

Appendix D

Natural Environment

BACKGROUND REVIEW

*6th Concession / North Talbot Road
Environmental Assessment*

October 2014

13-8295

Prepared for:
The City of Windsor
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TABLE OF CONTENTS

1.0	Project Study Area.....	1
2.0	Information Sources	1
3.0	Land Use and Natural Environment Designations.....	4
4.0	Natural Features	4
4.1	<i>Provincial Parks and Conservation Areas</i>	4
4.2	<i>ANSI, Life Science</i>	4
4.3	<i>ANSI, Earth Science</i>	5
4.4	<i>Valleylands</i>	5
4.5	<i>Wetlands</i>	5
4.6	<i>Woodlands</i>	5
4.7	<i>Environmentally Significant Areas</i>	5
4.8	<i>Watercourses and Watercourse Crossings</i>	5
4.9	<i>Soils and Surrounding Landscape</i>	6
5.0	Wildlife Species Diversity.....	6
5.1	<i>Plants</i>	6
5.2	<i>Birds</i>	6
5.3	<i>Mammals</i>	6
5.4	<i>Herpetozoa</i>	7
5.5	<i>Odonata</i>	7
5.6	<i>Aquatic Species</i>	7
5.7	<i>Significant Wildlife Habitat</i>	9
5.8	<i>Fish Habitat</i>	10
5.9	<i>Species at Risk and Species of Conservation Concern</i>	10
6.0	Conclusion	21
7.0	References	22

LIST OF TABLES

Table 1: Records and Resources Searched and Analyzed	1
Table 2: SAR (listed as <i>Endangered</i> and/or <i>Threatened</i> in Ontario) and SOCC (provincial S-Rank of S1 to S3) with the Potential to Occur in the Project Study Area	7
Table 3: SAR (listed as <i>Endangered</i> and/or <i>Threatened</i> in Ontario) and SOCC (provincial S-Rank of S1 to S3) with Potential to be observed within the Project Study Area Based on their Habitat Requirements.....	11

LIST OF FIGURES

Figure 1: Project Study Area.....	3
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APPENDICES

Appendix A: Supplementary Information
Appendix B: Species List

1.0 PROJECT STUDY AREA

The Project Study Area is comprised of two rectangular areas of land. The first section is oriented approximately north to south, and surrounds 6th Concession Road, between Cabana Road East to the north and North Talbot Road to the south. The second section is oriented approximately east to west, and surrounds North Talbot Road between Howard Avenue to the west and Highway 401 to the east. The boundaries of the Project Study Area Setback extend approximately 120 m from the edges of the 6th Concession Road and North Talbot Road. *Figure 1* provides a map of the Project Study Area and its surrounding boundaries.

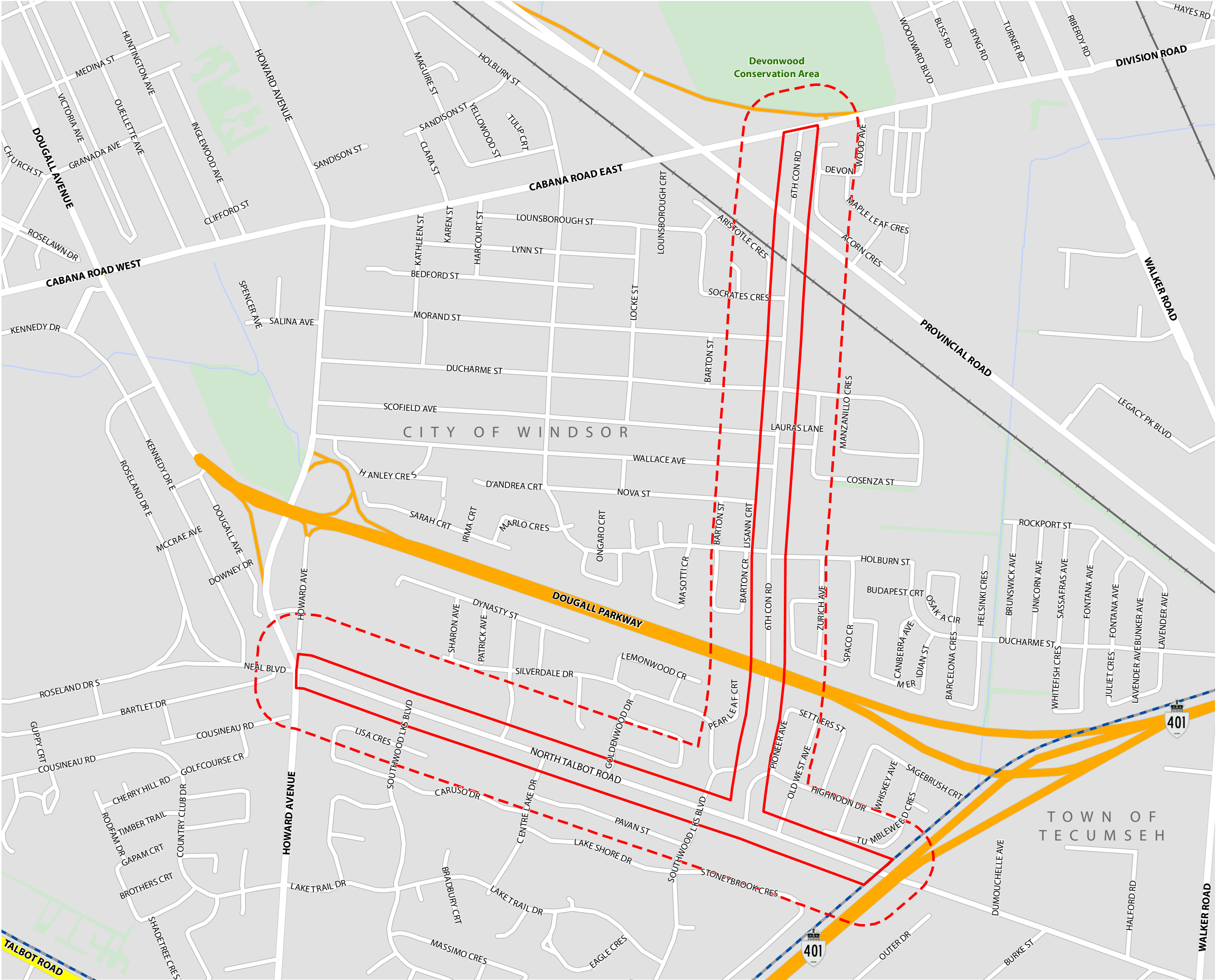
2.0 INFORMATION SOURCES

Several sources formed the basis of this background review, to establish the possible presence of natural features, Species at Risk (SAR), Species of Conservation Concern (SOCC), and Significant Wildlife Habitat (SWH), as well as potential land use restrictions, on or immediately adjacent to the Project Study Area. These sources are listed in *Table 1* below.

Table 1: Records and Resources Searched and Analyzed

RECORD SOURCE		RECORDS REVIEWED
ONTARIO MINISTRY OF NATURAL RESOURCES (MNR)		
District Office: Aylmer		Contact: Kathryn Markham, Species at Risk Biologist
Date of Request: November 19, 2013	Date of Data Receipt: Pending	Records relating to natural features and flora and fauna SAR.
Manuals and Guidelines		<ul style="list-style-type: none"> ▪ Natural Heritage Reference Manual, Second Edition, 2010 ▪ Significant Wildlife Habitat Technical Guide, Appendices and Ecoregion Criteria Schedules ▪ Rare Vascular Plants of Ontario, Fourth Edition, 2009
Land Information Ontario, data requested/accessed November, 2013		Interactive Online Mapping Tool Warehouse Data
Natural Heritage Information Centre (NHIC), online data accessed November, 2013 1 km squares: 17LG37, 17LG58, 17LG59, 17LG60, 17LG68, 17LG69 and 17LG78.		<ul style="list-style-type: none"> ▪ Biodiversity Explorer; <ul style="list-style-type: none"> ▪ Rare species ▪ Rare plant communities ▪ Natural areas ▪ Invasive species ▪ Wildlife Concentration Areas ▪ Ontario Herpetofaunal Summary Atlas; and ▪ Ontario Odonata Atlas.
MNR Species at Risk in Ontario (SARO) List, accessed November, 2013		Accessed to determine status of wildlife species as Species of Conservation Concern or Species at Risk
FEDERAL GOVERNMENT		
Species at Risk Public Registry, accessed November, 2013		Accessed to determine status of wildlife species as a Species of Conservation Concern or a Species at Risk
COSEWIC, accessed November, 2013		Accessed to determine status of wildlife species as Species of Conservation Concern, Species at Risk, or priority candidate

RECORD SOURCE		RECORDS REVIEWED
		species for COSWEIC review
Fisheries and Oceans Canada (DFO)		Maps of the distribution of Fish and Mussel Species at Risk within the Essex Region Conservation Authority watershed
CONSERVATION AUTHORITY		
Essex Region Conservation Authority		Contact: Dan Lebedyk, Conservation Biologist
Date of Request: November 19, 2013	Date of Receipt: November 21, 2013	Records relating to natural features and both wildlife and aquatic SAR.
Manuals and data		<ul style="list-style-type: none"> ▪ Essex Region Biodiversity Conservation Strategy; ▪ County of Essex Online GIS Database; ▪ Map of the Sub-watershed Boundaries of the ERCA; and ▪ Environmentally Significant Areas of the Essex Region.
MUNICIPALITY		
City of Windsor		Official Plan, Volume I, Schedule A
Township of Sandwich South		Official Plan, Schedule A-2
OTHER RESOURCES		
Ontario Breeding Birds Atlas (OBBA) - online data accessed November, 2013		Species occurrence records for OBBA square 17LG37 in Region #1 Essex
Soil Survey of Essex County. Report No. 11 of the Ontario Soil Survey.		Soil Survey Map of Essex County



**6TH CONCESSION /
NORTH TALBOT ROAD EA**

BACKGROUND REVIEW
FIGURE 1

- Study Area
- 120 m Study Area Setback
- Municipal Boundary
- Railway
- Watercourse
- Waterbody
- Woodland

1:11,000
0 50 100 200 300 m



MAP DRAWING INFORMATION:
DATA PROVIDED BY MNR

MAP CREATED BY: GM
MAP CHECKED BY: DB
MAP PROJECTION: NAD 1983 UTM Zone 17N

FILE LOCATION:
I:\GIS\138295 - North Talbot Windsor EA\Mapping\Background Review.mxd



PROJECT: 11-1234
STATUS: DRAFT
DATE: 08/24/11

3.0 LAND USE AND NATURAL ENVIRONMENT DESIGNATIONS

The Project Study Area is located entirely within the City of Windsor. According to the City's Official Plan, Schedule A, the majority of the Project Study Area is located within the Roseland planning district (*Appendix A*). The portion of the Project Study Area located north of the Canadian National Railway rail line running parallel to and southwest of Provincial Road is located within the Devonshire planning district (*Appendix A*). A small portion of the 120 m Project Study Area Setback falls within the Town of Tecumseh - Township of Sandwich South - Oldcatsle Hamlet and Baseline Road Hamlet Urban Area. According to Schedule A-2 of the Township of Sandwich Official Plan, the land use within this area has been designated as Business Park (*Appendix A*). The Project Study Area does not contain lands that are part of the Ontario Greenbelt Plan Area, the Niagara Escarpment Plan Area, or any other provincial plan area.

Lands within the Project Study Area and associated setback fall within the jurisdictional boundaries of the Aylmer Ministry of Natural Resources (MNR) District, as well as the Essex Region Conservation Authority (ERCA).

4.0 NATURAL FEATURES

Based on review and analyses of the records and resources listed in *Table 1*, the presence of natural features is documented below, with determinations regarding natural features of relevance to the Project Study Area.

4.1 PROVINCIAL PARKS AND CONSERVATION AREAS

A search and analysis of the records and resources outlined in *Table 1* identified no provincial parks within the Project Study Area. A single Conservation Area, the Devonwood Conservation Area, administered by the ERCA, is located within 120 metres of the Project Study Area, north of Division Road. As a result, the Devonwood Conservation Area is subject to this background review.

Devonwood Conservation Area

The Devonwood Conservation Area is a 44 ha forest. The dominant soil series of the Devonwood Conservation Area is the Brookston Clay loam, with poor natural drainage. Dominant tree species include Red and White Ash, White Elm, Red, Pin and Bur Oak, Shagbark Hickory and Silver Maple. Parts of the woodlot are managed for forestry by the ERCA. A picnic area and nature trails throughout the Devonwood Conservation Area's interior provide recreational opportunities for the public. The Devonwood Conservation Area is home to eight oak species; White Oak (*Quercus alba*), Swamp White Oak (*Quercus bicolor*), Bur Oak (*Quercus macrocarpa*), Chinquapin Oak (*Quercus muehlenbergii*), Pin Oak (*Quercus palustris*), Red Oak (*Quercus rubra*), Shumard Oak (*Quercus shumardii*) and Black Oak (*Quercus velutina*). The Devonwood Conservation Area is home to one SAR, Kentucky Coffee-tree (*Gymnocladus dioica*) listed as *Threatened* within Ontario, and 12 SOCC (provincial S-Rank of S1 to S3). Refer to *Table 2* and *Section 5.9* for a complete list of SAR and SOCC.

4.2 ANSI, LIFE SCIENCE

A search and analysis of the records and resources outlined in *Table 1* identified no Life Science ANSI within the Project Study Area. However, the Devonwood Conservation Area located within the Project

Study Area Setback, is classified by the Natural Heritage Information Centre (NHIC) as a Life Science ANSI.

4.3 ANSI, EARTH SCIENCE

A search and analysis of the records and resources outlined in *Table 1* identified no Earth Science ANSI in close proximity to the Project Study Area.

4.4 VALLEYLANDS

A search and analysis of the records and resources outlined in *Table 1* identified no valleylands in close proximity to the Project Study Area.

4.5 WETLANDS

A search and analysis of the records and resources outlined in *Table 1* identified no wetlands within the Project Study Area.

4.6 WOODLANDS

A search and analysis of the records and resources outlined in *Table 1* identified a single woodland associated with the Devonwood Conservation Area, within 120 metres of the Project Study Area.

4.7 ENVIRONMENTALLY SIGNIFICANT AREAS

A search and analysis of the records and resources outlined in *Table 1* identified a single Environmentally Significant Area (ESA), the Devonwood Conservation Area, within 120 metres of the Project Study Area (*Figure 1*).

Devonwood Conservation Area

The Devonwood Conservation Area is considered an ESA as a result of its significant presence of eight Oak species.

4.8 WATERCOURSES AND WATERCOURSE CROSSINGS

The Project Study Area is located within two sub-watershed catchment areas of the ERCA watershed catchment area. The portion of the Project Study Area located to the east of 6th Concession Road and northeast of Dougall Parkway is within the Little River sub-watershed. The portion of the Project Study Area located west of 6th Concession Road and southwest of Dougall Parkway is within the Turkey Creek sub-watershed.

A search and analysis of the records and resources outlined in *Table 1* identified no watercourses or watercourse crossings within the Project Study Area.

4.9 SOILS AND SURROUNDING LANDSCAPE

The dominant soil series in the northeast portion of the Project Study Area, along 6th Concession Road is the Brookston Clay Loam series. This soil is characterized by dark clay loam over mottled, blue-grey gritty clay loam, with few stones. Topography is generally level, and natural drainage is generally poor (Richard *et al*, 1949).

The dominant soil series in the southwest portion of the Project Study Area, along North Talbot Road is the Brookston Clay Sand Spot Phase. It is characterized by mixed areas of shallow sand knolls less the one metre over clay intermixed with Brookston Clay and Brookston Clay Loam. Topography is generally level, and natural drainage is generally poor (Richard *et al*, 1949).

5.0 WILDLIFE SPECIES DIVERSITY

From review of secondary source databases and wildlife atlases outlined in *Table 1*, various plant and animal species were identified as potentially occurring in or in close proximity to the Project Study Area. These species are discussed below and are outlined in *Appendix B*. The applicability of these species will be determined during field studies.

5.1 PLANTS

From review of the NHIC database and information received from the MNR, 52 plant species were identified as potentially occurring within or adjacent to the Project Study Area. Of these 52 species, seven are listed as SAR (listed as *Endangered* and/or *Threatened* both within Ontario and nationally) and 41 are listed as SOCC (provincial S-Rank of S1 to S3) (*Table 2* and *Appendix B*). The species identified in *Table 2* are further discussed in *Section 5.9*.

5.2 BIRDS

From review of records in the Ontario Breeding Bird Atlas (OBBA) (Cadman *et al.*, 2005; OBBA Mapping Square 17LG37), no avian species were identified as potentially occurring in the areas within or adjacent to the Project Study Area during migratory or breeding seasons. From review of records in the NHIC database, no avian SAR (*Endangered* and/or *Threatened* within Ontario), or SOCC (provincial S-Rank of S1 to S3) were identified as potentially occurring in the areas within or adjacent to the Project Study Area.

5.3 MAMMALS

From review of the NHIC database and the Ontario Mammals Atlas, 15 mammalian species have the potential to occur in the Project Study Area (*Appendix B*).

All mammal species that have the potential to occur in the Project Study Area are considered Secure (provincial S-Rank of S5) or Apparently Secure (provincial S-Rank of S4) in Ontario. Of the 15 species with the potential to occur in the Project Study Area, none are considered SAR (*Endangered* and/or *Threatened* within Ontario), and/or SOCC.

5.4 HERPETOZOA

From review of the Ontario Herpetofaunal Atlas (Oldham and Weller, 2000), the Ontario Nature Atlas, and the NHIC database, nine herpetozoa (reptile and amphibian) species have occurrence records within or near the Project Study Area (*Appendix B*).

The majority of the herpetozoa species that have the potential to occur in the Project Study Area are considered Secure (provincial S-Rank of S5) or Apparently Secure (provincial S-Rank of S4) in Ontario. Of the nine species, three are listed as SAR (*Endangered* and/or *Threatened* both within Ontario and Nationally), while none are considered SOCC (*Table 2*). The species identified in *Table 2* are further discussed in *Section 5.9*.

5.5 ODONATA

The Ontario Odonata Atlas (2005) and the MNR NHIC database were reviewed to determine the potential for odonata (dragonflies and damselflies) to occur in the Project Study Area (*Appendix B*). A total of 25 species had occurrence records within or near the Project Study Area.

The majority of the Odonata species that have the potential to occur in the Project Study Area are considered Secure (provincial S-Rank of S5) or Apparently Secure (provincial S-Rank of S4) in Ontario. Of the 25 species, none are listed as SAR, while three are SOCC (provincial S-Rank of S1 to S3) (*Table 2*). The species identified in *Table 2* are further discussed in *Section 5.9*.

5.6 AQUATIC SPECIES

From review of the records and resources listed in *Table 1*, no aquatic species were found to occur within the Project Study Area. Review of the Department of Fisheries and Oceans (DFO) maps of the distribution of fish and SAR mussels within the ERCA watershed identified no species and/or critical habitat for aquatic species within the Project Study Area.

Table 2: SAR (listed as *Endangered* and/or *Threatened* in Ontario) and SOCC (provincial S-Rank of S1 to S3) with the Potential to Occur in the Project Study Area

Scientific Name	Common Name	SARA	ESA 2007	SRank	Information Source
Plants					
<i>Castanea dentata</i>	American Chestnut	END	END	S3	MNR
<i>Gentiana alba</i>	White Prairie Gentian	END	END	S1	NHIC
<i>Gymnocladus dioicus</i>	Kentucky Coffee-tree	THR	THR	S2	ERCA
<i>Liatris spicata</i>	Dense Blazing Star	THR	THR	S3	MNR
<i>Lipocarpa micrantha</i>	Small-flowered Lipocarpa	END	THR	S2	NHIC
<i>Plantago cordata</i>	Heart-leaved Plantain	END	END	S1	NHIC
<i>Symphyotrichum praealtum</i>	Willowleaf Aster	THR	THR	S2	MNR
<i>Allium cernuum</i>	Nodding Onion	---	---	S2	NHIC
<i>Arisaema dracontium</i>	Green Dragon	SC	SC	S3	NHIC

Scientific Name	Common Name	SARA	ESA 2007	SRank	Information Source
<i>Asclepias sullivantii</i>	Prairie Milkweed	---	---	S3	NHIC
<i>Asclepias viridiflora</i>	Green Cornet Milkweed	---	---	S2	NHIC
<i>Asterocampa celtis</i>	Hackberry Emperor	---	---	S2	NHIC
<i>Bidens trichosperma</i>	Crowned Beggarticks	---	---	S2	NHIC
<i>Campsis radicans</i>	Trumpet Creeper	---	---	S2?	NHIC
<i>Carex frankii</i>	Frank's Sedge	---	---	S2	NHIC
<i>Carex gracilescens</i>	Slender Wood Sedge	---	---	S3	ERCA
<i>Carex gravida</i>	Heavy Sedge	---	---	S1	NHIC
<i>Carex muskingumensis</i>	Swamp Sedge	---	---	S3	NHIC
<i>Carex squarrosa</i>	Narrow-leaved Cattail Sedge	---	---	S2	NHIC
<i>Carya laciniosa</i>	Shellbark Hickory	---	---	S3	NHIC
<i>Coreopsis tripteris</i>	Tall Tickseed	---	---	S2	NHIC
<i>Cuscuta campestris</i>	Field Dodder	---	---	S2	NHIC
<i>Cystopteris protrusa</i>	Lowland Brittle Fern	---	---	S2	NHIC
<i>Desmodium canescens</i>	Hoary Tick-trefoil	---	---	S2	NHIC
<i>Dichanthelium commonsianum</i>	Commons' Panicgrass	---	---	S1	NHIC
<i>Euonymus atropurpureus</i>	Burning Bush	---	---	S3	NHIC
<i>Euphorbia spathulata</i>	Blunt-leaved Spurge	---	---	S1	NHIC
<i>Heuchera americana</i>	American Alumroot	---	---	S2	NHIC
<i>Iris lacustris</i>	Dwarf Lake Iris	SC	SC	S3	NHIC
<i>Linum virginianum</i>	Woodland Flax	---	---	S2	NHIC
<i>Lycopus rubellus</i>	Taper-leaved Bugleweed	---	---	S3	NHIC
<i>Mertensia virginica</i>	Virginia Lungwort	---	---	S3	NHIC
<i>Nuphar advena</i>	Large Yellow Pond-lily	---	---	S3	NHIC
<i>Oenothera gaura</i>	Biennial Gaura	---	---	S3	NHIC
<i>Oxypolis rigidior</i>	Stiff Cowbane	---	---	S2	NHIC
<i>Phyla lanceolata</i>	Northern Fogfruit	---	---	S2	NHIC
<i>Quercus palustris</i>	Pin Oak	---	---	S3	ERCA
<i>Quercus shumardii</i>	Shumard Oak	SC	SC	S3	NHIC
<i>Rosa setigera</i>	Climbing Prairie Rose	SC	SC	S3	ERCA
<i>Silphium perfoliatum</i>	Cup Plant	---	---	S2	NHIC
<i>Silphium terebinthinaceum</i>	Prairie Rosinweed	---	---	S1	NHIC
<i>Smilax ecirrhata</i>	Upright Carrion Flower	---	---	S3	ERCA
<i>Smilax illinoensis</i>	Illinois Carrion Flower	---	---	S2	ERCA

Scientific Name	Common Name	SARA	ESA 2007	SRank	Information Source
<i>Solidago rigida</i> spp. <i>rigida</i>	Still-leaved Goldenrod	---	---	S3	ERCA
<i>Spergularia salina</i>	Saltmarsh Sand-spurrey	---	---	S1	NHIC
<i>Verbesina alternifolia</i>	Wingstem	---	---	S3	NHIC
<i>Vernonia gigantea</i>	Ironweed	---	---	S3	ERCA
<i>Viola striata</i>	Striped Cream Violet	---	---	S3	NHIC
Herpetazoa					
<i>Elaphe gloydi</i>	Eastern Fox Snake (Carolinian Population)	END	END	S2	OHA
<i>Sistrurus catenatus</i>	Eastern Massasauga	THR	THR	S3	OHA
<i>Thamnophis butleri</i>	Butler's Gartersnake	THR	THR	S2	OHA
Odonata					
<i>Argia tibialis</i>	Blue-tipped Dancer	---	---	S3	OOA
<i>Macromia taeniolata</i>	Royal River Cruiser	---	---	S1	OOA
<i>Stylurus notatus</i>	Elusive Clubtail	---	---	S2	OOA

*Information sources include: NHIC = Natural Heritage Information Centre; MNR = Ministry of Natural Resources; OHA = Ontario Herptofaunal Atlas; OOA = Ontario Odonata Atlas; ERCA = Essex Region Conservation Authority; --- denotes no information or not applicable.

5.7 SIGNIFICANT WILDLIFE HABITAT

A review of wildlife habitat in the Project Study Area was completed using readily available secondary source information. Based on this information, existing records of wildlife habitat and applicable species potentially occurring within the Project Study Area are discussed in the sections below. Other potential candidate wildlife habitat related to this Ecoregion will be reviewed during field studies. The wildlife habitat that has been identified within and/or adjacent to the Project Study Area (i.e., within 1 km) is discussed below and displayed on *Figure 1*, where applicable.

Seasonal Concentration Areas

A search and analysis of the records and resources outlined in *Table 1* did not identify any Seasonal Concentration Areas within or in close proximity to the Project Study Area.

Rare Vegetation Communities

A search and analysis of the records and resources outlined in *Table 1* did not identify any Rare Vegetation Communities within or in close proximity to the Project Study Area.

Specialised Wildlife Habitat

A search and analysis of the records and resources outlined in *Table 1* did not identify any Specialized Wildlife Habitat within or in close proximity to the Project Study Area.

Habitat of Species of Conservation Concern

A search and analysis of the records and resources outlined in *Table 1* identified several SOCC (provincial S-Rank of S1 to S3) with the potential to occur in the Project Study Area. These species are further discussed in *Section 5.9* and outlined in detail with respect to their status in *Appendix B*. Many of the SOCC with the potential to occur within the Project Study Area are associated with the Devonwood Conservation Area, located within the 120 metre Project Study Area Setback.

Animal Movement Corridors

A search and analysis of the records and resources outlined in *Table 1* did not identify any Animal Movement Corridors in or in close proximity to the Project Study Area.

5.8 FISH HABITAT

A search and analysis of the records and resources outlined in *Table 1* did not identify any fish habitat within or in close proximity to the Project Study Area.

5.9 SPECIES AT RISK AND SPECIES OF CONSERVATION CONCERN

In Ontario, the *Endangered Species Act (ESA), 2007* was developed to protect wildlife species in the province. The ESA provides two types of habitat protection: “general” and “regulated”. When a species is newly listed as *Endangered* or *Threatened* on the Species at Risk in Ontario (SARO) list, its habitat is also protected under the ESA. Further, effective June 30, 2013, an additional 65 species in Ontario now receive general habitat protection. These species previously only had species protection and a permit was typically not required through abiding by timing windows. Development within this protected habitat may now require a permit.

The area of habitat protected is based on a general habitat definition found in the Act. The definition of general habitat applies to areas that a species currently depends on. This protection remains in place until a species-specific habitat regulation is created. When a species is added to the SARO list, the process of identifying species-specific (or regulated) habitat begins. A habitat regulation provides greater certainty of what is meant by a species habitat. It may describe features of the area or geographic boundaries. The description may include areas where the species is found, has been found in the past, as well as areas that may be important to a species’ recovery. A species-specific habitat regulation is the legal description of a species habitat. Once a species-specific habitat regulation is created, it replaces the general habitat described above.

The evaluation of the Project Study Area for suitability as habitat for SAR and SOCC is discussed in *Table 3*. Information provided within this table relating to existing conditions within the Project Study Area will be refined as information is collected during field studies. The final determination of species relevant to the Project Study Area will be completed in consultation with the MNR and the ERCA.

Table 3: SAR (listed as *Endangered* and/or *Threatened in Ontario*) and SOCC (provincial S-Rank of S1 to S3) with Potential to be observed within the Project Study Area Based on their Habitat Requirements.

Scientific Name	Common Name	SARA Status	ESA 2007 Status	S-Rank	Information Source	Habitat Requirement	Potential Habitat in the Project Study Area and/or 120 m Setback (Yes/No)	Rationale
Plants								
Species at Risk								
<i>Castanea dentata</i>	American Chestnut	END	END	S3	MNR	Dry upland deciduous forests with sandy soils.	No	This species has not been observed within the Devonwood Conservation Area.
<i>Gentiana alba</i>	White Prairie Gentian	END	END	S1	NHIC	Dry to mesic oak savannah on silty-loam soil.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Gymnocladus dioicus</i>	Kentucky Coffee-tree	THR	THR	S2	ERCA	Floodplains, edges of marshes and shallow soil over limestone.	Yes	This species has been identified within the Devonwood Conservation Area.
<i>Liatris spicata</i>	Dense Blazing Star	THR	THR	S3	MNR	Moist prairies, grassland savannahs, wet areas between sand dunes, and abandoned fields.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Lipocarpha micrantha</i>	Small-flowered Lipocarpha	END	THR	S2	NHIC	Moist sandy shores.	No	Required habitat not within the Study Area. The Project Study Area is dominated by residential housing.
<i>Plantago cordata</i>	Heart-leaved	END	END	S1	NHIC	Moist woods,	Yes	The habitat associated with

Scientific Name	Common Name	SARA Status	ESA 2007 Status	S-Rank	Information Source	Habitat Requirement	Potential Habitat in the Project Study Area and/or 120 m Setback (Yes/No)	Rationale
	Plantain					streams, swamps and wet ditches.		the Devonwood Conservation Area may support this species.
<i>Symphotrichum praealtum</i>	Willowleaf Aster	THR	THR	S2	MNR	Openings of oak savannahs, railways, roadsides and abandoned farm fields.	Yes	This species has the potential to be observed along the 6 th Concession road right-of-way (RoW).
Species of Conservation Concern								
<i>Allium cernuum</i>	Nodding Onion	---	---	S2	NHIC	Dry woods, rocky banks and prairies.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Arisaema dracontium</i>	Green Dragon	SC	SC	S3	NHIC	Wet bottomlands along rivers and creeks.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Asclepias sullivantii</i>	Prairie Milkweed	---	---	S3	NHIC	Wet meadows and prairies, and adventive along roadsides.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Asclepias viridiflora</i>	Green Cornet Milkweed	---	---	S2	NHIC	Open sandy woods and sand dunes, savannah and alvar.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Asterocampa celtis</i>	Hackberry	---	---	S2	NHIC	Deciduous woods	Yes	The habitat associated with

Scientific Name	Common Name	SARA Status	ESA 2007 Status	S-Rank	Information Source	Habitat Requirement	Potential Habitat in the Project Study Area and/or 120 m Setback (Yes/No)	Rationale
	Emperor					with hostplant, Hackberry (<i>Celtis</i>)		the Devonwood Conservation Area may support this species.
<i>Bidens trichosperma</i>	Crowned Beggarticks	---	---	S2	NHIC	Sun; wet; swamps, marshes, along shores, wet fields.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Campsis radicans</i>	Trumpet Creeper	---	---	S2?	NHIC	Open, deciduous woods and hedgerows.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Carex frankii</i>	Frank's Sedge	---	---	S2	NHIC	Moist habitats.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Carex gracilescens</i>	Slender Wood Sedge	---	---	S3	ERCA	Wet-mesic hardwood forest	Yes	This species has been identified within the Devonwood Conservation Area.
<i>Carex gravida</i>	Heavy Sedge	---	---	S1	NHIC	Dry open ground, prairie.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Carex muskingumensis</i>	Muskingum Sedge	---	---	S3	NHIC	Wet-mesic hardwood forest.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Carex squarrosa</i>	Squarrose Sedge	---	---	S2	NHIC	Mesic to wet hardwood forests,	Yes	The habitat associated with the Devonwood Conservation

Scientific Name	Common Name	SARA Status	ESA 2007 Status	S-Rank	Information Source	Habitat Requirement	Potential Habitat in the Project Study Area and/or 120 m Setback (Yes/No)	Rationale
						often on floodplains.		Area may support this species.
<i>Carya laciniosa</i>	Shellbark Hickory	---	---	S3	NHIC	Wet or wet-mesic deciduous forests.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Coreopsis tripteris</i>	Tall Tickseed	---	---	S2	NHIC	Damp prairies, thickets, open woods.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Cuscuta campestris</i>	Field Dodder	---	---	S2	NHIC	Marsh, creek banks and pond margins; also cultivated fields – parasitic on <i>Ambrosia</i> , <i>Aster</i> , <i>Bidens</i> , <i>Circaea</i> , <i>Daucus</i> , <i>Linum</i> , <i>Malva</i> , <i>Medicago</i> , <i>Melilotus</i> , <i>Polygonum</i> and <i>Trifolium</i> .	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Cystopteris protrusa</i>	Lowland Brittle Fern	---	---	S2	NHIC	Open deciduous woodlands on sandy loam; alluvial river terraces and hillsides that border streams or rivers.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing..
<i>Desmodium canescens</i>	Hoary Tick-trefoil	---	---	S2	NHIC	Sandy woods and thickets and open	No	Required habitat not within the Project Study Area. The

Scientific Name	Common Name	SARA Status	ESA 2007 Status	S-Rank	Information Source	Habitat Requirement	Potential Habitat in the Project Study Area and/or 120 m Setback (Yes/No)	Rationale
						river banks.		Project Study Area is dominated by residential housing.
<i>Dichanthelium commonsianum</i>	Commons' Panicgrass	---	---	S1	NHIC	Dry, sandy habitat, sandy barrens; dry pine-oak woods with moderate disturbance.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Euonymus atropurpureus</i>	Burning Bush	---	---	S3	NHIC	Dry to moist thickets and woods.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Euphorbia spathulata</i>	Blunt-leaved Spurge	---	---	S1	NHIC	Disturbed slopes.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Heuchera americana</i>	American Alumroot	---	---	S2	NHIC	Dry locations, rocky open woodlands, along ledges, in crevices of bluffs.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Iris lacustris</i>	Dwarf Lake Iris	SC	SC	S3	NHIC	Dunes, sandy woods and shallow soil over limestone.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Linum virginianum</i>	Woodland Flax	---	---	S2	NHIC	Dry, open woods and adjacent fields.	Yes	The habitat associated with the Devonwood Conservation Area may support this

Scientific Name	Common Name	SARA Status	ESA 2007 Status	S-Rank	Information Source	Habitat Requirement	Potential Habitat in the Project Study Area and/or 120 m Setback (Yes/No)	Rationale
								species.
<i>Lycopus rubellus</i>	Taper-leaved Bugleweed	---	---	S3	NHIC	Swampy thickets, woodlands and forests.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Mertensia virginica</i>	Virginia Lungwort	---	---	S3	NHIC	Wet to mesic woodlands, semi-shaded floodplain along rivers, bluffs.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Nuphar advena</i>	Large Yellow Pond-lily	---	---	S3	NHIC	Shallow wetlands with approximately 1-5' of water and muddy bottom.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Oenothera gaura</i>	Biennial Gaura	---	---	S3	NHIC	Sandy soil, dry prairies and roadsides.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Oxypolis rigidior</i>	Stiff Cowbane	---	---	S2	NHIC	Moist, sandy-clay prairies; rich wet to mesic hardwood forests; sandy swampy woodlands, thickets and meadows; open, sandy fields.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Phyla lanceolata</i>	Northern Fogfruit	---	---	S2	NHIC	Roadside ditches and wet places.	No	Required habitat not within the Project Study Area. The

Scientific Name	Common Name	SARA Status	ESA 2007 Status	S-Rank	Information Source	Habitat Requirement	Potential Habitat in the Project Study Area and/or 120 m Setback (Yes/No)	Rationale
								Project Study Area is dominated by residential housing.
<i>Quercus palustris</i>	Pin Oak	---	---	S3	ERCA	Open habitats or on edges of closed forests	Yes	This species has been identified within the Devonwood Conservation Area.
<i>Quercus shumardii</i>	Shumard Oak	SC	SC	S3	NHIC	Mesic and mesic-hydric sites on clay and clay-loam soils with poor drainage.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Rosa setigera</i>	Prairie Rose	---	---	S3	ERCA	Open woods and thickets	Yes	This species has been identified within the Devonwood Conservation Area.
<i>Silphium perfoliatum</i>	Cup Plant	---	---	S2	NHIC	Riverbanks, floodplains and moist fields.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Silphium terebinthinaceum</i>	Prairie Rosinweed	---	---	S1	NHIC	Wet prairies, thickets and roadsides.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Smilax ecirrhata</i>	Upright Carrion Flower	---	---	S3	ERCA	Rich woods.	Yes	This species has been identified within the Devonwood Conservation Area.

Scientific Name	Common Name	SARA Status	ESA 2007 Status	S-Rank	Information Source	Habitat Requirement	Potential Habitat in the Project Study Area and/or 120 m Setback (Yes/No)	Rationale
<i>Solidago rigida</i>	Stiff-leaved Goldenrod	---	---	S3	ERCA	Dry, sandy soil, prairies and waste places.	Yes	This species has been identified within the Devonwood Conservation Area.
<i>Smilax illinoensis</i>	Illinois Carrion Flower	---	---	S2	ERCA	Rich deciduous forests, thickets, floodplains, river banks and under oaks.	Yes	The Devonwood Conservation Area is deciduous forest and is home to eight oak species.
<i>Spergularia salina</i>	Saltmarsh Sand-spurrey	---	---	S1	NHIC	Coastal, freshwater-marsh.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Verbesina alternifolia</i>	Wingstem	---	---	S3	NHIC	Clay banks, sandy thickets, river banks and rich alluvial woods.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Vernonia gigantea</i>	Ironweed	---	---	S3	NHIC	Mesic prairies, thickets, moist woods, roadsides and grassy meadows.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Viola striata</i>	Striped Cream Violet	---	---	S3	NHIC	Rich, floodplain forests and low, wet woods.	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
Herpetozoa								

Scientific Name	Common Name	SARA Status	ESA 2007 Status	S-Rank	Information Source	Habitat Requirement	Potential Habitat in the Project Study Area and/or 120 m Setback (Yes/No)	Rationale
Species at Risk and Species of Conservation Concern								
<i>Thamnophis butleri</i>	Butler's garter snake	THR	THR	S2	OHA	Wet meadows, pastures, margins of marshes and streams, and open country	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Elaphe gloydi</i>	Eastern fox snake (Carolinian Population)	END	END	S2	OHA	Shrub swamps and bogs; deciduous forest containing openings with shrubs and saplings; prefer woodland-marsh edges for hunting, breeding; in Lake Erie area, often seen near or adjacent to large marshes	Yes	The habitat associated with the Devonwood Conservation Area may support this species.
<i>Sistrurus catenatus</i>	Eastern massasauga	THR	THR	S3	OHA	Upland, old field in summer; marsh, shrub swamp or bog; rivers and streams that provide sedge or low vegetative growth; in fall and winter; hibernate underground in	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.

Scientific Name	Common Name	SARA Status	ESA 2007 Status	S-Rank	Information Source	Habitat Requirement	Potential Habitat in the Project Study Area and/or 120 m Setback (Yes/No)	Rationale
						mammal burrows, under rotting stumps, in rock crevices		
Odonata								
Species of Conservation Concern								
<i>Argia tibialis</i>	Blue-tipped Dancer	---	---	S3	OOA	Streams, rivers, sloughs; usually perches on the ground	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Stylurus notatus</i>	Elusive Clubtail	---	---	S2	OOA	Large rivers and large lakes with sandy bottoms, sometimes also with silt and gravel.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.
<i>Macromia taeniolata</i>	Royal River Cruiser	---	---	S1	OOA	Clean rivers, streams, and lakes.	No	Required habitat not within the Project Study Area. The Project Study Area is dominated by residential housing.

SARA Status according to Federal Species at Risk Act registry; ESA 2007 Status according to Provincial Species at Risk in Ontario list of the Ontario Endangered Species Act, 2007; S-Ranks: S5 = secure, S4 = apparently secure, S3 = vulnerable, S2 = imperilled, S1 = critically imperilled, SX = extirpated from Ontario, SNA = status not available, S#? = status rank uncertain. Information Source: NHIC = Natural Heritage Information Centre; ERCA = Essex Region Conservation Area; OHA = Ontario Herpetofaunal Atlas; OOA = Ontario Odonata Atlas.

6.0 CONCLUSION

This preliminary background review was completed to identify natural features that have the potential to occur in the Project Study Area. Additional details regarding the natural features, including their boundaries, significance and their potential to be affected by the project will be updated as additional information is collected through consultation with the MNR and the ERCA, and as habitat within the Project Study Area is determined through field studies.

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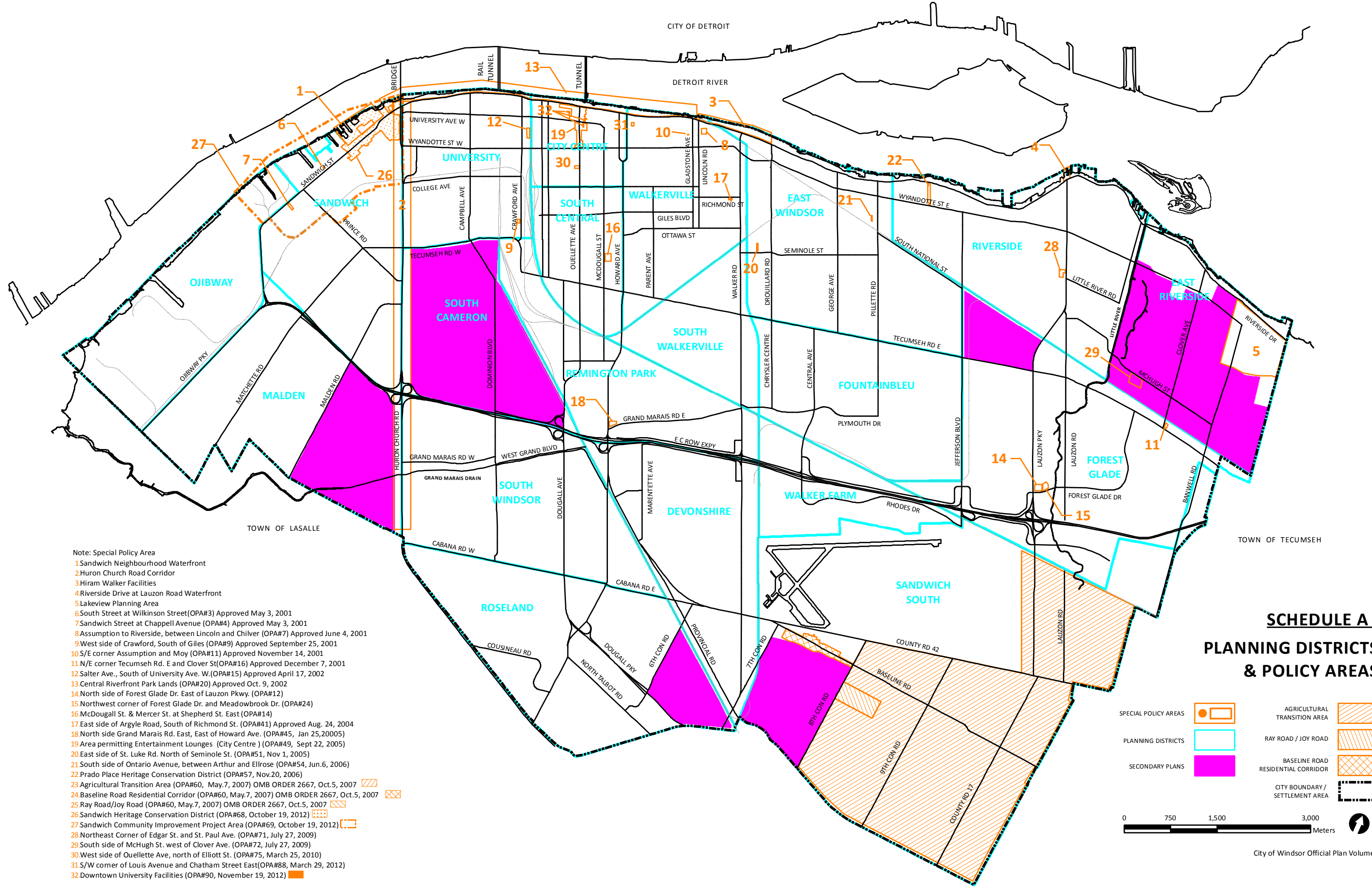
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APPENDIX A

SUPPLEMENTARY INFORMATION



- Note: Special Policy Area
- 1 Sandwich Neighbourhood Waterfront
 - 2 Huron Church Road Corridor
 - 3 Hiram Walker Facilities
 - 4 Riverside Drive at Lauzon Road Waterfront
 - 5 Lakeview Planning Area
 - 6 South Street at Wilkinson Street (OPA#3) Approved May 3, 2001
 - 7 Sandwich Street at Chappell Avenue (OPA#4) Approved May 3, 2001
 - 8 Assumption to Riverside, between Lincoln and Chilver (OPA#7) Approved June 4, 2001
 - 9 West side of Crawford, South of Giles (OPA#9) Approved September 25, 2001
 - 10 S/E corner Assumption and Moy (OPA#11) Approved November 14, 2001
 - 11 N/E corner Tecumseh Rd. E and Clover St (OPA#16) Approved December 7, 2001
 - 12 Salter Ave., South of University Ave. W. (OPA#15) Approved April 17, 2002
 - 13 Central Riverfront Park Lands (OPA#20) Approved Oct. 9, 2002
 - 14 North side of Forest Glade Dr. East of Lauzon Pkwy. (OPA#12)
 - 15 Northwest corner of Forest Glade Dr. and Meadowbrook Dr. (OPA#24)
 - 16 McDougall St. & Mercer St. at Shepherd St. East (OPA#14)
 - 17 East side of Argyle Road, South of Richmond St. (OPA#41) Approved Aug. 24, 2004
 - 18 North side Grand Marais Rd. East, East of Howard Ave. (OPA#45, Jan 25, 20005)
 - 19 Area permitting Entertainment Lounges (City Centre) (OPA#49, Sept 22, 2005)
 - 20 East side of St. Luke Rd. North of Seminole St. (OPA#51, Nov 1, 2005)
 - 21 South side of Ontario Avenue, between Arthur and Ellrose (OPA#54, Jun. 6, 2006)
 - 22 Prado Place Heritage Conservation District (OPA#57, Nov. 20, 2006)
 - 23 Agricultural Transition Area (OPA#60, May. 7, 2007) OMB ORDER 2667, Oct. 5, 2007
 - 24 Baseline Road Residential Corridor (OPA#60, May. 7, 2007) OMB ORDER 2667, Oct. 5, 2007
 - 25 Ray Road/Joy Road (OPA#60, May. 7, 2007) OMB ORDER 2667, Oct. 5, 2007
 - 26 Sandwich Heritage Conservation District (OPA#68, October 19, 2012)
 - 27 Sandwich Community Improvement Project Area (OPA#69, October 19, 2012)
 - 28 Northeast Corner of Edgar St. and St. Paul Ave. (OPA#71, July 27, 2009)
 - 29 South side of McHugh St. west of Clover Ave. (OPA#72, July 27, 2009)
 - 30 West side of Ouellette Ave, north of Elliott St. (OPA#75, March 25, 2010)
 - 31 S/W corner of Louis Avenue and Chatham Street East (OPA#88, March 29, 2012)
 - 32 Downtown University Facilities (OPA#90, November 19, 2012)

SCHEDULE A: PLANNING DISTRICTS & POLICY AREAS

SPECIAL POLICY AREAS

PLANNING DISTRICTS

SECONDARY PLANS

AGRICULTURAL
TRANSITION AREA

RAY ROAD / JOY ROAD

BASLINE ROAD
RESIDENTIAL CORRIDOR

CITY BOUNDARY /
SETTLEMENT AREA

0 750 1,500 3,000
Meters

APPENDIX B
SPECIES LIST

Table B: Species Identified as Potentially Occurring in the Project Study Area

Scientific Name	Common Name	SARA Status	ESA 2007 Status	SRank	Information Source
Plants					
<i>Castanea dentata</i>	American Chestnut	END	END	S3	MNR
<i>Gentiana alba</i>	White Prairie Gentian	END	END	S1	NHIC
<i>Gymnocladus dioicus</i>	Kentucky Coffee-tree	THR	THR	S2	ERCA
<i>Liatris spicata</i>	Dense Blazing Star	THR	THR	S3	MNR
<i>Lipocarpa micrantha</i>	Small-flowered Lipocarpa	END	THR	S2	NHIC
<i>Plantago cordata</i>	Heart-leaved Plantain	END	END	S1	NHIC
<i>Symphotrichum praealtum</i>	Willowleaf Aster	THR	THR	S2	MNR
<i>Allium cernuum</i>	Nodding Onion	---	---	S2	NHIC
<i>Arisaema dracontium</i>	Green Dragon	SC	SC	S3	NHIC
<i>Asclepias sullivantii</i>	Prairie Milkweed	---	---	S3	NHIC
<i>Asclepias viridiflora</i>	Green Cornet Milkweed	---	---	S2	NHIC
<i>Asterocampa celtis</i>	Hackberry Emperor	---	---	S2	NHIC
<i>Bidens trichosperma</i>	Crowned Beggarticks	---	---	S2	NHIC
<i>Campsis radicans</i>	Trumpet Creeper	---	---	S2?	NHIC
<i>Carex frankii</i>	Frank's Sedge	---	---	S2	NHIC
<i>Carex gracilescens</i>	Slender Wood Sedge	---	---	S3	ERCA
<i>Carex gravida</i>	Heavy Sedge	---	---	S1	NHIC
<i>Carex muskingumensis</i>	Swamp Sedge	---	---	S3	NHIC
<i>Carex squarrosa</i>	Narrow-leaved Cattail Sedge	---	---	S2	NHIC
<i>Carya laciniosa</i>	Shellbark Hickory	---	---	S3	NHIC
<i>Coreopsis tripteris</i>	Tall Tickseed	---	---	S2	NHIC
<i>Cuscuta campestris</i>	Field Dodder	---	---	S2	NHIC
<i>Cystopteris protrusa</i>	Lowland Brittle Fern	---	---	S2	NHIC
<i>Desmodium canescens</i>	Hoary Tick-trefoil	---	---	S2	NHIC
<i>Desmodium sessilifolium</i>	Sessile-leaved Tick-trefoil	---	---	SX	NHIC
<i>Dichanthelium commonsianum</i>	Commons' Panicgrass	---	---	S1	NHIC
<i>Euonymus atropurpureus</i>	Burning Bush	---	---	S3	NHIC
<i>Euphorbia spathulata</i>	Blunt-leaved Spurge	---	---	S1	NHIC
<i>Gillenia trifoliata</i>	Bowman's-root	---	---	SX	NHIC
<i>Heuchera americana</i>	American Alumroot	---	---	S2	NHIC
<i>Iris lacustris</i>	Dwarf Lake Iris	SC	SC	S3	NHIC
<i>Lechea minor</i>	Thyme-leaved Pinweed	---	---	SX	NHIC
<i>Linum virginianum</i>	Woodland Flax	---	---	S2	NHIC
<i>Lycopus rubellus</i>	Taper-leaved Bugleweed	---	---	S3	NHIC
<i>Mertensia virginica</i>	Virginia Lungwort	---	---	S3	NHIC

Scientific Name	Common Name	SARA Status	ESA 2007 Status	SRank	Information Source
<i>Nuphar advena</i>	Large Yellow Pond-lily	---	---	S3	NHIC
<i>Oenothera gaura</i>	Biennial Gaura	---	---	S3	NHIC
<i>Oxypolis rigidior</i>	Stiff Cowbane	---	---	S2	NHIC
<i>Phyla lanceolata</i>	Northern Fogfruit	---	---	S2	NHIC
<i>Polygala cruciata</i>	Cross-leaved Milkwort	---	---	SX	NHIC
<i>Quercus palustris</i>	Pin Oak	---	---	S3	ERCA
<i>Quercus shumardii</i>	Shumard Oak	SC	SC	S3	NHIC
<i>Rosa setigera</i>	Prairie Rose	---	---	S3	ERCA
<i>Silphium perfoliatum</i>	Cup Plant	---	---	S2	NHIC
<i>Silphium terebinthinaceum</i>	Prairie Rosinweed	---	---	S1	NHIC
<i>Smilax ecirrhata</i>	Upright Carrion Flower	---	---	S3	ERCA
<i>Smilax illinoensis</i>	Illinois Carrion Flower	---	---	S2	ERCA
<i>Solidago rigida</i>	Stiff-leaved Goldenrod	---	---	S3	ERCA
<i>Spergularia salina</i>	Saltmarsh Sand-spurrey	---	---	S1	NHIC
<i>Verbesina alternifolia</i>	Wingstem	---	---	S3	NHIC
<i>Vernonia gigantea</i>	Ironweed	---	---	S3	NHIC
<i>Viola striata</i>	Striped Cream Violet	---	---	S3	NHIC
Mammals					
<i>Blarina brevicauda</i>	Northern Short-tailed Shrew	---	---	S5	NHIC
<i>Canis latrans</i>	Coyote	---	---	S5	NHIC
<i>Didelphis virginiana</i>	Virginia Opossum	---	---	S4	NHIC
<i>Lasionycteris noctivagans</i>	Silver Haired Bat	---	---	S4	NHIC
<i>Lasiurus borealis</i>	Eastern Red Bat	---	---	S4	NHIC
<i>Marmota monax</i>	Woodchuck	---	---	S5	NHIC
<i>Mephitis mephitis</i>	Striped Skunk	---	---	S5	NHIC
<i>Microtus pennsylvanicus</i>	Meadow Vole	---	---	S5	NHIC
<i>Mustela vison</i>	Mink	---	---	S5	NHIC
<i>Ondatra zibethicus</i>	Muskrat	---	---	S5	NHIC
<i>Procyon lotor</i>	Raccoon	---	---	S5	NHIC
<i>Sciurus carolinensis</i>	Gray Squirrel	---	---	S5	NHIC
<i>Sylvilagus floridanus</i>	Eastern Cottontail	---	---	S5	NHIC
<i>Tamiasciurus hudsonicus</i>	Red Squirrel	---	---	S5	NHIC
<i>Vulpes vulpes</i>	Red Fox	---	---	S5	NHIC
Herpetazoa					
<i>Elaphe gloydi</i>	Eastern Fox Snake (Carolinian Population)	END	END	S2	OHA
<i>Sistrurus catenatus</i>	Eastern Massasauga	THR	THR	S3	OHA
<i>Thamnophis butleri</i>	Butler's Gartersnake	THR	THR	S2	OHA
<i>Bufo americanus</i>	American Toad	---	---	S5	OHA
<i>Pseudacris triseriata</i>	Western Chorus Frog	---	---	S4	OHA
<i>Rana clamitans</i>	Green Frog	---	---	S5	OHA

Scientific Name	Common Name	SARA Status	ESA 2007 Status	SRank	Information Source
<i>Rana sylvatica</i>	Wood Frog	---	---	S5	OHA
<i>Storeria dekayi</i>	Brown Snake	---	---	S5	OHA
<i>Thamnophis sirtalis sirtalis</i>	Eastern Garter Snake	---	---	S5	OHA
Odonata					
<i>Aeshna constricta</i>	Lance-tipped Darner	---	---	S5	OOA
<i>Aeshna umbrosa</i>	Shadow Darner	---	---	S5	OOA
<i>Anax junius</i>	Common Green Darner	---	---	S5	OOA
<i>Argia tibialis</i>	Blue-tipped Dancer	---	---	S3	OOA
<i>Calopteryx maculata</i>	Ebony Jewelwing	---	---	S5	OOA
<i>Enallagma antennatum</i>	Rainbow Bluet	---	---	S4	OOA
<i>Enallagma civile</i>	Familiar Bluet	---	---	S5	OOA
<i>Enallagma exsulans</i>	Stream Bluet	---	---	S5	OOA
<i>Enallagma signatum</i>	Orange Bluet	---	---	S4	OOA
<i>Epithea canis</i>	Beaverpond Baskettail	---	---	S5	OOA
<i>Erythemis simplicicollis</i>	Eastern Pondhawk	---	---	S5	OOA
<i>Ischnura verticalis</i>	Eastern Forktail	---	---	S5	OOA
<i>Lestes rectangularis</i>	Slender Spreadwing	---	---	S5	OOA
<i>Lestes unguiculatus</i>	Lyre-tipped Spreadwing	---	---	S5	OOA
<i>Libellula luctuosa</i>	Widow Skimmer	---	---	S5	OOA
<i>Libellula pulchella</i>	Twelve-spotted Skimmer	---	---	S5	OOA
<i>Macromia taeniolata</i>	Royal River Cruiser	---	---	S1	OOA
<i>Pachydiplax longipennis</i>	Blue Dasher	---	---	S5	OOA
<i>Pantala flavescens</i>	Wandering Glider	---	---	S4	OOA
<i>Pantala hymenaea</i>	Spot-winged Glider	---	---	S4	OOA
<i>Perithemis tenera</i>	Eastern Amberwing	---	---	S4	OOA
<i>Plathemis Lydia</i>	Common Whitetail	---	---	S5	OOA
<i>Stylurus notatus</i>	Elusive Clubtail	---	---	S2	OOA
<i>Sympetrum rubicundulum</i>	Ruby Meadowhawk	---	---	S5	OOA
<i>Tamea onusta</i>	Red Saddlebags	---	---	SNA	OOA

SARA Status according to Federal Species at Risk Act registry; ESA 2007 Status according to Provincial Species at Risk in Ontario list of the Ontario Endangered Species Act, 2007; S-Ranks: S5 = secure, S4 = apparently secure, S3 = vulnerable, S2 = imperilled, S1 = critically imperilled, SX = extirpated from Ontario, SNA = status not available, S#? = status rank uncertain. Information Source: NHIC = Natural Heritage Information Centre; MNR = Ministry of Natural Resources; ERCA = Essex Region Conservation Authority; OHA = Ontario Herpetofaunal Atlas; OOA = Ontario Odonata Atlas.