Appendix C

Species at Risk Screening Memo

City of Windsor Environmental Project Report - East End Transit Terminal January 2025 – 24-7953





WSP E&I Canada Limited 11865 County Road 42 Tecumseh, Ontario N8N 0H1 Canada

Memo

To:	Tracy Beadow - City of Windsor	Date:	19 July 2023
From:	Daniel Priest, P.Eng – WSP		
CC:	David Smith, Senior Ecologist - WSP		
Ref:	IM23104032		
Re:	Species at Risk Site Assessment for 7310 Tecumseh Road East		

INTRODUCTION

WSP Environment & Infrastructure Canada Limited (WSP) was retained by the City of Windsor to undertake a background information review and biological field survey of the land parcel located at 7310 Tecumseh Road East (the Site). Based on the information provided by the City, we understand discussions are underway for the procurement of the property for a new transit terminal. The purpose of the survey is to identify Species at Risk (SAR), SAR habitat and SAR habitat potential on the property to assist the City in their procurement related decision-making process for the property.

PROJECT LOCATION

The Site is an undeveloped lot within the City of Windsor, consisting of woodlot in the northern portion and maintained landscape to the southern portion. The property is adjacent to Tecumseh Road East (south) and Lauzon Parkway (east), Catherine Street borders the north side of the property, which connects to Lauzon Parkway (Figure 1).



METHODS

The potential for SAR at 7310 Tecumseh Road was assessed through a desktop review of background and secondary source information, including reports and online databases, as well as one site visit on July 11, 2023.

Background Review

Publicly available data was reviewed to identify potential SAR within and in close proximity to 7310 Tecumseh Road. Sources reviewed include:

- Species at Risk in Ontario website (Ministry of the Environment, Conservation and Parks (MECP) (2023).
- Ontario Breeding Bird Atlas (10 km² square 17LG48) (Birds Canada 2023).
- Atlas of the Mammals of Ontario (Dobbyn 1994).
- Ontario Butterfly Atlas (10 km² square 17LG48) (Toronto Entomologists' Association (TEA) 2022).
- Natural Heritage Information Centre (NHIC) (1 km² squares: 17LG4086) Ministry of Natural Resources and Forestry (MNRF) (2023).
- Ontario Reptile and Amphibian Atlas (10 km² square 17LG48) (Ontario Nature, 2019).
- eBird (eBird 2023).
- iNaturalist (iNaturalist 2023).
- Fisheries and Oceans Canada (DFO) Aquatic specie at risk map (DFO 2023).
- Data extracted from Land Information Ontario (LIO; MNDMNRF 2021).

Site Visit

A WSP biologist performed a site visit to accompany the background Species at Risk (SAR) information desktop review. The site visit was performed on July 11, 2023 and consisted of a full sweep of the site looking for any signs of SAR on the property. The biologist walked wandering transects from one side of the site to the other multiple times looking at the vegetation and habitat features. The biologist looked at all available habitat, including roadside and edge habitat. The biologist also looked under garbage that was present on site, cardboard sheets, plywood, old signs and wood planks for the presence of snakes. Any significant habitat features (e.g., potential hibernacula locations) that could potentially attract SAR were marked on Figure 1. The findings of both the field investigation and desktop background review are summarized in the results section on page 3.



RESULTS

Habitat Description

7310 Tecumseh Road is a small, undeveloped corner lot. The southern portion of the property is maintained (mowed) grass landscape bordered by a concrete sidewalk that runs along Tecumseh Road East and Lauzon Parkway. The north end of the property has been left in a naturalized state, with no recent mowing or vegetation clearing evident (Figure 1). The entirety of the northern portion is made up of early successional forest. Young Eastern Cottonwoods (*Populus deltoides*) make up most of the canopy, while young *Fraxinus* Sp. (Ash) dominate most of the sub-canopy. The invasive European Buckthorn (*Rhamnus cathartica*) is abundant in parts of the understory. On the west side of the property, there are patches of invasive Phragmites and Purple Loosestrife (*Lythrum salicaria*). On the north side of the property bordering Catherine Street, there is a small strip of partially open habitat. The canopy was not as thick here; therefore, it contained more herbaceous ground layer species compared the rest of the site.

The edges of the site contained various herbaceous plants such as, Asters (*Symphyotrichum*), as well as Tall Goldenrod (*Solidago altisima*) and Common Milkweed (*Asclepias syriaca*) to name a few. Outside the property to the west, there is an undeveloped property that is mostly mowed, with a few patches that have been left unmoved. This area is important to note, as it serves as a potential access point for wildlife entering or exiting the property. Besides this mowed area to the west, the rest of the property is surrounded by mostly commercial developments, with one agricultural field to the north. More naturalized property is present roughly 400m to the north but is not connected due to surrounding roadways and other developments. The property is mostly isolated, which significantly reduces long term viability for species and cuts down the overall diversity and species richness of the property (Figure 1).

Potential for SAR and SAR Habitat

Species listed as Endangered or Threatened are protected, along with their habitat, under the *Endangered Species Act* (ESA; 2007). The ESA does not afford protection to species listed as Special Concern, although it is important to note these species are listed on Schedule 5 of the ESA and have the potential to be up listed at any time.

WSP completed a SAR screening to evaluate the probability of their occurrence in the Study Area based on each species' habitat preferences and needs in conjunction with background/secondary source information and a pending field assessment. Table 1 below indicates the probability of SAR using the Study Area. The probabilities of occurrence are defined as High, Moderate, Low, and None and are based on the following definitions:

High: Those species recorded in the vicinity of the Study Area and whose preferred habitat is abundant within the Study Area. Species with a high probability of occurrence would be expected to breed within or frequently use the habitats available within the Study Area. They would be known to have a high relative abundance within the region (i.e., compared to other areas of Ontario).



Moderate: Those species in the vicinity of the Study Area but have limited suitable habitat within the Study Area. Species with moderate probabilities of occurrence may not occur within the Study Area frequently. Still, they may intermittently use it for foraging, migration, or movement to other parts of their home-range.

Low: Those species recorded in the vicinity of the Study Area, but whose preferred habitat does not occur or is extremely limited within the Study Area. These species may intermittently move through the Study Area but are unlikely to become permanent residents.

None: Those species whose preferred habitat is entirely absent from the Study Area and may only migrate intermittently through the Study Area.

A total of 8 Endangered and Threatened SAR and 8 species of Special Concern were identified as occurring within or in the vicinity of 7310 Tecumseh Road (Table 1).

Species Name, Status, and Data Source	Preferred Habitat	Potential for SAR Habitat/Occurrence in the Study Area				
Birds						
Chimney Swift (Chaetura pelagica) Source: OBBA ESA Status: Threatened S-Rank: S3B	Mainly associated with areas where the birds can find chimneys to use as nesting and resting sites; however, it is likely that a small portion of the population continues to use hollow trees (COSEWIC 2018).	None -Lack of large trees with potential cavities on this property. May see the bird flying overhead, but not expected to use the property as nesting habitat. None recorded during the field investigation.				
Common Nighthawk (Chordeiles minor) Source: OBBA ESA Status: Special Concern S-Rank: S4B	Breeds in a wide range of open habitats, such as beaches, recently logged or burned-over areas, forest clearings, short- grass prairies, pastures, open forests, marshes, lakeshores, gravel roads, riverbanks, rocky outcrops or barrens, railways, and urban parks (COSEWIC 2018).	None -Lack of open habitat, constant mowing disturbance in the open portion of the site and the proximity to a busy roadway would heavily discourage this species form nesting on the property. May see species flying overhead, not expected to use the property. None recorded during the field investigation.				
Eastern Wood-Pewee (Contopus virens) Source: OBBA ESA Status: Special Concern S-Rank: S4B	In Canada, the Eastern Wood-Pewee is mostly associated with the mid-canopy layer of forest clearings and edges of deciduous and mixed forests (COSEWIC 2012). However, this species breeds in nearly any type of woodland habitat including mature woodlands, urban shade trees, roadsides, and orchards, but typically prefers deciduous forest and to a lesser extent, open pine woodlands of the south and mixed hardwood-conifer forest	Low- Species may use the early successional forest present. Due to the limited habitat and small size of the property this species is not expected to nest here. Species may be recorded passing through, but not expected to reside on the property for long periods of time. None recorded during the field investigation.				
	south and mixed hardwood-conifer forest of the north.					

Table 1: Species at Risk Results from Secondary Source Review and Site Visits



Species Name, Status, and Data Source	Preferred Habitat	Potential for SAR Habitat/Occurrence in the Study Area
Bobolink (<i>Dolichonyx oryzivorus</i>) Source: OBBA ESA Status: Threatened S-Rank: S4B	Bobolink nest primarily in forage crops, hayfields and associated pastures are their preferred habitat. Bobolink also occur in wet prairie, graminoid peatlands and abandoned fields dominated by tall grasses, no-till cropland, small-grain fields, reed beds and irrigated fields in arid regions. The species does not generally occupy fields of row crops such as corn, soybean and wheat, pastures in valleys which high shrub density or intensively grazed pastures (COSEWIC 2022).	None-No suitable habitat is present within the Study Area. Species may be observed near the site within one of the periodically mowed meadows or agricultural field. None recorded during the field investigation.
Bald Eagle (Haliaeetus leucocephalus) Source: OBBA ESA Status: Special Concern S-Rank: S4	Nest in large trees generally away from human disturbance and near waterbodies (Armstrong 2014).	None - Due to the lack of large mature trees that would support the large nest of these birds, no suitable nesting habitat is present. May see the bird flying overhead. None recorded during the field investigation.
Wood Thrush (Hylocichla mustelina) Source: OBBA ESA Status: Special Concern S-Rank: S4B	Breeds in mature deciduous and mixed forest (rarely coniferous forests) habitats with a well-developed understory, nearby moist soils, and abundant leaf litter. Wood Thrushes are generally considered area sensitive requiring at least 4 ha of forested area (COSEWIC 2012).	None - Due to the lack of mature forest and small size of the property, no suitable nesting habitat is present. None recorded during the field investigation.
Red-headed Woodpecker (Melanerpes erythrocephalus) Source: OBBA ESA Status: Endangered S-Rank: S3	Generally, prefer open oak and beech forests, grasslands, forest edges, orchards, pastures, riparian forests, roadsides, urban parks, golf courses, cemeteries, as well as along beaver ponds and brooks (COSEWIC 2018).	None - Due to the lack of mature forest, no cavity trees, and small size of the property, no suitable habitat is present. None recorded during the field investigation.
Eastern Meadowlark (Sturnella magna) Source: OBBA ESA Status: Threatened S-Rank: S4B, S3N	A bird most common in native grasslands, pastures, and savannas. It also uses a wide variety of other anthropogenic grassland habitats. As with other grassland bird species, the suitability of grassland habitat for this species involves a combination of landscape and patch characteristics (COSEWIC 2022).	Low-Anthropogenic grassland is present near the property. Constant mowing disturbance in the open southern end, limited size of the property and proximity to a busy roadway would highly discourage nesting activity. Overall, the site is not suitable. May see the bird flying overhead or potentially using nearby habitats. None recorded during field investigation.
Bank Swallow (<i>Riparia riparia</i>) Source: OBBA ESA Status: Threatened S-Rank: S4B	Bank Swallows will nest in human made habitats if available. Nesting sites (burrows) can be found in vertical faces in aggregate pits, along road-cuts, in piles of sand and gravel. The Bank Swallow is an aerial insectivore and forages over open grasslands, agricultural fields, and aquatic habitats. (ECCC, 2021)	None- Suitable nesting habitat not present but may be seen foraging for insect's over nearby agricultural field. None recorded during the field investigation.



Species Name, Status, and Data Source	Preferred Habitat	Potential for SAR Habitat/Occurrence in the Study Area	
Monarch (Danaus plexippus) Source: Butterfly Atlas; iNaturalist ESA Status: Special Concern S-Rank: S2N, S4B	The breeding habitat of this species is confined to sites where milkweeds occur. Milkweed is the sole food source of Monarch caterpillars. Different milkweed species grow in a variety of environments which include fields, roadsides, open areas, wet areas, and urban gardens	Moderate -Small patches of milkweed and other attractive flowering plants (Asters) are present, there is a chance that this species may be encountered on the property. The species has been recorded on iNaturalist using nearby natural areas. None recorded during the field	
	(COSEWIC 2016).	investigation.	
Reptiles			
Snapping Turtle (Chelydra serpentina) Source: ORAA; NHIC	Snapping Turtles prefer slow-moving waters with a soft mud bottom and dense aquatic vegetation. Established populations are most often located in	None- There are records of these turtles occurring within 1km of the property. (NHIC) No suitable aquatic habitat present. None recorded during the field	
ESA Status: Special Concern S-Rank: S4	ponds, sloughs, shallow bays or river edges and slow streams and wetlands. Individuals can also exist in developed areas (e.g., golf course ponds, irrigation canals); however, it is unlikely that populations persist in such habitats. Snapping Turtles can occur in highly polluted waterways, but environmental contamination is known to limit reproductive success (COSEWIC 2008c).	investigation.	
Blanding's Turtle (Emydoidea blandingii) Source: ORAA ESA Status: Threatened S-Rank: S3	Blanding's Turtles are found in a variety of productive wetlands, occurring primarily in shallow-water habitats. Females nest on various substrates on land, while overwintering occurs underwater in permanent pools (COSEWIC 2016).	None -No suitable aquatic habitat present. None recorded during the field investigation.	
Northern Map Turtle (Graptemys geographica) Source: ORAA ESA Status: Special Concern S-Rank: S3	Northern Map Turtles are found in rivers and lakes with emergent rock and logs for basking. Shallow, soft-bottomed habitats are preferred, with wintering occurring in deeper sections (COSEWIC 2002).	None -No suitable aquatic habitat present. None recorded during the field investigation.	
Eastern Foxsnake (Pantherophis vulpinus pop. 2) Source: ORAA; NHIC ESA Status: Endangered S-Rank: S2	Surveys, local telemetry studies, and general species observations, suggest that Eastern Foxsnakes throughout most of the Essex-Kent regional population use mainly unforested, early successional (old field, prairie, marsh, dune-shoreline) habitat during the active season. Foxsnakes are somewhat adept at using anthropogenic structures for hibernation, oviposition, and shelter (COSEWIC 2008b).	Moderate- There are records of these snakes occurring within 1km of the property. (NHIC) Early successional habitat and partially maintained landscape could provide suitable habitat for this species. The presence of small rodents is an attractive food source. There are also buried concrete slabs and a few small soil mounds that could provide hibernation opportunities. The nearby railway corridor would serve as a connection point to the general area. Snakes could potentially access the property by moving through the agricultural field, and crossing Catherine St. None recorded during the field investigation.	



Species Name, Status, and Data Source	Preferred Habitat	Potential for SAR Habitat/Occurrence in the Study Area
Butler's Gartersnake (Thamnophis butleri)	Butler's Gartersnake habitat has been described as "chiefly open prairie-like areas" with dense grasses, including	Low -The lack of significant patches of un- mowed or thatch meadow habitat greatly reduces the likelihood of encountering this
Source: ORAA ESA Status: Endangered S-Rank: S2	tallgrass prairie, along drainage swales, seasonally dry marshes, or other small bodies of water (COSEWIC 2010). This species will also use abandoned farm field and old overgrown meadows with a thick thatch layer.	species. Constant mowing in the southern portion of the property and in the adjacent western property reduces the likelihood of this species being present. None recorded during the field investigation.
Plants		
Climbing Prairie Rose	The Climbing Prairie Rose is found in old	Low-There are records of this plant
(Rosa setigera)	fields, abandoned agricultural land, prairie remnants, and shrub thickets. (MECP,	occurring within 1km of the property. (NHIC) Due to the presence of early
Source: NHIC ESA Status: Special Concern	2021)	successional forest and thick canopy covering most of the site, there is a lack of
S-Rank: S2S3		habitat available to this species. The only suitable habitat would be in the north end of the site were the canopy is partially open. None recorded during the field
		investigation.

Notes: Subnational Provincial S-Rank: S1 - Critically imperiled in Ontario; S2 - Imperiled in Ontario; S3 - Vulnerable in Ontario; S4 - Common and apparently secure in Ontario; S5 - Secure; S#B - Breeding; S#N - Nonbreeding; ?– Uncertainty; SNA – Not applicable; a conservation status rank is not applicable because the species is not a suitable target for conservation activities.

Conclusion

Species at Risk snakes are known to exist within the Little River Corridor and the nearby rail corridor. While the potential for encountering a Butlers Gartersnake on this property is unlikely, the Eastern Foxsnake would be a species more likely to be encountered. Due to the lack of thick meadow that Butlers Gartersnakes prefer, this property would be mostly unsuitable for this species. On the other hand, Eastern Foxsnakes have been known to use early successional forest habitat. Many small rodents were seen utilizing garbage and other debris on the property during the field investigation. This would be an attractive food source for any Eastern Foxsnakes in the area. Large concretes slabs that were half buried were observed during the site visit. (Figure 1) Small trees were growing out of some of these piles opening gabs where snakes could get down underneath. These features would potentially make suitable hibernation sites for snakes. However, due to the small size of the property and the lack of connectivity to nearby natural areas the likelihood of encountering an Eastern Foxsnake is still only moderate.

The property provides suitable habitat for Eastern Foxsnakes. However, the property is highly fragmented from surrounding natural heritage features, meaning snake movement into/out of the property would be a challenge due to the busy roadways, parking lots and commercial developments that surround the site. As mentioned in Table 1, the most likely access point for an Eastern Foxsnake would be to cross the agricultural field to the north, then cross St. Catherines Street. Due to its small size and high level of disturbance, the property would not support an isolated population of SAR snakes, there would a requirement to have access



to a larger and more contiguous natural area. No SAR species were observed during the detailed field investigation.

At a minimum, the following mitigation measures should be included in a project mitigation plan to avoid and/or minimize impacts or encounters with the species noted in Table 1 above.

- Species-specific avoidance and/or mitigation measures should be developed.
- The Ministry of the Environment, Conservation and Parks (MECP) should be consulted regarding the need for project permitting or registration.
- Work activities that require vegetation removal should be undertaken outside of the breeding bird window. The breeding bird window for Zone C1 is late March to late August.
- All on-site personnel and subcontractors will be made aware of the potential for SAR encounters, specifically the Eastern Foxsnake and Butler's Gartersnake.
- If a SAR is found during project activities, and does not have existing species-specific mitigation, work should stop immediately and the Ministry of the Environment, Conservation and Parks should be consulted to move forward.
- A qualified Species at Risk biologist should be present on site while any habitat features are being removed.



CLOSURE

This document is intended for the exclusive use of the City of Windsor and WSP for the purpose of supporting the species at risk assessment of 7310 Tecumseh Road. (IM23104032) and to meet expectations under the *Endangered Species Act*, 2007. The survey methods and recommendations as outlined herein are based on the expertise of WSP, the information available at the time of document preparation, and on the assumptions and interpretation of the project scope of work, permits and any other regulatory compliance requirements.

Sincerely,

WSP E&I Canada Limited

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Biologist

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- COSEWIC. 2018. COSEWIC assessment and status report on the Common Nighthawk (*Chordeiles minor*) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xi + 50 pp. (Species at Risk Public Registry).
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Figure 1

Study Area and Potential Species at Risk Features





Attachment 1

Representative Photographs

SAR Field Inspection Photos - July 11, 2023





