ENVIRONMENTAL EVALUATION REPORT

Consent and Zoning By-law Amendment

4641 Malden Road, City of Windsor

2 January 2025

TERRASTORY

environmental consulting inc.

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1 INTRODUCTION

1.1 Study Background

Terrastory Environmental Consulting Inc. (hereinafter "Terrastory") was retained by Skyscape Consulting (hereinafter "the Applicant") to prepare this Environmental Evaluation Report (EER) in support of a severance (Consent to Sever) and Zoning By-law Amendment (ZBA) applications at 4641 Malden Road (hereinafter "Subject Property") in the City of Windsor. The Subject Property is an approximately 0.11-hectare (0.28 acre) parcel on the east side of Malden Road between Herb Gray Parkway/Highway 401 and Chappus Street. The Subject Property consists of an existing residence surrounded by manicured amenity space (lawn) with a few scattered specimen trees. Natural features are absent from the Subject Property but occur to the east. The location of the Subject Property within its broader landscape setting is shown in **Figure 1**.

The Subject Property falls within the Spring Garden Secondary Plan area per Volume II of the City's Official Plan (OP). The lands are designated "Low Density Residential" per Schedule SG-5 (Concept Plan) and are further zoned Development Research District 1.1 (DRD 1.1) under Zoning By-law 8600.

It is understood that the Applicant wishes to create three (3) new residential lots, each to contain a single dwelling, while the existing two-storey residential dwelling is to remain. The proposed development must be facilitated by consent (severance) and rezoning applications, as confirmed through a 13 February 2024 pre-consultation letter (i.e., Stage 1 Planning Consultation) received from the City. To support the severance/rezoning applications, the City has requested a supporting EER and Natural Site Features Inventory and Preservation Study (authored by Terrastory under separate cover). A Terms of Reference (ToR) was submitted to the City on 28 April 2024 to guide the work described herein and is provided in **Appendix 1**.

1.2 Study Purpose

The purpose of this study is to present a biophysical characterization of the Subject Property and Adjacent Lands (i.e., those within 120 m of the Subject Property) as a means to assess the potential for adverse effects on the natural environment and natural heritage features stemming from the proposed application. The scope and approach of this study address the general reporting requirements of the ToR (see **Appendix 1**), Section 5.3.5.3 (EER standards), and Clause 10.2.5(f) (EIS standards) under the City's OP. It is understood that this report will form part of the consent/rezoning application package to be submitted for consideration by the City.

2 APPROACH AND METHODS

This study is composed of five (5) discrete components which are bulleted below and further described in the following sections.

1. **Acquire background biophysical information and mapping** available for the local landscape surrounding the Subject Property (see **Section 2.1**).
2. **Conduct a site assessment and ecological surveys** to field-verify the accuracy of the acquired background biophysical information and collect additional biophysical information as necessary (see **Section 2.2**).

3. **Assess the significance** of the biophysical information collected and natural features identified within the context of applicable natural heritage and environmental policies (see **Section 2.3**).
4. **Predict the effects** of the application on the identified significant natural features and natural environment, particularly the net effects once mitigation measures and technical recommendations are implemented (see **Section 2.4**).
5. **Determine whether the proposed application addresses applicable natural heritage and environmental policies** at municipal, provincial, and federal levels (see **Section 2.5**).

2.1 Background Biophysical Information Assessment

This study is supported by background biophysical information and mapping acquired and reviewed from a variety of sources which are listed below in **Table 1**.

Table 1. Background Biophysical Information Acquired and Reviewed.

Type of Information Acquired	Description
Ortho-rectified Aerial Photographs	• 1999, 2004, 2005, 2007, 2009 to 2011, 2015 to 2024.
Natural Feature Mapping	• City of Windsor Official Plan (2013) Schedules A, B, C, D, SG-1, SG-3, and SG-5. • Land Information Ontario (LIO) accessed via the "Make a Map: Natural Heritage Areas" web-based platform (last accessed 22 May 2024). • Essex Region Conservation Authority (ERCA) regulation mapping (last accessed 30 October 2024).
Physiographic Resource Mapping and Datasets	• Ontario Base Mapping produced by MNR (1:10,000) with 5 m contours. • Ontario Well Records (publicly-available). • Location and Extent of the Soils of Southern Ontario (Jarvis et al. 1998). • Agricultural Information Atlas (last accessed 30 October 2024). • Surficial Geology of Southern Ontario (Ontario Geological Survey 2010). • Physiography of Southern Ontario (Chapman and Putnam 1984).
Ecological Resource Mapping and Datasets	• Natural Heritage Information Centre (NHIC) database accessed via the "Make a Map: Natural Heritage Areas" web-based platform (squares: 17LG3081, 17LG2981, 17LG2982, 17LG3082; last accessed 22 May 2024). • Critical Habitat for SAR National Dataset (last accessed 22 May 2024). • iNaturalist "(NHIC) Rare species of Ontario" project (last accessed 22 May 2024). • Ontario Breeding Bird Atlas (OBBA) database and the Atlas of the Breeding Birds of Ontario, 2001–2005 (Cadman et al. 2007), along with OBBA 3 (2021-2023) existing data from the Birds Canada-NatureCounts database (square: 17LG38). • iNaturalist "Herps of Ontario" project and Ontario Reptile & Amphibian Atlas (last accessed 22 May 2024). • Ontario Butterfly Atlas database (square: 17LG38; last accessed 22 May 2024). • iNaturalist "Ontario Odonata" project (last accessed 22 May 2024). • Bumble Bee species distribution maps from iNaturalist and Bumble Bee Watch. • Aquatic Species at Risk Maps produced by Fisheries and Oceans Canada (last accessed 22 May 2024). • Atlas of the Mammals of Ontario (Dobbyn 2005).

2.2 Site Assessments and Surveys

The acquired background information per **Table 1** helped direct site assessment and surveys carried out by Terrastory staff. **Table 2** below indicates the primary assessments/surveys performed during each site visit, weather conditions, and time on-site.

Table 2. Site Assessments and Ecological Surveys performed on the Subject Property.

Date of Site Assessment	Assessments/Surveys Performed	Terrastory Staff	Weather Conditions	Time On-site
15 April 2024	SAR Snake Visual Encounter Survey #1	T. Knight	Air temperature 19°C; Beaufort Wind Scale 1; cloud cover 0%; no precipitation.	14:20-14:50
25 April 2024	SAR Snake Visual Encounter Survey #2	J. Consiglio	Air temperature 10-11°C; Beaufort Wind Scale 0; cloud cover 25-50%; no precipitation.	15:45-16:00
26 April 2024	SAR Snake Visual Encounter Survey #3	J. Consiglio	Air temperature 14-16°C; Beaufort Wind Scale 1; cloud cover 0-25%; no precipitation.	12:45-13:00
10 May 2024	SAR Snake Visual Encounter Survey #4	T. Knight	Air temperature 18°C; Beaufort Wind Scale 1; cloud cover 75-100%; no precipitation.	14:30-14:55
09 June 2024	SAR Snake Visual Encounter Survey #5	T. Knight	Air temperature 22°C; Beaufort Wind Scale 3; cloud cover 50-75%; no precipitation.	14:10-14:50
10 June 2024	Breeding Bird Survey #1	T. Knight	Air temperature 13-14°C; Beaufort Wind Scale 3; cloud cover 75-100%; no precipitation.	07:30-07:55
07 July 2024	SAR Snake Visual Encounter Survey #6	T. Knight	Air temperature 24-25°C; Beaufort Wind Scale 0; cloud cover 0-25%; no precipitation.	11:10-11:35
08 July 2024	Breeding Bird Survey #2	T. Knight	Air temperature 22°C; Beaufort Wind Scale 0; cloud cover 25-50%; no precipitation.	07:55-08:30
30 July 2024	SAR Snake Visual Encounter Survey #7	J. Consiglio	Air temperature 26-28°C; Beaufort Wind Scale 0-1; cloud cover 0-25%; no precipitation.	18:55-19:10
31 July 2024	Tree Inventory, Summer Botanical Survey, SAR Snake Visual Encounter Survey #8	J. Consiglio	Air temperature 28°C; Beaufort Wind Scale 1; cloud cover 0%; no precipitation.	10:40-12:10
12 September 2024	SAR Snake Visual Encounter Survey #9	J. Consiglio	Air temperature 24-26°C; Beaufort Wind Scale 1-2; cloud cover 0-25%; no precipitation.	18:50-19:10

Date of Site Assessment	Assessments/Surveys Performed	Terrastory Staff	Weather Conditions	Time On-site
13 September 2024	Vegetation Community Classification, Fall Botanical Survey, SAR Snake Visual Encounter Survey #10	J. Consiglio	Air temperature 26°C; Beaufort Wind Scale 1; cloud cover 0%; no precipitation.	11:35-12:35

The site assessments and surveys centred on characterizing the land use (e.g., historical development patterns, existing built features, land maintenance, etc.), physiographic (e.g., topography, drainage, surface water features, etc.), and ecological (e.g., vegetation, wildlife, habitats, etc.) conditions and features of the Subject Property and (where appropriate) Adjacent Lands (i.e., lands within 120 m of the Subject Property). In addition to assessing natural areas, the exterior surfaces of existing built structures were visually inspected for their potential to provide wildlife habitat (e.g., nesting sites for birds, egress for potential snake overwintering sites within the foundation). All land-use, physiographic, and ecological information described for Adjacent Lands was collected from either current aerial photographs or observations from inside the Subject Property and/or publicly-accessible areas (e.g., rights-of-way, etc.). The locations and boundaries of significant natural features and/or habitats were recorded on-site with a high-accuracy GPS supported by representative photographs.

In addition to collecting general biophysical information, the following targeted assessments (i.e., feature- or species-specific surveys) were undertaken:

- **Vegetation Mapping according to Ecological Land Classification (ELC):** Vegetation communities on the Subject Property were characterized and mapped according to Ecological Land Classification (Lee et al. 1998) and the 2008 update to the Vegetation Type List (Lee 2008). Vegetation communities were initially identified based on current aerial photographs and then verified and refined (as necessary) on-site. ELC mapping was scaled to the finest level of resolution deemed appropriate (i.e., either Ecosite or Vegetation Type). Vegetation communities mapped on Adjacent Lands were delineated predominantly via aerial photograph interpretation.
- **Wetland Boundaries:** Where wetlands were identified via ELC, their boundaries were delineated consistent with the "50% wetland vegetation rule" and presence of hydric soils per the procedures of the Ontario Wetland Evaluation System (OWES) (OMNRF 2014). Wetlands occurring on Adjacent Lands outside the Subject Property were characterized and mapped based on observations from within the Subject Property and/or road allowance, in combination with aerial photograph interpretation.
- **Vascular Plant Survey:** Vascular plants were recorded based on a comprehensive area search ("wandering transects") within manicured, naturally-occurring (i.e., non-planted) or naturalizing areas of vegetation. Particular effort was paid to areas with the greatest potential to support significant vascular plants (i.e., designated Species at Risk, provincially rare, etc.) and areas with the greatest potential for impact based on the proposed development plan. Nomenclature and common names for the recorded vascular plant species are generally consistent with the Southern Ontario Vascular Plant Species List (Bradley 2013) except where a name change has more recently been adopted by NHIC.
- **Breeding Bird Surveys according to the Ontario Breeding Bird Atlas Protocol:** Two rounds of breeding bird surveys were conducted in accordance with the Ontario Breeding Bird Atlas (OBBA) protocol (Bird Studies Canada et al. 2001). Surveys occurred within the appropriate season (May 24–July

10), time of day (between dawn and approximately 5 hours after dawn), and weather conditions (no rain, wind speed ≤3 on the Beaufort Wind Scale). Surveys occurred for a minimum duration of 10 minutes at each station. Species were also recorded during comprehensive area searches ("wandering transects") that were completed while traveling between each station.

- **Survey Protocol for Ontario's Species at Risk Snakes:** Ten visual encounter surveys occurred in accordance with the *Survey Protocol for Ontario's Species at Risk Snakes* (OMNRF 2016). Surveys occurred within the appropriate season (April to September), time of day (09:00 – 5:00 pm in spring, and 08:00 – 12:00 or 17:00 – 20:00 in summer), and weather conditions (air temperature between 10°C and 25°C when sunny, or between 15 °C – 30°C when overcast, no rain, wind speed lower than 24 km/hr). Two surveys were scheduled early in the season (i.e., April) with the intent of detecting recent snake emergence from hibernacula. Where present, cover objects (e.g., rocks, debris, etc.) were overturned to detect individuals beneath.

2.3 Significance Assessment

2.3.1 Definitions and Criteria

"Significant natural features" as described herein represent natural features and habitats that have recognized status (and therefore policy significance) within the planning jurisdiction in which an application is proposed. Significant natural features are defined herein to include those referenced in section 2.1 of the 2024 Provincial Planning Statement (PPS), namely:

- Significant Wetlands;
- Significant Woodlands;
- Significant Valleylands;
- Significant Wildlife Habitat (SWH);
- Significant Areas of Natural and Scientific Interest (ANSIs);
- Habitat of Endangered and Threatened Species; and
- Fish Habitat.

Defining "significant natural features" pursuant to the PPS is considered warranted herein as such features form part of the City's Greenway System and are shown on Schedule B (and SG-3) of the City's OP.

Criteria used to determine the presence or absence of the above significant natural features within the Subject Property and Adjacent Lands were considered from a variety of sources including the City's OP, Natural Heritage Reference Manual (MNR 2010), and (for Significant Wildlife Habitat) the Ecoregion 7E Criteria Schedule (MNRF 2015a).

Apart from PPS-derived significant natural features, this study also seeks to determine whether any natural features or hazards regulated by ERCA pursuant to O. Reg. 41/24 occur within the Subject Property and/or Adjacent Lands. ERCA regulated features and hazard lands include:

- Wetlands (significant, evaluated, or identified);
- Watercourses and their associated meanderbelts and floodplains;

- Valleylands;
- Steep slopes and other hazard lands; and
- Shorelines.

Like significant natural features, "significant species" represent individuals of wild species which have recognized status (and therefore policy significance) within the planning jurisdiction in which an application is proposed. Significant species are defined herein to include:

- Species designated Endangered, Threatened, or Special Concern under O. Reg. 230/08 pursuant to the provincial *Endangered Species Act, 2007*.
- Species designated Provincially Rare (i.e., S1, S2, or S3) by NHIC.
- Species considered Regionally Rare in Essex pursuant to the *List of the Vascular Plants of Ontario's Carolinian Zone* (Oldham 2017).

2.3.2 Determination

After collecting the background biophysical information and conducting the site assessments and surveys, the data was interpreted to determine whether any significant natural features, natural features/hazards regulated by ERCA, and/or significant species occur within the Subject Property and/or Adjacent Lands. If a natural feature or species met the significance criteria, it is considered "confirmed". If a natural feature or species may be present on the Subject Property and/or Adjacent Lands given the prevailing biophysical or habitat conditions but was not confirmed based on either background or site-specific biophysical data, it is considered potential or "candidate". Candidate significant natural features and species are treated as confirmed where no additional information is available.

2.4 Effects Assessment and Mitigation

The potential ecological effects of an application can be understood spatially as zones that radiate outward from the direct project footprint (e.g., building envelope, etc.) and associated areas of site alteration (e.g., grading, etc.). While the greatest potential for effects typically occurs within areas directly subject to development or disturbance, surrounding areas may also be affected indirectly. Such indirect effects can include light or noise pollution that affects wildlife communities on Adjacent Lands, or degradation of water quality within a downstream receptor resulting from sediment runoff during construction.

The following five-pronged approach is employed herein to assess the effects of an application on significant natural features and species and (where warranted) the natural environment in general:

1. **Scope** the effects assessment to environmental components that warrant consideration. The effects assessment herein centres principally on significant natural features and species (i.e., those that have policy significance within the planning jurisdiction, as defined in **Section 2.3**) but may also consider general environmental effects where warranted.
2. **Identify the predicted direct and indirect effects** of the application on each significant natural feature or species during all project stages (i.e., pre- to -post-development) in the absence of mitigation. Direct effects are those where there is a cause-effect relationship between a proposed activity and an

effect on a natural feature or species (e.g., tree clearance within a building footprint, etc.). Indirect effects result when an activity is linked to a direct effect through a chain of foreseeable interactions or steps.

3. **Evaluate the significance** of the predicted effects for each environmental component based on their attributes (i.e., spatial extent, magnitude, timing, frequency, and duration) and likelihood (i.e., high, medium, low).
4. Where the potential for negative effects are anticipated, **recommend ecologically-meaningful mitigation measures** to avoid such impacts first (where possible), and where impacts cannot be avoided to minimize, compensate, and/or enhance as appropriate.
5. **Identify the predicted residual or net effect**s of the application assuming implementation of all recommended mitigation measures.

Per step 4, mitigation measures are offered where the potential for negative effects are anticipated to a degree that cannot be supported given the prevailing policy context. Whenever possible, Terrastory works iteratively with the project team as a means to identify development plan options that avoid negative effects first; options that would minimize or mitigate such negative effects are less preferred and considered secondarily. In general, avoidance measures that have already been incorporated into the application or project design are not duplicated as technical recommendations herein. The effects assessment and any recommended mitigation measures are provided in **Section 5**.

2.5 Natural Heritage Policy Context

There is an overlapping municipal, provincial, and federal policy framework respecting the protection of natural heritage features and areas across southwestern Ontario. These requirements include objectives, policies, and directives which are principally contained in federal and provincial statutes, regulations, policy statements, Official Plans, and guidance documents. The overarching natural heritage policy framework directing development activities within the Subject Property is outlined below in **Table 3**. A determination of whether the application considered herein addresses such policies is provided in **Section 6**.

Table 3. Applicable Natural Heritage Policies.

Level of Government	Natural Heritage or Environmental Policy Requirements
Municipal	City of Windsor Official Plan (2013).
Provincial	Provincial Planning Statement 2024, pursuant to the *Planning Act*, R.S.O. 1990, c. P.13, including: • Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005 (MNR 2010). • Significant Wildlife Habitat Technical Guide (MNR 2000). • Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E (MNRF 2015a). • Significant Wildlife Habitat Mitigation Support Tool (MNRF 2014). *Conservation Authorities Act*, R.S.O. 1990, c. C.27, including: • Ontario Regulation 41/24 – Prohibited Activities, Exemptions, and Permits. *Endangered Species Act* (ESA), S.O. 2007, c. 6, including: • Ontario Regulation 230/08 – Species at Risk in Ontario List • Ontario Regulation 242/08 – General

Level of Government	Natural Heritage or Environmental Policy Requirements
	• Ontario Regulation 832/21 – Habitat *Fish and Wildlife Conservation Act*, S.O. 1997, c. 41.
Federal	*Fisheries Act*, R.S.C. 1985, c. F-14, including: • Fish and Fish Habitat Protection Policy Statement (DFO 2019). *Migratory Birds Convention Act*, S.C. 1994, c. 22, including: • Migratory Birds Regulations, C.R.C., c. 1035.

3 EXISTING BIOPHYSICAL CONDITIONS

The following is a description of the biophysical features and conditions of the Subject Property, which are shown spatially on **Figure 2**. Representative photographs are provided in **Appendix 2**.

3.1 Land-use and Landscape Setting

The Subject Property is situated within the Spring Garden neighbourhood, on the east side of Malden Road between the Herb Gray Parkway/Highway 401 and Chappus Street. Parcels immediately adjacent the Subject Property primarily contain single family residences and amenity space, with natural features (i.e., woodland and wetland) to the southeast.

3.2 Physical Setting

3.2.1 Surficial Geology and Soils

The St. Clair Clay Plains underlay much of the surrounding region, typified by relatively flat expanses of uniform clay (Chapman and Putnam 1984). The very gently undulating and finely textured Brookston series clay loam hold moisture well, producing areas with poor drainage conditions (Jarvis et al. 1998).

3.2.2 Topography and Drainage

As described in **Section 3.2.1**, the Subject Property topography (as well as that of the surrounding area) is predominantly flat, grading to very gently sloping. Overall, surface water within the Subject Property appears to be shed in a predominantly western direction towards a drainage ditch along the east side of Malden Road. Herbaceous vegetation observed within the drainage ditch is limited to introduced species, such as non-native cold-season grasses (e.g., *Dactylis glomerata*, *Poa pratensis* ssp. *pratensis*), Common Dandelion (*Taraxacum officinale*), and several stalks of European Reed (*Phragmites australis* ssp. *australis*).

3.3 Ecological Setting

3.3.1 Vegetation Communities

The Subject Property consists entirely of manicured amenity space, specimen/amenity trees, and an existing dwelling (CVR_3) fronting onto Malden Road (CVI_1) (see **Figure 2**). Slender Paspalum (*Paspalum setaceum*), a Provincially Rare (S2) vascular plant was observed growing within the mowed grass area adjacent to the existing dwelling.

East of the Subject Property is a rectangular patch of meadow (MEGM3) comprised of Orchard Grass (*Dactylis glomerata*), Lance-leaved Plantain (*Plantago lanceolata*), Kentucky Bluegrass (*Poa pratensis* ssp. *pratensis*), Allegheny Blackberry (*Rubus allegheniensis*), and young Autumn Olive (*Elaeagnus umbellata*). A narrow band of woodland (WODM4) exists to the north of the meadow, comprised of Freeman's Maple (*Acer* × *freemanii*), Manitoba Maple (*Acer negundo*), and Autumn Olive.

Following the meadow's southern edge is a deciduous swamp (SWDM3-3) comprised of Freeman's Maple, with scattered Eastern Cottonwood (*Populus deltoides* ssp. *deltoides*), Shagbark Hickory (*Carya ovata*), and Swamp Pin Oak (*Quercus palustris*) throughout the canopy and subcanopy (as observed from the Subject Property) extending to the southeast on Adjacent Lands. This vegetation community forms part of the Provincially Significant Ojibway Prairie Wetland Complex (hereinafter "PSW").

Bordering the western edge of Malden Road, directly opposite the Subject Property, is a meadow (MEFM1-1) dominated by Tall Goldenrod (*Solidago altissima* var. *altissima*) with smaller pockets of Queen Anne's Lace (*Daucus carota*), Orchard Grass, and Riverbank Grape (*Vitis riparia*), as observed from Malden Road.

3.3.2 Vascular Plants

A total of 50 vascular plant species were recorded within the Subject Property and adjoining publicly accessible rights-of-way (see **Appendix 3**). Of these, 22 (44%) are considered native to Ontario and 28 (56%) are exotic.

Slender Paspalum (*Paspalum setaceum*), a Provincially Rare (S2) grass, was documented growing in manicured lawn within the Subject Property.

3.3.3 Breeding Birds

Breeding bird surveys were undertaken on 10 June and 08 July 2024. A total of 21 bird species were recorded during the breeding bird surveys (with two additional bird species recorded incidentally during the course of other field activities). The assemblage and abundance of birds recorded generally reflects the prevailing structure and composition of on-site vegetation communities and variable habitats of the Subject Property and Adjacent Lands (e.g., forest, woodland, meadows, residential areas). The survey station location is shown on **Figure 2** while the full survey results indicating each species' breeding status can be found in **Appendix 4**. The locations of significant bird species recorded are shown on **Figure 3**. A general summary of the breeding bird communities present within the Study Area is provided below.

Manicured amenity space within the Study Area supports generalist species, including American Robin (*Turdus migratorius*), Brown-headed Cowbird (*Molothrus ater*), European Starling (*Sturnus vulgaris*), Northern Cardinal (*Cardinalis cardinalis*), Red-winged Blackbird (*Agelaius phoeniceus*), Tree Swallow (*Tachycineta bicolor*), and Song Sparrow (*Melospiza melodia*).

Commonly recorded species within treed vegetation communities (including edge habitat) on Adjacent Lands include Black-capped Chickadee (*Poecile atricapillus*), Blue Jay (*Cyanocitta cristata*), Carolina Wren (*Thryothorus ludovicianus*), Cedar Waxwing (*Bombycilla cedrorum*), Common Grackle (*Quiscalus quiscula*), Downy Woodpecker (*Picoides pubescens*), Eastern Wood-pewee (*Contopus virens*),

House Wren (*Troglodytes aedon*), Red-bellied Woodpecker (*Melanerpes carolinus*), Warbling Vireo (*Vireo gilvus*), and White-breasted Nuthatch (*Sitta carolinensis*).

One (1) significant bird species was recorded on Adjacent Lands during the targeted breeding bird surveys:

- Eastern Wood-pewee (Special Concern).

All documented locations of Eastern Wood-pewee within the Study Area along with its habitat requirements are described in **Section 4.3**.

3.3.4 Snakes

Ten (10) visual encounter surveys were undertaken within the Subject Property during the 2024 fieldwork season. Surveyors walked transects through the Subject Property, as well as inspected the existing residence, woody vegetation, and debris.

Several Eastern Gartersnake (*Thamnophis sirtalis sirtalis*) were documented moving across the Subject Property during surveys, suggesting that conditions were suitable for detecting other snake species, if present. No other snake species were documented.

3.3.5 Incidental Wildlife Recorded

Efforts to incidentally document wildlife were made during all site visits by Terrastory in 2024. Two additional bird species were recorded on Adjacent Lands to the west: Chimney Swift (*Chaetura pelagica*) and Gray Catbird (*Dumetella carolinensis*). Eastern Cottontail (*Sylvilagus floridanus*), Eastern Gray Squirrel (*Sciurus carolinensis*), and Virginia Opossum (*Didelphis virginiana*) were also incidentally observed on Adjacent Lands.

One (1) significant bird species was recorded incidentally on Adjacent Lands and was not observed to interact with the Subject Property:

- Chimney Swift (Threatened).

4 SIGNIFICANCE ASSESSMENT

Based on the biophysical information collected during background information gathering (per **Table 1**) and the results of Terrastory's site assessments and surveys performed through the 2024 fieldwork program (per **Sections 2.2** and **3**), **Table 4** below provides a determination of the presence (or potential presence) of each significant natural feature considered herein. Shaded rows denote features which were confirmed or may be present within the Subject Property or Adjacent Lands and are considered further as part of the effects assessment in **Section 5**. Significant natural feature mapping is provided in **Figure 3**.

Table 4. Summary of the Assessment of Significant Natural Features on the Subject Property and Adjacent Lands.

Significant Natural Feature	Status on the Subject Property	Status on Adjacent Lands (i.e., < 120 m from the Subject Property)
PPS Significant Natural Features		

Significant Natural Feature	Status on the Subject Property	Status on Adjacent Lands (i.e., < 120 m from the Subject Property)
Significant Wetlands	**Absent.** See **Section 4.1.**	**Confirmed.** See **Section 4.1.**
Significant Woodlands	**Absent.** See **Section 4.2.**	**Confirmed.** See **Section 4.2.**
Significant Valleylands	**Absent.**	**Absent.**
Significant Wildlife Habitat	**Confirmed.** See **Section 4.3.**	**Candidate/Confirmed.** See **Section 4.3.**
Areas of Natural and Scientific Interest	**Absent.**	**Absent.**
Habitat of Endangered and Threatened Species (per ESA)	**Candidate.** See **Section 4.4.**	**Candidate.** See **Section 4.4.**
Fish Habitat (per *Fisheries Act*)	**Absent.**	**Absent.**
Conservation Authority Regulated Features and Hazard Lands		
Wetlands, watercourses, valleylands, meanderbelts, floodplains, steep slopes, and shorelines.	**Absent.** See **Section 4.5.**	**Confirmed.** See **Section 4.5.**

4.1 Significant Wetlands

Deciduous swamp forming part of PSW is present on Adjacent Lands to the southeast of the Subject Property based on MNR mapping and confirmed through fieldwork (as observed from the Subject Property and public rights-of-way). An assessment of potential effects to the PSW associated with the proposed development plan is provided in **Section 5.2.1**.

4.2 Significant Woodlands

Woodlands have been identified on Adjacent Lands within 120 m of the Subject Property through aerial interpretation and field confirmation (as observed from publicly accessible rights-of-way). This woodland extends eastward along the southern edge of the Herb Gray Parkway/Hwy 401 corridor and is around 4.5 ha in size based on desktop analysis.

The City's OP does not provide criteria and/or a definition for Significant Woodland. Per the 2024 PPS, "significant" in regard to woodlands is defined 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. These are to be identified using criteria and procedures established by the Province.*"

The NHRM(MNR 2010) provides recommended criteria for the identification of Significant Woodlands, with thresholds being dependent on (among other factors) the percentage of land cover occupied by woodlands within the respective planning area. The City's Urban Forest Management Plan FAQ webpage states that tree canopy comprises 19% of total area within the City; however, the reported canopy coverage appears to include amenity and street trees associated with anthropogenic land-uses (rather than "woodlands"). Alternatively, based on the MNR's provincial wooded area dataset, Terrastory has calculated woodland cover within the City of Windsor to slightly exceed 4.4

ha. While the MNR's provincial wooded area dataset contains a degree of known errors (e.g., missed woodlands, narrow linear treed areas such as hedgerows which should not be mapped as woodlands), the provincial wooded area dataset can generally be employed as a rough approximation of woodland cover within municipalities in Ecoregion 7E. The NHRM directs that in municipalities or planning areas with less than about 5% woodland, woodlands 2 ha in size or larger should be considered significant. On this basis, and given that the City of Windsor appears to contain less than 5% wooded area cover, the ~4.5 ha woodland on Adjacent Lands would represent a Significant Woodland based on the information available at this time.

An assessment of potential effects to the Significant Woodland associated with the proposed development plan is provided in **Section 5.2.2**.

4.3 Significant Wildlife Habitat

An assessment of the likelihood that any candidate or confirmed SWH types occur within the Subject Property or Adjacent Lands is provided in **Appendix 5**. Based on the results of this assessment, four (4) SWH types are considered further through this study:

- Seasonal Concentration Areas of Animals
    1. Bat Maternity Colonies
    2. Reptile Hibernaculum
- Rare Vegetation Communities or Specialized Habitats for Wildlife
    3. Amphibian Breeding Habitat (Woodlands)
- Habitat of Species of Conservation Concern
    4. Special Concern and Rare Wildlife Species

Also based on this assessment, a total of seven (7) Special Concern or provincially rare species are considered to have at least a possible likelihood of occurrence on the Subject Property given their habitat associations and current distribution in southwestern Ontario (or were confirmed based on the site assessment):

1) Eastern Wood-pewee (*Contopus virens*) (**Confirmed**)
2) American Bumblebee (*Bombus pensylvanicus*) (Possible)
3) Differential Grasshopper (*Melanoplus differentialis*) (Possible)
4) Northern Bush Katydid (*Scudderia septentrionalis*) (Possible)
5) Skiff Moth (*Prolimacodes badia*) (Possible)
6) Two-spotted Cobweb Spider (*Asagena americana*) (Possible)
7) Slender Paspalum (*Paspalum setaceum*) (**Confirmed**)

An assessment of potential effects to the identified candidate SWH types and Special Concern/provincially rare species associated with the proposed development plan is provided in **Section 5.2.3**.

4.4 Habitat of Endangered and Threatened Species

An assessment of the likelihood that any Endangered and Threatened species or their habitats occur within the Subject Property or Adjacent Lands is provided in **Appendix 6**. A total of four (4) Endangered or Threatened species are considered to have a possible likelihood of occurrence on the Subject Property given their habitat associations and current distribution in southwestern Ontario:

1) Little Brown Myotis (*Myotis lucifugus*)
2) Northern Myotis (*Myotis septentrionalis*)
3) Tri-colored Bat (*Perimyotis subflavus*)
4) Eastern Foxsnake (*Pantherophis vulpinus*)

A general description of each Endangered/Threatened species and their habitat is offered below. An assessment of potential effects to these Endangered/Threatened species associated with the proposed development plan is provided in **Section 5.2.4**.

Terrastory previously submitted an Information Gathering Form (IGF) to MECP on 23 May 2024 and further engaged with MECP staff (J. Cameron) in September/October 2024. Carriage of the application was then transferred to another MECP Management Biologist (K. Markham), who confirmed via email on 11 December 2024 that the proposed development was not expected to impact Endangered/Threatened species subject to implementation of their recommendations (see **Appendix** 7).

4.4.1 Bats

Per the assessment in **Appendix 6**, Little Brown Myotis, Northern Myotis, and Tri-colored Bat have the potential to roost and forage on the Subject Property. Each of these bat species are designated Endangered in Ontario per O. Reg. 230/08 pursuant to the *Endangered Species Act* (ESA) and are federally designated Endangered under the *Species at Risk Act* (SARA). Little Brown Myotis and Northern Myotis form maternity colonies that roost in large-diameter trees with cracks, crevices, and/or exfoliating bark; Little Brown Myotis will also frequently roost in buildings (e.g., attics, barns, etc.). Roosting sites for Tri-colored Bat maternity colonies are less understood but have been documented in dead or dying leaf clusters of oaks (*Quercus* spp.) and maples (*Acer* spp.), along with live foliage and buildings (Humphrey and Fotherby 2019). Individuals (i.e., non-reproductive females and males) of all three bat species may roost in smaller diameter trees and other spaces (e.g., beneath house siding, etc.) which are not occupied by maternity colonies. Overwintering habitat includes caves and mines that maintain temperatures above 0°C. White Nose Syndrome (a fungal disease caused by an introduced pathogen) has devastated populations of each species across their ranges. The fungus causes hibernating individuals to become dehydrated, leading to excessive arousal, depleted fat reserves, and ultimately emaciation and/or death.

Targeted bat roosting habitat assessments and/or acoustic monitoring were not undertaken as part of this study, as no development or site alteration activities are proposed within any woodland or discrete treed area. While the existing residence was searched externally for potential use by wildlife, the current site plan indicates that the residence will be retained. Suitable maternity roosting habitat for Little Brown Myotis and/or Northern Myotis may occur within the woodland/swamp to the southeast, where snags and/or trees with sufficiently-sized cracks or crevices are present. Similarly, oaks and/or maples within the treed community may theoretically support roosting by Tri-colored Bat, though this species is generally rare in southern Ontario. Other trees within or outside the on-site woodlands (i.e., within the proposed development area) could support "day roosts" for individual bats (e.g., males or non-reproductive females).

4.4.2 Eastern Foxsnake

The Carolinian population of Eastern Foxsnake is designated Endangered in Ontario per O. Reg. 230/08 pursuant to the ESA and federally designated Endagered under Schedule 1 of SARA.

Regulated habitat for the Carolinian population of Eastern Foxsnake is described under O. Reg. 832/21 as follows:

1. An eastern foxsnake (Carolinian population) hibernaculum.
2. The area within 100 metres of the area described in paragraph 1.
3. A naturally occurring eastern foxsnake (Carolinian population) egg laying site that is being used, or has been used at any time in the previous three years, by an eastern foxsnake (Carolinian population).
4. An eastern foxsnake (Carolinian population) egg laying site, other than a naturally occurring egg laying site, being used by an eastern foxsnake (Carolinian population) from the time it is used until the following November 30.
5. A naturally occurring eastern foxsnake (Carolinian population) shedding or basking site that is being used, or has been used at any time in the previous three years, by two or more eastern foxsnakes (Carolinian population).
6. An eastern foxsnake (Carolinian population) shedding or basking site, other than a naturally occurring shedding or basking site, that is being used by two or more eastern foxsnakes (Carolinian population) from the time it is used until the following November 30.
7. The area within 30 metres of an area described in paragraph 3, 4, 5 or 6.
8. Any part of a prairie, savannah, hedge row, shoreline, marsh, old field, forest, sand dune or similar area that is being used by an eastern foxsnake (Carolinian population) or on which an eastern foxsnake (Carolinian population) directly depends to carry on its life processes.
9. An area that provides suitable foraging, thermoregulation, or hibernation conditions for eastern foxsnake (Carolinian population) that is within 1,500 metres of any area described in paragraph 8.
10. An area that provides suitable conditions for an eastern foxsnake (Carolinian population) to move between areas described in paragraphs 1 through 9.

No Eastern Foxsnakes were documented within the Subject Property despite extensive searching by Terrastory staff consistent with the provincial Survey Protocol for SAR Snakes (OMNRF 2016), and MECP has further confirmed that the proposed development will not impact Eastern Foxsnake habitat (subject to implementation of their recommendations; see **Appendix** 7).

4.5 Conservation Authority Regulated Areas

ERCA regulates development and site alteration (including fill placement and grade changes) within 30 m of wetlands pursuant to Subsection 2(3) under O. Reg. 41/24. No natural features regulated by ERCA were identified within the Subject Property based on desktop analysis and 2024 fieldwork program. The Subject Property is greater than 30 m from the limit of the PSW as currently mapped. On this basis, there is an absence of ERCA regulated areas within the Subject Property.

5 EFFECTS ASSESSMENT AND MITIGATION

The purpose of this EER is to present a biophysical characterization of the Subject Property and Adjacent Lands as a means to identify the potential for adverse effects on the natural environment and natural heritage features stemming from the proposed lot severance and subsequent construction of three new residential dwellings. Several significant natural features and species were documented (or may occur) within the Subject Property pursuant to the assessments presented in

Section 4. The following effects assessment provides an evaluation of the potential for the proposed application to result in negative effects to such environmental components and offers technical recommendations to mitigate such effects where warranted. Certain technical recommendations offered herein apply to several natural features and/or species simultaneously; as such, all technical recommendations should be read and considered in their entirety. The baseline or existing conditions against which the application is assessed are treated as the state of the Subject Property at the time of the site assessments and surveys. The effects assessment herein is based on the severance sketch and conceptual site plan provided in **Appendix 8**.

5.1 Proposed Development Plan

The proposed development and site alteration activities consist of the following elements:

- Retention of the existing single-detached dwelling within the proposed retained lot;
- Creation of three (3) new residential lots through consent (severance) ; and
- Construction of three (3) single-detached dwellings fronting onto Malden Road on municipal servicing.

5.2 Feature-based Effects Assessment and Technical Recommendations

5.2.1 Significant Wetlands

Where development and/or site alteration activities are proposed adjacent to wetlands, adverse effects may occur via the following pathways:

- Alterations to surface water and/or groundwater contributions to the wetland from construction (e.g., dewatering, etc.), grading that modifies the existing topography or drainage, and/or increased coverage of impervious surfaces (e.g., roads, roofs, etc.);
- Increased sediment loadings and/or nutrient enrichment within the wetland via runoff exiting from development areas during and post construction. This may alter wetland water quality and vegetation communities via increased turbidity, eutrophication, contamination by toxic substances, changes in pH, etc.
- Noise and/or light pollution that may adversely affect the ability of wetland wildlife to successfully carry out their life processes (e.g., breeding, feeding, etc.); and
- Increased human activity (i.e., encroachment) within the wetland which may result in soil compaction, dumping, etc.
- Potential for fuel spills during the construction phase of development.
- Increased potential for introducing invasive species including both animals and plants during and post construction.

There is no development or site alteration proposed within 30 m of the PSW. The limit of development (i.e., new lot line) associated with the nearest severed lot is 40 m from the PSW. This extent of setback is sufficient to protect the PSW from negative impacts during and post construction.

During construction it is anticipated that the proposed development areas will contain exposed soils, which are inherently unstable and have a greater potential for runoff into adjacent areas (including adjacent wetlands) during rainfall events. The most effective erosion and sediment control system emphasizes the prevention of erosion first, minimizes sediment transport off-site through a multi-

barrier approach, and involves regular inspection and maintenance. To protect adjacent wetlands from construction-related impacts, the following measures are recommended:

- **An Erosion and Sediment Control Plan will be prepared and implemented prior to construction.**

5.2.2 Significant Woodlands

Where development and/or site alteration activities are proposed adjacent to forests or woodlands, adverse effects may occur via the following pathways:

- Mechanical injury to the trunk, roots, branches, and/or foliage of retained woody vegetation.
- Smothering or exposure of roots due to changes in grade.
- Soil compaction from the use of heavy machinery.
- Noise and/or light pollution that may adversely affect the ability of woodland wildlife to successfully carry out their life processes (e.g., breeding, feeding, etc.).
- Increased human activity (i.e., encroachment) within or adjacent to the woodland which may result in soil compaction, dumping, etc.
- Increased susceptibility to establishment by invasive species either directly or indirectly and including both animals and plants.

A Significant Woodland occurs on Adjacent Lands to the east of the Subject Property. The boundaries of all wooded areas are shown approximately as these features were neither staked with agency staff nor precisely delineated (i.e., at the dripline) as they occur exclusively on Adjacent Lands. The limit of the Significant Woodland is no closer than 30 m from the nearest proposed severed parcel; this extent of setback is sufficient to protect the woodland and its functions. Other overlapping technical recommendations made herein (e.g., preparation of an ESC Plan) will also further serve to protect the Significant Woodland and its ecological functions.

5.2.3 Significant Wildlife Habitat

Per the assessment in **Section 4.3**, a total of four (4) candidate SWH types were considered further through this study:

- Seasonal Concentration Areas of Animals
    1. Bat Maternity Colonies
    2. Reptile Hibernaculum
- Rare Vegetation Communities or Specialized Habitats for Wildlife
    3. Amphibian Breeding Habitat (Woodlands)
- Habitat of Species of Conservation Concern
    4. Special Concern and Rare Wildlife Species

Also based on this assessment, a total of seven (7) Special Concern or provincially rare species have at least a possible likelihood of occurrence on the Subject Property given their habitat associations and current distribution in southern Ontario (or were confirmed based on the site assessment):

1) Eastern Wood-pewee (*Contopus virens*) (**Confirmed**)
2) American Bumblebee (*Bombus pensylvanicus*) (Possible)
3) Differential Grasshopper (*Melanoplus differentialis*) (Possible)

4) Northern Bush Katydid (*Scudderia septentrionalis*) (Possible)
5) Skiff Moth (*Prolimacodes badia*) (Possible)
6) Two-spotted Cobweb Spider (*Asagena americana*) (Possible)
7) Slender Paspalum (*Paspalum setaceum*) (**Confirmed**)

Based on the assessment provided above, no development or site alteration is proposed within 30 m of the deciduous swamp (SWDM3-3) on Adjacent Lands which has the greatest potential to support three of the four Candidate SWH types (i.e., Bat Maternity Colonies, Reptile Hibernaculum, Amphibian Breeding Habitat).

In terms of habitat for provincially rare species, no specific recommendations are offered herein to minimize impacts to potential foraging habitat for American Bumblebee, Differential Grasshopper, Northern Bush Katydid, Skiff Moth, or Two-spotted Cobweb Spider. These species are habitat generalists, and habitat exists within the wider landscape surrounding the Subject Property (which consists of manicured amenity space).

Slender Paspalum (a Provincially rare grass species) was documented within the proposed severance areas. This species appears to be persisting on-site despite repeated mowing (i.e., grass species possess basal meristems). The following measure is recommended to protect this species.

- **A Relocation and Monitoring Plan for Slender Paspalum will be prepared and implemented prior to construction.**

It is expected that Slender Paspalum will need to be relocated off-site. Suitable habitat is present in the local landscape (i.e., Spring Garden Natural Area), although transplantation to such areas will require approval from City staff and/or other landowners.

5.2.4 Habitat of Endangered and Threatened Species

Per the assessment in **Appendix 6** a total of four (4) Endangered or Threatened species are considered to have a possible likelihood of occurrence on the Subject Property given their habitat associations and current distribution in southwestern Ontario:

1) Little Brown Myotis (*Myotis lucifugus*)
2) Northern Myotis (*Myotis septentrionalis*)
3) Tri-colored Bat (*Perimyotis subflavus*)
4) Eastern Foxsnake (*Pantherophis vulpinus*)

As noted in **Section 4.4**, discussions with MECP staff have confirmed that the proposed development is not expected to impact Endangered/Threatened species subject to implementation of their recommendations (see **Appendix 7**). On this basis, Terrastory recommends as follows:

- **All recommendations offered by MECP in Appendix 7 are to be implemented.**

5.2.4.1 Endangered Bat Roosting Habitat (Maternity Colonies and Individuals)

As described in **Section 4.4.1**, while the broader Study Area (i.e., within 120 m of the Subject Property) provides suitable maternity roosting habitat for Little Brown Myotis and Northern Myotis (and suitable roosting habitat for Tri-colored Bat), trees within the Subject Property itself do not

form part of a woodland and may only support "day roosts". On this basis, the following recommendations to protect Endangered bats are offered:

- **All necessary tree removals will be completed outside the primary bat activity period (i.e., to be completed between October 1 and March 31). If limited tree removal is required during the restricted timing window, consult a qualified ecologist and/or MECP for further direction.**

- **If construction activities occur during the active bat season (i.e., April 1 and September 30), work will be restricted to daylight hours only and the use of artificial lighting will be avoided.**

- **Any lighting incorporated into the final building designs should be directed downward (i.e., towards the ground) and/or away from the adjacent woodlot (i.e., directed eastward) to the extent practicable.**

5.2.4.2 Eastern Foxsnake

Although the Subject Property is within 1.5 km of known occurrences of this species, the entire Subject Property is manicured lawn (or consists of a residence) and is not considered to be habitat. The following recommendations (consistent with and not to supersede those provided in **Appendix 7**) are offered to avoid harm to Eastern Foxsnake individuals and/or other SAR snakes which are known from the broader landscape including Butler's Gartersnake (*Thamnophis butleri*):

- **The proposed development area will be isolated by reptile exclusion fencing at construction, which may be represented by silt fencing if it meets the minimum criteria for exclusion fencing outlined in the MECP *Reptile and amphibian exclusion fencing* guidelines for the above species (MECP 2021b).**

- **During the active season for herpetofauna (i.e., March 15 to November 30) an inspection will be conducted each morning by construction personnel prior to the commencement of construction activities to ensure that no Endangered or Threatened snakes have breached the reptile exclusion fencing and entered the work zone.**

- **If an Endangered or Threatened snake is encountered during construction, all construction activities must cease within 30 m of the individual. A qualified Ecologist and/or MECP should then be contacted for direction on how to proceed. The location of the snake will be monitored while awaiting direction.**

5.2.5 Other Natural Environment Considerations

While the recommendations offered herein restrict development activities from all significant natural heritage features, some vegetation removal (i.e., woody and herbaceous vegetation) is required to facilitate development. To further minimize potential adverse effects to the natural environment and wildlife during construction, the following measures are recommended:

- **The removal of trees will generally be restricted to areas in direct conflict with the footprints of the proposed development features (e.g., residences, driveways, etc.) and grading, along with any hazardous trees in the immediate vicinity that pose an unacceptable risk to human life or property.**

- **All necessary vegetation removal (e.g., trees) will be completed outside the primary bird nesting period (i.e., to be completed between September 1 and March 31). Should minor vegetation removal be proposed during the restricted timing window within readily searchable habitat types, a bird nesting survey will be undertaken to confirm the presence or absence of nesting birds or bird nests within or adjacent to the areas subject to vegetation clearance. The bird nesting survey is to take place within 48 hours of vegetation removal.**

- **Incorporation of Bird-Friendly Guidelines into the residence designs such as those published in City of Toronto's "Best Practices for Bird-Friendly Glass" and "Best Practices for Effective Lighting" should be considered at detailed design.**

5.2.6 Summary of Technical Recommendations

All technical recommendations provided in **Section 5.2** are reiterated in **Appendix 9**.

6 APPLICABLE NATURAL HERITAGE AND ENVIRONMENTAL POLICIES

The following sections summarize the various municipal, provincial, and federal environmental policies that may apply to the proposed development plan and describe how the recommendations provided in this EER will address these policies (where applicable).

6.1 City of Windsor Official Plan (August 2013)

The City's OP is a legal document prepared as required under section 14.7(3) of the *Planning Act*. An OP sets out goals, objectives, and policies that direct and manage land-use and future development activities and their effects on the social and natural environment of a municipality. Provincial plans that offer direction on matters of provincial interest are implemented principally through the City's OP. Provided herein is a description of relevant environmental and natural heritage policies contained within the City's OP and an assessment of whether the application addresses such policies.

The Subject Property falls within the Spring Garden Secondary Plan area per Volume II of the City's OP. The lands are designated "Low Density Residential" per Schedule SG-5 (Concept Plan) and are further zoned Development Research District 1.1 (DRD 1.1) under Zoning By-law 8600.

There are no natural environment related designations or zones overlapping with Subject Property or in the immediate vicinity of the Subject Property, such as "Natural Heritage", "Environmental Policy Area A and B", and "Candidate Natural Heritage Site" designated lands per Schedule C, or "Natural Heritage" designated lands per Schedule SG-5. Notwithstanding this, the City requested

the submission of a supporting EER as stemming from the protection of significant natural heritage features on Adjacent Lands pursuant to the PPS.

Certain relevant natural heritage policies within the City's OP are listed below.

- **Natural Heritage Evaluation Criteria (Section 6.8.2.3)** At the time of submission, the proponent shall demonstrate to the satisfaction of the Municipality that a proposed Natural Heritage site is:
    - (a) not environmental significant and/or sensitive based on an evaluation of the area's:
        - (i) ecological function;
        - (ii) biological diversity;
        - (iii) natural communities;
        - (iv) vulnerable, threatened or endangered species;
        - (v) physical size;
        - (vi) representation;
        - (vii) level of disturbance;
        - (viii) earth science features; and
        - (ix) cultural significance.
    - (b) in keeping with the goals, objectives and policies of any secondary plan or guideline plan affecting the area.
- **EER Required for Adjacent Lands (Section 6.8.2.4)** Council shall protect lands designated as Natural Heritage from incompatible development. Accordingly any proponent of development adjacent to lands designated as Natural Heritage may be required to complete an Environmental Evaluation Report or other suitable study in accordance with the Procedures chapter of this Plan. The identification of adjacent lands subject to this requirement will be determined on a site-specific basis by the Municipality, in consultation with the province and/or the Essex Region Conservation Authority, and in accordance with policy 10.2.5.4 of this Plan.

Note per above that that the Subject Property does not overlap with a significant natural feature (e.g., Natural Heritage, Environmental Policy Area A and B, Candidate Natural Heritage Site) and thus there is no clear trigger for an EER under the City's OP. Regardless, the Subject Property is adjacent to a number of known significant natural heritage features including a PSW and various habitats for Endangered/Threatened species.

Terrastory reviewed potential impacts to the identified significant natural features – including the PSW, candidate SWH, and potential habitat of Endangered and Threatened species – in **Section 5.2** of this EER. Provided that Terrastory's recommended mitigation measures (summarized in **Appendix 9**) are carried out in full, no negative impacts are anticipated to the PSW, candidate SWH, or Significant Woodland. Based on the preceding discussion, Terrastory can conclude that the proposed site plan appropriately addresses the natural heritage protection provisions of the City's OP.

6.2 Provincial Planning Statement 2024, pursuant to the *Planning Act*, R.S.O. 1990, c. P. 13

The Provincial Planning Statement (PPS) is promulgated under the authority of the *Planning Act* and came into effect on 20 October 2024, replacing the previous PPS that came into effect on 1 May

2020. The PPS provides direction to municipalities on land-use matters of provincial interest and sets the policy framework for regulating the use and development of land. Municipal OP's must be consistent with the PPS. Per its preamble, the PPS *provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment*.

The principal PPS policies that apply to natural heritage protection are outlined in section 2.1. While recognizing that the natural heritage protection framework is not intended to limit the ability of agricultural uses to continue (Policy 2.1.9), the PPS instructs that *natural features and areas shall be protected for the long term* (Policy 2.1.1) and that their diversity and connectivity be *maintained, restored or, where possible, improved* (Policy 2.1.2). In Ecoregions 6E and 7E the PPS separates significant features into three categories:

1) Those in which development and site alteration are not permitted, including 1) Provincially Significant Wetlands and 2) Significant Coastal Wetlands (Policy 2.1.4);
2) Those in which development and site alteration are not permitted unless it can be demonstrated that no negative impacts on the significant natural feature and/or its functions will occur, including: 1) Significant Woodlands, 2) Significant Valleylands, 3) Significant Wildlife Habitat, 4) Significant Areas of Natural and Scientific Interest, 5) Non-significant Coastal wetlands, and 6) Adjacent Lands (Policy 2.1.5 and 2.1.8).
3) Those in which development and site alteration are not permitted except in accordance with federal/provincial requirements, including: 1) fish habitat (Policy 2.1.6) and 2) habitat of Endangered and Threatened Species (Policy 2.1.7).

In considering the aforementioned PPS policies, it has been determined that the proposed development plan addresses relevant natural heritage provisions of the PPS for the following reasons:

- Per **Table 4** of this report, no Significant Areas of Natural or Scientific Interest, Significant Valleylands, Significant Wetlands, Significant Woodlands, or Fish Habitat are present within the Subject Property.
- Per **Section 5.2** of this report, no negative impacts to the Provincially Significant Wetland, Significant Woodlands, or Significant Wildlife Habitat on Adjacent Lands are anticipated, given implementation of the proposed development plan provided that the recommended mitigation measures are implemented in full.
- Per **Section 5.2** of this report, no negative impacts to Endangered/Threatened species are anticipated (confirmed by MECP per **Appendix 7**).

6.3 O. Reg. 41/24, pursuant to the *Conservation Authorities Act*, R.S.O. 1990, c. C.27

ERCA's regulatory jurisdiction includes areas within and adjacent to valley and stream corridors, hazard lands (e.g., floodplains, steep slopes, etc.), watercourses, and wetlands as provided under O. Reg. 41/24 of the *Conservation Authorities Act*.

Activities that constitute development (as defined in the *Conservation Authorities Act*, which includes grading) within 30 metres of a wetland are regulated by ERCA. Owing to recent changes to the *Conservation Authorities Act* which reduced the spatial extent of regulated area from 120 m to 30 m, there are no ERCA regulated areas within the Subject Property.

6.4 Provincial *Endangered Species Act*, S.O. 2007, c. 6

The *Endangered Species Act* (ESA) is administered by MECP and protects designated Endangered and Threatened species in Ontario from being killed, harmed, or harassed (s. 9) or having their habitat damaged or destroyed (s. 10). The protection afforded to Endangered and Threatened species "habitat" is either prescribed by O. Reg. 832/21, or (for those species that lack regulated habitat) is defined as *an area on which the species depends, directly or indirectly, to carry on its life processes, including life processes such as reproduction, rearing, hibernation, migration or feeding.* Development activities that constitute habitat damage and/or destruction typically require permitting under section 17 of the ESA, or proceed through registration of the activity as a conditional exemption under O. Reg. 242/08 or O. Reg. 830/21 (where applicable).

A detailed assessment of potential Endangered and Threatened habitat within the Subject Property is provided in **Appendix 6**. As stated throughout this EIS, no negative impacts to Endangered/Threatened species are anticipated (confirmed by MECP per **Appendix 7**).

6.5 Federal *Migratory Birds Convention Act*, S.C. 1994, c. 22

Subsection 5(1) of the Migratory Birds Regulations under the *Migratory Birds Convention Act, 1994* (MBCA) prohibits the disturbance or destruction of nests, eggs, or nest shelters of a migratory bird without authorization. Subsection 5(2) of the Migratory Birds Regulations allows for damage or destruction of nests which lack a live bird or viable egg with the exception of inactive nests associated with species listed under Schedule 1. In Ontario, the nests of Schedule 1 species are afforded year-round protection (i.e., regardless of the presence or absence of a live bird or viable egg), inclusive of the following species:

- Black-crowned Night Heron (*Nycticorax nycticorax*)
- Cattle Egret (*Bubulcus ibis*)
- Great Blue Heron (*Ardea herodias*)
- Great Egret (*Ardea alba)*
- Green Heron (*Butorides virescens*)
- Pileated Woodpecker (*Dryocopus pileatus*)
- Snowy Egret (*Egretta thula*)

The provincial *Fish and Wildlife Conservation Act, 1997* (FWCA) extends the protection of bird nests and eggs to certain non-migratory species not listed under the Migratory Birds Regulations (e.g., Corvids, Strigids, Accipitrids). Section 7(1) of the FWCA prohibits a person from destroying, taking, or possessing the nest or eggs of a bird that belongs to a species that is wild by nature. Section 7(3) identifies that section 7(1) of the FWCA does not apply to a person who destroys, takes, or possesses the nest or eggs of a bird described in subsection (a) in accordance with the authorization of the Minister, or subsection (b) in the circumstances prescribed by the regulations. The nests of certain non-migratory bird species are not protected under the FWCA (e.g., Red-winged Blackbird).

Provided that the recommendations outlined in **Section 5.2.5** are implemented in full (i.e., prohibition on vegetation removal during the bird breeding season), no impacts to breeding birds or bird nests protected by the MBCA or FWCA are anticipated.

7 CONCLUSIONS

In accordance with the Terms of Reference for this study (**Appendix 1**) and relevant environmental policies, the preceding report provides a detailed characterization of the natural environment occurring within and adjacent to 4641 Malden Road, City of Windsor. This EER has been prepared in support of a Consent to Sever and Zoning By-law Amendment applications submitted to support the creation of three (3) new developable lots. Included herein is a comprehensive approach to identifying the presence or absence of several significant natural features afforded varying degrees of protection by applicable environmental policies. Potential negative impacts to the identified significant natural features are described with mitigation measures and technical recommendations offered to avoid or minimize such impacts as appropriate.

Based on the findings presented in this report, the following natural features with ecological and/or policy significance have been identified:

- **Provincially Significant Wetlands (PSW)** forming part of the Provincially Significant Ojibway Prairie Wetland Complex on Adjacent Lands.
- **Confirmed Significant Wildlife Habitat** within the Subject Property for the provincially rare grass Slender Paspalum and **Candidate Significant Wildlife Habitat** on Adjacent Lands for bat maternity colonies, reptile hibernaculum, amphibian breeding habitat (woodlands), and other species of conservation interest.
- **Significant Woodland** occurring on Adjacent Lands to the east.
- Generalized roosting habitat for three **Endangered bats** (Little Brown Myotis, Northern Myotis, and Tri-colored Bats) within the Subject Property.

Based on the presence of the above-mentioned significant natural heritage features, a comprehensive set of recommendations and mitigation measures are offered in **Section 5.2** to achieve "no negative impact" and address applicable municipal, provincial, and federal policies outlined in **Section 6**. This includes (among other technical recommendations) the need to relocate a provincially rare grass species (Slender Paspalum) outside the proposed development area, preparation and implementation of an Erosion and Sediment Control Plan for construction, and timing restrictions on vegetation removal (to protect nesting birds and roosting bats).

It has been determined that no negative impacts to the above-noted features will occur and that the application appropriately addresses applicable natural heritage policies provided that all technical mitigation measures recommended herein (summarized in **Appendix 9**) are implemented in full. MECP has further confirmed that no impacts to Endangered/Threatened species are anticipated provided that their recommendations are implemented (see **Appendix 7**). It is advised that such technical recommendations be incorporated into any necessary development approvals that permit the consent and rezoning applications.

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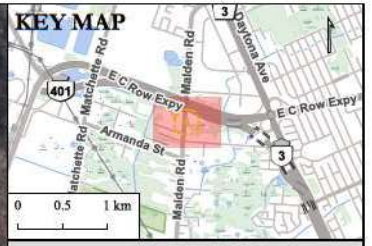

Legend

Area of Assessment
- Subject Property
- Adjacent Lands

GENERAL NOTES:
-Features depicted herein should not be used in place of a professional survey.
-Numeric scale is for a 11x17 inch print.

TERRASTORY
environmental consulting inc.
info@terrastoryenviro.com 905.745.5398

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Location:
4641 Malden Road,
City of Windsor

Project No.: 24044
Date: 2024-12-06
By: JC **Checked:** TK
Orthophotograph Date: Essex Region, 2023.

Figure 1:
Location of the Subject Property

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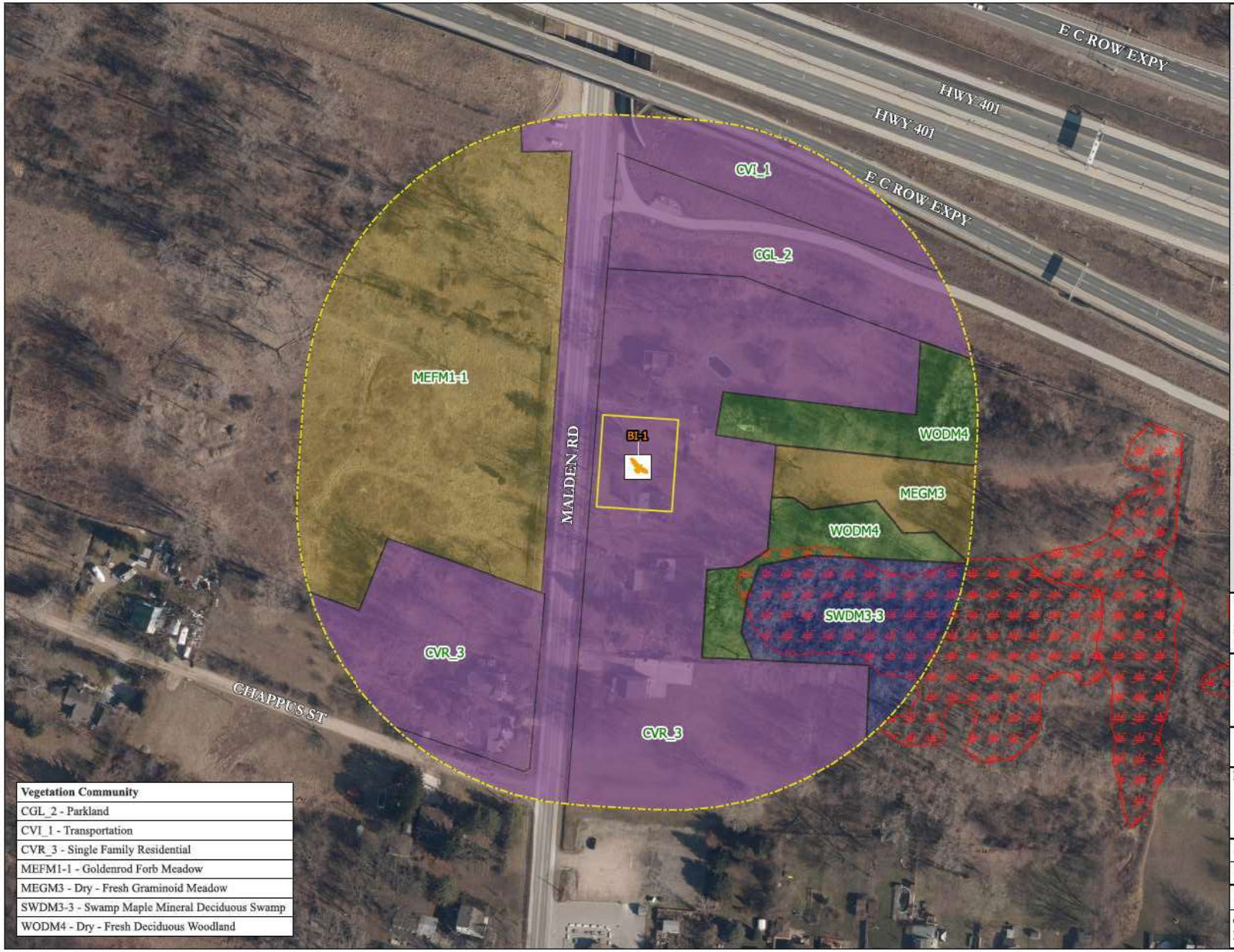

Vegetation Community
CGL_2 - Parkland
CVI_1 - Transportation
CVR_3 - Single Family Residential
MEFM1-1 - Goldenrod Forb Meadow
MEGM3 - Dry - Fresh Graminoid Meadow
SWDM3-3 - Swamp Maple Mineral Deciduous Swamp
WODM4 - Dry - Fresh Deciduous Woodland

Legend

Area of Assessment
- Subject Property
- Adjacent Lands

Survey Stations
- Breeding Bird Survey Stations

Biophysical Features and Conditions

Vegetation Communities
- Woodland
- Meadow
- Swamp
- Constructed

Significant Natural Features - Agency Identified

Wetlands (Provincial Dataset)
- Provincially Significant Ojibway Prairie Wetland Complex (ER 28)

GENERAL NOTES:
-Features depicted herein should not be used in place of a professional survey.
-Numeric scale is for a 11x17 inch print.

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Location:
4641 Malden Road,
City of Windsor

Project No.: 24044
Date: 2024-12-06
By: JC **Checked:** TK
Orthophotograph Date: Essex Region, 2023.

Figure 2:
Biophysical Features and Conditions

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Legend

Area of Assessment
- Subject Property

Built Structures and Infrastructure
- Existing Residence

Proposed Activities
- Proposed Dwelling Envelope
- Proposed Lot Configuration

Significant Natural Features - Terrastory

Endangered and Threatened Species
- Chimney Swift (Chaetura pelagica) Threatened

Special Concern and Provincially Rare Species
- Eastern Wood-pewee (Contopus virens) Special Concern
- Slender Paspalum (Paspalum setaceum) Provincially Rare (S2)

Significant Natural Features - Agency Identified

Wetlands (Provincial Dataset)
- Provincially Significant Ojibway Prairie Wetland Complex (ER 28)

Natural Feature Setbacks
- 30 m from PSW (as currently mapped)

Note:
-The 30 m buffer has been applied from the extent of the PSW as identified in the provincial dataset, as the extent of the wetland identified during Terrastory's 2024 fieldwork program was interpreted through aerial imagery and as viewed from the Subject Property (owing to a lack of access onto Adjacent Lands).

GENERAL NOTES:
-Features depicted herein should not be used in place of a professional survey.
-Numeric scale is for a 11x17 inch print.

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1:500 | 0 5 10 15 20 m

Location:
4641 Malden Road,
City of Windsor

Project No.: 24044	**Figure 3:** Significant Natural Features with Proposed Development Overlay
Date: 2024-12-06	
By: JC **Checked: TK**	
Orthophotograph Date: Essex Region, 2023.	

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Appendix 1. Terms of Reference

April 27, 2024
Project No.: 24044

TERRASTORY
environmental consulting inc.

Stefan Fediuk
Planner III – Senior Urban Designer
City of Windsor
255-6543 x6025
sfediuk@citywindsor.ca

SUBJECT: Terms of Reference for Environmental Evaluation Report
4641 Malden Road
City of Windsor

Terrastory Environmental Consulting Inc. (hereinafter "Terrastory") has been retained to prepare an Environmental Evaluation Report (EER) in support of a development application at the above-captioned location in Windsor. Outlined herein is our proposed Terms of Reference (ToR) for the EER. Terrastory has also been retained to complete the necessary Natural Site Features Inventory & Preservation Study and will be completing that study concurrently.

Should you have any questions or require further clarification regarding the contents of this letter, I would be pleased to discuss them further and can be reached by phone (905.745.5398) or email (tristan@terrastoryenviro.com).

Regards,

Terrastory Environmental Consulting Inc.

Tristan Knight, M.E.S., M.Sc., I.S.A., C.E.R.P.
Senior Ecologist | President

STUDY BACKGROUND

The Subject Property is an approximately 0.11 hectare (0.28 acre) parcel on the east side of Malden Road between Herb Gray Parkway/Hwy. 401 and Chappus Street. The Subject Property contains an existing residence surrounded by manicured amenity space (grass) with a few scattered trees. Natural lands occur to the east (and west of Malden Road)

The Subject Property falls within the Spring Garden Secondary Plan area per Volume II of the City's OP. The lands are designated Low Density Residential per Schedule SG-5 and are further zoned Development Research District 1.1 (DRD 1.1) under Zoning By-law 8600.

The applicant wishes to construct three (3) additional single unit dwellings while the existing two-storey residential dwelling is to remain. The proposed development must be facilitated by a Zoning By-law Amendment (ZBA) and Consent to Sever (severance) applications, as confirmed through a 13 February 2024 pre-consultation letter (i.e., Stage 1 Planning Consultation) received from the City. To support the rezoning/severance applications, the City has requested a supporting EER.

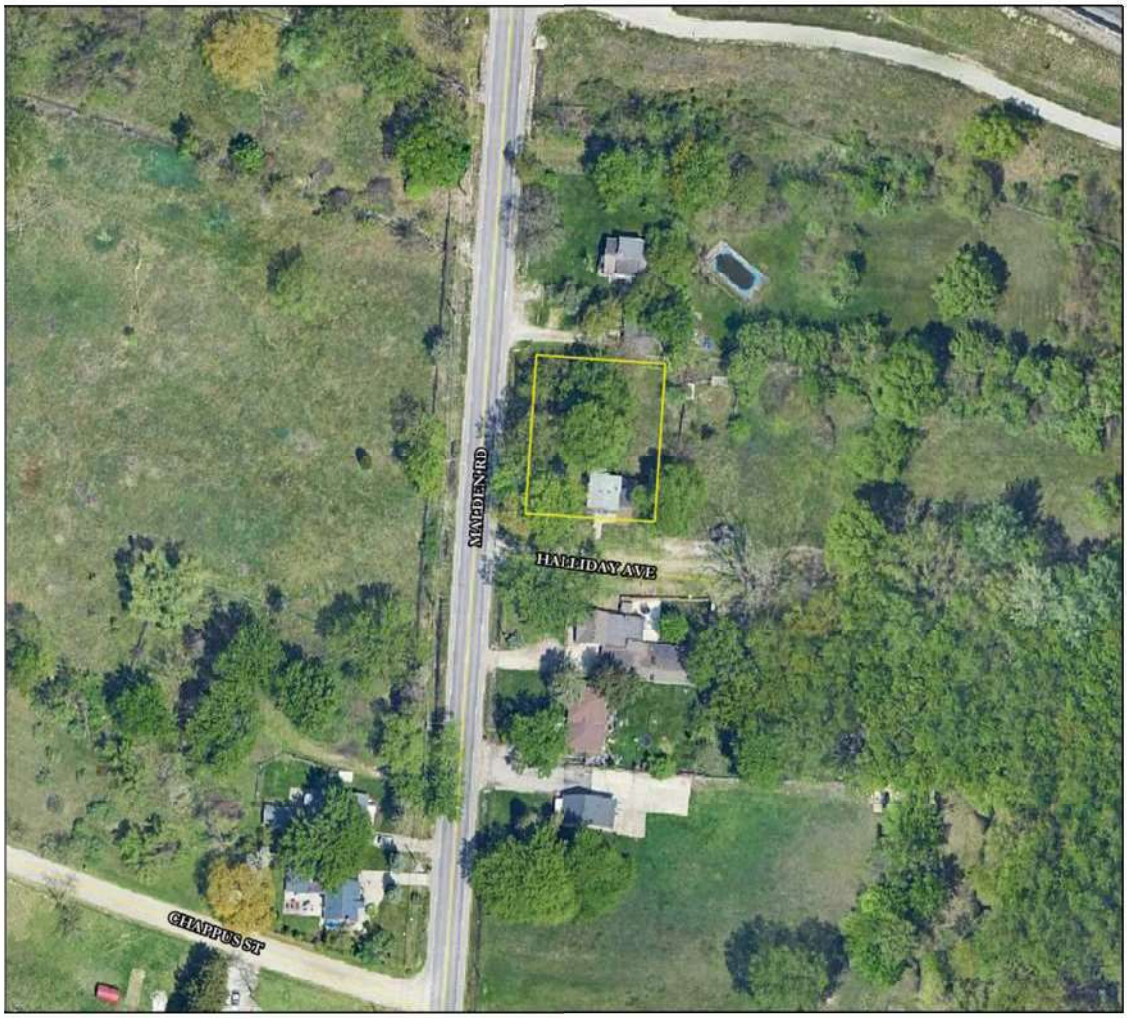

Figure 1. Location of the Subject Property.

TERMS OF REFERENCE FOR EER

- **Overall Approach and Methodology**
  - EER will be undertaken consistent with Section 10.2.5 of the City's OP.
  - Study Area will include the Subject Property and Adjacent Lands (natural lands) to a distance of 120 m from the limit of proposed development.
  - Information for Adjacent Lands will be collected from background sources and areas where permission to enter has been granted.
- **Background Information Gathering**
  - Background biophysical information will be gathered from the following sources (minimum) to support the biophysical characterization and significance assessments for Significant Wildlife Habitat and Species at Risk:
    - Current and historical aerial photographs
    - Existing natural feature mapping (Spring Garden Planning Areas Schedules, NHIC, etc.).
    - Ontario Base Mapping and other sources of topographic information (e.g., LiDAR), where available.
    - Ontario well records from the local landscape.
    - Soils mapping for the local landscape.
    - Paleozoic and surficial geology mapping for the local landscape.
    - Physiographic mapping for the local landscape.
    - NHIC element occurrences.
    - iNaturalist element occurrences, including rare species records retrieved through the "(NHIC) Rare Species of Ontario" project.
    - eBird.
    - Ontario Breeding Bird Atlas database.
    - Ontario Butterfly Atlas.
    - iNaturalist "Ontario Odonata" project
    - Bumble Bee species distribution maps from iNaturalist and Bumble Bee Watch.
    - DFO Aquatic Species at Risk Maps.
    - Aquatic resource area data.
    - Atlas of the Mammals of Ontario.
    - Flowing Waters Information System (FWIS) Database.
- **Site Assessment and Ecological Surveys (i.e., 2024 Fieldwork)**
  - General biophysical description of the Study Area (i.e., direction of drainage, land management, etc.).
  - **Ecological Land Classification (ELC)** for the Subject Property and Adjacent Lands.
    - *Note, Adjacent Lands will be characterized and mapped based on observations from publicly-accessible locations and aerial photograph interpretation.
  - Two (2) rounds of early spring **Snake Emergence Surveys**, plus an additional eight (8) rounds of snake surveys in accordance with the Survey Protocol for Ontario's Species at Risk Snakes (Dec. 2016).
  - Two (2) rounds of **Breeding Bird Surveys** according to the OBBA
    - First survey to be completed between May 24 and June 15
    - Second survey to be completed between June 16 and July 10.

  - Two (2) season **Vascular Plant Inventory**.
    - Spring survey to be completed between early May and late June
    - Summer survey to be completed between July and August
  - **Tree Inventory** covering all trees > 10 cm DBH (through the Natural Site Features Inventory & Preservation Plan).
  - Raw digital data forms (e.g., excel and/or shapefile format) will be provided summarizing the field data (e.g., anuran calling surveys, etc.) upon request.
  - Characterization and delineation of all significant natural features identified.
  - Incidental wildlife (including butterflies, odonates, and bumblebees) to be recorded during all site visits.
- **Significance Assessment**
  - Determination of whether any confirmed or potential significant natural heritage features and/or natural hazards are present within the Subject Property (or Adjacent Lands), particularly (among others) SWH, SAR, Significant Woodland, etc.
  - Mapping of significant natural heritage feature boundaries (e.g., staked and approved dripline for the Significant Woodland).
  - Full screening for SWH (based on the Ecoregion 7E Criteria Schedule).
  - Full screening for Species at Risk (SAR).
  - If any Endangered/Threatened species are documented, their locations will be mapped and the extent of their habitat will be delineated. Correspondence with MECP will be appended to the EER.
    - Due to known presence of several SAR snakes in the general area (e.g., Eastern Foxsnake, Butlers Gartersnake), MECP will be engaged through submission of an Information Gathering Form (IGF).
  - A list of all species documented will be provided including their relevant local, provincial, and federal rankings.
  - If any S1 to S3 species are found on site, their locations and habitat extent will be mapped and considered through the impact assessment.
- **Impact Assessment and Recommendations**
  - Description of the proposed development plan and any related technical plans/documents where available.
  - Mapping which indicates the proposed development plan overlaid with the significant natural feature mapping on a current airphoto base.
  - Impact assessment for all natural heritage/hazard features identified and their functions from an ecological perspective, including direct, indirect, and cumulative effects.
  - Recommendations for an ecologically and policy-appropriate buffer/setback/VPZ to the Significant Woodland on the data collected, impact assessment, and conformity with applicable policies and legislation.
  - Mitigation measures to avoid/minimize impacts (e.g., tree removal timing window, ESC measures, etc.).
  - Inclusion of a Tree Protection Plan including relevant details and specifications.
- **Policy Conformity Assessment**
  - An overall assessment of whether the proposed consent application, combined with any design changes and mitigation measures, conforms to relevant natural heritage policies in the City's OP, Spring Garden Secondary Plan, Provincial Policy Statement, *Endangered Species Act*, *Migratory Birds Convention Act*, and any other applicable natural heritage policies/legislation.

Appendix 2. Representative Photographs

Photo 1. Existing residence facing eastward (15 April 2024).

Photo 2. Subject Property facing southward (15 April 2024).

Photo 3. Subject Property facing northward (15 April 2024).

Photo 4. Subject Property facing eastward (15 April 2024).

Appendix 3. Vascular Plant List

Scientific Name	Common Name	Family	S-Rank (per NHIC)	Local Rank (per Oldham 2017)	Coefficient of Conservatism	Coefficient of Wetness
Acer negundo	Manitoba Maple	Aceraceae	S5	X	0	0
Acer saccharum	Sugar Maple	Aceraceae	S5	X	4	3
Achillea millefolium	Common Yarrow	Asteraceae	SNA	-	n/a	3
Actaea pachypoda	White Baneberry	Ranunculaceae	S5	X	6	5
Ageratina altissima	Common White Snakeroot	Asteraceae	S5	X	5	3
Agrimonia gryposepala	Hooked Agrimony	Rosaceae	S5	X	2	3
Ambrosia artemisiifolia	Common Ragweed	Asteraceae	S5	X	0	3
Ambrosia trifida	Great Ragweed	Asteraceae	S5	X	0	0
Andropogon gerardii	Big Bluestem	Poaceae	S4	X	7	3
Arctium minus	Common Burdock	Asteraceae	SNA	IX	n/a	3
Asclepias syriaca	Common Milkweed	Asclepiadaceae	S5	X	0	5
Axyris amaranthoides	Russian Pigweed	Chenopodiaceae	SNA	-	n/a	0
Berberis thunbergii	Japanese Barberry	Berberidaceae	SNA	IX	n/a	3
Botrypus virginianus	Rattlesnake Fern	Ophioglossaceae	S5	X	5	3
Bromus inermis	Smooth Brome	Poaceae	SNA	IX	n/a	5
Bromus latiglumis	Broad-glumed Brome	Poaceae	S4	R	7	-3
Calystegia sepium	Hedge False Bindweed	Convolvulaceae	S5	X	2	0
Carex rosea	Rosy Sedge	Cyperaceae	S5	C	2	5
Carya cordiformis	Bitternut Hickory	Juglandaceae	S5	X	6	0
Celastrus scandens	Climbing Bittersweet	Celastraceae	S5	X	3	3
Celtis occidentalis	Common Hackberry	Ulmaceae	S4	X	8	0
Chenopodium album	White Goosefoot	Chenopodiaceae	SNA	IX	n/a	3
Circaea canadensis	Broad-leaved Enchanter's Nightshade	Onagraceae	S5	X	2	3
Cirsium arvense	Canada Thistle	Asteraceae	SNA	IX	n/a	3
Cirsium vulgare	Bull Thistle	Asteraceae	SNA	IX	n/a	3
Convolvulus arvensis	Field Bindweed	Convolvulaceae	SNA	IX	n/a	5
Cornus alternifolia	Alternate-leaved Dogwood	Cornaceae	S5	X	6	3
Cornus racemosa	Gray Dogwood	Cornaceae	S5	X	2	0
Cornus sericea	Red-osier Dogwood	Cornaceae	S5	X	2	-3
Dactylis glomerata	Orchard Grass	Poaceae	SNA	IX	n/a	3
Daucus carota	Wild Carrot	Apiaceae	SNA	IX	n/a	5
Echinochloa crus-galli	Large Barnyard Grass	Poaceae	SNA	IX	n/a	-3
Echinocystis lobata	Wild Mock-cucumber	Cucurbitaceae	S5	X	3	-3
Elaeagnus umbellata	Autumn Olive	Elaeagnaceae	SNA	IR	n/a	3
Elymus hystrix	Bottlebrush Grass	Poaceae	S5	C	5	5
Elymus virginicus	Virginia Wildrye	Poaceae	S5	X	5	-3
Erigeron canadensis	Canada Horseweed	Asteraceae	S5	X	0	3
Erigeron strigosus	Rough Fleabane	Asteraceae	S5	X	4	3
Fagus grandifolia	American Beech	Fagaceae	S4	X	6	3
Fallopia dumetorum	Hedge Bindweed	Polygonaceae	SNA	-	n/a	0
Festuca subverticillata	Nodding Fescue	Poaceae	S4	X	6	3
Fraxinus americana	White Ash	Oleaceae	S4	X	4	3

Scientific Name	Common Name	Family	S-Rank (per NHIC)	Local Rank (per Oldham 2017)	Coefficient of Conservatism	Coefficient of Wetness
Galium circaezans	Wild Licorice	Rubiaceae	S5	X	7	3
Geum canadense	White Avens	Rosaceae	S5	C	3	0
Glechoma hederacea	Ground Ivy	Lamiaceae	SNA	IX	n/a	3
Helianthus giganteus	Tall Sunflower	Asteraceae	S5	X	6	-3
Heliopsis helianthoides	False Sunflower	Asteraceae	S4S5	R	3	3
Hesperis matronalis	Dame's Rocket	Brassicaceae	SNA	IX	n/a	3
Juglans nigra	Black Walnut	Juglandaceae	S4?	X	5	3
Lactuca serriola	Prickly Lettuce	Asteraceae	SNA	IX	n/a	3
Leersia virginica	Virginia Cutgrass	Poaceae	S4	X	6	-3
Lindera benzoin	Spicebush	Lauraceae	S4	C	6	-3
Lotus corniculatus	Garden Bird's-foot Trefoil	Fabaceae	SNA	IX	n/a	3
Maianthemum canadense	Wild Lily-of-the-valley	Liliaceae	S5	X	5	3
Medicago sativa	Alfalfa	Fabaceae	SNA	IX	n/a	5
Melilotus albus	White Sweet-clover	Fabaceae	SNA	IX	n/a	3
Menispermum canadense	Canada Moonseed	Menispermaceae	S4	X	7	0
Monarda fistulosa	Wild Bergamot	Lamiaceae	S5	X	6	3
Morus alba	White Mulberry	Moraceae	SNA	IX	n/a	0
Nepeta cataria	Catnip	Lamiaceae	SNA	IX	n/a	3
Osmorhiza claytonii	Hairy Sweet Cicely	Apiaceae	S5	X	5	0
Ostrya virginiana	Eastern Hop-hornbeam	Betulaceae	S5	C	4	3
Parthenocissus vitacea	Thicket Creeper	Vitaceae	S5	X	4	3
Persicaria virginiana	Virginia Smartweed	Polygonaceae	S4	C	6	0
Phryma leptostachya	Lopseed	Verbenaceae	S4S5	X	6	3
Plantago lanceolata	English Plantain	Plantaginaceae	SNA	IX	n/a	3
Poa compressa	Canada Bluegrass	Poaceae	SNA	IX	n/a	3
Podophyllum peltatum	May-apple	Berberidaceae	S5	C	5	3
Polygonatum pubescens	Hairy Solomon's Seal	Liliaceae	S5	X	5	5
Populus deltoides	Eastern Cottonwood	Salicaceae	S5	X	4	0
Prunus serotina	Black Cherry	Rosaceae	S5	X	3	3
Quercus muehlenbergii	Chinquapin Oak	Fagaceae	S4	X	7	3
Ratibida pinnata	Gray-headed Prairie Coneflower	Asteraceae	S3	R	9	5
Rhamnus cathartica	Common Buckthorn	Rhamnaceae	SNA	IC	n/a	0
Rhus typhina	Staghorn Sumac	Anacardiaceae	S5	X	1	3
Rubus occidentalis	Black Raspberry	Rosaceae	S5	C	2	5
Rudbeckia laciniata	Cut-leaved Coneflower	Asteraceae	S5	X	7	-3
Rumex crispus	Curly Dock	Polygonaceae	SNA	IX	n/a	0
Sanguinaria canadensis	Bloodroot	Papaveraceae	S5	X	5	3
Setaria viridis	Green Foxtail	Poaceae	SNA	IX	n/a	5
Smilax herbacea	Herbaceous Carrionflower	Smilacaceae	S4?	R	5	0
Smilax tamnoides	Hispid Greenbrier	Smilacaceae	S5	X	6	0
Solidago altissima	Tall Goldenrod	Asteraceae	S5	X	1	3
Sorghastrum nutans	Yellow Indiangrass	Poaceae	S4	X	8	3

Scientific Name	Common Name	Family	S-Rank (per NHIC)	Local Rank (per Oldham 2017)	Coefficient of Conservatism	Coefficient of Wetness
Symphyotrichum ericoides	White Heath Aster	Asteraceae	S5	X	4	3
Symphyotrichum pilosum	White Heath Aster	Asteraceae	S5	X	0	3
Tilia americana	American Basswood	Tiliaceae	S5	C	4	3
Trifolium pratense	Red Clover	Fabaceae	SNA	IX	n/a	3
Trifolium repens	White Clover	Fabaceae	SNA	IX	n/a	3
Urtica dioica	Stinging Nettle	Urticaceae	S5	-	2	0
Urtica gracilis	Slender Stinging Nettle	Urticaceae	S5	X	2	0
Verbascum thapsus	Common Mullein	Scrophulariaceae	SNA	IX	n/a	5
Xanthium strumarium	Rough Cocklebur	Asteraceae	S5	X	2	0

Appendix 4. Breeding Bird Survey Results

1 BREEDING BIRD SURVEY METHODOLOGY

Two breeding bird surveys were conducted following Ontario Breeding Bird Atlas (OBBA) protocols (Bird Studies Canada et al. 2001). Surveys occurred within the appropriate season (May 24–July 10), time of day (between dawn and five hours after dawn), and weather conditions (no rain, wind speed ≤3 on the Beaufort Wind Scale). The station was surveyed for a minimum duration of ten (10) minutes.

One (1) survey station was established and situated to cover the variety of bird habitats on-site, particularly habitats with a high potential to support significant bird species and those that occur within or adjacent to proposed areas of disturbance. The locations of point count stations and significant bird species were recorded in the field with a high-accuracy GPS.

Signs of breeding activity accompanied each bird record (e.g., singing male, probable pair, agitation, carrying nest material, etc.). The OBBA provides four (4) breeding categories to accompany each observation:

> ***Observed:*** Species observed during its breeding season (no evidence of breeding).
>
> ***Possible Breeding:*** Includes any of the following observation types: 1) species observed in its breeding season in suitable nesting habitat, and 2) singing male present, or breeding calls heard, in its breeding season in suitable nesting habitat.
>
> ***Probable Breeding:*** Includes any of the following observation types: 1) pair observed in their breeding season in suitable nesting habitat, 2) permanent territory presumed through registration of territorial song on at least 2 days, a week or more apart, at the same place, 3) courtship or display between a male and a female or 2 males, including courtship feeding or copulation, 4) visiting probable nest site, 5) agitated behaviour or anxiety calls of an adult, 6) brood patch on adult female or cloacal protuberance on adult male, and 7) nest-building or excavation of nest hole.
>
> ***Confirmed Breeding:*** Includes any of the following observation types: 1) distraction display or injury feigning, 2) used nest or egg shell found (occupied or laid within the period of the study), 3) recently fledged young or downy young, including young incapable of sustained flight, 4) adults leaving or entering nest site in circumstances indicating occupied nest, 5) adult carrying faecal sac, 6) adult carrying food for young, 7) nest containing eggs, and 8) nest with young seen or heard.

2 RESULTS

Table 1. Results of Breeding Bird Surveys.

Common Name	Scientific Name	Breeding Status within the Study Area	General Location of Observation
American Robin	*Turdus migratorius*	Co	Throughout survey area.
Black-capped Chickadee	*Poecile atricapillus*	Po	Deciduous swamp on Adjacent Lands.
Blue Jay	*Cyanocitta cristata*	Pr	Woodland on Adjacent Lands.
Brown-headed Cowbird	*Molothrus ater*	Po	Manicured area adjacent existing dwelling.
Carolina Wren	*Thryothorus ludovicianus*	Po	Deciduous swamp on Adjacent Lands.
Cedar Waxwing	*Bombycilla cedrorum*	Po	Deciduous swamp edge on Adjacent Lands.
Common Grackle	*Quiscalus quiscula*	Po	Deciduous swamp on Adjacent Lands.
Downy Woodpecker	*Picoides pubescens*	Pr	Manicured areas and forest on Adjacent Lands.
Eastern Kingbird	*Tyrannus tyrannus*	Po	Manicured area adjacent existing dwelling.
Eastern Wood-pewee	*Contopus virens*	Po	Deciduous swamp on Adjacent Lands.
European Starling	*Sturnus vulgaris*	Co	Manicured area adjacent existing dwelling.
House Wren	*Troglodytes aedon*	Pr	Deciduous swamp edge on Adjacent Lands.
Mourning Dove	*Zenaida macroura*	Po	Meadow on Adjacent Lands to the west.
Northern Cardinal	*Cardinalis cardinalis*	Po	Manicured area on Adjacent Lands.
Ring-billed Gull	*Larus delawarensis*	O	Flyover.
Red-bellied Woodpecker	*Melanerpes carolinus*	Pr	Deciduous swamp and woodland on Adjacent Lands.
Red-winged Blackbird	*Agelaius phoeniceus*	Po	Manicured areas on Subject Property and Adjacent Lands to the west.
Song Sparrow	*Melospiza melodia*	Pr	Manicured areas within and adjacent the Subject Property.
Tree Swallow	*Tachycineta bicolor*	Co	Manicured areas on Adjacent Lands.
Warbling Vireo	*Vireo gilvus*	Pr	Deciduous swamp edge on Adjacent Lands.
White-breasted Nuthatch	*Sitta carolinensis*	Po	Deciduous swamp edge on Adjacent Lands.

1 Location of breeding bird survey station is indicated on **Figure 2.**

2 Co = Confirmed Breeder; Pr = Probable Breeder; Po = Possible Breeder; O = Observed (no evidence of breeding). Breeding status determined based on the results of the formal breeding bird surveys; where a higher level of breeding status was documented incidentally (i.e., during other field surveys), this is noted in within the main body of the report (where applicable).

Appendix 5. Significant Wildlife Habitat Assessment

1 SIGNIFICANT WILDLIFE HABITAT ASSESSMENT METHODOLGY

The PPS protects Significant Wildlife Habitat (SWH) from development and site alteration unless it can be demonstrated that no negative impacts on the feature or its function will occur. As outlined in the SWH Technical Guide (OMNR 2000) and supporting Ecoregion Criteria Schedules (OMNRF 2015), SWH is composed of four (4) principal components:

- Seasonal Concentration Areas of Animals;
- Rare Vegetation Communities or Specialized Habitats;
- Habitat of Species of Conservation Concern; and
- Animal Movement Corridors.

The process for identifying SWH is outlined in s. 9.2.3 of the Natural Heritage Reference Manual (OMNR 2010). Step 1 considers the nature of the development application proposed and involves the assembly of background ecological information for the Study Area and Adjacent Lands. If the application triggers a need to protect SWH (e.g., change in land-use that requires approval under the Planning Act, etc.), a more thorough investigation of potential SWH features within the Study Area or Adjacent Lands must occur. Any confirmed SWH for the Study Area and Adjacent Lands as identified in relevant planning documents or by the MNRF should be noted at this stage.
Where a need to protect SWH is triggered, step 2 involves undertaking a more thorough analysis of features, functions, and habitats within the Study Area via Ecological Land Classification (see Section 2.8). The list of ELC Ecosite codes generated for the Study Area is compared to those codes considered candidate SWH in the relevant Ecoregion Criterion Schedule (i.e., 5E, 6E, or 7E) in step 3. Where a positive match between an ELC Ecosite and candidate SWH exists, the area is considered candidate SWH.

Two options are available for candidate SWH: 1) the area may be protected without further study, or 2) the area may be evaluated to ascertain whether confirmed SWH is present. Evaluation may involve generating more detailed maps of vegetation cover, or conducting surveys of the wildlife population within the candidate SWH including reproductive, feeding, and movement patterns. If the area is confirmed SWH, the final step in the process is the completion of an impact assessment to demonstrate that no negative impacts to the confirmed SWH or its function will occur. The impact assessment process is assisted by SWH Mitigation Support Tool (OMNRF 2014).

2 RESULTS

Table 1. Results of the Significant Wildlife Habitat Assessment.

Ecoregion 7E	Do any Features, Habitats, or Areas within the Study Area meet relevant criteria (Ecoregion 7E Criteria Schedule) as Candidate SWH?	Do any Features, Habitats, or Areas o within the Study Area meet relevant criteria (Ecoregion 7E Criteria Schedule) as Confirmed SWH?	Likelihood that Negative Effects to SWH (i.e., "degradation that threatens the health and integrity" as defined in the 2020 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Seasonal Concentration Areas of Animals			
Waterfowl Stopover and Staging Areas (Terrestrial)	**No.** Meadows, fields, and/or thickets that annually flood during spring and could support significant congregations of migrating waterfowl are absent.	--	--
Waterfowl Stopover and Staging Areas (Aquatic)	**No.** Large surface water features (e.g., ponds, lakes, bays, coastal inlets, large watercourses, etc.) and/or wetlands that annually flood during spring could support significant congregations of migrating waterfowl are absent.	--	--
Shorebird Migratory Stopover Areas	**No.** Unvegetated open areas adjacent to surface water features (e.g., shorelines, beaches, mudflats, etc.) and able to support significant congregations of migrating shorebirds are absent	--	--
Raptor Wintering Areas	**No.** Treed and meadow habitats within the Study Area are too small to support significant congregations of wintering raptors.	--	--
Bat Hibernacula	**No.** Natural features and habitats that could support hibernating bats (e.g., caves, mine shafts, crevices, karsts, etc.) are absent.	--	--
Bat Maternity Colonies	**Yes.** Mature deciduous swamp with a high-density (i.e., >10/ha) of large-diameter (i.e., ≥25 cm DBH) trees containing cracks/cavities are present on Adjacent Lands.	**Unknown.** Targeted surveys were not undertaken on Adjacent Lands to assess presence/absence of bats and/or suitable snags within the deciduous swamp.	**Negligible.** Development activities will be restricted to the Subject Property, and a timing window restriction will be applied to necessary individual tree removal activities within the Subject Property to avoid impacting roosting bats occupying "day roosts".
Turtle Wintering Areas	**No.** Surface water features and/or wetlands with soft muddy substrate which do not freeze to the bottom during winter are absent.	--	--
Reptile Hibernaculum	**Yes.** Features (e.g., small mammal burrows, rock crevices, etc.) and/or habitats (e.g., certain wetlands with a fluctuating water table, etc.) that could provide snakes with access below the frost line are present.	**Unknown.** Snake surveys undertaken during the 2024 fieldwork season did not identify any features being used by reptiles (i.e., snakes) for overwintering within the Subject Property and areas accessible by public ROW. Snake overwintering habitat may occur on Adjacent Lands.	**Negligible.** Development activities will be restricted to the Subject Property.
Colonially - Nesting Bird Breeding Habitat (Bank and Cliff)	**No.** Features that could support nesting by Cliff Swallow and Northern Rough-winged Swallow (e.g., eroding banks, sandy hills, borrow pits, steep slopes, cliff faces, etc.) are absent.	--	--
Colonially - Nesting Bird Breeding Habitat Breeding Habitat (Tree/Shrubs)	**No.** Swamp and treed fen communities of sufficient size are absent.	--	--
Colonially - Nesting Bird Breeding Habitat (Ground)	**No.** Rocky islands or peninsulas along lakes or large rivers are absent.	--	--

Ecoregion 7E	Do any Features, Habitats, or Areas within the Study Area meet relevant criteria (Ecoregion 7E Criteria Schedule) as Candidate SWH?	Do any Features, Habitats, or Areas o within the Study Area meet relevant criteria (Ecoregion 7E Criteria Schedule) as Confirmed SWH?	Likelihood that Negative Effects to SWH (i.e., "degradation that threatens the health and integrity" as defined in the 2020 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Migratory Butterfly Stopover Areas	**No.** A mixture of fields and forests within 5 km from the shoreline of Lake Erie or Lake Ontario are absent.	--	--
Landbird Migratory Stopover Areas	**No.** While migrating landbirds may temporarily stopover to feed and rest, the Subject Property is unlikely to support significant congregations of migrating landbirds as it is greater than 5 km from the shoreline of Lake Erie.	--	--
Deer Winter Congregation Areas	**No.** The Subject Property and/or Adjacent Lands have not been identified as a deer wintering area by MNRF.	--	--
Rare Vegetation Communities or Specialized Habitats for Wildlife			
Cliffs and Talus Slopes	**No.** Cliffs and talus slope communities are absent.	--	--
Sand Barren	**No.** Sand barren communities are absent.	--	--
Alvar	**No.** Flora characteristic of alvars are absent.	--	--
Old Growth Forest	**No.** Based on a review of historic air photos, old growth forest is absent.	--	--
Savannah	**No.** Flora characteristic of savannahs are absent.	--	--
Tallgrass Prairie	**No.** Flora characteristic of tallgrass prairies are absent.	--	--
Other Rare Vegetation Community	**No.** Provincially rare vegetation communities are absent.	--	--
Waterfowl Nesting Area	**No.** Wetlands which may support nesting waterfowl are absent.	--	--
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	**No.** Forest communites adjacent to large surface water features are absent.	--	--
Woodland Raptor Nesting Habitat	**No.** On-site forest communities which may support nesting raptors are absent.	--	--
Turtle Nesting Areas	**No.** Exposed mineral soils adjacent to surface water features (e.g., lakes, ponds, etc.) and/or wetlands that may support turtles are absent.	--	--
Seeps and Springs	**No.** Areas where groundwater emerges at the surface and may support specialized habitat for plants and wildlife are absent.	--	--
Amphibian Breeding Habitat (Woodland)	**Yes.** Forests with wetlands, ponds, and/or pools that may support significant congregations of breeding amphibians are present.	**Unknown**. No amphibian call surveys were conducted to assess the deciduous swamp on Adjacent Lands.	**Negligible.** Proposed development and disturbance are restricted to the Subject Property, and is not anticipated to impact breeding amphibians.
Amphibian Breeding Habitat (Wetlands)	**No.** Wetlands and surface water features (e.g., ponds, lakes, etc.) that may support significant congregations of breeding amphibians are absent.	--	--

Ecoregion 7E	Do any Features, Habitats, or Areas within the Study Area meet relevant criteria (Ecoregion 7E Criteria Schedule) as Candidate SWH?	Do any Features, Habitats, or Areas o within the Study Area meet relevant criteria (Ecoregion 7E Criteria Schedule) as Confirmed SWH?	Likelihood that Negative Effects to SWH (i.e., "degradation that threatens the health and integrity" as defined in the 2020 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Woodland Area-Sensitive Bird Breeding Habitat	**No.** Interior forest interior conditions (i.e., >200 m from edge) are absent	--	--
Habitat for Species of Conservation Concern			
Marsh Bird Breeding Habitat	**No.** Wetlands with shallow water and emergent aquatic vegetation are absent.	--	--
Open Country Bird Breeding Habitat	**No.** Meadow habitats of sufficient size are absent.	--	--
Shrub/Early Successional Bird Breeding Habitat	**No.** Shrub/early-successional habitats of sufficient size are absent.	--	--
Terrestrial Crayfish	**Yes.** Swamp communities are present on Adjacent Lands.	**No.** Terrestrial Crayfish chimneys were not documented within the Subject Property.	--
Special Concern and Rare Wildlife Species	**Yes.** See **Table 2** below.	**Yes.** See **Table 2** below.	**Possible.** See **Table 2** below.
Animal Movement Corridors			
Amphibian Movement Corridors	**No.** The Subject Property is not expected to act as a significant movemen: corridor between breeding and summer habitat for amphibians owing to the presence of Malden Road and Spring Garden Road as barriers to movement.	--	--

Table 2. Results of the Special Concern and Provincially Rare Species Assessment.

Species	Status per O. Reg. 230/08 under the ESA and/or NHIC	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy or Use within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Study Area	Likelihood that Negative Effects to the Species or its Habitat (i.e., "degradation that threatens the health and integrity" as defined in the 2024 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities
Birds					
Bald Eagle (*Haliaeetus leucocephalus*)	SC	OBBA; "NHIC Rare Species" iNaturalist project	• Generally found feeding along waterbodies and shorelines, and adjacent deciduous and mixed forests. • Super-canopy trees are used for nesting and roosting. • Feeds largely on fish and carrion.	**Negligible.** Suitable breeding habitat is absent from the Subject Property.	--
Barn Swallow (*Hirundo rustica*)	SC	OBBA; "NHIC Rare Species" iNaturalist project	• Nests in barns, bridge/culvert undersides, awnings/overhangs on sides of buildings, and (historically) tree cavities. • Forages in a variety of open areas including agricultural lands, meadows, prairies, woodland clearings, marshes, and above waterbodies.	**Negligible.** While this species may forage over open areas on the Subject Property for brief periods during migration or forays from adjacent breeding sites, suitable breeding sites within the Subject Property are absent.	--
Black-crowned Night Heron (*Nycticorax nycticorax*)	S3	"NHIC Rare Species" iNaturalist project	• Occupies a variety of wetlands including marshes, swamps, streams, rivers, lakes, ponds, lagoons, canals, reservoirs, and wet agricultural fields. • Nests in trees or in cattails usually in a habitat safe from predators such as on an island, in a swamp, or over water.	**Negligible.** Suitable breeding habitat is absent from the Subject Property.	--
Eastern Wood-pewee (*Contopus virens*)	SC	OBBA; "NHIC Rare Species" iNaturalist project	• Breeds and forages in relatively open, deciduous and mixed forests of various sizes (including urban forest fragments) and along forest edges.	**Confirmed.** Eastern Wood-pewee was recorded on one (1) occasion on Adjacent Lands during breeding bird surveys as a "Possible" breeder.	**Negligible.** Location of singing individual (and suitable breeding habitat) > 30 m from the proposed retained lot and > 40 m from the nearest proposed severed lot.
Purple Martin (*Progne subis*)	S3B	OBBA	• Forages over towns, cities, parks, open fields, dunes, streams, wet meadows, beaver ponds, and other open areas. • Nests in cavities (both artificial and natural), though is almost entirely dependent on human constructed nesting structures (martin houses) in Ontario.	**Negligible.** While this species may forage over open areas on the Subject Property for brief periods during migration or forays from adjacent breeding sites, suitable breeding sites within the Subject Property are absent.	--
Rusty Blackbird (*Euphagus carolinus*)	SC	"NHIC Rare Species" iNaturalist project	• Flooded woods, swamps, and edge of open water habitats.	**Negligible.** Suitable breeding habitat is absent from the Subject Property.	--
Tufted Titmouse (*Baeolophus bicolor*)	S3B	"NHIC Rare Species" iNaturalist project	• Breeds in deciduous woods or mixed evergreen-deciduous woods, typically in areas with a dense canopy and many tree species. • May also occupy orchards, parks, and suburban areas.	**Negligible.** Suitable breeding habitat is absent from the Subject Property.	--
Short-eared Owl (*Asio flammeus*)	SC	OBBA	• Breeds and forages in a variety of open habitats. • Overwinters in similar habitats as breeding and foraging areas.	**Negligible.** Suitable breeding habitat is absent from the Subject Property.	--

Species	Status per O. Reg. 230/08 under the ESA and/or NHIC	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy or Use within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Study Area	Likelihood that Negative Effects to the Species or its Habitat (i.e., "degradation that threatens the health and integrity" as defined in the 2024 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities
Wood Thrush (*Hylocichla mustelina*)	SC	OBBA; "NHIC Rare Species" iNaturalist project	• Breeds and forages in second-growth and mature deciduous and mixed forests with a well-developed understory.	**Negligible.** The species was not detected during breeding bird surveys and suitable habitat is absent from the Subject Property.	--
Crayfish					
Digger Crayfish (*Creaserinus fodiens*)	S3	NHIC	• Occupies seasonally flooded areas in lowlands.	**Negligible**. The species (and/or burrows) was not documented within the Subject Property during the 2024 fieldwork program.	--
Painted hand Mudbug (*Lacunicambarus polychromatus*)	S1S2	"NHIC Rare Species" iNaturalist project	• Floodplains and other low-lying habitats near the water table, such as ditches, wetlands, and river banks.	**Negligible**. The species (and/or burrows) was not documented within the Subject Property during the 2024 fieldwork program.	--
Insects					
A moth species (*Eucosma kiscana*)	S3S4	"NHIC Rare Species" iNaturalist project	• Known from extreme southeastern Canada, little is known about habitat or foraging preferences although it has been recorded in open woodlands.	**Negligible**. Suitable habitat is absent from the Subject Property.	--
A potter wasp species (*Parazumia symmorpha*)	S3	"NHIC Rare Species" iNaturalist project	• Known to utilize existing nesting cavities. Although little is known about the species' habitat needs, the literature shows it has been reported near ever edges.	**Negligible**. Suitable habitat is absent from the Subject Property.	--
A red milkweed beetle (*Tetraopes quinquemaculatus*)	S1	"NHIC Rare Species" iNaturalist project	• Larvae are known to feed on Milkweed (*Asclepias* spp.).	**Negligible**. Suitable larval food sources are absent from the Subject Property.	--
American Bumble Bee (*Bombus pensylvanicus*)	SC	Species distribution	• Occupies a range of open areas with nectaring sites. • Nests above ground in dense mats of long grasses but has also been known to nest in abandoned rodent burrows and bird nests high above the ground.	**Possible.** Species is a habitat generalist and occupies a wide range of areas.	**Negligible.** Proposed development is restricted to areas consisting of manicured lawn. Proposed development and disturbance will not adversely affect nectaring opportunities for this species.
Black Dash (*Euphyes conspicua*)	S3	"NHIC Rare Species" iNaturalist project	• Occupies sedgy marshes, fens, and wet meadows. • Host plants are narrow-leaved sedges, predominantly Tussock Sedge (*Carex stricta*).	**Negligible**. Suitable habitat is absent from the Study Area.	--
Black Diabrotica (*Diabrotica cristata*)	S1S2	"NHIC Rare Species" iNaturalist project	• Generalist feeders known to feed on the roots of several plants including Big Bluestem (*Andropogon gerardii*), brome species (*Bromus* spp.), Panicgrass (*Panicum virgatum*), and plants in the aster family (Asteraceae).	**Negligible.** Food sources are absent from the Subject Property.	--
Bold-feathered Grass Moth (*Herpetogramma pertextalis*)	SU	"NHIC Rare Species" iNaturalist project	• Generalist feeders known to feed on Red Clover (*Trifolium pratense*), raspberries (*Rubus* spp.), burdock (*Arctium* spp.), ground cherries (*Physalis* spp.) and plants in the aster family (Asteraceae).	**Negligible.** Food sources are absent from the Subject Property.	--
Differential Grasshopper (*Melanoplus differentialis*)	S3	"NHIC Rare Species" iNaturalist project	• Generalist known to occupy grasslands, disturbed weedy areas, and urban areas.	**Possible.** Species is a habitat generalist and occupies a wide range of areas.	**Negligible.** Proposed development is restricted to areas consisting of manicured lawn. Proposed development and

Species	Status per O. Reg. 230/08 under the ESA and/or NHIC	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy or Use within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Study Area	Likelihood that Negative Effects to the Species or its Habitat (i.e., "degradation that threatens the health and integrity" as defined in the 2024 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities
					disturbance will not adversely affect available habitat for this species.
Double-striped Bluet (*Enallagma basidens*)	S3	"NHIC Rare Species" iNaturalist Project	• Borders of lakes, ponds, and slow-moving streams.	**Negligible.** Suitable habitat is absent from the Study Area.	--
Duke's Skipper (*Euphyes dukesi*)	SC	"NHIC Rare Species" iNaturalist Project	• Deciduous swamps, treed floodplain habitats, and roadside ditches containing dense growth of sedges (*Carex* spp.).	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Faint-spotted Palthis Moth (*Palthis asopialis*)	S3S4	"NHIC Rare Species" iNaturalist Project	• Known to feed on beggarticks (*Bidens* spp.), oak (*Quercus* spp.), and agricultural crops.	**Negligible.** Suitable food sources are absent from the Subject Property.	--
Fraternal Potter Wasp (*Eumenes fraternus*)	S3	"NHIC Rare Species" iNaturalist Project	• Woodland edges and shrub-dominated open areas.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Giant Leopard Moth (*Hypercompe scribonia*)	S3	"NHIC Rare Species" iNaturalist Project	• Woodland edges, meadows, and old fields.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Gray Archips Moth (*Archips grisea*)	S3	"NHIC Rare Species" iNaturalist Project	• Larvae are known to feed on hickory (*Carya* spp.).	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Gray Marvel Moth (*Anterastria teratophora*)	S3S4	"NHIC Rare Species" iNaturalist Project	• Larvae are known to feed on mint (*Mentha* spp.) and beebalm (*Monarda* spp.).	**Negligible.** Suitable larval food sources are absent from the Study Area.	--
Great Blue Skimmer (*Libellula vibrans*)	S1	"NHIC Rare Species" iNaturalist Project	• Slow-moving streams, wet areas in swamps and bottomlands.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Greater Spreadwing (*Archilestes grandis*)	S1	"NHIC Rare Species" iNaturalist Project	• Streams and small, heavily vegetated ponds.	**Negligible.** Suitable habitat is absent from the Study Area.	--
Hungerford's Scorpionfly (*Panorpa hungerfordi*)	S1?	"NHIC Rare Species" iNaturalist Project	• Woodlands and riparian habitats.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Jumping Bristletail (*Pedetontus saltator*)	S3	"NHIC Rare Species" iNaturalist Project	• Crevices in limestone cliffs, leaf litter between boulders, and in old stone walls.	**Negligible.** Suitable habitat is absent from the Study Area.	--
Locust Underwing (*Euparthenos nubilis*)	S3S4	"NHIC Rare Species" iNaturalist Project	• Black Locust (*Robinia pseudoacacia*) is the larval host for this species.	**Negligible.** Suitable larval hosts are absent from the Study Area.	--

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Monarch (*Danaus plexippus*)	SC	"NHIC Rare Species" iNaturalist Project	• Oviposits on Milkweeds (*Asclepias* spp.). • Generalist foraging that nectars in most areas with wildflowers.	**Negligible.** Suitable ovipositing sites (i.e., Milkweed species) are absent from the Subject Property.	--
Northern Bush Katydid (*Scudderia septentrionalis*)	S3?	"NHIC Rare Species" iNaturalist Project	• Occupies canopies of deciduous trees.	**Possible.** Suitable habitat is present within the Study Area.	**Negligible.** Proposed development is restricted to areas consisting of manicured lawn. Proposed development and disturbance will not adversely affect available habitat for this species.
Obtuse Yellow (*Azenia obtusa*)	S3	"NHIC Rare Species" iNaturalist Project	• Known to feed on dodder species (*Cuscuta* spp.).	**Negligible**. Suitable food sources are absent from the Study Area.	--
Orange-tipped Oakworm Moth (*Anisota senatoria*)	S3	"NHIC Rare Species" iNaturalist Project	• Oak species (*Quercus* spp.) are the primary food source for this species.	**Negligible**. Suitable food sources are absent from the Subject Property.	--
Pink Hairstreak (*Dargida rubripennis*)	S2	"NHIC Rare Species" iNaturalist Project	• Switchgrass species (*Panicum* spp.) are the primary food source for this species.	**Negligible**. Suitable food sources are absent from the Study Area.	--
Pink-legged Tiger Moth (*Spilosoma latipennis*)	S3S4	"NHIC Rare Species" iNaturalist Project	• Larval hosts include ash species (*Fraxinus* spp.), dandelions (*Taraxacum* spp.), jewelweed species (*Impatiens* spp.), and plantain species (*Plantago* spp.).	**Negligible**. Suitable food sources are absent from the Subject Property.	--
Pecan Spittlebug (*Clastoptera achatina*)	S1	"NHIC Rare Species" iNaturalist Project	• Larval hosts include hickories (*Carya* spp.).	**Negligible**. Suitable host species are absent from the Subject Property.	--
Pertinent Underwing (*Catocala piatrix*)	S3	"NHIC Rare Species" iNaturalist Project	• Hickories (*Carya* spp.) are the primary food source for this species.	**Negligible**. Suitable host species are absent from the Subject Property.	--
Rabid Wolf Spider (*Rabidosa rabida*)	S3?	"NHIC Rare Species" iNaturalist Project	• Known to inhabit fields and wooded areas.	**Negligible**. Suitable habitat is absent from the Subject Property.	--
Say's Mantidfly (*Dicromantispa sayi*)	SU	"NHIC Rare Species" iNaturalist Project	• Forest edges and prairies.	**Negligible**. Suitable habitat is absent from the Study Area.	--
Scudder's Shortwing Grasshopper (*Melanoplus scudderi*)	S1	"NHIC Rare Species" iNaturalist Project	• Open woodlands, forest edges, and areas with brush piles.	**Negligible**. Suitable habitat is absent from the Subject Property.	--
Skiff Moth (*Prolimacodes badia*)	S3S4	"NHIC Rare Species" iNaturalist Project	• Larvae are known to feed on a wide variety of tree and shrub species.	**Possible.** Suitable food sources are present within the Subject Property.	**Negligible.** Proposed development is restricted to areas consisting of manicured lawn. Proposed development and disturbance will not adversely affect available food sources for this species.
Sleepy Duskywing (*Erynnis brizo*)	S1	NHIC	• Oviposits on oak (*Quercus* spp.).	**Negligible**. Suitable oviposition sites are absent from the Subject Property.	--

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			• Restricted to three (3) areas within the Carolnian Zone (Pinery Provincial Park, St. Williams Area, Hamilton-Grimsby Area) with remnant oak woodlands.		
Slowpoke Moth (*Athetis tarda*)	S3	"NHIC Rare Species" iNaturalist Project	• Commonly found in oak woodlands.	**Negligible.** Suitable habitat is absent from the Study Area.	--
Smaller Sand Cricket (*Ellipes minuta*)	S3?	"NHIC Rare Species" iNaturalist Project	• Areas of sandy soil around waterbodies.	**Negligible.** Suitable habitat is absent from the Study Area.	--
Southern Cloudywing (*Thorybes bathyllus*)	S3	"NHIC Rare Species" iNaturalist Project	• Areas along streams, meadows, savannahs, fields, and woodlands.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Spiny Oakworm Moth (*Anisota stigma*)	S2	"NHIC Rare Species" iNaturalist Project	• Known to feed on oak species (*Quercus* spp.), hazel species (*Corylus* spp.), and Basswood (*Tilia americana*).	**Negligible.** Suitable food sources are absent from the Subject Property.	--
Spotted Apatelodes Moth (*Apatelodes torrefacta*)	S3	"NHIC Rare Species" iNaturalist Project	• A generalist known to feed on a variety of native tree species.	**Negligible.** Suitable food sources are absent from the Subject Property.	--
Swamp Darner (*Epiaeschna heros*)	S3S4	NHIC	• Occupies shaded ponds, streams, swamps, and temporary ponds.	**Negligible.** Suitable habitat is absent from the Study Area.	--
Texas Mocis Moth (*Mocis texana*)	S1S2	"NHIC Rare Species" iNaturalist Project	• Savannahs, prairies, and grasslands.	**Negligible.** Suitable habitat is absent from the Study Area.	--
Thinker Moth (*Lacinipolia meditata*)	S3S4	"NHIC Rare Species" iNaturalist Project	• Moist forest and grassland habitats.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Turbulent Phosphila Moth (*Phosphila turbulenta*)	S2S3	"NHIC Rare Species" iNaturalist Project	• Wet forested areas, including floodplains, ponds, and lakeshores.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Two-spotted Cobweb Spider (*Asagena americana*)	S2S3	"NHIC Rare Species" iNaturalist Project	• Known to occupy rotting logs, leaf litter, and moss.	**Possible.** Suitable habitat is present within the Study Area.	**Negligible.** Proposed development is restricted to areas consisting of manicured lawn. Proposed development and disturbance will not adversely affect available habitat for this species.
Walnut Caterpillar Moth (*Datana integerrima*)	S3S4	"NHIC Rare Species" iNaturalist Project	• This species occupies deciduous forests and is known to feed on hickories and pecans (*Carya* spp.) and walnut species (*Juglans* spp.).	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Wavy Mudsucker (*Orthonevra nitida*)	S3	"NHIC Rare Species" iNaturalist Project	• Wetlands and marshes.	**Negligible.** Suitable habitat is absent from the Subject Property.	--

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White-banded Crab Spider (*Misumenoides formosipes*)	S2S3	"NHIC Rare Species" iNaturalist Project	• Known to occupy fields and pastures, hiding within members of the aster family (Asteraceae) to ambush prey.	**Negligible**. Suitable habitat is absent from the Subject Property.	--
Yellow-Gray Underwing (*Catocala retecta*)	S3S4	"NHIC Rare Species" iNaturalist Project	• Known to feed on hickories (*Carya* spp.) and walnuts (*Juglans* spp.).	**Negligible**. Suitable food sources are absent from the Subject Property.	--
Zabulon Skipper (*Lon zabulon*)	S1	"NHIC Rare Species" iNaturalist Project	• Woodland edges, woodland openings, parks, and grasslands.	**Negligible**. Suitable habitat is absent from the Subject Property.	--
Plants					
American Lotus (*Nelumbo lutea*)	S2S3	NHIC	• Areas of moderately still water within lacustrine or riverine systems.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Arrowfeather Threeawn Grass (*Aristida purpurascens*)	S1	NHIC	• Dry to seasonally dry open habitats such as sand plains, prairies, and savannahs.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Bicknell's Sedge (*Carex bicknellii*)	S2	NHIC	• Dry to moist prairies, woodlands, and other sunny areas with rocky soils.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Biennial Gaura (*Oenothera gaura*)	S3	NHIC	• Open fields, roadsides, and prairies.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Black Tupelo (*Nyssa sylvatica*)	S3	NHIC	• Occupies moist or dry woods and savannas; restricted to the Carolinian Zone.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Blood Milkwort (*Polygala sanguinea*)	S3	NHIC	• Savannahs, dry to mesic prairies, and woodland edges. Favouring areas with recently disturbed soils.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Bushy Aster (*Symphyotrichum dumosum*)	S2	NHIC	• Sunny areas with dry to mesic soils, including prairies, old fields, and open woods.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Bushy Seedbox (*Ludwigia alternifolia*)	S1	NHIC	• Areas of full to partial sun in marshes, wet meadows, and swamps.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Buttonbush Dodder (*Cuscuta cephalanthi*)	S2	NHIC	• Mesic woodlands, marshes, and wet prairies. Commonly known to parasitize a variety of woody and herbaceous hosts.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Clinton's Clubrush (*Trichophorum clintonii*)	S2S3	NHIC	• Open dry to mesic prairies and wet meadows.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Climbing Prairie Rose (*Rosa setigera*)	SC	NHIC	• Open habitats with moist clay soils, including old fields, thicsets, and prairie remnants.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Culver's Root (*Veronicastrum virginicum*)	S2	NHIC	• Wet meadows, mesic prairies, savannahs, and woodland edges.	**Negligible**. Suitable habitat is absent from Subject Property.	--

Species	Status per O. Reg. 230/08 under the ESA and/or NHIC	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy or Use within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Study Area	Likelihood that Negative Effects to the Species or its Habitat (i.e., "degradation that threatens the health and integrity" as defined in the 2024 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities
Early-branching Panicgrass (*Dichanthelium praecocius*)	S3	NHIC	• Dry, open, sandy or rocky woodlands, woodland edges, and prairies.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Eastern Stiff Goldenrod (*Solidago rigida* ssp. *rigida*)	S3	NHIC	• Tallgrass prairies, mix prairies, old fields, and roadsides.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Eastern Yellow Stargrass (Hypoxis hirsuta)	S2S3	NHIC	• Dry prairies, savannahs, and open woodlands.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Fall Witchgrass (*Digitaria cognata*)	S1?	NHIC	• Occupies dry sandy open ground in southwestern Ontario and locally east to Northumberland County	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Field Sedge (*Carex conoidea*)	S3	NHIC	• Moist prairies and meadows.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Field Thistle (*Cirsium discolor*)	S3	NHIC	• Areas with moist soils, including fields, open woodlands, and woodland edges.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Gentian-leaved St. John's-wort (*Hypericum gentianoides*)	S1	NHIC	• Open dry to mesic, sandy areas, including prairies, dry fields, and roadsides.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Giant Ironweed (*Vernonia gigantea*)	S1?	NHIC	• Grasslands, prairies, old fields, roadsides, savannahs, and woodlands.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Grass-leaved Rush (*Juncus marginatus*)	S3	NHIC	• Habitats with wet, sandy soils.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Great Plains Ladies'-tresses (*Spiranthes magnicamporum*)	S3	NHIC	• Dry to wet meadows, prairies, and fens.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Greater Poverty Rush (*Juncus anthelatus*)	S1	NHIC	• Wet fields, swamp edges, and areas where vegetation clearing activities are ongoing.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Greene's Rush (Juncus greenei)	S3	NHIC	• Dry to moist areas receiving full sun, such as prairies, meadows, and swales.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Grey-headed Prairie Coneflower (*Ratibida pinnata*)	S3	NHIC	• Prairies, roadsides, thickets, and woodland edges.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Hairy Mountain-mint (*Pycnanthemum verticillatum* var. *pilosum*)	S1	NHIC	• Prairies, rocky slopes, woodlands, and roadsides.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Hairy Pinweed (*Lechea mucronata*)	S3	NHIC	• Dry sandy or rocky sites, including prairies and savannah edges.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Heart-leaved Groundsel (*Packera pseudaurea* var. *semicordata*)	S2	NHIC	• Moist prairies, fens, and moist meadows.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Hoary Frostweed (Crocanthemum bicknellii)	S3	NHIC	• Open areas with sandy soils, including old fields, meadows, prairies, and roadsides.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--

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Hoary Puccoon (***Lithospermum canescens***)	S3	NHIC	• Dry prairies, savannahs, and open woodlands.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Illinois Carrionflower (***Smilax illinoensis***)	S2?	NHIC	• Partially shaded areas with dry to moist soils, including deciduous woodlands, thickets, and floodplains.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Large-flowered Purple False Foxglove (***Agalinis purpurea* var. *purpurea***)	S1	NHIC	• Wet meadows, woodlands, roadsides, and open habitats.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Leggett's Pinweed (***Lechea pulchella***)	S1	NHIC	• Areas with sandy soils in prairies and savannahs.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Many-fruited Seedbox (***Ludwigia polycarpa***)	S2	NHIC	• Moist prairies, wet meadows, marshes, and at the edge of lakes and rivers.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Matted Panicgrass (***Dichanthelium meridionale***)	S1	NHIC	• Fields and sandy, oak-dominated forests.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Mead's Sedge (***Carex meadii***)	S2	NHIC	• Dry to mesic prairies, wet meadows, and woodland edges.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Missouri Ironweed (***Vernonia missurica***)	S3	NHIC	• Moist prairies, woodland edges, and wet meadows.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Muskingum Sedge (**Carex muskingumensis**)	S3	NHIC	• Treed swamps, vernal pools, and floodplains with clay soils.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Northern Pin Oak (***Quercus ellipsoidalis***)	S3	NHIC	• Occupies dry, sandy or rocky woods, roadsides, and fencerows in southwestern Ontario and northwestern Ontario	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Pignut Hickory (***Carya glabra***)	S3	NHIC	• Occupies dry deciduous woods and savannahs, often on sandy soil with oaks, in the Carolinian Zone of southwestern Ontario.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Prairie Dock (***Silphium terebinthinaceum***)	S1	NHIC	• Prairies, meadows, and railway right of ways with dry soils.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Prairie Milkweed (***Asclepias sullivantii***)	S2S3	NHIC	• Moist prairies, ditches, and along railroad right of ways.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Prairie Straw Sedge (***Carex suberecta***)	S2	NHIC	• Moist to wet calcareous meadows and prairies, fens.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Purple Milkweed (***Asclepias purpurascens***)	S1	NHIC	• Dry fields, prairies, and oak-dominated open woodlands	**Negligible**. Suitable habitat is absent from Subject Property.	--
Riddell's Goldenrod (***Solidago riddellii***)	SC	NHIC	• Moist to wet tallgrass prairies.	**Negligible**. Suitable habitat is absent from Subject Property.	--

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Round-fruited Panicgrass (*Dichanthelium sphaerocarpon*)	S3	NHIC	• Dry, open woods and roadsides.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Rough Blazing-star (*Liatris aspera*)	S2	NHIC	• Dry to mesic prairies, meadows, utility corridors, and roadsides.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Sharp-fruited Rush (*Juncus acuminatus*)	S3	NHIC	• Swamps, wet meadows, ditches, and shorelines.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Short-fruited Rush (*Juncus brachycarpus*)	S1	NHIC	• Wet and wet-mesic prairies.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Skunk Meadow-rue (*Thalictrum amphibolum*)	S3	NHIC	• Dry, open woods, thickets, and prairies.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Slender Fragrant Goldenrod (*Euthamia caroliniana*)	S1	NHIC	• Moist forests, savannahs, ditches, and disturbed areas.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Slender Knotweed (*Polygonum tenue*)	S2	NHIC	• Dry sandy soils, meadows, prairies, and woodland edges.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Slender Paspalum (*Paspalum setaceum*)	S2	NHIC	• Areas with open, sandy soil including savannahs, roadsides, woodland edges, and areas with disturbed soils.	**Confirmed** within the Subject Property through 2024 fieldwork program.	**Unlikely** Species is to be relocated. See report for further details.
Slim-spike Threeawn Grass (*Aristida longespica* var. *longespica*)	S2	NHIC	• Moist fields, prairie remnants, meadows, and open woods.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Stiff Cowbane (*Oxypolis rigidior*)	S2	NHIC	• Wet prairies, marshes, swamps, and fens.	**Negligible**. Suitable habitat is absent from Subject Property.	--
Stiff Goldenrod (*Solidago rigida*)	S3	NHIC	• Tallgrass prairies, mix prairies, old fields, and roadsides.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Sundial Lupine (*Lupinus perennis*)	S2S3	NHIC	• Dry, sandy clearings in open woods, prairies, and roadsides.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Tall Tickseed (*Coreopsis tripteris*)	S1S2	NHIC	• Prairies, savannahs, open woods, old fields, roadsides, and railroad right of ways.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Two-flowered Dwarf Dandelion (*Krigia biflora*)	S2	NHIC	• Prairies, open woods, meadows, old fields, and anthropogenic habitats.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Two-flowered Rush (*Juncus biflorus*)	S1	NHIC	• Interdunal swales, wet meadows, low fields, ditches, and moist clay soils in open areas.	**Negligible**. Species was not documented during site visits undertaken throughout the growing season.	--
Whip Nutrush (*Scleria triglomerata*)	S1	NHIC	• Prairies, savannahs, and marsh edges in sandy ground.	**Negligible**. Suitable habitat is absent from Subject Property.	--
White Blue-eyed Grass (*Sisyrinchium albidum*)	S1	NHIC	• Mesic prairies, savannahs, open woodlands, and railroad right of ways.	**Negligible**. Suitable habitat is absent from Subject Property.	--

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Winged Loosestrife (*Lythrum alatum*)	S3	NHIC	• Prairies, wet thickets, ditches, and marshes.	**Negligible.** Species was not documented during site visits undertaken throughout the growing season.	--
Yellow-fruited Sedge (*Carex annectens*)	S2	NHIC	• Meadows, prairie swales, marshes, fields, and roadside ditches.	**Negligible.** Species was not documented during site visits undertaken throughout the growing season.	--
Yellow Wild Indigo (*Baptisia tinctora*)	S1S2	NHIC	• Dry meadows, open woods, and clearings.	**Negligible.** Species was not documented during site visits undertaken throughout the growing season.	--
Reptiles					
Northern Map Turtle (*Graptemys geographica*)	SC	NHIC	• Occupies lakes and large rivers with slow moving currents. • Nests in exposed, usually coarse, friable substrate.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Snapping Turtle (*Chelydra serpentina*)	SC	NHIC	• Occupies a variety of aquatic habitats with slow moving water. • Nests in exposed, usually coarse, friable substrate. • Known to make long-distance overland movements (i.e., several kilometers) between habitats.	**Negligible.** Suitable habitat is absent from the Subject Property.	--

[1] Likelihood categories should be interpreted as follows:

Negligible: so limited that the assessed species can be assumed absent.

Unlikely: while theoretically conceivable, species presence very improbable or temporary based on available information (e.g., habitat conditions, range, abundance in local landscape, etc.).

Possible: species presence plausible based on available information; no convincing evidence suggesting species could not occur on-site.

Probable: while not confirmed, available information suggests species has a high likelihood of being present.

Confirmed: species observed and/or evidence of occupation (e.g., tracks, etc.) documented.

Appendix 6. Endangered and Threatened Species Assessment

Species	Status per O. Reg. 230/08 of the ESA	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Study Area	Likelihood that Negative Effects to the Species or its Habitat (i.e., "Damage" or "Destruction" as defined in the ESA) will occur based on the Proposed Development Plan and any related Site Alteration Activities
Birds					
Bank Swallow (*Riparia riparia*)	THR	OBBA	• Nests in natural or anthropogenically derived exposed, sandy substrates on vertical or steep surfaces. • Forages in a variety of open areas including agricultural lands, meadows, prairies, woodland clearings, marshes, and above waterbodies.	**Negligible.** While this species may forage over open areas on the Subject Property for brief periods during migration or forays from adjacent breeding sites, suitable breeding sites within the Subject Property are absent.	--
Bobolink (*Dolichonyx oryzivorus*)	THR	OBBA	• Breeds and forages in hayfields, pastures, meadows, grasslands, and prairies which are often (but not always) greater 4 ha. • May be found in more marginal habitats (e.g., shrubby fields, smaller fields, etc.) during migration or following disturbance to breeding habitats (e.g., hay cutting).	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Chimney Swift (*Chaetura pelagica*)	THR	OBBA	• Nests in large, uncapped chimneys and (historically) tree cavities. • May forage above a wide variety of anthropogenic (e.g., cities, towns) and natural (e.g., fields, forests) areas.	**Negligible.** While this species may forage over open areas on the Subject Property for brief periods during migration or forays from adjacent breeding sites, suitable breeding sites within the Subject Property are absent.	--
Eastern Meadowlark (*Sturnella magna*)	THR	OBBA	• Breeds and forages in hayfields, savannahs, pastures, meadows, grasslands, prairies, and shrubby fields.	**Negligible.** Suitable breeding habitat is absent from the Subject Property.	--
Least Bittern (*Ixobrychus exilis*)	THR	Species distribution and on-site habitats	• Breeds and forages in marshes dominated by robust emergent vegetation containing areas of open water (i.e., interspersion).	**Negligible.** Suitable breeding habitat is absent from the Subject Property.	--
Prothonotary Warbler (*Protonotaria citrea*)	END	Species distribution and on-site habitats	• Breeds and forages in mature deciduous swamps with areas of open water, and deciduous and mixed forests.	**Negligible.** Species was not documented during breeding bird surveys.	--
Red-headed Woodpecker (*Melanerpes erythrocephalus*)	END	OBBA	• Breeds and forages in open forests, savannahs, and forest edges that tend to contain large, mature trees.	**Negligible.** Species was not documented during breeding bird surveys and Subject Property lacks suitable breeding habitat; Adjacent Lands (> 30 m) could support nesting by this species.	--
Yellow-breasted Chat (*Icteria virens*)	END	OBBA	• Breeds and forages in prefer dense thickets around woodland edges, riparian areas, and in overgrown clearings	**Negligible.** Species was not documented during breeding bird surveys.	--
Insects					
Rusty-patched Bumble Bee (*Bombus affinis*)	END	NHIC	• Occupies a range of open areas with nectaring sites. • Nests underground in abandoned rodent burrows or decomposing logs.	**Negligible.** Most records in Ontario are historical (before 1970). The species was last observed from Pinery Provincial Park in 2009 (Colla and Taylor-Pindar 2011).	--
Northern Oak Hairstreak (*Satyrium favonius ontario*)	THR	Ont. Butterfly Atlas	• Inhabits oak forests with a closed canopy. White Oak (*Quercus alba*) is the preferred tree species of the Northern Oak Hairstreak. • Adults visit meadows close to oak forest edges for nectar.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
False-foxglove Sun Moth (*Pyrrhia aurantiago*)	END	NHIC	• Inhabits oak-dominated savannas and open woodlands. • Host plants in Ontario include false foxgloves (*Aureolaria* spp.)	**Unlikely.** While species may occur nearby, host plant is absent from the Study Area.	--

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Reversed Haploa Moth (*Haploa reversa*)	THR	NHIC	• Inhabits Oak savanna, Oak woodland and dune habitats. • Moth larvae in the *Haploa* genus are polyphagous, meaning they are able to feed on plants of many species. • Moths in the *Haploa* genus are commonly associated with *Eupatorium*, as well as plants in the sunflower (Asteraceae) and borage (Boraginaceae) families. • Reversed Haploa Moth larvae have been observed feeding on Hairy Puccoon (*Lithospermum carolinienese*) in Canada.	**Unlikely.** While species may occur nearby, host plants are absent from the Study Area.	--
Mammals					
Eastern Small-footed Myotis (*Myotis leibii*)	END	Species distribution and on-site habitats	• Maternal roosting sites include exposed rock outcrops, crevices, and cliffs. • Overwinters in caves and mines that maintain temperatures above 0°C.	**Unlikely.** While species may forage above open habitats on the Subject Property or Adjacent Lands, potential maternal roosting habitat (e.g., rock outcrops, cliffs, etc.) is absent.	--
Little Brown Myotis (*Myotis lucifugus*)	END	Species distribution and on-site habitats	• Maternity roosts sites most often include buildings and large diameter trees with cracks, crevices, and/or exfoliating bark. • Overwinters in caves and mines that maintain temperatures above 0°C.	**Possible.** Forest/woodland communities that could provide roosting opportunities for maternity colonies of this species within larger-diameter snags, cavity trees, or trees with cracks/crevices/loose bark are absent from the Subject Property. Other trees within or outside forest/woodland communities (including smaller-diameter trees) may offer non-specific roosting habitat (i.e., "day roosts") for individual bats (males or non-reproductive females). Bats may occasionally forage within the Subject Property.	**Negligible.** A timing window restriction will be applied to necessary individual tree removal activities to avoid impacting roosting bats occupying "day roosts".
Northern Myotis (*Myotis septentrionalis*)	END	Species distribution and on-site habitats	• Maternity roosts most often include large diameter trees with cracks, crevices, and/or exfoliating bark (buildings rarely used). • Overwinters in caves and mines that maintain temperatures above 0°C.	**Possible.** Forest/woodland communities that could provide roosting opportunities for maternity colonies of this species within larger-diameter snags, cavity trees, or trees with cracks/crevices/loose bark are absent from the Subject Property. Other trees within or outside forest/woodland communities (including smaller-diameter trees) may offer non-specific roosting habitat (i.e., "day roosts") for individual bats (males or non-reproductive females). Bats may occasionally forage within the Subject Property.	**Negligible.** A timing window restriction will be applied to necessary individual tree removal activities to avoid impacting roosting bats occupying "day roosts".
Tri-colored Bat (*Perimyotis subflavus*)	END	Species distribution and on-site habitats	• Maternal roosting sites include Maple (*Acer* spp.) and Oak (*Quercus* spp) with dead/dying leaf clusters. • Overwinters in caves and mines that maintain temperatures above 0°C.	**Possible.** Silver Maple amenity trees are present within the Subject Property.	**Negligible.** A timing window restriction will be applied to necessary individual tree removal activities.
Plants					
American Chestnut (*Castanea dentata*)	END	NHIC	• Occupies dry deciduous forests.	**Negligible.** Species is absent.	--
Black Ash (*Fraxinus nigra*)	END	"NHIC Rare Species" iNaturalist Project	• Occupies deciduous swamps (often peaty), floodplains, and wet woods.	**Negligible.** Species is absent.	--

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Butternut (*Juglans cinerea*)	END	"NHIC Rare Species" iNaturalist Project	• Occupies a variety of treed habitats including mature forests, early-successional forests, and hedgerows.	**Negligible.** Species is absent.	--
Dense Blazing-star (*Liatris spicata*)	THR	NHIC	• Occupies moist prairies, grassland savannahs, wet areas between sand dunes, and abandoned fields.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Fern-leaved Yellow False Foxglove (*Aureolaria pedicularia*)	THR	NHIC	• Inhabits open savanna and woodland habitats along with Black Oak (*Quercus velutina*), its preferred host tree.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Goldenseal (*Hydrastis canadensis*)	THR	Critical Habitat for Species at Risk National Dataset - Canada	• Occupies rich deciduous forests.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Heart-leaved Plantain (*Plantago cordata*)	END	NHIC	• Occupies undisturbed wet woods, often along the rocky or gravelly limestone beds of shallow, slow-moving clear streams.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Pink Milkwort (*Polygala incarnata*)	END	NHIC	• Occupies moist to dry, sandy, prairie habitats, where it is often found growing with Little Bluestem grass (*Schizachyrium saparium*). Periodic fire is important to maintain open prairie conditions.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Pumpkin Ash (*Fraxinus profunda*)	END	NHIC	• Occupies intermediate-mature deciduous swamps often dominated by Silver Maple and floodplain forest.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Purple Twayblade (*Liparis liliifolia*)	THR	NHIC	• Occupies a variety of habitats including open oak woodland and savannah, mixed deciduous forest, shrub thicket, shrub alvar, deciduous swamp, and even conifer plantations.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Red Mulberry (*Morus rubra*)	END	NHIC	• Occupies moist, forested habitats on both sandy and limestone-based loamy soils.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Slender Bush-clover (*Lespedeza virginica*)	END	NHIC	• Occupies dry, sandy soil in tallgrass prairies. This plant does not do well in the shade and can be harmed by other plants that compete for light and space. • The open and sunny prairie habitat it prefers is maintained by natural disturbances, such as fire and drought, which naturally remove many unwanted trees and shrubs.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Smooth Yellow False Foxglove (*Aureolaria flava*)	THR	NHIC	• Occupies dry, open to semi-open upland oak forests typically with White Oak (*Quercus alba*) present, on well-drained soils.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Spoon-leaved Moss (*Bryoandersonia illecebra*)	END	Species distribution and on-site habitats	• Occupies moist or low-lying areas that are seasonally flooded under trees or shrub thickets. • May be found in a variety of vegetation communities including disturbed open woodlands, cultural thicket, savannah, and meadow.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Spotted Wintergreen (*Chimaphila maculata*)	THR	NHIC	• Occupies oak-pine woodland habitats with sandy soils.	**Negligible.** Suitable habitat is absent from the Subject Property.	--

Species	Status per O. Reg. 230/08 of the ESA	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Study Area	Likelihood that Negative Effects to the Species or its Habitat (i.e., "Damage" or "Destruction" as defined in the ESA) will occur based on the Proposed Development Plan and any related Site Alteration Activities
			• Typically, dominant tree species include White Pine, Red Oak, Black Oak, and American Beech. The species does best in semi-open habitats.		
White Colicroot (*Aletris farinosa*)	END	NHIC	• Occupies open, sunny, and moist habitats with sandy or mucky soil, such as prairies and old abandoned fields.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
White Prairie Gentian (*Gentiana alba*)	END	"NHIC Rare Species" iNaturalist Project	• Occupies open and sunny oak-hickory savannah, a rare type of habitat with grassland prairie growing between scattered mature trees.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Willowleaf Aster (*Symphyotrichum praealtum*)	THR	"NHIC Rare Species" iNaturalist Project	• Occupies openings of oak savannahs, a very rare type of vegetation community containing many tallgrass prairie herbs and oak trees. It has also been found along railways, roadsides and in abandoned farm fields.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Reptiles					
Common Five-lined Skink (*Plestiodon fasciatus*)	END (Carolinian pop.)	Critical Habitat for Species at Risk National Dataset - Canada	• Occupies forests, rock barrens, grasslands, and shorelines.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Eastern Foxsnake (Carolinian) (*Pantherophis gloydi*)	END	Ont. Reptile and Amph. Atlas	• Occupies old fields, marshes, along hedgerows, drainage canals and shorelines.	**Possible.** While this species was not documented over the course of 10 surveys per the Survey Protocol for Ontario's Species at Risk Snakes and suitable habitat is deemed absent, species is known to occur in the local landscape.	**Negligible.** MECP has confirmed no impacts are anticipated to this species or its habitat; see **Appendix 7.**
Blanding's Turtle (*Emydoidea blandingii*)	THR	Species distribution and on-site habitats	• Occupies freshwater lakes, permanent or temporary pools, slow-flowing streams, marshes, and swamps. • Nests in exposed, usually coarse, friable substrate. • Known to make long-distance overland movements (i.e., several kilometers) between habitats.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Butler's Gartersnake (*Thamnophis butleri*)	THR	Ont. Reptile and Amph. Atlas	• Prefers open, moist habitats, such as dense grasslands and old fields, with small wetlands where it can feed on leeches and earthworms. • Burrows made by small mammals and even crayfish are sometimes used as hibernacula. This species is also commonly found in rock piles or old stonewalls.	**Negligible.** Species was not documented over the course of 10 surveys per the Survey Protocol for Ontario's Species at Risk Snakes. Subject Property consists of mowed grass, a small number of amenity trees, and a residence/driveway. Suitable habitat is deemed absent.	--
Massasauga (*Sistrurus catenatus*)	THR	Ont. Reptile and Amph. Atlas	• Occupies generally open habitats including tallgrass prairies, peatlands, and shorelines. • Two (2) extant populations in Ecoregion 7 (Ojibway Prairie and Wainfleet Bog).	**Unlikely.** Suitable habitat is absent from the Subject Property. Species is only known from a small number of locations in LaSalle (e.g., Brunet Park).	--
Spiny Softshell (*Apalone spinifera*)	END	Species distribution and on-site habitats	• Occupies larger waterbodies (i.e., lakes and rivers) but may be found in smaller creeks and ponds near rivers. • Nests in exposed, usually coarse, friable substrate.	**Negligible.** Suitable habitat is absent from the Subject Property.	--

Species	Status per O. Reg. 230/08 of the ESA	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Study Area	Likelihood that Negative Effects to the Species or its Habitat (i.e., "Damage" or "Destruction" as defined in the ESA) will occur based on the Proposed Development Plan and any related Site Alteration Activities
Spotted Turtle (*Clemmys guttata*)	END	Species distribution and on-site habitats	• Occupies ponds, marshes, bogs and ditches with slow-moving water. • Nests in exposed, usually coarse, friable substrate.	**Negligible.** Suitable habitat is absent from the Subject Property.	--
Terrestrial Snails					
Striped Whitelip (*Webbhelix multilineata*)	END	"NHIC Rare Species" iNaturalist Project	• Wet, lowland forests at the margins of periodically flooded areas.	**Negligible.** Suitable habitat is absent from the Subject Property.	--

[1] Likelihood categories are to be interpreted as follows:

Negligible: so limited that the assessed species can be assumed absent.

Unlikely: while theoretically conceivable, species presence very improbable or temporary based on available information (e.g., habitat conditions, range, abundance in local landscape, etc.).

Possible: species presence plausible based on available information; no convincing evidence suggesting species could not occur on-site.

Probable: while not confirmed, available information suggests species has a high likelihood of being present.

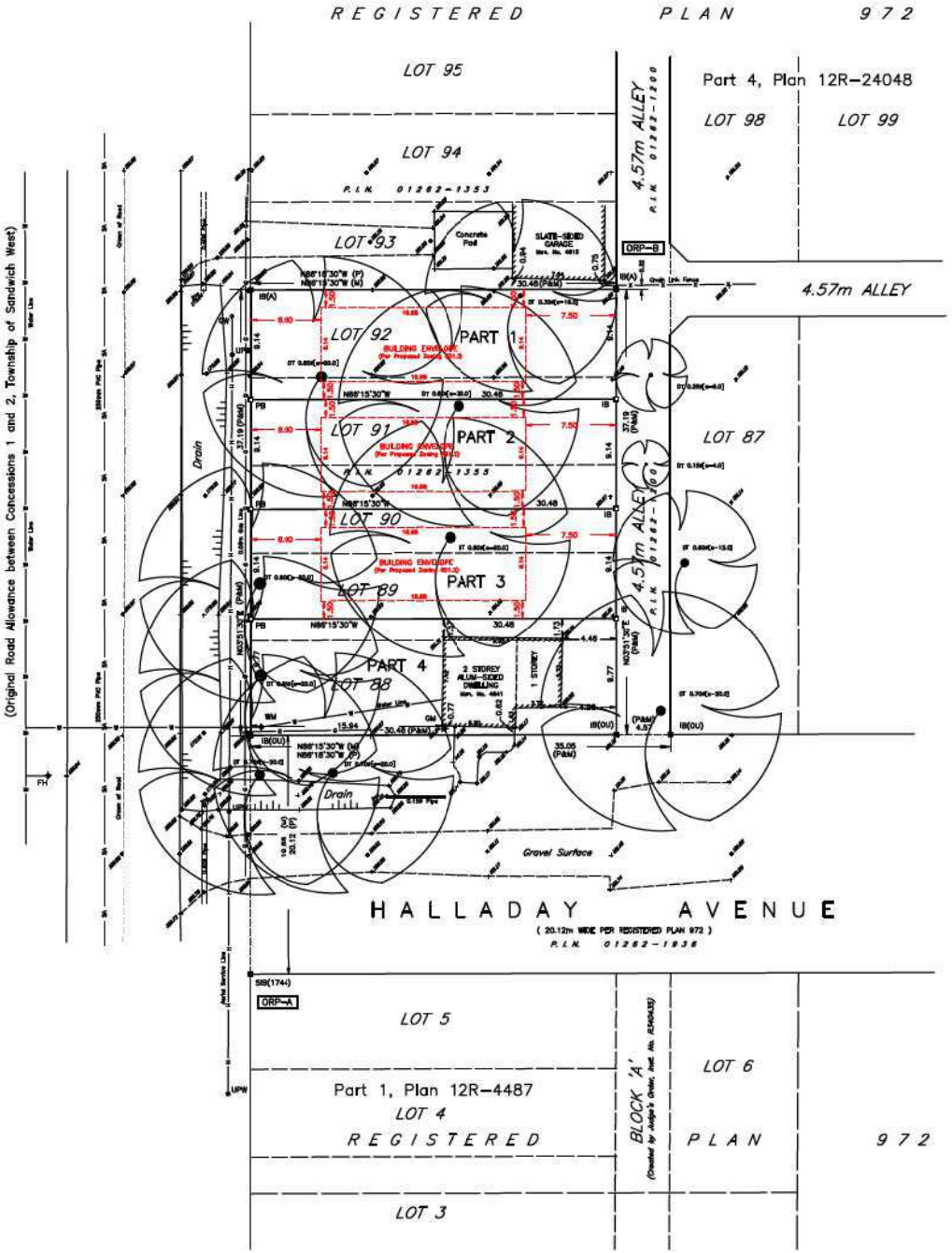
Confirmed: species observed and/or evidence of occupation (e.g., tracks, etc.) documented.

Appendix 7. MECP Correspondence

Appendix 8. Proposed Development Plan.

SURVEYOR'S REAL PROPERTY REPORT
PART 1 OF 2 PARTS – THE PLAN

ASSOCIATION OF ONTARIO LAND SURVEYORS
Real Estate Plan
2218442
THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR



PLAN OF SURVEY
OF
LOTS 88 to 92, (Incl.)
REGISTERED PLAN 972
IN THE
CITY OF WINDSOR
COUNTY OF ESSEX, ONTARIO

SCALE = 1:200

0	2.00	4.00	8.00	12.00	METRES 20.00

"METRIC" DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

LEGEND AND NOTES

BEARINGS ARE UTM GRID DERIVED FROM OBSERVED REFERENCE POINTS 'A' AND 'B' BY REAL TIME NETWORK OBSERVATIONS AND ARE REFERRED TO UTM ZONE 17 (81° WEST LONGITUDE) NAD83 (CSRS) (2010.0).

DISTANCES ON THIS PLAN ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999907.

ALL SIB AND PB MONUMENTS WERE USED DUE TO LACK OF OVERBURDEN AND/OR PROXIMITY OF UNDERGROUND UTILITIES IN ACCORDANCE WITH SECTION 11(4) OF O.REG. 525/91.

ALL MONUMENTS SHOWN THUSLY ☐ ARE IRON BARS (IB) UNLESS OTHERWISE NOTED.

SIB	DENOTES 20mm X 20mm X 1.22m STANDARD IRON BAR
SSIB	DENOTES 20mm X 20mm X 0.61m SHORT STANDARD IRON BAR
IB	DENOTES 16mm X 16mm X 0.61m IRON BAR
IB #	DENOTES 19mm diameter X 0.61m ROUND IRON BAR
CC	DENOTES CUT–CROSS
CP	DENOTES Spigs X 50mm STEEL PIN
PB	DENOTES PLASTIC BAR
SM	DENOTES SURVEY MONUMENT FOUND
CT	DENOTES SURVEY MONUMENT SET AND MARKED JDB
WIT.	DENOTES WITNESS L DENOTES PERPENDICULAR
(S)	DENOTES SET (M) DENOTES MEASURED (D) DENOTES INST. No.
ORP	DENOTES OBSERVED REFERENCE POINT
(N)	DENOTES NOT IDENTIFIABLE (OU) DENOTES ORIGIN UNKNOWN
(S/P)	DENOTES SET PROPORTIONALLY
(P)	DENOTES REGISTERED PLAN 972
(1744)	DENOTES VERHAEGEN SURVEYORS INC., O.L.S.
(JDB)	DENOTES J.D. BARNES LIMITED, O.L.S.
(A)	DENOTES C.G.R. ARMSTRONG, O.L.S.

○ MH	DENOTES HYDRO MANHOLE	✦ FH	DENOTES FIRE HYDRANT
○ MHS	DENOTES SEWER MANHOLE	✦ WM	DENOTES WATER METER
○ MHT	DENOTES TELEPHONE MANHOLE	✦ WVS	DENOTES WATER VALVE (Service)
○ MHTR	DENOTES TRAFFIC MANHOLE	✦ WVM	DENOTES WATER VALVE (Main)
○ MHW	DENOTES WATER MANHOLE	✦ GM	DENOTES GAS METER
⊞ CB	DENOTES CATCH BASIN	✦ GV	DENOTES GAS VALVE
⊞⊞ DCB	DENOTES DOUBLE CATCH BASIN	■ HM	DENOTES HYDRO METER
● LSc	DENOTES LIGHT STANDARD CONCRETE	■ PedT	DENOTES TELEPHONE PEDESTAL
● LSs	DENOTES LIGHT STANDARD STEEL	■ PedCTV	DENOTES CABLE TV PEDESTAL
● LSw	DENOTES LIGHT STANDARD WOOD	▼ TRs	DENOTES TRAFFIC SIGN
● UPc	DENOTES UTILITY POLE CONCRETE	■ TRsg	DENOTES TRAFFIC SIGNAL
● UPs	DENOTES UTILITY POLE STEEL	■ TRsb	DENOTES TRAFFIC SIGNAL BOX
● UPw	DENOTES UTILITY POLE WOOD	ⓉⓇ TH	DENOTES TESTHOLE
● GP	DENOTES GUY POLE	◆ BM	DENOTES BENCH MARK
● GW	DENOTES GUY WIRE	△ HCP	DENOTES HORIZONTAL CONTROL POINT
● Bol	DENOTES BOLLARD	○ VCP	DENOTES VERTICAL CONTROL POINT
● PM	DENOTES PARKING METER	⊛	DENOTES SHRUB
av	DENOTES INVERT	● SC	DENOTES SEWER CLEANOUT

DECIDUOUS AND CONIFEROUS TREES ARE DENOTED DT AND CT RESPECTIVELY. A PREFIX TO THE DESCRIPTION DESIGNATES THE NUMBER OF TREE TRUNKS WHEN TREES ARE CLUMPED TOGETHER AND A SUFFIX DENOTES THE TREE DIAMETER OR (MTR) NOT TO SCALE.

——C——(pipe size)——C——	DENOTES OVERHEAD CABLE TV LINE
——G——(pipe size)——G——	DENOTES GAS LINE
——H——(pipe size)——H——	DENOTES OVERHEAD HYDRO LINE
——CS——(pipe size)——CS——	DENOTES COMBINED SEWER
——SA——(pipe size)——SA——	DENOTES SANITARY SEWER
——ST——(pipe size)——ST——	DENOTES STORM SEWER
——T——(pipe size)——T——	DENOTES OVERHEAD TELEPHONE LINE
——W——(pipe size)——W——	DENOTES WATER LINE

UNDERGROUND CABLE, HYDRO OR TELEPHONE LINES ARE PREFIXED WITH THE LETTER "u" (CABLE = uC HYDRO = uH TELEPHONE = uT)

CAUTION
UNDERGROUND UTILITIES AND SERVICES SHOWN ON THIS PLAN ARE APPROXIMATE AND MUST BE VERIFIED BEFORE CONSTRUCTION

ELEVATIONS

ELEVATIONS SHOWN ON THIS PLAN ARE IN METRES TO CAN–NET/SMARTNET NETWORK (H.T.V. 2.0)

BENCH MARK

BENCH MARK 825 ELEVATION 180.225m
SOMS MALDEN ROAD, NORTHEAST CORNER OF KENT and MALDEN ROAD; PLATE IS LOCATED PH THE SOUTHERN WALL, 0.70m FROM THE WESTERN WALL OF THE GARAGE AND 0.60m ABOVE GRADE.

SITE BENCH MARK

ELEVATION 181.63m
TOP OF FIRE HYDRANT ACROSS FROM THE SUBJECT PROPERTY.

INTEGRATION DATA

COORDINATES ARE DERIVED FROM GPS OBSERVATIONS USING THE CAN–NET NETWORK SERVICE AND ARE REFERRED TO UTM ZONE 17 (81° WEST LONGITUDE) NAD83 (CSRS) (2010.0).
COORDINATE VALUES ARE TO AN URBAN ACCURACY IN ACCORDANCE WITH SECTION 14(2) O.REG. 216/10

POINT ID	NORTHING	EASTING
ORP–A	4681782.99	330185.74
ORP–B	4681820.93	330200.03

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE–ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

THE RESULTANT TIE BETWEEN ORP–A AND ORP–B IS N 31°57'30" E 37.77m.

THIS PLAN MUST BE READ IN CONJUNCTION WITH PART 2 AS SHOWN BELOW
THIS REPORT WAS PREPARED FOR MARSHALL PATON.

SURVEYOR'S REAL PROPERTY REPORT PART 2 OF 2 PARTS

Please note the following:
1. Survey Monuments mark all corners of the proposed parcels.
2. Underground services shown are from records only and should be verified prior to construction.
3. There are no easements or right–of–ways obstructed against the parcel.
4. The individual property areas are:
   a. Parts 1, 2 and 3 are 278.58 Sq.m.
   b. Part 4 is 297.79 Sq.m.
5. Existing grades are as shown on the plan.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THIS SURVEY WAS COMPLETED ON THE 20th DAY OF NOVEMBER, 2024.

DATE NOVEMBER 24, 2024

ANDREW S. MANTHA
ONTARIO LAND SURVEYOR

VERHAEGEN LAND SURVEYORS
A DIVISION OF J.D. BARNES LTD.
SURVEYING MAPPING GIS
944 OTTAWA STREET, WINDSOR, ON, N8X 2E1
T: (519) 258-1772 F: (519) 258-1791 www.jdbarnes.com

DRAWN BY:	CHECKED BY:	REFERENCE NO.:
A.S.M.	A.S.M.	24–47–560–00
FILE: 24–47–560–00.dwg	E–972–8	CAD Date: November 25, 2024 11:05 AM CAD File: 24–47–560–00 Red.dwg

Appendix 9. Summary of Technical Recommendations

Natural Feature	Technical Recommendations (per Section 5 of report)
Provincially Significant Wetland	• An Erosion and Sediment Control Plan will be prepared and implemented prior to construction.
Significant Wildlife Habitat	• A Relocation and Monitoring Plan for Slender Paspalum will be prepared and implemented prior to construction.
Habitat of Endangered and Threatened Species	• All recommendations offered by MECP in **Appendix 7** are to be implemented. • All necessary tree removals will be completed outside the primary bat activity period (i.e., to be completed between October 1 and March 31). If limited tree removal is required during the restricted timing window, consult a qualified ecologist and/or MECP for further direction. • If construction activities occur during the active bat season (i.e., April 1 and September 30), work will be restricted to daylight hours only and the use of artificial lighting will be avoided. • Any lighting incorporated into the final building designs should be directed downward (i.e., towards the ground) and/or away from the adjacent woodlot (i.e., directed eastward) to the extent practicable. • The proposed development area will be isolated by reptile exclusion fencing at construction, which may be represented by silt fencing. • During the active season for herpetofauna (i.e., March 15 to November 30) an inspection will be conducted each morning by construction personnel prior to the commencement of construction activities to ensure that no Endangered or Threatened snakes have breached the reptile exclusion fencing and entered the work zone. • If an Endangered or Threatened snake is encountered during construction, all construction activities must cease within 30 m of the individual. A qualified Ecologist and/or MECP should then be contacted for direction on how to proceed. The location of the snake will be monitored while awaiting direction.
Other Natural Environment Considerations	• The removal of trees will generally be restricted to areas in direct conflict with the footprints of the proposed development features (e.g., residences, driveways, etc.) and grading, along with any hazardous trees in the immediate vicinity that pose an unacceptable risk to human life or property. • All necessary vegetation removal (e.g., trees) will be completed outside the primary bird nesting period (i.e., to be completed between September 1 and March 31). Should minor vegetation removal be proposed during the restricted timing window within readily searchable habitat types, a bird nesting survey will be undertaken to confirm the presence or absence of nesting birds or bird nests within or adjacent to the areas subject to vegetation clearance. The bird nesting survey is to take place within 48 hours of vegetation removal. • Incorporation of Bird-Friendly Guidelines into the residence designs such as those published in City of Toronto's "Best Practices for Bird-Friendly Glass" and "Best Practices for Effective Lighting" should be considered at detailed design.