitat on-site to support wetland amphibian breeding SWH.
Woodland Area-Sensitive Bird Breeding Habitat	No	Woodland area-sensitive birds require interior forest habitat located >200 m from the forest edge in large (>30 ha) forest stands. No woodland habitat present within the study area.

**TABLE C.4
SCREENING RATIONALE FOR HABITAT FOR SPECIES OF CONSERVATION CONCERN**

General Habitats of Species of Conservation Concern	Further Considered in EIS	Rationale
Marsh Breeding Bird Habitat	No	No suitable wetland habitat on-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.
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. No habitat on-site to support Shrub/Early Successional Breeding Bird Habitat.
Terrestrial Crayfish Habitat	No	Terrestrial crayfish are only found within southwestern Ontario (MNRF, 2012).
Special Concern and Rare Wildlife Species	Yes	Occurrence data from the NHIC indicates the following species of special concern as potentially present within 1 km of site; wood thrush, eastern wood-pewee, and Canada warbler. No species of special concern were observed within the study area during the field investigation.

**TABLE C.5
SCREENING RATIONALE FOR ANIMAL MOVEMENT CORRIDORS**

General Habitats of Species of Conservation Concern	Further Considered in EIS	Rationale
Amphibian Movement Corridor	No	No wetland amphibian breeding habitat present on-site.
Deer Movement Corridor	No	No stratum I or II winter deer yards have been identified on-site by the OMNRF.

**TABLE C.6
SCREENING RATIONALE FOR POTENTIAL SPECIES AT RISK ON-SITE OR WITHIN STUDY AREA**

Species	ESA Status	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Avian				
Bank Swallow	Threatened	Colonial nester, burrows in eroding silt, to sand banks, sand pit walls, etc.	Low	Suitable habitat not present on-site or within study area. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Barn Swallow	Special Concern	Nests in barns and other semi-open structures. Forages over open fields and meadows.	Low	Suitable anthropogenic structures within the study area. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Bobolink	Threatened	Nests in dense tall grass fields and meadows, low tolerance for woody vegetation.	Low	No suitable field habitat within study area to support species presence. NHIC indicates species occurrence within 1 km of site, however occurrence is likely associated with field/agricultural habitat within greater study area. Species was not observed during site investigations.
Canada Warbler	Special Concern	Prefers wet forests with dense shrub layers	Moderate	No suitable wet forest habitat on-site to support species. NHIC indicates species occurrence within 1 km of site. Species was not observed during site investigations.
Cerulean Warbler	Threatened	Prefers mature deciduous forest habitat.	Low	No suitable habitat on-site to support species presence. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Chimney Swift	Threatened	Nests in traditional-style open brick chimneys.	Low	No suitable nesting structures on-site or within broader study area.
Common Nighthawk	Special Concern	Nests in a variety of open sites: beaches, fields and grave rooftops.	Low	No suitable habitat conditions on-site to support species presence. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Eastern Meadowlark	Threatened	Nests and forages in dense tall grass fields and meadows, higher tolerance to woody vegetation.	Low	Habitat within the study area unlikely to support species presence. No occurrence record for species within 1 km of site. Species was not observed during site investigations.
Eastern Whip-poor-will	Threatened	Nests on the ground in open deciduous or mixed woodlands with little underbrush, and bedrock outcrops.	Low	No suitable habitat conditions on-site to support species presence. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Eastern Wood-Pewee	Special Concern	Woodland species, often found near clearings and edge habitat.	Moderate	Potentially suitable woodland edge habitat within study area. NHIC indicates species occurrence within 1 km of site. Species was not observed during site investigations.
Evening Grosbeak	Special Concern	Nests in trees or large shrubs, preference to large coniferous forests, will use deciduous. Overwinters in Ottawa.	Low	No suitable habitat on-site to support the species. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Golden Eagle	Endangered	Nests on remote, bedrock cliffs, overlooking large burns, lakes or tundras	Low	Suitable nesting habitat does not occur on-site.
Golden-winged Warbler	Special Concern	Ground nesting, edge species. Breeds in successional scrub habitats surrounded by forests.	Low	No suitable habitat on-site to support the species. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Grasshopper Sparrow	Special Concern	Ground-nesting grassland species. Prefers fields with low sparse vegetation on sand, alvars or poor soils.	Low	No suitable grassland habitat within the study area. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Henslow's Sparrow	Endangered	Prefers open, moist, tallgrass fields.	Low	No suitable grassland habitat within the study area. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Least Bittern	Threatened	Prefers marshes, shrub swamps, usually near cattails	Low	No suitable marsh habitat present on-site. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Loggerhead Shrike	Endangered	Prefers grazed pastures with short grass and scattered shrubs, especially hawthorn.	Low	No suitable shrub habitat within the study area. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Northern Bobwhite	Endangered	Inhabits open areas, such as agricultural fields and grasslands.	Low	No suitable shrub habitat within the study area. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Olive-sided Flycatcher	Special Concern	Forest edge species, forages in open areas from high vantage points in trees.	Low	Suitable woodland edge habitat within the study to support species presence. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Peregrine Falcon	Special Concern	Nests on cliffs near water and on more anthropogenic structures such as tall buildings, bridges, and smokestacks.	Low	Suitable nesting habitat does not occur on-site. Site lacks suitable high topography component.

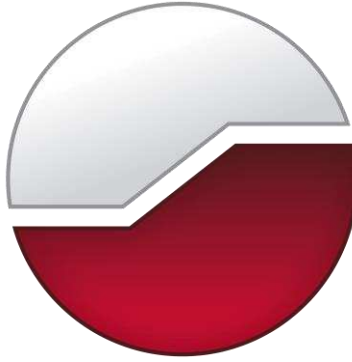
**TABLE C.6
SCREENING RATIONALE FOR POTENTIAL SPECIES AT RISK ON-SITE OR WITHIN STUDY AREA**

Species	ESA Status	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Red-headed Woodpecker	Special Concern	Prefers open deciduous woodlands, particularly those dominated by oak and beech.	Low	Suitable woodland edge habitat on-site to support species. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Rusty Blackbird	Special Concern	Wet wooded or shrubby areas (nests at edges of Boreal wetlands)	Low	No suitable wet wooded habitat present on-site. No occurrence records for species within 1 km of site. Species was not observed during site investigations.
Short-eared Owl	Special Concern	Ground nester, prefers open habitats, fields and marshes.	Low	No suitable open field habitat present on-site. No occurrence record for species within 1 km of site. Species was not observed during site investigations.
Wood Thrush	Special Concern	Prefers deciduous or mixed woodlands.	Moderate	Potentially suitable woodland edge habitat within study area. NHIC indicates species occurrence within 1 km of site. Species was not observed during site investigations.
Mammalian				
Eastern Red Bat	Endangered	Inhabits coniferous and mixed forests. Roosts near the tops of trees and forage next to clearing or open water	Moderate	Potentially suitable anthropogenic structures on-site and within the greater study area. Potentially suitable woodland edge habitats on-site to support maternal roosting and foraging habitat.
Eastern small-footed Myotis	Endangered	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 on-site and within the greater study area. Potentially suitable woodland edge habitats on-site to support maternal roosting and foraging habitat
Hoary Bat	Endangered	Occupies coniferous and deciduous forest habitats. Roosts near the tops of trees and forage next to clearing or open water. Females do not congregate in maternal roost colonies.	Moderate	Potentially suitable anthropogenic structures on-site and within the greater study area. Potentially suitable woodland edge habitats on-site to support maternal roosting and foraging habitat
Little Brown Myotis	Endangered	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 on-site and within the greater study area. Potentially suitable woodland edge habitats on-site to support maternal roosting and foraging habitat
Northern myotis (Northern Long-eared Bat)	Endangered	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 rarely roosts in anthropogenic structures.
Silver-haired Bat	Endangered	Prefers edge habitats in forested regions near water. Roosts alone or in small groups near tops of trees, under bark, or in woodpecker holes.	Moderate	Potentially suitable anthropogenic structures on-site and within the greater study area. Potentially suitable woodland edge habitats on-site to support maternal roosting and foraging habitat
Tri-colored Bat	Endangered	Roosts in trees, rock crevices and occasionally buildings during summer. Overwinters in caves and mines.	Moderate	Potentially suitable anthropogenic structures on-site and within the greater study area. Potentially suitable woodland edge habitats on-site to support maternal roosting and foraging habitat
Reptilian				
Blanding's Turtle	Threatened	Inhabits quiet lakes, streams and wetlands with abundant emergent vegetation. Frequently occurs in adjacent upland forests.	Low	No suitable aquatic habitat present on-site to support species presence. No historical occurrences of species in study area. Species not observed.
Eastern Musk Turtle	Special Concern	Wetlands. Highly aquatic habitats.	Low	No suitable aquatic habitat present on-site to support species presence. No historical occurrences of species in study area. Species not observed.
Eastern Ribbonsnake	Special Concern	Marshy edges of wetlands and watercourses.	Low	No suitable aquatic habitat present on-site to support species presence. No historical occurrences of species in study area. Species not observed.
Northern Map Turtle	Special Concern	Highly aquatic species, found only in lakes and large rivers.	Low	No suitable aquatic habitat present on-site to support species presence. No historical occurrences of species in study area. Species not observed.
Snapping Turtle	Special Concern	Highly aquatic species, found in a wide variety of wetlands, water bodies and watercourses.	Low	No suitable aquatic habitat present on-site to support species presence. No historical occurrences of species in study area. Species not observed.
Spotted Turtle	Endangered	Secretive wetland species.	Low	No suitable aquatic habitat present on-site to support species presence. No historical occurrences of species in study area. Species not observed.
Wood Turtle	Endangered	Primarily terrestrial forest species. Associated with clear, gravelly streams.	Low	No suitable aquatic habitat present on-site to support species presence. No historical occurrences of species in study area. Species not observed.

**TABLE C.6
SCREENING RATIONALE FOR POTENTIAL SPECIES AT RISK ON-SITE OR WITHIN STUDY AREA**

Species	ESA Status	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Plants				
American Ginseng	Endangered	Rich, moist, relatively mature deciduous forests.	Low	No woodlands on-site to support species. Species not observed during the site investigation.
Black Ash	Endangered	Predominantly a wetland species, found in swamps, floodplains and fens.	Low	Species was not observed during site investigation. Suitable habitat present within the study area.
Butternut	Endangered	Inhabits a wide range of habitats including upland and lowland deciduous and mixed forests.	Low	Species was not observed during site investigation. Suitable habitat present within the study area.
Lichens				
Pale-bellied Frost Lichen	Endangered	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 study area.
Fish				
American Eel	Endangered	Primarily nocturnal, hiding in soft substrate or submerged vegetation during the day.	Low	No suitable aquatic habitat present on-site to support species presence
Bridle Shiner	Special Concern	Prefers clear water with abundant vegetation over silty or sandy vegetation	Low	No suitable aquatic habitat present on-site to support species presence
Channel Darter	Special Concern	Prefers clear water with abundant vegetation over silty or sandy vegetation	Low	No suitable aquatic habitat present on-site to support species presence
Cutlip Minnow	Threatened	Lives in warmer rivers and creeks with clear, slow-moving water and rocky or gravel bottoms.	Low	No suitable aquatic habitat present on-site to support species presence
Lake Sturgeon	Endangered	Large lakes and rivers. Forages in cool water, 4-9m deep over soft substrates. Spawns in shallower, fast-flowing areas over rocks or gravel.	Low	No suitable aquatic habitat present on-site to support species presence
Northern Brook Lamprey	Special Concern	Prefers shallow areas with warm water. Larvae burrows in soft substrate for up to 7 years.	Low	No suitable aquatic habitat present on-site to support species presence
River Redhorse	Special Concern	Prefers fast-flowing, clear rivers over rocky substrate	Low	No suitable aquatic habitat present on-site to support species presence
Silver Lamprey	Special Concern	Larvae live 4-7 years in burrows, preference to soft substrate.	Low	No suitable aquatic habitat present on-site to support species presence
Insects				
Bogbean Buckmoth	Endangered	Preferred food plant is bog bean, present in a variety of wetlands including bogs, swamps and fens.	Low	No suitable wetland habitat within the study area. Preferred food species not observed. Species not observed during site investigations.
Gypsy Cuckoo Bumble Bee	Endangered	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	Caterpillars require milkweed plants confined to meadow and open areas. Adult butterflies use more diverse habitat with a variety of wildflowers	Low	Potentially suitable foraging habitat available for Monarch within the study area. Species not observed during site investigations.
Mottled Duskywing	Endangered	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	Habitat generalist	Low	No recent occurrence reports in the area, thought to be locally extirpated
Rusty-patched Bumble Bee	Endangered	Habitat generalist	Low	Currently the only known population is in Pinery Provincial Park.
Traverse Lady Beetle	Endangered	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	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	Habitat generalist; mixed woodlands, variety of open habitat	Low	Potentially suitable foraging habitat available for yellow-banded bumble bee within the study area. No recent occurrence records for species within 1 km of site.

experience • knowledge • integrity



civil	civil
geotechnical	géotechnique
environmental	environnement
structural	structures
field services	surveillance de chantier
materials testing	service de laboratoire des matériaux

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