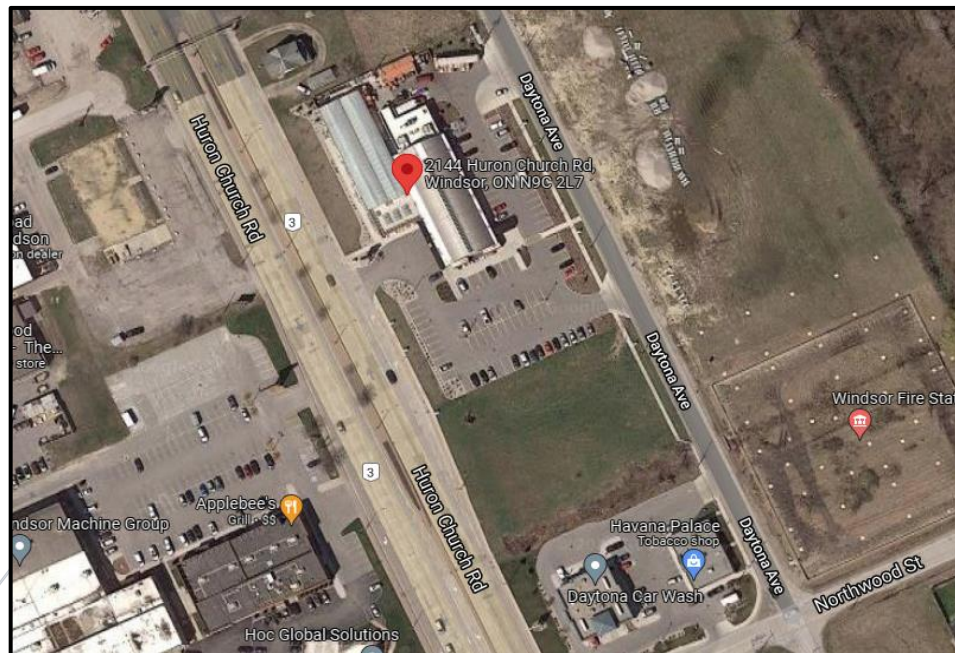


# Species at Risk Impact Assessment

2144 Huron Church Road, Windsor



**Prepared For:**

The Ministry of the Environmental, Conservation and Parks  
on behalf of Bouzide Enterprises Ltd.

**Prepared By:**

*Nicole Wajmer*, B.Sc., M.Sc., Principal Wildlife Biologist  
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**Date:**

December 13, 2022

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## 1.0 INTRODUCTION

Insight Environmental Solutions Inc., (IES) was retained by Bouzide Enterprises Ltd., to complete a desktop background review and Species at Risk (SAR) Impact Assessment for the proposed project located at 2144 Huron Church Road, Windsor, Ontario (hereafter referred to as the 'Subject Property').

IES has conducted a background review of available sources to determine potential impacts to natural heritage features and SAR individuals and/or habitat. This report provides an overview of the existing site conditions and applicable *Endangered Species Act* (ESA 2007) and *Species at Risk Act* (SARA 2002) policies, identifies any environmental constraints and opportunities, and provides recommendations with respect to the proposed project. The goal of this report is to attain the Ministry of the Environment, Conservation and Parks (MECP) Species at Risk Branch (SARB)'s review of the project documentation to ensure that the project is not likely to contravene Section 9 (species protection) or Section 10 (habitat protection) of the ESA 2007.

### 1.1 STUDY AREA

The Subject Property is located at 2144 Huron Church Road, City of Windsor, County of Essex, Ontario (17T 330887 4682572). The Subject Property is approximately 178m long (north - south) and 69m wide (east - west) with an area of approximately 1.27 hectares. **Figure 1** shows the property in a region context.

### 1.2 DEVELOPMENT PROPOSAL

The proposed development entails a four-storey mixed-use commercial and residential building on the vacant portion of 2144 Huron Church Road, Windsor. The commercial portion of the development will consist of the ground floor of the building measuring approximately 2900ft<sup>2</sup>. The building will comprise of an additional two floors of residential units containing 29 one-bedroom units and 29 two-bedroom units. The proposed development will have a total of 81 parking spaces. The concept plan can be seen in **Figure 2**.

## 2.0 BACKGROUND REVIEW

The following sections discuss all applicable information and resources used to support a discussion with Ministry Staff at the preliminary screening stage for the proposed development. Background documents and supporting technical documents containing information relevant to potential Species at Risk (SAR) and SAR habitat features on or within the vicinity of the Subject Property were reviewed. These documented include:

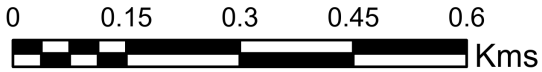
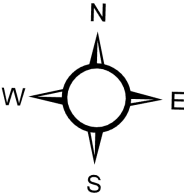
1. Endangered Species Act (2007)
2. Ministry of Natural Resources and Forestry. Make A Map: Natural Heritage Areas. Interactive Map (2022)
3. Essex Region Conservation Authority Public Interactive Mapping (2019)

4. Ontario Reptile and Amphibian Atlas (ORAA)
5. Ontario Breeding Bird Atlas (OBBA, 2005)
6. Ontario Butterfly Atlas (2022)
7. Ontario Atlas of Mammals (Dobbyn, 1994)
8. E-bird (2022)
9. I-Naturalist (2022)
10. Google Earth Imagery



# Key Plan

2144 Huron Church Road,  
Windsor



## Legend

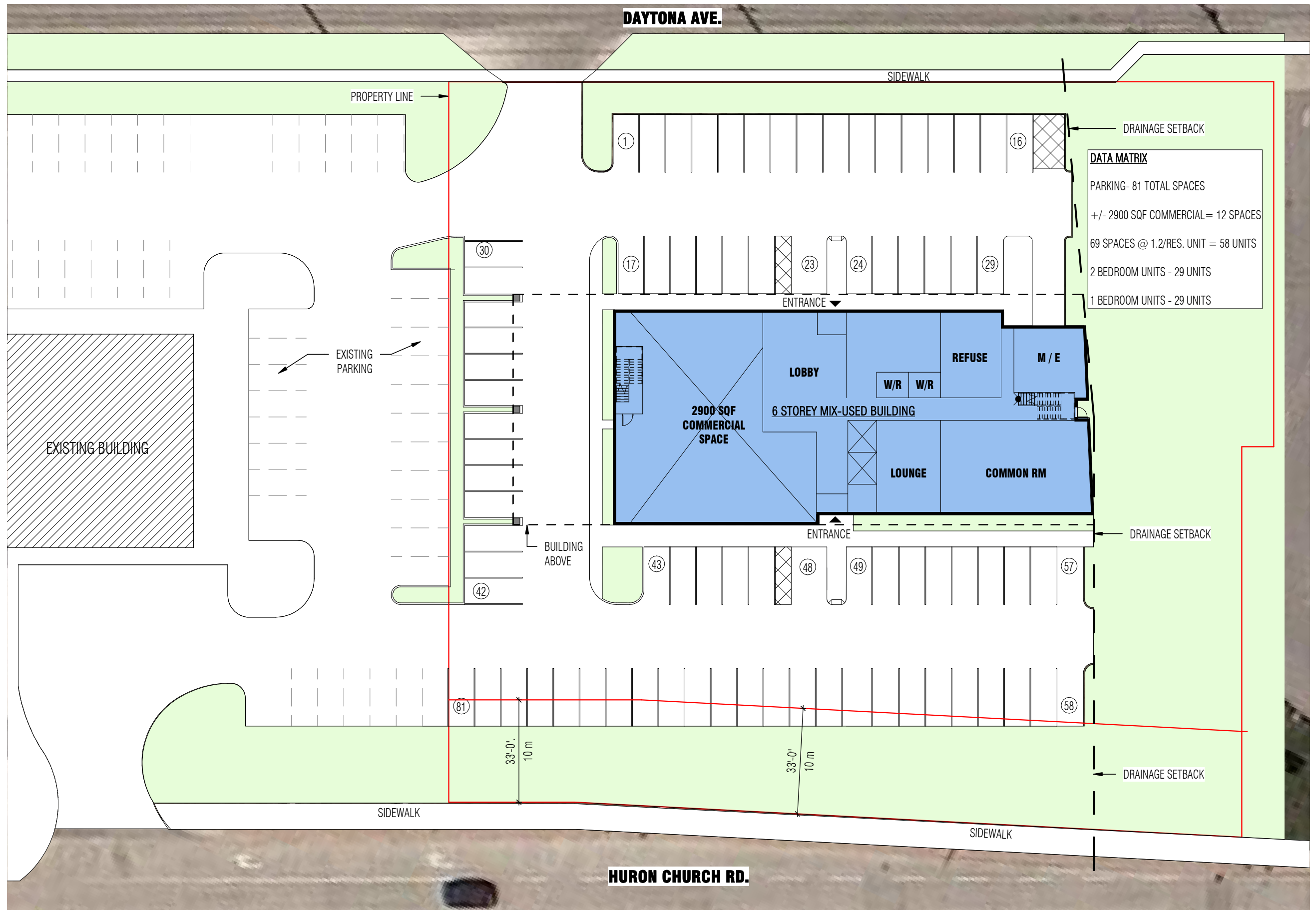
— Legal Parcel

Figure No.: 1  
 Project No.: IES22-56  
 Scale: 1:10,000  
 Date: December 12, 2022  
 Creator: Nicole Wajmer



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**HURON CHURCH RD. MIXED-USE DEVELOPMENT**  
 CONCEPT SITE PLAN



## 2.1 PROTOCOL FOR VEGETATION COMMUNITY AND STRUCTURE ANALYSIS

The Subject Property contains one natural area around the agricultural drain as defined under Ecological Land Classification (ELC). This was confirmed through visual inspection of aerial photos, google street view and consultation with the landowner. High level ELC was completed using the abovementioned sources.

## 2.2 WILDLIFE AND WILDLIFE HABITAT

The information provided in this Species at Risk Impact Assessment regarding potential wildlife species and habitat was collected through a thorough background review of available resources and analysis of habitat features through aerial photo interpretation and site photos provided by the landowner. See **Section 2.0** for a comprehensive list of resources that were utilized in this search.

## 3.0 EXISTING CONDITIONS

### 3.1 NATURAL HERITAGE FEATURES

According to the Ministry of Natural Resources and Forestry Make-A-Map: Natural Heritage Areas online tool the Subject Property and adjacent lands within 120m do not contain any natural heritage features (**Figure 3**). Part of a Provincially Significant Wetland Complex (PSW), known as South Cameron Wetland Complex, is located approximately 210m to the northeast of the Subject Property. While NHIC mapping does not show any woodland within the vicinity of the Subject Property, Google Earth shows a naturalized area approximately 110m to the east of the Subject Property that connects into the South Cameron Woodlot.

### 3.2 PHYSIOGRAPHY AND SOILS

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) on-line interactive 'Ag Maps' application states that Subject Property is located within a "Built-up Area" and does not provide soil or drainage data.

### 3.3 HYDROLOGY

The OMAFRA on-line interactive map application states that the Subject Property contains an agricultural drain called Basin Drain, which crosses the southern property border. Basin Drain is classified by the Department of Fisheries and Oceans (DFO) as a Class F Drain. Class F drains are an intermittent system, providing habitat for a portion of the season to fish species. Class F drains are considered intermittent watercourses, dry for at least three months of the year. Basin Drain connects into Talsma Drain to the north and Janisse Drain to the east. Both drains are classified as Class F Drains. South Cameron Wetland Complex (PSW) is located approximately 210m to the northeast of the Subject Property. The Subject



Property is within the Regulated Area of Essex Region Conservation Authority (ERCA; **Figure 4**). The regulated area surrounds Basin Creek. The Subject Property does not appear contain any other hydrological features such as wetlands or vernal pools.

### 3.4 TOPOGRAPHY

The topography associated with the legal parcel is Tableland. According to Lee et al. (1998): Tableland is a “site on a more or less level plain, not associated with an active shoreline or river valley.”

### 3.5 VEGETATION

The Subject Property contains one anthropogenic area and one natural vegetation community (**Figure 5**). These areas are described briefly below.

The Anthropogenic Area occupies the majority of the Subject Property. It contains a Farm Market, parking lot and mown lawn. **Photo 1** shows an example of this anthropogenic area.

The Dry - Fresh Deciduous Regeneration Thicket Ecosite (THDM4) is located along the southern property boundary and surrounds the Class F agricultural drain. The THDM4 observes shrub cover > 25% and tree cover < 25%. The shrub cover varies from scattered and patchy to continuous and is composed mainly of regenerating tree species. The shrub layer is dominated by Manitoba Maple (*Acer negundo*) with occasional Staghorn Sumac (*Rhus typhina*). The groundcover is dominated by European Reed (*Phragmites australis ssp. Australis*) with abundant Smooth Brome (*Bromus inermis*), Wild Chicory (*Cichorium intybus*), Field Sow-thistle (*Sonchus arvensis*), Thicket Creeper (*Parthenocissus vitacea*) and Wild Carrot (*Daucus carota*). **Photo 2** shows an example of the THDM4 community.



**Photo 1:** Mown Lawn/Anthropogenic Area looking southwest where proposed development will be located (taken December 19, 2021)



**Photo 2:** THDM4 community surrounding Class F agricultural drain, looking east (google image).

### Figure 3 - Natural Heritage Features

Map created:9/28/2021



Notes:

Enter map notes

#### Legend

-  Assessment Parcel
-  Earth Science Provincially Significant/sciences de la terre d'importance provinciale
-  Earth Science Regionally Significant/sciences de la terre d'importance régionale
-  Life Science Provincially Significant/sciences de la vie d'importance provinciale
-  Life Science Regionally Significant/sciences de la vie d'importance régionale
-  Evaluated Wetland
-  Provincially Significant/considérée d'importance provinciale
-  Non-Provincially Significant/non considérée d'importance provinciale
-  Unevaluated Wetland
-  Woodland
-  Conservation Reserve
-  Provincial Park
-  Greenbelt Towns and Villages
-  ORM Land Use Designation
-  Countryside Area/zone de campagne
-  Natural Core Area/zone centrale naturelle
-  Natural Linkage Area/liens naturel
-  Palgrave Estates Residential Community/communauté résidentielle de Palgrave Estates
-  Rural Settlement/zone de peuplement rurale
-  Settlement Area/zone de peuplement
-  NEP Land Use Designation
-  Escarpment Natural Area/zone naturelle de l'escarpement
-  Escarpment Protection Area/zone protégée de l'escarpement
-  Escarpment Recreation Area/zone récréative de l'escarpement
-  Escarpment Rural Area/zone rurale de l'escarpement
-  Mineral Resource Extraction Area/zone d'extraction de ressources minérales
-  Urban Area/zone urbaine
-  Greenbelt Specialty Crop Area
-  Greenbelt Land Use Designation
-  Protected Countryside/campagne protégée
-  Urban River Valley/vallée fluviale urbaine



Absence of a feature in the map does not mean they do not exist in this area.

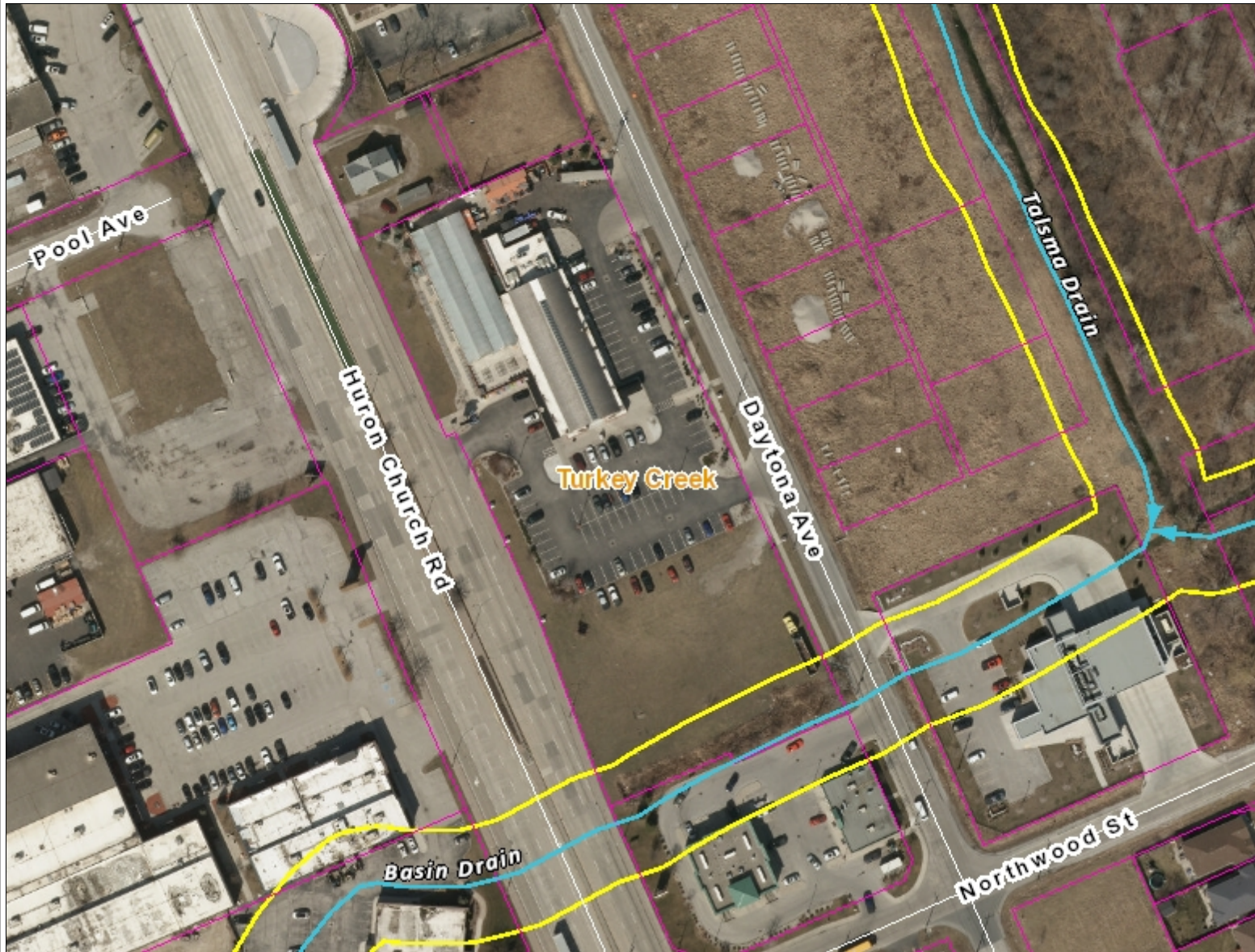
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# Figure 4 - ERCA Regulated Area



### Legend

- COE.ERCA.wms\_MunicipalDrains\_ERC
  - ▶ Natural
  - ▶ Channelized; Open
  - ▶ Tiled; Closed
  - - - Other
- Parcel Fabric - City
- Parcel Fabric - County
- 1:100 yr Flood Line
- Limit of Regulated Area
- Subwatershed (Line)

### Location



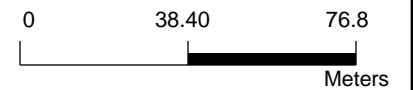
**ERCA Geomatics** THIS MAP HAS BEEN PRODUCED BY THE GENERAL PUBLIC AND NOT BY QUALIFIED ERCA STAFF.

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### Notes



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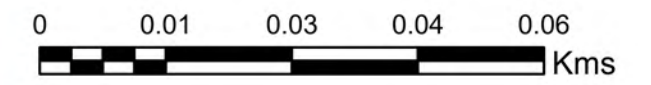
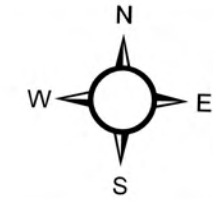


1/4/2022



# Key Plan

2144 Huron Church Road,  
Windsor



## Legend

- Legal Parcel
- Development Envelope
- ELC**
- Existing Building and Parking Lot
- Mown Lawn
- THDM4: Dry - Fresh Deciduous Regeneration Thicket Ecosite

Figure No.: 5  
 Project No.: IES22-56  
 Scale: 1:900  
 Date: December 12, 2022  
 Creator: Nicole Wajmer



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## 4.0 SPECIES AT RISK SCREENING

### 4.1 LAND INFORMATION ONTARIO (LIO)

A preliminary search of the Natural Heritage Information Centre (NHIC) database was completed, and the following SAR are recorded within 1 km<sup>2</sup> of the Subject Property:

**TABLE 1: NHIC SPECIES AT RISK INFORMATION**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Habitat Present in Development Envelope?	Preferred Habitat
Barn Swallow	<i>Hirundo rustica</i>	S4B	THR	THR	No	Build nests almost exclusively on human-made structures such as open barns, under bridges or in culverts (MNRF, 2014). Will use a variety of habitats for foraging. ESA Protection: Species and general habitat protection.
Butler's Gartersnake	<i>Thamnophis butleri</i>	S2	END	END	No	Prefers open, moist habitats, such as dense grasslands and old fields, with small wetlands where it can feed on leeches and earthworms. Often found in rock piles and old stonewall. Burrows made by small mammals and even crayfish are sometimes used as hibernation sites (MNRF, 2014). ESA Protection: Species and general habitat protection.
Climbing Prairie Rose	<i>Rosa setigera</i>	S2S3	SC	SC	No	Grows in early successional habitats around Lake Erie. It colonizes open and disturbed habitats, open habitats with moist heavy clay to clay-loam soils such as old fields, abandoned agricultural land, as well as prairie remnants and shrub thickets (MNRF, 2014). ESA Protection: N/A.

**TABLE 1: NHIC SPECIES AT RISK INFORMATION**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Habitat Present in Development Envelope?	Preferred Habitat
Dense Blazing-star	<i>Liatris spicata</i>	S2	THR	THR	No	Prefers moist prairies, grassland savannahs, wet areas between sand dunes, and abandoned fields. This plant does not do well in the shade and is usually found in areas that are kept open and sunny by fire, floods, drought, or grazing (MNRF, 2014). ESA Protection: Species and general habitat protection.
Eastern Meadowlark	<i>Sturnella magna</i>	S4B	THR	THR	No	Tall grasslands such as pastures and hayfields. Utilize small trees, shrubs, or fence posts for elevated song perches (MNRF, 2014). ESA Protection: Species and general habitat protection.
Fern-leaved Yellow False Foxglove	<i>Aureolaria pedicularia</i>	S2?		THR	No	This short-lived plant species has a distribution restricted in Canada to southwestern Ontario. The remaining individuals occur in a small number of locations within oak savannas and woodlands. Declines have been observed in quality of habitat.
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	S4		SC	No	Fresh shallow waters, with slow moving currents, with soft bottoms, basking sites, and aquatic vegetation. Suitable habitat consists of creeks, marshes, ponds, and the shores of lakes (MNRF, 2014). ESA Protection: N/A.
Northern Map Turtle	<i>Graptemys geographica</i>	S3	SC	SC	No	Inhabits rivers and lakes where it basks on emergent rocks, banks, logs and fallen trees. Prefer shallow, soft-bottomed aquatic habitats with exposed objects for basking (COSEWIC, 2012g). ESA Protection: N/A.
Red Mulberry	<i>Morus rubra</i>	S2	END	END	No	Red Mulberry is rare in Ontario, with very small populations scattered near the western edges of Lake Ontario and Lake Erie, and in the Niagara Region

**TABLE 1: NHIC SPECIES AT RISK INFORMATION**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Habitat Present in Development Envelope?	Preferred Habitat
						in forested valleys and floodplains (MNRF 2014). ESA Protection: Species and general habitat protection.
Riddell's Goldenrod	<i>Solidago riddellii</i>	S3	SC	SC	No	Riddell's Goldenrod prefers dry sandy habitats but can also be found in moist prairie meadow habitats. ESA Protection: N/A.
Shumard Oak	<i>Quercus shumardii</i>	S3	SC	SC	No	Shumard oaks prefer moist soils and can grow close to water and in swampy areas. It typically grows in deciduous forest or along fencerows. ESA Protection: N/A.
Snapping Turtle	<i>Chelydra serpentina</i>	S3	SC	SC	No	Slow-moving water with a soft mud or sand bottom and abundant vegetation (MNRF, 2014). ESA Protection: N/A.
Willow-leaved Aster	<i>Symphotrichum praealtum</i>	S2	THR	THR	No	Willow-leaved Aster is found in moist, open habitats including wet prairies and meadows, shores, oak savannahs, ditches, and roadsides. ESA Protection: Species and general habitat protection.
Wood Thrush	<i>Hylocichla mustelina</i>	S4B	SC	THR	No	Typically associated with moist mature deciduous and mixed forests with a well-developed understory (COSEWIC, 2012). ESA Protection: N/A

The proposed development is occurring entirely on mown lawn or gravel areas. As such, the Subject Property does not contain suitable habitat for the species listed by NHIC. The proposed development will maintain a setback from the Class F agricultural drain found along the southern property border.



### 4.2 BREEDING BIRD ATLAS

The Subject Property does not contain any natural heritage features other than a Class F agricultural drain. As such, the property provides limited habitat for SAR birds. **Table 2** lists possible SAR birds based on the square encompassing the property in the 2005 Breeding Bird Atlas (Square 17TLG38).

**TABLE 2: BREEDING BIRD ATLAS SPECIES AT RISK (2005)**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Breeding Status	Habitat Present in Development Envelope?	Key Habitats Used by Species
Bald Eagle	<i>Haliaeetus leucocephalus</i>	S1S2B, S4B	SC	NAR	Possible	No	Nest in a variety habitats and forest types near major bodies of water which they require to hunt fish and mammals. Prefer pine and popular trees for nesting (MNRF, 2014). ESA Protection: N/A.
Short-eared Owl	<i>Asio flammeus</i>	S2N, S4B	SC	SC	Confirmed	No	Lives in open areas such as grasslands, marshes and tundra where it nests on the ground and hunts for small mammals, especially voles (MNRF, 2014). ESA Protection: N/A.
Common Nighthawk	<i>Chordeiles minor</i>	S4B	SC	SC	Probable	No	Open areas with little to no ground vegetation, such as logged or burned-over areas, forest clearings, rock barrens, peat bogs, lakeshores, and mine tailings. Also nests in cultivated fields, orchards, urban parks, mine tailings and along gravel roads and railways (MNRF, 2014). ESA Protection: N/A.

**TABLE 2: BREEDING BIRD ATLAS SPECIES AT RISK (2005)**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Breeding Status	Habitat Present in Development Envelope?	Key Habitats Used by Species
Chimney Swift	<i>Chaetura pelagica</i>	S4B, S4N	THR	THR	Probable	No	Before European settlement Chimney Swifts mainly nested on cave walls and in hollow trees or tree cavities in old growth forests. Today, they are more likely to be found in and around urban settlements where they nest and roost (rest or sleep) in chimneys and other manmade structures. They also tend to stay close to water as this is where the flying insects they eat congregate (MNRF 2014). ESA Protection: Species and general habitat protection.
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	S4B	END	END	Confirmed	No	Prefers open woodland and woodland edges. Requires dead trees for nesting and will often be found in parks, golf courses and cemeteries (MNRF, 2014). ESA Protection: Species and general habitat protection.
Eastern Wood-pewee	<i>Contopus virens</i>	S4B	SC	SC	Probable	No	Deciduous and mixed forests with little understory vegetation; often found in clearings or on edges of deciduous and mixed forests (MNRF, 2015). ESA Protection: N/A.

**TABLE 2: BREEDING BIRD ATLAS SPECIES AT RISK (2005)**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Breeding Status	Habitat Present in Development Envelope?	Key Habitats Used by Species
Acadian Flycatcher	<i>Empidonax virescens</i>	S2S3B	END	END	Probable	No	It is typically found in mature, shady forests with ravines, or in forested swamps with lots of maple and beech trees. The nest is placed near the tip of a lower limb on a tree, and is loosely woven, with strands of plant material hanging down. In Canada, the Acadian Flycatcher nests only in southwestern Ontario, mostly in large forests and forested ravines near the shore of Lake Erie. ESA Protection: Species and general habitat protection.
Barn Swallow	<i>Hirundo rustica</i>	S4B	THR	THR	Confirmed	Yes	See Table 1.
Wood Thrush	<i>Hylocichla mustelina</i>	S4B	SC	THR	Confirmed	No	Typically associated with moist mature deciduous and mixed forests with a well-developed understory (COSEWIC, 2012). ESA Protection: N/A
Bobolink	<i>Dolichonyx oryzivorus</i>	S4B	THR	THR	Confirmed	No	Historically found in tallgrass prairies or open meadows but will now use hayfields for habitat (MNRF, 2014). ESA Protection: Species and general habitat protection.

**TABLE 2: BREEDING BIRD ATLAS SPECIES AT RISK (2005)**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Breeding Status	Habitat Present in Development Envelope?	Key Habitats Used by Species
Eastern Meadowlark	<i>Sturnella magna</i>	S4B	THR	THR	Confirmed	No	See Table 1.

As a result of the lack of vegetation (trees, shrubs or ground cover), the Subject Property does not contain suitable habitat to support the breeding of the SAR bird species listed within the Breeding Bird Atlas (i.e woodland, grasslands, silt/sand deposits, woodland edges, structures or chimneys).

**4.3 E-BIRD**

Ebird was used to review the list of observed species at the closest birding hotspot located approximately 2km to the east of the Subject Property, known as South Cameron Woodlot. While this data cannot be field verified, it provides a basis for the composition of bird species that may be present in vicinity of the Subject Property. The list contained a total of 89 species and consisted mainly of species that are tolerant of anthropogenic areas, woodland birds and wading/aquatic birds. The list of birds includes several species of ducks, hawks, sparrows, woodpeckers, kinglets, nuthatches, vireos, thrushes, warblers, swallows, wrens as well as common urban species. Based on the observation dates and available habitat, it is likely that some of these species were observed on fall and spring migration and would not use the Subject Property or adjacent lands for breeding purposes. The following SAR birds have been documented at South Cameron Woodlot:

TABLE 3: E-BIRD SPECIES AT RISK

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Last Observation Date	Habitat Present in Development Envelope?	Key Habitats Used by Species
Chimney Swift	<i>Chaetura pelagica</i>	S4B, S4N	THR	THR	July 2020	No	See <b>Table 2</b> .
Eastern Wood-pewee	<i>Contopus virens</i>	S4B	SC	SC	May 2020	No	See <b>Table 2</b> .
Wood Thrush	<i>Hylocichla mustelina</i>	S4B	SC	THR	May 2021	No	See <b>Table 1</b> .
Barn Swallow	<i>Hirundo rustica</i>	S4B	THR	THR	May 2020	No	See <b>Table 1</b> .
Rusty Blackbird	<i>Euphagus carolinus</i>	S4B	NAR	SC	April 2019	No	The Rusty Blackbird breeds in habitats that are dominated by coniferous forest with wetlands nearby including bogs, marshes and beaver ponds. During the winter, it is found in wet woodlands, swamps, and pond edges and often forages in agricultural lands. ESA Protection: N/A.
Common Nighthawk	<i>Chordeiles minor</i>	S4B	SC	SC	July 2020	No	See <b>Table 2</b> .
Eastern Whip-poor-will	<i>Antrostomus vociferus</i>	S4B	THR	THR	May 2017	No	Areas with a mix of open and forested areas, such as savannahs, open woodlands or openings in more mature, deciduous, coniferous and mixed forests (MNRF, 2014). ESA Protection: Species and general habitat protection.

The Subject Property does not contain suitable habitat for the SAR birds identified by E-Bird. The proposed project will not remove any trees or vegetation as the agricultural drain will be maintained and protected by a buffer. As such, there will be no impacts to SAR birds.

**4.4 I – NATURALIST**

A total of 274 species have been identified on i–Naturalist within 1 km of the proposed development. Eight SAR species or species of special conservation concern were detected:

**TABLE 4: I - NATURALIST SPECIES AT RISK**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Last Observation Date	Habitat Present in Development Envelope?	Key Habitats Used by Species
Dense Blazing Star	<i>Liatris spicata</i>	S2	THR	THR	July 2020 (Research Grade)	No	See <b>Table 1.</b>
Barn Swallow	<i>Hirundo rustica</i>	S4B	THR	THR	May 2020 (Research Grade)	No	See <b>Table 1.</b>
Rusty Blackbird	<i>Euphagus carolinus</i>	S4B	NAR	SC	October 2017 (Research Grade)	No	See <b>Table 3.</b>
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	S4		SC	April 2020 (Research Grade)	No	See <b>Table 1.</b>
Snapping Turtle	<i>Chelydra serpentina</i>	S4	SC	SC	July 2020 (Research Grade)	No	See <b>Table 1.</b>

**TABLE 4: I - NATURALIST SPECIES AT RISK**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Last Observation Date	Habitat Present in Development Envelope?	Key Habitats Used by Species
Monarch	<i>Danaus plexippus</i>	S2N, S4B	SC	END	September 2019 (Research Grade)	No	The caterpillar life cycle requires milkweed plants found in meadows and open habitats. Adult butterflies use a variety of habitats where wildflowers are present (MNRF, 2014). ESA Protection: N/A.
Willow-leaved Aster	<i>Symphotrichum praealtum</i>	S2	THR	THR	October 2018 (Research Grade)	No	See <b>Table 1</b> .
Red Mulberry	<i>Morus rubra</i>	S2	END	END	October 2019 (Research Grade)	No	See <b>Table 1</b> .

**4.5 ONTARIO REPTILE AND AMPHIBIAN ATLAS**

The proposed development encompasses square 17LG38 on the Ontario Reptile and Amphibian Atlas (ORAA). A total of twelve common reptiles and amphibians and seven SAR herpetofauna have been observed between the years of 1890 and 2019. The following SAR reptiles and amphibians have been recorded in square 17LG38 on the ORAA:

**TABLE 5: ORAA SPECIES AT RISK**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Observation Date	Habitat Present in Development Envelope?	Key Habitats Used by Species
Blanding's Turtle	<i>Emydoidea blandingii</i>	S3	THR	END	2019	No	Prefer shallow water, usually in large wetlands and shallow lakes with lots of water plants. May travel hundreds of metres from water, especially while they are searching for a mate or traveling to a nesting site. Hibernate in the mud at the bottom of permanent water bodies from late October until the end of April (MNRF, 2014). ESA Protection: Species and general habitat protection.
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	S4		SC	2019	No	See Table 1.
Northern Map Turtle	<i>Graptemys geographica</i>	S3	SC	SC	2018	No	See Table 1.
Snapping Turtle	<i>Chelydra serpentina</i>	S4	SC	SC	2019	No	See Table 1.
Butler's Gartersnake	<i>Thamnophis butleri</i>	S2	END	END	2019	No	See Table 1.



**TABLE 5: ORAA SPECIES AT RISK**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Observation Date	Habitat Present in Development Envelope?	Key Habitats Used by Species
Eastern Foxsnake	<i>Pantherophis gloydi pop. 2</i>	S2	END	END	2019	No	Eastern Foxsnakes in the Carolinian population are usually found in old fields, marshes, along hedgerows, drainage canals and shorelines. Females lay their eggs in rotting logs, manure, or compost piles, which naturally incubate the eggs until they hatch. During the winter, Eastern Foxsnakes hibernate in groups in deep cracks in the bedrock and in some man-made structures (MNRF, 2014). ESA Protection: Species and general habitat protection.
Five-lined Skink	<i>Plestiodon fasciatus pop. 1</i>	S2	END	END	1992	No	Common Five-lined Skinks like to bask on sunny rocks and logs to maintain a preferred body temperature (28-36°C). During the winter, they hibernate in crevices among rocks or buried in the soil. The Carolinian population can be found under woody debris in clearings with sand dunes, open forested areas, and wetlands (MNRF, 2014). ESA Protection: N/A.

It is highly unlikely that the SAR turtle species listed by the ORAA would be found within the project area or adjacent lands within 120m. The property does not contain any permanent hydrological features that support the foraging or hibernation habitat of turtles. Many of the occurrences of turtle species noted in the background review likely occur in the Provincially Significant Wetland (PSW) known as South Cameron Wetland Complex which is located approximately 210m to the northeast of the Subject Property. However, IES notes that turtles travel far

distances when looking for mates or egg laying sites and mitigation measures to protect SAR turtles should be implemented during construction practices. Refer to **Section 6.2** for mitigation measures for this SAR Reptiles.

As the Development Envelope does not contain any suitable breeding or overwintering habitat for snakes. Records of Butler’s Gartersnake and Eastern Foxsnake has appeared on several sources within the vicinity of the Subject Property. IES recognizes that the Class F agricultural drain may provide a movement corridor for SAR snakes and therefore there is an opportunity for SAR snakes to incidentally enter the work site. Mitigation measures for SAR Reptiles can be seen in **Section 6.2**.

**4.6 ONTARIO BUTTERFLY ATLAS**

The proposed development encompasses square 17LG38 on the Ontario Butterfly Atlas (OBA). A total of 90 common butterflies and one SAR butterfly have been observed between the years of 1893 and 2021. The following SAR butterflies have been recorded in square 17LG38 on the OBA:

**TABLE 6: ONTARIO BUTTERFLY ATLAS**

Common Name	Scientific Name	S - Rank	SARO Status	COSEWIC Status	Observation Date	Habitat Present in the Development Envelope?	Key Habitats Used by Species	Observed in 2022 Field Surveys?
Monarch	<i>Danaus plexippus</i>	S2N, S4B	SC	END	2019	No	See <b>Table 4.</b>	No

The proposed development will not impact any natural features or remove any natural vegetation. As such, Monarch Butterfly and their host plant (Milkweed) will not be impacted.

#### 4.7 ATLAS OF MAMMALS

The square encompassing the Subject Property does not contain any records of SAR mammals.

#### 4.8 CONSERVATION AUTHORITIES

The area surrounding the Basin Drain (Class F) is within the Essex Region Conservation Authority (ERCA) Regulated Area (**Figure 4**). ERCA should be contacted by the proponent to determine if a permit is required for development.

#### 4.9 LOCAL NATURALIST GROUPS

As the proposed development is occurring on a property with limited natural heritage features and is located on private land, no local naturalist groups were contacted regarding this project.

#### 4.10 LOCAL INDIGENOUS COMMUNITIES

The proposed development is not located within or adjacent to local indigenous lands or communities. As such, no local indigenous communities were contacted regarding this project.

#### 4.11 FIELD STUDIES

No field studies have been completed on this property.

### 5.0 MITIGATION TO REDUCE IMPACTS TO SPECIES AT RISK AND THEIR HABITAT

#### 5.1 POTENTIAL SAR HABITAT ON AND ADJACENT TO SUBJECT PROPERTY

Potential impacts of the proposed development to possible SAR occurring on or adjacent to the Subject Property are discussed in **Table 7**.

**TABLE 7: POTENTIAL SAR HABITAT ON AND ADJACENT TO SUBJECT PROPERTY**

<b>Potential Species at Risk</b>	<b>Potential Habitat</b>
<b>Potential SAR Utilizing Subject Property</b>	

**TABLE 7: POTENTIAL SAR HABITAT ON AND ADJACENT TO SUBJECT PROPERTY**

Potential Species at Risk	Potential Habitat
NA	The development envelope for the proposed development consists of mown lawn and an anthropogenic area. The proposed development will not impact SAR or SAR habitat.
<b>Potential SAR Utilizing Adjacent Habitats</b>	
SAR Turtles	The Subject Property does not contain any permanent aquatic habitat (wetlands, streams, watercourses) to support the life processes of turtles. Many of the occurrences of turtle species noted in the background review likely occur in the Provincially Significant Wetland (PSW) known as South Cameron Wetland Complex which is located approximately 210m to the northeast of the Subject Property. However, IES notes that turtles travel far distances when looking for mates or egg laying sites and mitigation measures to protect SAR turtles should be implemented during construction practices. Refer to <b>Section 5.2</b> for mitigation measures for this SAR Reptiles.
SAR Snakes	As the property connects to a thicket feature that surrounds the Class F agricultural drain. As such, it is possible that SAR snakes, specifically Eastern Foxsnake may incidentally enter the work site. See <b>Section 5.2</b> for mitigation measures for SAR Reptiles.
SAR Plants	The background review revealed the presence of several SAR plants within the vicinity of the Subject Property. While the Development Envelope does not contain any SAR plants, the THDM4 community that surrounds the agricultural drain may provide suitable habitat to some of the species noted in this screening. As such, mitigation measures to protect SAR plants should be implemented ( <b>Section 5.3</b> ).

## 5.2 MITIGATION FOR SAR REPTILES

- 1) All on-site personnel must be made aware of the potential presence of SAR snakes and SAR turtles, including Eastern Foxsnake, Butler's Gartersnake, Snapping Turtle, Blanding's Turtle and Midland Painted Turtle.
- 2) Temporary reptile exclusion fencing can be used to exclude reptiles from the worksite. It is recommended that netting type erosion control measures not be used for this project. An alternative product such as Curlex Netfree® blanket or the use of riprap over geotextile fabric should be used for erosion control to prevent entanglement of SAR snakes.
- 3) Snake exclusion fencing should be installed following the recommendations of the Species at Risk Branch Best Technical Note: Reptile and Amphibian Exclusion Fencing (2013) document.
- 4) Construction machinery and equipment that is left idle for over 1 hour or is parked overnight on the property between April 1<sup>st</sup> to November 30<sup>th</sup> must be surveyed for the presence of SAR snakes before (re)ignition. This visual examination should include all lower components of the machinery, including operational extensions and running gear.
- 5) Any SAR individual that is present on the property should be reported to the Ministry of Environment, Conservation and Parks (MECP) within 48 hours of the observation or the next working day, whichever comes first.
- 6) If an SAR individual is incidentally encountered, the snake must be allowed to disperse from the project site under its own ability, and project machinery and equipment must maintain a minimum operating distance of 30 meters from the individual. MECP must be contacted if this cannot be done.
- 7) If an injured or deceased SAR is found, the specimen must be placed in a non-airtight container maintained at an appropriate temperature and MECP staff must be contacted immediately.

## 5.3 MITIGATION FOR SAR PLANTS

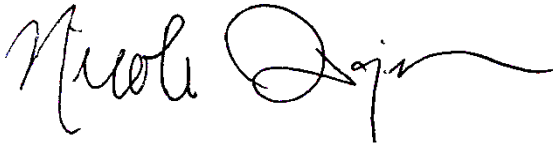
While the Development Envelope does not contain any SAR plants, the THDM4 community that surrounds the agricultural drain may provide suitable habitat to some of the SAR plant species noted in this screening. The exclusion fencing for SAR reptiles will indirectly protect the THDM4 community from potential impacts. Additionally, the THDM4 feature will be retained and will observe a setback from the future development. As such, no impacts to potential SAR plants within the THDM4 community are anticipated.

## 6.0 CONCLUSION

Based on Species at Risk information gathering efforts and review of aerial photography by Insight Environmental Solutions Inc., it is argued that the project is not likely to contravene the ESA 2007. The proposed development will have no impact on any Endangered or Threatened species or their habitat if the mitigation measures stated in this report are implemented during construction activities.

Insight Environmental Solutions Inc. trusts that the material presented in this report will satisfy the requirements to move forward with the proposed activities. The data and conclusions contained in this letter are based upon work performed by qualified professionals in accordance with accepted scientific methods and protocols. The information should be interpreted and implemented only in relation to the specific project as identified. This report was prepared on behalf of Bouzide Enterprises Ltd., and the undersigned accepts no responsibility for future use by other parties.

**Yours sincerely,**



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# APPENDICES

# **APPENDIX A: NAME AND QUALIFICATIONS OF RETAINED CONSULTANT**

*Wildlife Biologist – Nicole Wajmer, Hon. B.Sc., M.Sc.*

Nicole is a wildlife biologist, GIS technician and managing partner of Insight Environmental Solutions Inc. She completed the Wildlife Biology undergraduate and Integrative Biology graduate program at the University of Guelph. Nicole has a wide range of aquatic and terrestrial experiences from her time working in various sectors of biology including industry, government, and academia. She has strong interests in conservation biology and has been involved in recovery programs for the Endangered Northern Spotted Owl and Eastern Loggerhead Shrike. She has successfully completed certifications for First Aid and CPR, ACUC Dive Master, Ontario Benthos Biomonitoring, Backpack 2 Electrofishing, Ontario Stream Assessment Protocol, Ontario Fish Identification, the Department of Fisheries and Oceans Freshwater Mussel Identification Course, and the Ontario Reptile and Amphibian Survey Course. Nicole has contributed to a wide range of environmental and restoration projects throughout Ontario including Species at Risk (SAR) Assessments, Environmental Impact Studies (EIS), Natural Heritage Evaluations (NHE), as well as Land Management and Restoration Plans.

*Ecologist – Jennifer Neill, BFA, Dip. Env. Technician, M.Sc. Candidate*

Jennifer is a senior ecologist and managing partner of Insight Environmental Solutions Inc. She holds an honors graduate from the Environmental Technician - Sampling and Monitoring program at Seneca College, a Bachelor of Fine Arts from the Ontario College of Art and Design (OCAD U). Jennifer has managed numerous large and small-scale environmental projects throughout Ontario. Her contributions include, detailed terrestrial and aquatic botanical inventories (native, cultivated, and exotic species), ecological land classification, invasive species management plans, incidental wildlife surveys, benthic macro-invertebrate identification, Ontario Species at Risk (SAR) individual identification, SAR habitat evaluation, Arborist reports, Land Management and Ecological Restoration Plans. Jen is a certified Arborist under the International Society of Arboriculture and is certified under the Ontario Stream Assessment Protocol, Ontario Fish Identification, the Ontario Benthos Biomonitoring Network, RX100 Low Complexity Prescribed Burn Worker, Firesmart 101, the Ontario Wetland Evaluation System and Ecological Land Classification. Jennifer has a strong interest in Botany and the native flora of Ontario and holds a position on the Board of Directors for Tallgrass Ontario (TgO).