



**DILLON**  
CONSULTING

1027458 ONTARIO INC.

# North Neighbourhood (Phases 6 & 7)

Environmental Evaluation Report



October 2023 – 22-4864 & 22-4866

# Table of Contents

1.0	Introduction	1
2.0	Background and Policy Context	2
2.1	Information Sources .....	2
2.1.1	Provincial Policy Statement .....	4
2.1.2	Endangered Species Act.....	5
2.1.3	City of Windsor Official Plan .....	5
2.1.4	Essex Region Conservation Authority (Ontario Regulation 158/06) .....	6
3.0	Results of Background Review	7
3.1	Aquatic Environment.....	7
3.2	Terrestrial Environment.....	7
3.2.1	Landforms, Soils, and Geology .....	7
3.2.2	Significant Woodlands .....	8
3.2.3	Significant Wetlands.....	8
3.2.4	Significant Valleylands .....	8
3.2.5	Areas of Natural and Scientific Interests (ANSI).....	8
3.2.6	Significant Wildlife Habitat .....	9
3.2.7	Species at Risk .....	10
4.0	Methodology of Biophysical Inventory	12
4.1	Terrestrial Environment.....	13
4.1.1	Ecological Land Classification.....	13
4.1.2	Amphibian Breeding Surveys .....	14
4.1.3	Breeding Bird Surveys.....	14
4.1.4	Bald Eagle Nest Monitoring .....	15
4.1.5	Snake Surveys.....	15
4.1.6	Vegetation Surveys.....	16
4.1.7	Tree Inventories/Cavity Surveys.....	16
5.0	Results of Biophysical Inventory	18
5.1	Aquatic Environment .....	18
5.2	Terrestrial Environment.....	18
5.2.1	Ecological Land Classification.....	18
5.2.2	Amphibian Breeding Surveys .....	20

5.2.3	Breeding Bird Surveys.....	20
5.2.4	Bald Eagle Nest Monitoring .....	22
5.2.5	Snake Surveys.....	23
5.2.6	Vegetation Surveys.....	24
5.2.7	Tree Inventories/Cavity Surveys.....	25
5.2.8	Significant Woodlands .....	26
5.2.9	Significant Wetlands.....	27
5.2.10	Significant Valleylands .....	27
5.2.11	Significant Wildlife Habitat .....	27
5.2.12	Species at Risk .....	28
5.2.13	Incidental Wildlife .....	28
6.0	<b>Ecological Function</b>	<b>30</b>
7.0	<b>Description of the Proposed Development</b>	<b>31</b>
8.0	<b>Potential Impact Identification and Analysis</b>	<b>32</b>
8.1	Potential Direct Impacts .....	32
8.1.1	Loss of/Disturbance to Wildlife and Wildlife Habitat .....	32
8.1.2	Tree and Vegetation Removal.....	32
8.1.3	Diversion of Surface Water Flows and Stormwater Management .....	33
8.1.4	Erosion and Sedimentation into Natural Features.....	34
8.2	Potential Indirect Impacts.....	34
8.2.1	Anthropogenic Disturbance .....	34
8.2.2	Colonization of Non-native and/or Invasive Species.....	35
9.0	<b>Mitigation Measures and Opportunities for Enhancement</b>	<b>36</b>
9.1	Stormwater Management Plan.....	36
9.2	Erosion and Sediment Control Plan.....	36
9.3	Wildlife Impact Mitigation Plan.....	37
9.3.1	Fish and Wildlife Conservation Act.....	38
9.3.2	Mitigation Measures Required by the MECP.....	38
9.4	Plant Transplantation and Habitat Enhancement .....	39
9.5	Environmental Monitoring Plan.....	39
10.0	<b>Summary</b>	<b>41</b>

## Figures

---

- Figure 1: Project Location
- Figure 2: Survey Locations and Ecological Land Classification
- Figure 3: Significant Wildlife Habitat
- Figure 4: Species at Risk
- Figure 5: Proposed Development Plan and Potential Impacts

## Tables

---

Table 1: Policies, Legislation, and Background Resources Searched .....	2
Table 2: Species of Conservation Concern with the potential to occur within the vicinity of the Study Area.....	10
Table 3: Species at Risk with the potential to occur within the vicinity of the Study Area.....	11
Table 4: Survey Dates and Weather Conditions .....	12
Table 5: Ecological Land Classification Communities within the Project Location .....	19
Table 6: Breeding Bird Survey Results.....	20
Table 7: Bald Eagle Nest Monitoring Results.....	22
Table 8: Snake Survey Results.....	23
Table 9: Summary of Inventoried Trees by Species .....	25
Table 10: Incidental Wildlife Observations.....	28

## Appendices

---

- A Background Mapping
- B Site Photographs
- C Vegetation List
- D Floristics Data
- E SAR Observation Reporting Form

## References

---

# Introduction

Dillon Consulting Limited (Dillon) was retained by 1027458 Ontario Inc. (the “client”) to conduct natural environment studies and prepare an Environmental Evaluation Report (EER) for the proposed residential developments located southeast of the intersection of Wyandotte Street East and future extension of Clover Avenue (east and south of 569 Adelaide Avenue) and also north of the intersection of Wyandotte Street East and future extension of Lublin Avenue (east of 10835 Riverside Drive East) (the “Project Location”) within the City of Windsor, County of Essex (Figure 1). The proposed developments are referred to as North Neighbourhood Phase 6 and Phase 7, which are part of a larger seven phase residential development in the North Neighbourhood of the East Riverside Planning Area in Windsor. At present, the other phases are in varying stages of the development approvals process. The focus of this report is solely on the proposed development for North Neighbourhood Phase 6 and Phase 7. For the purposes of documenting existing conditions of the natural environment, an area extending 120 metres (m) beyond the Project Location was used (the “Study Area”). The EER will form part of an application package for submission to the City of Windsor.

The Project Location consists of agriculture, treed fencerow, and meadow. The purpose of the EER is to document existing conditions of the natural environment; determine the potential limits of development; evaluate the potential for environmental impacts associated with the proposed development activities; and recommend mitigation, restoration, enhancement measures, and/or compensation measures, where necessary, to avoid impacts to the natural environment as a result of the proposed development.

The Terms of Reference for this EER is in keeping with the general policies of the City of Windsor Official Plan (2013) and the Essex Region Conservation Authority Environmental Impact Assessment Guidelines (2019).

## 2.0

# Background and Policy Context

The following section has been prepared to identify the applicable land use planning policies related to the natural environment. Various regulatory agencies and legislative authorities have established policies with the purpose of protecting the ecological features and functions within the province of Ontario and within the County of Essex specifically. This section is not intended to constitute a complete land use planning assessment as it focuses on the relevant environmental policies and regulations. The documents referenced below can be read in their entirety for a more detailed understanding of the land use policy framework applicable to the Study Area (Figure 1).

## 2.1

## Information Sources

Secondary source information was used to identify known environmental constraint areas and to map the significant natural heritage features such as watercourses, woodlands, and potential wildlife occurrences. Table 1 lists the relevant policies and legislation applicable to the protection of natural heritage features within the City of Windsor, and more specifically, the Study Area; as well as supporting guidance documents and resources consulted respective to each policy. This table also includes additional background information sources used to help identify and define natural heritage features within the province of Ontario, and Eco-region 7E specifically.

Table 1: Policies, Legislation, and Background Resources Searched

Source	Record Reviewed/Requested
Government of Canada	
Environment Canada	<ul style="list-style-type: none"> <li>Species at Risk Registry: Accessed to determine the at-risk status of wildlife species under Schedule 1 of the Species at Risk Act (SARA; 2002)</li> </ul>
Fisheries and Oceans Canada (DFO)	<ul style="list-style-type: none"> <li>Aquatic Species at Risk Map: Accessed to determine aquatic at-risk occurrences</li> </ul>
Government of Ontario	
Provincial Policy Statement (2020)	<ul style="list-style-type: none"> <li>Policies within Section 2.1 related to natural heritage features</li> <li>Policies within Section 2.2 related to water</li> </ul>
Ministry of Environment, Conservation and Parks (MECP)	<ul style="list-style-type: none"> <li>Endangered Species Act (ESA; 2007)</li> <li>Species at Risk in Ontario (SARO) List (O. Reg. 230/08)</li> <li>Client's Guide to Preliminary Screening for Species at Risk (2019)</li> </ul>
Ministry of Natural Resources and Forestry (MNRF)	<ul style="list-style-type: none"> <li>Natural Heritage Information Centre (NHIC) database (Squares: 17LG4187, 17LG4188, 17LG4189, 17LG4287, 17LG4288, 17LG4289, 17LG4387, 17LG4388, and 17LG4389; MNRF, 2023)</li> <li>MNRF Make a Map: Natural Heritage Areas (MNRF, 2023)</li> <li>Natural Heritage Reference Manual, Second Edition (OMNR, 2010)</li> </ul>

Source	Record Reviewed/Requested
Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)	<ul style="list-style-type: none"> <li>• MNRF Significant Wildlife Habitat Technical Guide (OMNR, 2000)</li> <li>• Significant Wildlife Habitat Eco-region 7E Criterion Schedules (OMNRF, 2015)</li> <li>• Technical Memo: Aylmer District MNRF Guidance on Identifying Activities/Areas not Likely to Contravene the Endangered Species Act, 2007 in the County of Essex &amp; City of Windsor (2016)</li> <li>• Agricultural Information Atlas (OMAFRA, 2023); reviewed area drains</li> </ul>
Municipal Government(s)	
City of Windsor	<ul style="list-style-type: none"> <li>• Update to the CNHS Inventory (2008)</li> <li>• Official Plan (2013)</li> </ul>
Additional Sources	
Wildlife Atlases and Distribution Data	<ul style="list-style-type: none"> <li>• Ontario Breeding Bird Atlas (OBBA; Cadman et al., 2008). Second Atlas (2001-2005) – data for square 17LG48 – grid based on 10 km<sup>2</sup> system.</li> <li>• Christmas Bird Count (CBC; Birds Canada, 2020). Count circle North Shore (ONNS) – Historical Records from 2000 – 2019.</li> <li>• Rare Vascular Plants of Ontario (Fourth Edition; Oldham and Brinker, 2009). Distribution data for rare vascular plants.</li> <li>• Ontario Reptile and Amphibian Atlas (ORAA; Ontario Nature, 2023). List of reptile and amphibian species occurrences for square 17LG48.</li> <li>• Ontario Butterfly Atlas (OBA; Toronto Entomologists Association, 2023). List of butterfly species occurrences for square 17LG48.</li> <li>• Atlas of the Mammals of Ontario (Dobbyn, 1994). Distribution data for mammals.</li> <li>• Bumble Bees of North America (Williams et al., 2014). Distribution data for bumble bees.</li> </ul>
Essex Region Conservation Authority (ERCA)	<ul style="list-style-type: none"> <li>• Environmentally Significant Areas of the Essex Region (Oldham, 1983)</li> <li>• Environmentally Significant Areas Status Update (ERCA, 1994)</li> <li>• Essex Region Natural Heritage System Strategy (2013)</li> <li>• Town of Lakeshore Natural Heritage Discussion Paper (2016)</li> <li>• Environmental Impact Assessment Guidelines (Nelson and Lebedyk, 2019)</li> </ul>
Bedrock Geology of Ontario, Southern Sheet	<ul style="list-style-type: none"> <li>• Reviewed bedrock geology of Ontario (Ontario Geological Survey, 1991)</li> </ul>
Physiography of Southern Ontario Soil Survey of Essex County	<ul style="list-style-type: none"> <li>• Reviewed the physiography of Ontario (Chapman and Putnam, 1984)</li> <li>• Reviewed the soil classification of Essex County (Richards et al., 1949)</li> </ul>

### 2.1.1 Provincial Policy Statement

The Provincial Policy Statement (PPS; 2020), provides overall policy direction on matters of provincial interest related to land use planning and development in Ontario. The PPS sets forth a vision for Ontario's land use planning system by managing and directing land use to achieve efficient development and land use patterns, wise use and management of resources, and protecting public health and safety. This report deals specifically with Policy 2.1, Natural Heritage, and Policy 2.2, Water, which provides for the protection and management of natural heritage and water resources, which include the following:

- significant wetlands;
- significant coastal wetlands;
- significant woodlands;
- significant valleylands;
- significant wildlife habitat;
- significant areas of natural and scientific interest (ANSIs);
- coastal wetlands;
- fish habitat;
- habitat of endangered species and threatened species;
- sensitive surface water features; and
- sensitive ground water features.

The PPS defines "significant" to mean:

- in regard to wetlands, coastal wetlands, and areas of natural and scientific interest, an area identified as provincially significant by the MNR using evaluation procedures established by the province, as amended from time to time;
- in regard to woodlands, an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history. These are to be identified using criteria established by the Ontario Ministry of Natural Resources and Forestry; and
- in regard to other features and areas in policy in 2.1, ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system.

In regard to surface and ground water features, the PPS defines "sensitive" to mean:

- areas that are particularly susceptible to impacts from activities or events, including, but not limited to, water withdrawals and additions of pollutants.



### 2.1.2 Endangered Species Act

In June 2008, the Endangered Species Act (ESA; 2007) came into effect in Ontario. The purpose of the ESA is to identify SAR based on the best available scientific information; to protect SAR and their habitats, to promote the recovery of SAR; and to promote stewardship activities to assist in the protection and recovery of SAR in Ontario. There are several applicable regulations under the ESA. These regulations serve to identify which species and habitat receive protection and provide direction on the current implementation of the ESA by the MECP.

In addition, preliminary screening for SAR was carried out using select sources from Table 1. After considering suitable habitat preferences and species ranges, our preliminary screening results show the potential for several SAR in the general area. For more information about the preliminary screening results for SAR, refer to **Section 3.2.7**.

### 2.1.3 City of Windsor Official Plan

The purpose of the City's Official Plan is to provide guidance for the physical development of the municipality over a 20 year period while taking into consideration important social, economic, and environmental matters. As such, the City's Official Plan provides policy framework that will guide: where new development can locate; how existing and future neighbourhoods will be strengthened; how Windsor's environment will be enhanced; what municipal infrastructure, such as roads, watermains, sewers, and parks, will be provided; and when and in what order Windsor will grow (City of Windsor, 2013).

The City's OP designates the Project Location as Residential (Schedule D) and Residential Neighbourhood (Schedule ER-2; Appendix A). To the west of the Project Location, Open Space (Schedule D and ER-2), and Neighbourhood Park (Schedule ER-3; Appendix A) designations exist. Finally, partially within the Project Location, Environmental Policy Area A (Schedule C) designation exists. According to Section 5.3.4 Environmental Policy Area Policies of the City's OP, lands designated as Environmental Policy Area A (EPA) are environmentally significant and/or sensitive natural areas which may be able to tolerate appropriately designed development. EPA's may be partially developed provided that the development conserves the significant natural features and/or functions. EPA's are designated as such according to an assessment of the land's environmental significance and sensitivity based on the evaluation of the following criteria:

- a) The biophysical characteristics of the area serve one or more ecological functions such as providing a migratory stop-over, linking other natural areas and serving a hydrological function;
- b) The area exhibits a high degree of biological diversity at the species, community, or structural level;
- c) The area contains natural communities which are poorly represented from a local perspective, or are rare from a provincial or national perspective;

- d) The area provided habitat for species which are vulnerable, threatened, or endangered from a national, provincial, or regional perspective;
- e) The area is of sufficient size (at least one hectare) to enable biological communities and species to sustain themselves in a healthy state;
- f) The area is representative of at least one community and/or habitat of the natural landscape of Windsor that is not adequately represented in existing protected areas;
- g) The area is in a relatively natural condition and exhibits low levels of disturbance from intrusions such as infrastructure corridors, development, and exotic species;
- h) The area contains earth science features which are poorly represented from a local perspective or are rare from a provincial or national perspective; and
- i) The area is of visual, aesthetic, or recreational importance to the City, its planning districts, neighbourhoods, and streetscapes.

## 2.1.4

**Essex Region Conservation Authority (Ontario Regulation 158/06)**

In accordance with Section 28 of the *Conservation Authorities Act* (1990), ERCA is authorized to implement and enforce the Regulation of Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses (O. Reg. 158/06). Section 2(1) of this Regulation lists areas within ERCA's jurisdiction where development is prohibited without proper permissions from ERCA. Such areas include, but are not limited to, those adjacent or close to the shoreline of inland lakes, river or stream valleys, hazardous lands, and wetlands.

In participating in the review of applications under the Planning Act and Environmental Assessment Act(s), ERCA ensures that applicants and approval authorities are aware of any Section 28 Regulation requirements under the *Conservation Authorities Act*, where applicable. Further, ERCA assists in the coordination of these applications to avoid ambiguity, conflict, and unnecessary delay or duplication in the process.

The Project Location lies within a 100 year flood area. As such, the entirety of the Project Location is within ERCA's Regulated Area. The closest drain/river is the Old Little River located over 600m to the west of the Project Location.

## 3.0 Results of Background Review

The Project Location is southeast of the intersection of Wyandotte Street East and future extension of Clover Avenue (east and south of 569 Adelaide Avenue) and also north of the intersection of Wyandotte Street East and future extension of Lublin Avenue (east of 10835 Riverside Drive East). The Project Location consists of agriculture, treed fencerow, and meadow. The surrounding land uses are varied and are described as follows:

- North: Green Lands (Ganatchio Trail) and residential;
- East: agriculture and residential;
- South: agriculture, residential, and treed fencerow; and
- West: commercial and institutional (west of North Neighbourhood Phase 7 associated with Riverside Sportsmen Club) and EPA, agriculture, and residential (west of North Neighbourhood Phase 6).

The following sections provide a brief summary of the existing environmental conditions within the Study Area as identified through the background review. This information provides the basis upon which the biophysical inventory and overall EER is based.

### 3.1 Aquatic Environment

The Study Area lies within the Lake St. Clair watershed and the Little River sub-watershed (Hayman et al., 2005) and currently drains via overland flow pathways to the Old Little River or Lake St. Clair. Large variations in annual flow within the streams and drains of this area have been recorded, dependent on rainfall, resulting in intermittent flows and dry periods during the summer months. Storm pulses in the area, have destructive powers following rain events and cause significant erosion which negatively impact fish habitat (Hayman et al., 2005). According to Hayman et al. (2005), the water quality within the sub-watershed is generally poor.

The potential for aquatic environments to be present within the Study Area is discussed further in **Section 5.1**.

### 3.2 Terrestrial Environment

#### 3.2.1 Landforms, Soils, and Geology

The Study Area lies over Middle Devonian, consisting of limestone, dolostone, and shale (Ontario Geological Survey, 1991). The physiography of the area is described as Clay Plain (Chapman and Putnam, 1984). A review of the Soil Survey of Essex County (Richards et al., 1949) indicates that soils within the

Study Area have been described as Clyde Clay. Clyde Clay is poorly drained with a topography being level to slightly depressional. The Project Location itself is mainly level. Agricultural tile drainage is not located within the Project Location (OMAFRA, 2023).

### 3.2.2 Significant Woodlands

A review of background mapping and resources did identify treed areas designated as EPA that is partially within the Project Location (North Neighbourhood Phase 6). According to the City's OP, section 5.3.4, EPA's are environmentally significant and/or sensitive natural areas which may be able to tolerate appropriately designed development.

The potential for Significant Woodlands to be present within the Study Area is discussed further in **Section 5.2.5**.

### 3.2.3 Significant Wetlands

A review of background mapping and resources did not identify wetlands within the Study Area.

The potential for Significant Wetlands to be present within the Study Area is discussed further in **Section 5.2.6**.

### 3.2.4 Significant Valleylands

A review of background mapping and resources did not identify valleylands within the Study Area.

The potential for Significant Valleylands to be present within the Study Area is discussed further in **Section 5.2.7**.

### 3.2.5 Areas of Natural and Scientific Interests (ANSI)

A review of background mapping and resources did not identify ANSI's within the Study Area.

## Significant Wildlife Habitat

Wildlife habitat is defined as an area where plants, animals and other organisms live, including areas where species concentrate at a vulnerable point in their life cycle, and areas that are important to migratory and non-migratory species (OMNR, 2000). To assist planning authorities, the MNRF developed the Significant Wildlife Habitat (SWH) Technical Guide (OMNR, 2000) that provides information on the identification, description, and prioritization of SWH in Ontario. To account for the ecological diversity across the province, MNRF developed the SWH Ecoregional Criteria Schedules to support the SWH Technical Guide. These schedules are specific to each geographic area of each eco-region. The Study Area is located in Ecoregion 7E (Lake Erie-Lake Ontario); under the Criteria Schedule for Ecoregion 7E (OMNRF, 2015), SWH has been divided into four broad categories consisting of:

### ***Seasonal Concentration Areas of Animals***

This category identifies habitat where wildlife species gather annually, at certain times of the year. This SWH category requires the presence of a given species, or several species, in specific densities based on approved survey protocol in order to meet the criteria for significance.

### Rare Vegetation Communities or Specialized Habitat for Wildlife

The criterion for rare vegetation communities considers the provincial Sub-national rank (SRank) of a species or community type, and includes SRanks of S1 (extremely rare), S2 (very rare), and S3 (rare to uncommon). The criteria for specialized habitat for wildlife captures sizeable habitat requirements for listed species to carry out key life processes.

### Habitat for Species of Conservation Concern

The Significant Wildlife Habitat Technical Guide (OMNR, 2000) defines Species of Conservation Concern (SCC) as species that are globally, nationally, provincially, regionally, or locally rare (SRank of S1 to S3), species that are listed as SC under the ESA, and species listed as Endangered or Threatened federally, but do not include SAR listed as Endangered or Threatened under the ESA. This category identifies habitat for wildlife species that are listed as SC, rare (SRank of S1-S3), and/or declining.

### Animal Movement Corridors

Animal movement corridors identify areas that wildlife move between habitats in order to carry out their life processes. Confirmed or candidate SWH are identified by the MNRF or the planning authority.

Through background review, several SCC listed in Table 2 have been identified with the potential to occur within the vicinity of the Study Area, and will help to determine the potential for SWH.

Table 2: Species of Conservation Concern with the potential to occur within the vicinity of the Study Area

Scientific Name	Common Name	SARA <sup>1</sup>	ESA <sup>2</sup>	SRank <sup>3</sup>	Info Source <sup>4</sup>
<b>Birds</b>					
<i>Haliaeetus leucocephalus</i>	Bald Eagle	---	SC	S2N,S4B	CBC, OBBA
<i>Contopus virens</i>	Eastern Wood-pewee	SC	SC	S4B	OBBA
<i>Hirundo rustica</i>	Barn Swallow	SC	SC	S4B	OBBA
<b>Lepidoptera</b>					
<i>Danaus plexippus</i>	Monarch	SC	SC	S2N,S4B	OBA
<b>Reptiles</b>					
<i>Chelydra serpentina</i>	Snapping Turtle	SC	SC	S3	ORAA
<b>Plants</b>					
<i>Cirsium discolor</i>	Field Thistle	---	---	S3	NHIC
<i>Solidago rigida</i> ssp. <i>rigida</i>	Eastern Stiff-leaved Goldenrod	---	---	S3	NHIC
<i>Vernonia gigantea</i>	Giant Ironweed	---	---	S1?	NHIC
<i>Vernonia missurica</i>	Missouri Ironweed	---	---	S3?	NHIC
<i>Oenothera gaura</i>	Biennial Gaura	---	---	S3	NHIC
<i>Rosa setigera</i>	Climbing Prairie Rose	SC	SC	S3	NHIC

<sup>1</sup>Status identified under the federal Species at Risk Act: SC = Special Concern; <sup>2</sup>Status identified under the provincial Endangered Species Act: SC = Special Concern; <sup>3</sup>SRank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5: S4 = common and apparently secure, S3 = rare to uncommon and vulnerable, S2 = very rare and imperiled, S1 = extremely rare and critically imperiled, SU or ? = uncertain due to insufficient information, B = breeding, N = non-breeding; <sup>4</sup>Information sources include: CBC = Christmas Bird Count, NHIC = MNRF Natural Heritage Information Centre, OBA = Ontario Butterfly Atlas, OBBA = Ontario Breeding Bird Atlas, ORAA = Ontario Reptile and Amphibian Atlas; -- denotes no information or not applicable.

A review of background data suggests that several SWH types, as described in the Eco-Region 7E Criterion Schedules (OMNRF, 2015) may occur within the Study Area, including, but not limited to, the following:

- Reptile Hibernaculum;
- Bald Eagle and Osprey Nesting, Foraging, and Perching Habitat (with the knowledge of a previously-active Bald Eagle nest in the greater area);
- Amphibian Breeding Habitat (Woodland);
- Terrestrial Crayfish; and
- Special Concern and Rare Wildlife Species.

The potential for SWH to be present within the Study Area is discussed further in **Section 5.2.8**.

### 3.2.7

#### Species at Risk

Species at Risk are defined as those species that are listed as Threatened or Endangered under the ESA and aquatic species listed under Schedule 1 federally, as well as migratory birds listed under both Schedule

1 federally and the Migratory Birds Convention Act. Through background review, several SAR listed in Table 3 have been identified with the potential to occur within the vicinity of the Study Area.

Table 3: Species at Risk with the potential to occur within the vicinity of the Study Area

Scientific Name	Common Name	SARA <sup>1</sup>	ESA <sup>2</sup>	SRank <sup>3</sup>	Info Source <sup>4</sup>
<b>Birds</b>					
<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker	END	END	S4B	MECP
<i>Dolichonyx oryzivorus</i>	Bobolink	THR	THR	S4B	MECP, OBBA
<i>Sturnella magna</i>	Eastern Meadowlark	THR	THR	S4B	MECP, OBBA
<b>Reptiles</b>					
<i>Pantherophis gloydi</i> pop. 2	Eastern Foxsnake (Carolinian population)	END	END	S2	MECP, MECP Reg. Habitat, ORAA
<i>Thamnophis butleri</i>	Butler's Gartersnake	END	END	S2	MECP, ORAA
<b>Mammals</b>					
<i>Myotis leibii</i>	Eastern Small-footed Myotis	---	END	S2S3	MWH
<i>Myotis lucifugus</i>	Little Brown Myotis	END	END	S4	MWH
<i>Myotis septentrionalis</i>	Northern Myotis	END	END	S3	MWH
<i>Pipistrellus subflavus</i>	Tri-colored Bat	END	END	S3?	MWH
<b>Plants</b>					
<i>Cornus florida</i>	Eastern Flowering Dogwood	END	END	S2?	MECP Reg. Habitat
<i>Gymnocladus dioicus</i>	Kentucky Coffee-tree	THR	THR	S2	MECP
<i>Juglans cinerea</i>	Butternut	END	END	S3?	MECP
<i>Symphotrichum praealtum</i>	Willowleaf Aster	THR	THR	S2	NHIC

<sup>1</sup>Status identified under the federal Species at Risk Act: END = Endangered, THR = Threatened; <sup>2</sup>Status identified under the provincial Endangered Species Act: END = Endangered, THR = Threatened; <sup>3</sup>SRank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5: S4 = common and apparently secure, S3 = rare to uncommon and vulnerable, S2 = very rare and imperiled, SU or ? = uncertain due to insufficient information, B = breeding; <sup>4</sup>Information sources include: MECP = Information from the MECP, MECP Reg. Habitat = MECP Regulated Habitat (O. Reg. 242/08), MWH = Digital Distribution Maps of the Mammals of the Western Hemisphere, version 3.0, NHIC = MNRF Natural Heritage Information Centre, OBBA = Ontario Breeding Bird Atlas, ORAA = Ontario Reptile and Amphibian Atlas; --- denotes no information or not applicable.

The potential for SAR to be present within the Study Area is discussed further in **Section 5.2.9**.

# Methodology of Biophysical Inventory

The results of the background review were used to assist in scoping field surveys. Field surveys conducted for the EER occurred over multiple site visits throughout numerous growing seasons and was most recently conducted throughout 2023 (Table 4). Fieldwork consisted of Ecological Land Classification (ELC), amphibian breeding surveys, breeding bird surveys, Bald Eagle nest monitoring, snake surveys, vegetation surveys, and tree inventories/cavity/snag surveys. Incidental wildlife observations made during the surveys were also documented. The following sub-sections outline the survey methodologies used in the field.

Table 4: Survey Dates and Weather Conditions

Survey Date	Weather Conditions
<b>Ecological Land Classification</b>	
November 5, 2020	11-16°C, no precipitation, 75% cloud cover
November 24, 2020	-2-5°C, no precipitation, 50% cloud cover
May 24, 2022	11-19°C, no precipitation, 75% cloud cover
September 22, 2022	16-13°C, no precipitation, 50% cloud cover
July 21, 2023	21-25°C, no precipitation, 50% cloud cover
<b>Amphibian Breeding Surveys</b>	
April 11, 2023	18°C, no precipitation, 50% cloud cover
May 9, 2023	14°C, no precipitation, 100% cloud cover
June 5, 2023	19°C, no precipitation, 0% cloud cover
<b>Breeding Bird Surveys</b>	
May 30, 2023	16°C, no precipitation, 1-25% cloud cover
June 16, 2023	15-16°C, no precipitation, 80-100% cloud cover
June 28, 2023	16-17°C, no precipitation, 100% cloud cover
<b>Bald Eagle Nest Monitoring</b>	
March 19, 2021	0°C, no precipitation, 0% cloud cover
March 31, 2021	8°C, no precipitation, 50% cloud cover
April 15, 2021	8°C, no precipitation, 70% cloud cover
April 27, 2021	14°C, no precipitation, 80% cloud cover
November 19, 2021	2-4°C, no precipitation, 10% cloud cover
January 17, 2022	-1°C, no precipitation, 100% cloud cover
March 8, 2022	1°C, no precipitation, 100% cloud cover



Survey Date	Weather Conditions
<b>Snake Surveys</b>	
May 5, 2023	12-17°C, no precipitation, 20% cloud cover
May 11, 2023	14-25°C, no precipitation, 10% cloud cover
May 17, 2023	12-13°C, no precipitation, 5% cloud cover
June 14, 2023	14-19°C, no precipitation, 40% cloud cover
June 28, 2023	17-23°C, no precipitation, 100% cloud cover
July 12, 2023	19-25°C, no precipitation, 80% cloud cover
July 21, 2023	21-25°C, no precipitation, 30% cloud cover
August 4, 2023	22-26°C, no precipitation, 10-75% cloud cover
August 11, 2023	18-26°C, no precipitation, 0% cloud cover
August 28, 2023	18-24°C, no precipitation, 0% cloud cover
<b>Vegetation Surveys</b>	
May 24, 2022	11-19°C, no precipitation, 75% cloud cover
September 22, 2022	16-13°C, no precipitation, 50% cloud cover
July 21, 2023	21-25°C, no precipitation, 50% cloud cover
<b>Tree Inventories/Cavity Surveys</b>	
April 10, 2023	10-19°C, no precipitation, 10-30% cloud cover
April 14, 2023	17-28°C, no precipitation, 10-30% cloud cover
April 20, 2023	9-16°C, no precipitation, 65-10% cloud cover
April 27, 2023	10-16°C, no precipitation, 0-25% cloud cover
May 16, 2023	20-27°C, no precipitation, 50% cloud cover

## 4.1 Terrestrial Environment

### 4.1.1 Ecological Land Classification

ELC was conducted during multiple site visits throughout numerous growing seasons and was most recently conducted on July 21, 2023. Vegetation was characterized using the ELC System for Southern Ontario protocol (Lee et al., 1998) with 2008 updates (Lee, 2008) in order to classify and map ecological communities to the vegetation type level, where appropriate. The ecological community boundaries were determined through the review of aerial photography and then further refined through on-site vegetation surveys. Vegetation studies involved identifying the dominant species in each vegetation community type, based on visual estimates of species abundance and biomass. Species nomenclature is based on the species lists for Ontario maintained by the NHIC which uses international standards for taxonomy and nomenclature.

The ELC protocol recommends that a vegetation community be a minimum of 0.5 ha in size before it is defined. Based on the composition of vegetation communities within the Study Area, patches of vegetation less than 0.5 ha or disturbed/planted vegetation were described, provided they clearly fit within an ELC vegetation type.

Results of the ELC survey is discussed in **Section 5.2.1**.

#### 4.1.2 Amphibian Breeding Surveys

Preliminary screening identified areas of potential amphibian breeding habitat within the Study Area, such as the EPA with the potential for vernal pools. Amphibian breeding surveys were conducted at three locations within the Study Area (Figure 2) to assess presence/absence during the breeding season. These locations were chosen in order to capture conditions throughout the Project Location.

Three amphibian breeding surveys were conducted (April 11, May 9, and June 5, 2023) using 3-minute point counts following the Marsh Monitoring Program Participant's Handbook for Surveying Amphibians (Bird Studies Canada, 2008). Surveys began at least one half hour after sunset until no later than midnight during evenings with appropriate weather conditions; described as a minimum night temperature of 5°C for the first survey, 10°C for the second survey, and 17°C for the third survey. Surveys were not conducted during storm events or nights with strong winds greater than 19 km/h (Beaufort wind scale of 3). Weather conditions recorded during the survey are shown in Table 4. Calling amphibian abundance was recorded using three abundance codes:

- Code 1 – Individuals can be counted; calls not simultaneous;
- Code 2 – Calls distinguishable; some simultaneous calling; and
- Code 3 – Full chorus; calls continuous and overlapping.

Results of the amphibian breeding surveys are discussed in **Section 5.2.1**.

#### 4.1.3 Breeding Bird Surveys

Diurnal breeding bird surveys conducted within the Project Location followed the methods outlined in the Ontario Breeding Bird Atlas Instructions for General Atlassing (Birds Canada, 2021), Survey Methodology under the Endangered Species Act, 2007: *Dolichonyx oryzivorus* (Bobolink) (MNR, 2011), and Survey Protocol for Eastern Meadowlark (*Sturnella magna*) in Ontario (OMNR, 2013), and were completed in May and June 2023 (three surveys). Specifically, surveys consisted of point counts generally conducted between dawn and five hours after sunrise, that were used to establish quantitative estimates of bird abundance in suitable habitat types within the Project Location. During the surveys, evidence of breeding behaviour was recorded, which generally includes, but is not limited to, singing males, nest building, egg

incubation, territorial defence, carrying food/fecal sacs, and feeding young. Breeding evidence for each bird species was documented using Breeding Bird Atlas Evidence Codes.

To supplement the surveys, area searches of the habitats were completed using binoculars to observe species presence and breeding activity. Area searches involved noting all individual bird species and their corresponding breeding evidence while traversing the habitat on foot. Point count locations are displayed on Figure 2.

Results of the breeding bird surveys are discussed in **Section 5.2.1**.

#### 4.1.4 Bald Eagle Nest Monitoring

To the east of the Project Location, an active Bald Eagle (*Haliaeetus leucocephalus*) was known. As such, to determine breeding status, multiple nest monitoring site visits were conducted during the active nesting season for this species. Monitoring was conducted by a qualified biologist and consisted of monitoring sessions when weather conditions and timing were deemed suitable (Table 4). During the monitoring sessions, the active nest, nest tree, and greater area were monitored with binoculars and spotting scope by the biologist from a distance of approximately 180 metres, so as not to disturb any pair/nesting activity. At the end of each monitoring session, the biologist closely approached the active nest to obtain a more detailed view of the nest and/or nest tree. Raptor activity, nest status, behaviour, location, time and date of raptors (if encountered) were recorded.

#### 4.1.5 Snake Surveys

Snake survey methodology is based on the Survey Protocol for Ontario's Species at Risk Snakes (OMNRF, 2016). Survey activities were registered under Section 23.17.2 (Species at risk surveys) of O. Reg. 242/08 and were supported by a Wildlife Scientific Collector's Authorization issued under the Fish and Wildlife Conservation Act. ELC, as well as habitat assessment surveys were conducted within the Project Location to identify potential SAR snake habitat as well as potential hibernacula within and/or adjacent to the Project Location.

Artificial cover objects (ACO's) were used to create suitable microhabitat for snakes that can be easily and systematically searched; a useful method to detect difficult-to-survey snake species. ACO's were constructed of pre-weathered, thin (1 centimetre [cm]), plywood boards, measuring 60 x 120 cm in size. The ACO's were placed for a minimum of two weeks (weathering period) prior to undertaking presence/absence searches.

A total of 53 ACO's were placed within the Project Location (Figure 2). Ten surveys were conducted throughout the active snake season. The species, total length, snout-to-vent length, weight, behaviour, location, time and date of snakes (if encountered) were recorded. To minimize potential impacts to snake

species, efforts were made to take care while lifting ACO's, so as not to harm individuals. In order to decrease stress, handling of individuals was kept to a minimum. Handling was performed to acquire biometric data and to capture photographs. Handled individuals were released in the area from which they were found.

Visual Encounter Surveys (VES) were also conducted to determine the presence of snakes by slowly walking through suitable habitat while actively searching for basking or foraging snakes, looking under natural cover objects (e.g. logs, rocks, or garbage materials), and looking for other signs of snakes (i.e. shed skins). Survey transects covered favourable microhabitat for snakes (e.g. rock piles, dead stumps, and low-lying shrubs), as well as any vegetated areas.

Results of the snake surveys are discussed in **Section 5.2.3**.

#### 4.1.6 Vegetation Surveys

A three-season vegetation survey was conducted; one during the spring, one during the summer, and one during the fall. Vegetation surveys were conducted using wandering transects to determine species presence, richness, and abundance of floral species within the Project Location. Search effort was concentrated throughout the entirety of the Project Location, but due to current land uses, effort was mostly concentrated away from agriculture (i.e. within and near the EPA). Species nomenclature is based on the species lists for Ontario maintained by the NHIC which uses international standards for taxonomy and nomenclature.

Results of the vegetation surveys are discussed in **Section 5.2.2**.

#### 4.1.7 Tree Inventories/Cavity Surveys

Tree inventories and concurrent cavity surveys were conducted during the leaf-off period (i.e. fall to early spring) within the Project Location and including a 6 m buffer. Trees subject to the inventory were those with a diameter-at-breast-height (DBH) of 10 centimetres (cm) or greater. The collected data pertained to trees that require removal to facilitate development or trees anticipated to be retained and protected during construction operations:

- Identification of species or genus where determinable using reasonable assumptions based on location, leaves, bark, bud, branches, and growth habit;
- Measurement of (DBH) at 1.4 metres (m) from the ground;
- Assignment of a unique identification number for trees  $\geq 10$  cm DBH, where applicable. Note: Trees with multiple stems split below breast height were given one unique identification number;
- A Level 2 (basic) qualitative visual assessment to determine tree or tree grouping condition, following the condition health rating system (detailed below); and

- Marking coordinates using a handheld Global Positioning System (GPS) unit.

The Level 2 basic assessment that was completed for trees within the Project Location is a detailed visual inspection of the trees and surrounding area to obtain an opinion of the health condition of each tree. It includes a non-invasive inspection of each tree (i.e. looking at the site conditions, buttress roots, trunk, and branches). This basic assessment is the standard basic assessment though conditions that are detected from the ground.

The condition rating designated to each tree was based on the results of the basic assessment. The hazard potential of trees was assessed using the method outlined in the International Society of Arboriculture publication *A Photographic Guide to the Evaluation of Hazard Trees in Urban Area - 2<sup>nd</sup> Edition* (Matthey and Clark, 1994). Using this guide, an overall condition rating (i.e. dead, hazard, poor, fair, good, or excellent) was given to each tree meeting a 10 cm or greater DBH. These condition ratings are useful when evaluating the retention and/or replacement value of individual trees.

Trees were identified using all reasonable means possible (i.e. leaf, bud, and bark characteristics, tree form, and branch orientations).

Results of the tree inventory is discussed in **Section 5.2.3**.

## 5.0 Results of Biophysical Inventory

A biophysical inventory of natural features within the Study Area was completed in accordance with the methods detailed in **Section 4.0**. The analysis of data collected from secondary source information and during the field studies was used to evaluate the significance of natural heritage features within the Study Area.

### 5.1 Aquatic Environment

Through background review and during the field surveys, it was determined that no drains occur within the Study Area. Approximately 20 years ago, a former drain/channel within the EPA was abandoned. Currently, the Fencerow with European Common Reed inclusion community (see ELC results below) comprise the former, abandoned channel.

### 5.2 Terrestrial Environment

#### 5.2.1 Ecological Land Classification

Three ELC communities were identified within the Project Location (Table 5). The location, type, and boundaries of these communities are delineated on Figure 2. Reference photos for the plant communities observed can be found in Appendix B.

The Project Location consists of Annual Row Crops (OAGM1), Fencerow with European Common Reed inclusion (TAGM5), and Forb Meadow (MEF). The northern Forb Meadow and southern Forb Meadow are both classified as meadow, but they are not of equal quality. Based on historical aerial imagery, the southern meadow was farmed until 2002, but the northern meadow has remained unfarmed since at least 2000. Furthermore, no SCC and/or SAR were observed in the southern meadow, while several SCC plants were observed in the northern meadow (refer to **Section 5.2.11**). Finally, more non-native and/or invasive plant species were observed in the southern meadow.

Communities within the Project Location are further described in Table 5 and a full plant list is presented in Appendix C. Other communities (largely cultural) exist outside of the Project Location (Figure 2). None of the documented vegetation communities are considered rare in Ontario.

Potential impacts related to vegetation communities within the Project Location are included in **Section 8.1** and **8.2**.

Table 5: Ecological Land Classification Communities within the Project Location

ELC Community	Location	Dominant Species (listed in approximate order of abundance)
<b>Natural Communities</b>		
MEF – Forb Meadow (0.92 ha within the Project Location)	This community is located within the western parts of North Neighbourhood Phase 6.	<p>The northern meadow was observed to be of much higher quality than the southern meadow.</p> <p>North Meadow: Eastern Late Goldenrod (<i>Solidago altissima</i> ssp. <i>altissima</i>), Canada Thistle (<i>Cirsium arvense</i>), Gray Dogwood (<i>Cornus racemosa</i>), and Common Buckthorn (<i>Rhamnus cathartica</i>).</p> <p>South Meadow: Fuller’s Teasel (<i>Dipsacus fullonum</i>), Large Barnyard Grass (<i>Echinochloa crus-galli</i>), White Sweet-clover (<i>Melilotus albus</i>), Velvetleaf (<i>Abutilon theophrasti</i>), and Wild Carrot (<i>Daucus carota</i>).</p>
<b>Cultural Communities</b>		
OAGM1 – Annual Row Crops (19.72 ha within the Project Location)	This community is located in the eastern part of North Neighbourhood Phase 6 and throughout North Neighbourhood Phase 7.	<p>North Neighbourhood Phase 6: Active agriculture until recently, but now tilled/mowed and maintained seasonally.</p> <p>North Neighbourhood Phase 7: Soy Bean (<i>Glycine max</i>) in 2023.</p>
TAGM5 – Fencerow with European Common Reed inclusion	This community is located throughout the central part of North Neighbourhood Phase 6.	Common Buckthorn, Thicket Creeper ( <i>Parthenocissus inserta</i> ), Gray Dogwood, Eastern Cottonwood ( <i>Populus deltoides</i> ssp. <i>deltoides</i> ; 47 % of the tree inventory), and Freeman’s Maple ( <i>Acer x freemanii</i> ; 23% of the tree inventory).

### 5.2.2 Amphibian Breeding Surveys

In order for amphibian breeding habitats to be significant, they must contain one or more of the listed newt/salamander species; or two or more of the listed frog species with at least 20 individuals (adults or egg masses) of each species; or two or more of the listed frog species with call Code 3.

No amphibian species were observed during the amphibian breeding surveys. Based on the Significant Wildlife Habitat Eco-region 7E Criterion Schedules (OMNRF, 2015), SWH was not confirmed within the Study Area.

### 5.2.3 Breeding Bird Surveys

A total of 30 bird species were observed during the breeding bird surveys (Table 6). Each of the observed birds is considered common and apparently secure (S4) or widespread and secure (S5) in the province of Ontario based on the provincial conservation rankings assigned by the NHIC.

One species; Eastern Wood-pewee (*Contopus virens*; Special Concern under the ESA) is considered to be a SCC. Being a SCC, and its habitat would be considered as SWH, this species is discussed further in Section 5.2.11.

One species; Chimney Swift (*Chaetura pelagica*; Threatened under the ESA) is considered to be a SAR. Being a SAR, and its habitat would be considered as SAR habitat, this species is discussed further in Section 5.2.12.

Table 6: Breeding Bird Survey Results

Scientific Name	Common Name	SARA <sup>1</sup>	ESA <sup>2</sup>	SRank <sup>3</sup>	Breeding Evidence <sup>4</sup>
<i>Anas platyrhynchos</i>	Mallard	---	---	S5	flyover
<i>Branta canadensis</i>	Canada Goose	---	---	S5	flyover
<i>Meleagris gallopavo</i>	Wild Turkey	---	---	S5	NU (broken egg)
<i>Ardea herodias</i>	Great Blue Heron	---	---	S4	flyover
<i>Charadrius vociferus</i>	Killdeer	---	---	S5B,S5N	X
<i>Larus delawarensis</i>	Ring-billed Gull	---	---	S5B,S4N	flyover
<i>Chaetura pelagica</i>	Chimney Swift	THR	THR	S4B,S4N	flyover
<i>Archilochus colubris</i>	Ruby-throated Hummingbird	---	---	S5B	X
<i>Colaptes auratus</i>	Northern Flicker	---	---	S4B	FY
<i>Picoides pubescens</i>	Downy Woodpecker	---	---	S5	S



Scientific Name	Common Name	SARA <sup>1</sup>	ESA <sup>2</sup>	SRank <sup>3</sup>	Breeding Evidence <sup>4</sup>
<i>Contopus virens</i>	Eastern Wood-pewee	SC	SC	S4B	S
<i>Empidonax traillii</i>	Willow Flycatcher	---	---	S5B	NB
<i>Myiarchus crinitus</i>	Great Crested Flycatcher	---	---	S4B	S
<i>Vireo gilvus</i>	Warbling Vireo	---	---	S5B	T
<i>Corvus brachyrhynchos</i>	American Crow	---	---	S5B	X
<i>Cyanocitta cristata</i>	Blue Jay	---	---	S5	X
<i>Tachycineta bicolor</i>	Tree Swallow	---	---	S4B	flyover
<i>Troglodytes aedon</i>	House Wren	---	---	S5B	S
<i>Turdus migratorius</i>	American Robin	---	---	S5B	FY
<i>Dumetella carolinensis</i>	Gray Catbird	---	---	S4B	T
<i>Sturnus vulgaris</i>	European Starling	---	---	SNA	AE
<i>Setophaga petechia</i>	Yellow Warbler	---	---	S5B	T
<i>Melospiza melodia</i>	Song Sparrow	---	---	S5B	T
<i>Cardinalis cardinalis</i>	Northern Cardinal	---	---	S5	T
<i>Passerina cyanea</i>	Indigo Bunting	---	---	S4B	flyover
<i>Agelaius phoeniceus</i>	Red-winged Blackbird	---	---	S4	CF
<i>Icterus galbula</i>	Baltimore Oriole	---	---	S4B	P
<i>Molothrus ater</i>	Brown-headed Cowbird	---	---	S4B	D
<i>Quiscalus quiscula</i>	Common Grackle	---	---	S5B	CF
<i>Carduelis tristis</i>	American Goldfinch	---	---	S5B	flyover

<sup>1</sup>Status identified under the federal Species at Risk Act: THR = Threatened, SC = Special Concern; <sup>2</sup>Status identified under the provincial Endangered Species Act: THR = Threatened, SC = Special Concern; <sup>3</sup>SRank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5: S5 = widespread and secure, S4 = common and apparently secure, SNA = not applicable, B = breeding, N = non-breeding; <sup>4</sup>Breeding Bird Codes from Ontario Breeding Bird Atlas Instructions for General Atlassing (Birds Canada, 2021); --- denotes no information or not applicable.

Observed: X = Species observed in its breeding season (no breeding evidence)

Possible: H = Species observed in its breeding season in suitable nesting habitat

S = Singing male(s) present, or breeding calls heard, in suitable nesting habitat in breeding season

Probable: M = At least 7 individuals singing or producing other sounds associated with breeding (e.g. calls or drumming), heard during the same visit to a single square and in suitable nesting habitat during the species' breeding season

P = Pair observed in suitable nesting habitat in nesting season

T = Permanent territory presumed through registration of territorial song, or the occurrence of an adult bird, at the same place, in breeding habitat, on at least two days a week or more apart, during its breeding season

D = Courtship or display, including interaction between a male and a female or two males, including courtship feeding or copulation

V = Visiting probable nest site

A = Agitated behaviour or anxiety calls of an adult

B = Brood Patch on adult female or cloacal protuberance on adult male

N = Nest-building or excavation of nest hole, by a wren or a woodpecker

Confirmed: NB = Nest-building or excavation of nest hole by a species other than a wren or a woodpecker  
 DD = Distraction display or injury feigning  
 NU = Used nest or egg shells found (occupied or laid within the period of the survey)  
 FY = Recently fledged young (nidicolous species) or downy young (nidifugous species) incapable of sustained flight  
 AE = Adult leaving or entering nest sites in circumstances indicating occupied nest  
 FS = Adult carrying fecal sac  
 CF = Adult carrying food for young  
 NE = Nest containing eggs  
 NY = Nest with young seen or heard

## 5.2.4 Bald Eagle Nest Monitoring

The nest was located approximately 18 m high on an Eastern Cottonwood (approximately 25 m in height and 101 cm diameter-at-breast-height). The nest is located approximately 0.61 kilometres (km) from open water (i.e. where Lake St. Clair meets the Detroit River) where suitable foraging opportunities exist. Refer to Table 7 below for a summary of the nest monitoring visits.

Table 7: Bald Eagle Nest Monitoring Results

Date	Bird Activity	Nest Activity
March 19, 2021	One adult Bald Eagle observed on the nest, incubating or brooding.	Incubation/brooding stage.
March 31, 2021	One adult Bald Eagle observed on the nest, incubating or brooding.	Incubation/brooding stage.
April 15, 2021	Adult male flying in the area and flew northeast out of sight. Adult female standing in the nest looking down and also incubating or brooding.	Adult behaviour is indicative of nestlings being present and assumed to be brooding now.
April 27, 2021	Adult female standing in the nest. Two nestlings observed.	Two nestlings observed.
November 19, 2021	Adult Bald Eagle flew from the northwest carrying a long stick and perched near the nest tree.	The nest that was active in early 2021 is now on the ground and the adult appears to be building a new nest just to the south of the old nest.
January 17, 2022	No individuals present.	No additional nest material added. No nest present.
March 8, 2022	No individuals present.	No additional nest material added. No nest present.

Regulatory requirements were followed under Section 7 (Nests and eggs) of the Fish and Wildlife Conservation Act (FWCA; 1997) to move/destroy one, inactive Bald Eagle nest. The client received an Authorization to Destroy/Take/Possess Nests and Eggs to destroy/take/possess one, inactive Bald Eagle nest close to the Project Location.

To compensate for the removal/destruction of the old Bald Eagle nest, two artificial nesting platforms on trees within the greater area of the Project Location was completed. Tree locations were selected to maximize discovery by the Bald Eagle pair (i.e. close to the Project Location), yet minimize public access and disturbance (i.e. away from public trails, houses, etc.).

Potential impacts related to the Bald Eagle nest near the Project Location is included in Section 8.1 and 8.2.

### 5.2.5 Snake Surveys

A total of 12 adult vole species, 17-20 young vole species, 3 adult mouse species, 5 young mouse species, 1 adult shrew species, 3 adult White-footed Mouse, and 6 adult Eastern Gartersnake were observed during the snake surveys (Table 8). Each of the observed species is considered common and apparently secure (S4) or widespread and secure (S5) in the province of Ontario based on the provincial conservation rankings assigned by the NHIC. Of the species observed, none are listed as Endangered or Threatened under the ESA.

Table 8: Snake Survey Results

Survey No.	Date	Species	Location	Time	Total Length	Snout-to-vent Length	Mass
1	May 5, 2023	One adult vole species	ACO 44	9:57	N/A	N/A	N/A
		One adult vole species	ACO 41	10:08	N/A	N/A	N/A
		One adult Eastern Gartersnake	ACO 45	11:11	~24 cm	Not captured	Not captured
		One adult Eastern Gartersnake	ACO 20	13:34	58 cm	46 cm	63.2 g
		One adult vole species	ACO 12	14:16	N/A	N/A	N/A
2	May 11, 2023	One adult vole species	ACO 44	9:02	N/A	N/A	N/A
		One adult and six young vole species	ACO 43	9:06	N/A	N/A	N/A
		One adult and five-six young vole species	ACO 41	9:14	N/A	N/A	N/A
3	May 17, 2023	One adult vole species	ACO 9	10:11	N/A	N/A	N/A
		One adult and unknown young vole species	ACO 41	10:57	N/A	N/A	N/A
		One adult Eastern Gartersnake	ACO 33	11:20	27 cm	21 cm	5.89 g
4	June 14, 2023	Six-eight young vole species	ACO 44	9:05	N/A	N/A	N/A
		One adult vole species	ACO 37	9:31	N/A	N/A	N/A

Survey No.	Date	Species	Location	Time	Total Length	Snout-to-vent Length	Mass
		One adult Eastern Gartersnake	ACO 33	9:50	33 cm	25 cm	10.5 g
		One likely adult Eastern Gartersnake	Traveling near ACO 13	12:25	Not captured	Not captured	Not captured
		One adult Eastern Gartersnake	Basking near ACO 16	12:37	Not captured	Not captured	Not captured
5	June 28, 2023	One adult mouse species	ACO 25	11:15	N/A	N/A	N/A
6	July 12, 2023	One adult and unknown number young vole species	ACO 10	11:25	N/A	N/A	N/A
7	July 21, 2023	---	---	---	---	---	---
8	August 4, 2023	One adult and three young mouse species	ACO 27	9:24	N/A	N/A	N/A
9	August 11, 2023	One adult and two young mouse species	ACO 27	9:00	N/A	N/A	N/A
		One adult vole species	ACO 19	9:42	N/A	N/A	N/A
		One adult shrew species	ACO 6	10:09	N/A	N/A	N/A
10	August 28, 2023	One adult White-footed Mouse	ACO 29	9:40	N/A	N/A	N/A
		One adult vole species	ACO 22	10:30	N/A	N/A	N/A
		One adult White-footed Mouse	ACO 50	11:30	N/A	N/A	N/A
		One adult White-footed Mouse	ACO 18	14:00	N/A	N/A	N/A

--- denotes no snakes were observed during the survey.

### 5.2.6 Vegetation Surveys

A total of 101 flora species (three were only identified to the genus level) were documented during the vegetation surveys (including the tree inventories below). Of the 101 species, approximately 56% are listed as native species and 44% are listed as non-native species, therefore a status ranking is not applicable as the species is not a suitable target for conservation activities (SE or SNA rank).

Five species; Field Thistle (*Cirsium discolor*; S3), Eastern Stiff-leaved Goldenrod (*Solidago rigida* ssp. *rigida*; S3), Giant Ironweed (*Vernonia gigantea*; S1?), Biennial Gaura (*Oenothera gaura*; S3), and Climbing Prairie Rose (*Rosa setigera*; Special Concern under the ESA and S3) are considered to be SCC. Being SCC, and their habitat would be considered SWH, these species are discussed further in Section 5.2.11.

No SAR plants were observed. A list of flora species observed is provided in Appendix C. Floristics data including native vs. non-native species, mean coefficient of conservatism, floristic quality index, and mean coefficient of wetness, as provided in Oldham et al. (1995), are provided in Appendix D. Photographs taken during the site visits are provided in Appendix B. Potential impacts related to vegetation within the Project Location is included in Section 8.1 and 8.2.

### 5.2.7 Tree Inventories/Cavity Surveys

Tree inventories and cavity surveys were conducted in North Neighbourhood Phases 5, 6, and 7. This EER is specifically focused on North Neighbourhood Phases 6 and 7, but the far eastern trees within North Neighbourhood Phase 5 are directly adjacent to the far western part of North Neighbourhood Phase 6. As such, our results within this section will include North Neighbourhood Phases 5, 6, and 7. Refer to the separate Natural Site Features Inventory & Preservation Study, prepared by Dillon Consulting Limited dated September 2023, for further details regarding North Neighbourhood Phases 6 and 7. Refer to the separate EER and Natural Site Features Inventory & Preservation Study, also prepared by Dillon Consulting Limited submitted to the City of Windsor in March 2023, for further details regarding North Neighbourhood Phase 5.

The inventories just for North Neighbourhood Phases 6 and 7 documented 614 trees with a DBH of 10 cm or greater and the inventories for North Neighbourhood Phases 5, 6, and 7 documented 749 trees with a DBH of 10 cm or greater. Taking into account North Neighbourhood Phases 5, 6, and 7, a total of 17 species of trees were documented, with 13 species identified to the species level and 4 species identified to the genus level. Additionally, there were trees that could not be identified due to their condition and were labeled as unknown. Eastern Cottonwood (*Populus deltoides* ssp. *deltoides*) was the dominant species, accounting 48% of the trees inventoried. Freeman's Maple (*Acer x freemanii*) followed with 23% of the trees. A summary of inventoried trees can be found in Table 9 below.

Overall, out of the 749 documented trees, 695 (93%) are native to Ontario, while 34 (5%) are non-native species. The remaining 20 trees (2%) could not be classified as non-native or native due to their condition or because identification only to genus level was possible.

Table 9: Summary of Inventoried Trees by Species

Family	Scientific Name	Common Name	SARA <sup>1</sup>	ESA <sup>2</sup>	SRank <sup>3</sup>	Invasive Priority for Control <sup>4</sup>	Phase 5	Phase 6 & 7
Pinaceae	<i>Pinus strobus</i>	Eastern White Pine	---	---	S5	---	1	0
Fabaceae	<i>Gleditsia triacanthos inermis</i>	Thornless Honey-locust	---	---	SNA	---	0	1
Fabaceae	<i>Robinia pseudoacacia</i>	Black Locust	---	---	SNA	C3	0	23
Juglandaceae	<i>Juglans nigra</i>	Black Walnut	---	---	S4	---	0	1

Family	Scientific Name	Common Name	SARA <sup>1</sup>	ESA <sup>2</sup>	SRank <sup>3</sup>	Invasive Priority for Control <sup>4</sup>	Phase 5	Phase 6 & 7
Tiliaceae	<i>Tilia cordata</i>	Little-leaf Linden	---	---	SNA	C3	0	4
Rhamnaceae	<i>Rhamnus cathartica</i>	Common Buckthorn	---	---	SNA	C1	0	4
Rosaceae	<i>Crataegus</i> sp.	Hawthorn species	---	---	---	---	0	4
Rosaceae	<i>Malus</i> sp.	Apple species	---	---	---	---	3	0
Rosaceae	<i>Prunus</i> sp.	Cherry species	---	---	---	---	2	0
Salicaceae	<i>Populus deltoides</i> ssp. <i>deltoides</i>	Eastern Cottonwood	---	---	S5	---	70	288
Salicaceae	<i>Salix</i> sp.	Willow species	---	---	---	---	4	4
Aceraceae	<i>Acer negundo</i>	Manitoba Maple	---	---	S5	C2	22	133
Aceraceae	<i>Acer saccharinum</i>	Silver Maple	---	---	S5	---	0	1
Aceraceae	<i>Acer x freemanii</i>	Freeman's Maple	---	---	SNA	---	30	142
Oleaceae	<i>Fraxinus pennsylvanica</i>	Green Ash	---	---	S4	---	1	1
Moraceae	<i>Morus alba</i>	White Mulberry	---	---	SNA	C1	1	1
Ulmaceae	<i>Ulmus americana</i>	American Elm	---	---	S5	---	1	4
Unknown	Unknown	Unknown	---	---	---	---	0	3
Total							135	614

<sup>1</sup>Status identified under the federal Species at Risk Act; <sup>2</sup>Status identified under the provincial Endangered Species Act; <sup>3</sup>SRank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5: S5 = widespread and secure, S4 = common and apparently secure, SNA = not applicable; <sup>4</sup>Invasive Exotic Plant Species Rankings for Southern Ontario (Draft - Urban Forest Associates/MNRF 2014). Category 1 (C1) - Top Priority: Widespread invasive species that exclude most other species and dominate sites indefinitely. Some are an imminent threat to human health. They are the top priority for control, but control may be difficult and some are beyond control at present. Biocontrols may be the only affective long-term control option. Plants in this category are a threat to a natural area wherever they occur because they disperse widely and benefit from human disturbances. Control where possible and do not plant; --- denotes no information or not applicable.

Four cavities were observed within the Project Location that may be suitable for SAR bat roosting. Being potential SAR habitat, these cavity trees are discussed further in **Section 5.2.12**.

## 5.2.8 Significant Woodlands

The biophysical inventory results are consistent with the background review. The treed Fencerow community is approx. 2.33 ha. As such, this community meets significance based on size criteria alone (OMNR, 2010). The treed Fencerow community has not been confirmed as SWH or SAR habitat for amphibians, birds, or vegetation. Refer to Section 5.2.11 for further discussion on SCC and/or SWH and Section 5.2.12 for further discussion on SAR and/or SAR habitat.

Potential impacts related to vegetation communities within the Project Location Area are included in **Section 8.1** and 8.2.

#### 5.2.9 Significant Wetlands

The biophysical inventory results are consistent with the background review. Field studies confirmed that there are no wetlands present within the Project Location.

#### 5.2.10 Significant Valleylands

The biophysical inventory results are consistent with the background review. Field studies confirmed that there are no valleyland features present within the Project Location. Permanent standing water or drains were not present within the Project Location. Approximately 20 years ago, a former drain/channel within the EPA was abandoned. Currently, the Fencerow community comprise the former, abandoned channel.

#### 5.2.11 Significant Wildlife Habitat

Based on the observations made during the site investigations, as well as the results of the ELC (Figure 2), the following confirmed SWH were observed within the Study Area (Figure 3).

##### Confirmed Significant Wildlife Habitat

- Special Concern and Rare Wildlife Species (six SCC detailed below).

During the site investigations, the following six SCC were observed (Figure 3):

- Eastern Wood-pewee (Special Concern under the ESA). Only one singing male was heard from east of point count 3. No probable or confirmed breeding evidence was observed and furthermore, this individual was heard outside of the Project Location to the east of North Neighbourhood Phase 7.
- Field Thistle (S3). Two stems were observed within the MEF community of North Neighbourhood Phase 6.
- Eastern Stiff-leaved Goldenrod (S3). Two stems were observed within the MEF community of North Neighbourhood Phase 6. Two other stems were observed within the proposed retained MEF community west of North Neighbourhood Phase 6.
- Giant Ironweed (S1?). Twenty-seven stems were observed within the MEF community of North Neighbourhood Phase 6. Thirteen other stems were observed within the proposed retained MEF community west of North Neighbourhood Phase 6.
- Biennial Gaura (S3). Ten stems were observed within the proposed retained MEF community west of North Neighbourhood Phase 6.
- Climbing Prairie Rose (Special Concern under the ESA and S3). Nine stems were observed within the proposed retained MEF community west of North Neighbourhood Phase 6.

As a result, there is confirmed SWH for Special Concern and Rare Wildlife Species (Figure 3).

The Ontario Species at Risk Observation Reporting Form (Appendix E) has been populated with SCC observations that occurred within the Study Area and has been submitted to the NHIC. Potential impacts to SWH are addressed in **Section 8.1.1** and 8.1.2.

### 5.2.12 Species at Risk

Based on the observations made during the site investigations, as well as the results of the ELC (Figure 2), the following candidate SAR habitat were observed within the Study Area (Figure 4).

#### Candidate SAR Habitat

- Eastern Foxsnake Category 2/3 Regulated Habitat.
- SAR bat roosting habitat. During the tree inventories/cavity surveys, four cavities were observed within the Project Location that may be suitable for SAR bat roosting.

During the site investigations, the following one SAR was observed (Figure 4):

- Chimney Swift (Threatened under the ESA). Foraging individuals were observed at each point count. No breeding evidence was observed.

As a result, there is candidate SAR habitat for Eastern Foxsnake and SAR bats (Figure 4).

The Ontario Species at Risk Observation Reporting Form (Appendix E) has been populated with SAR observations that occurred within the Study Area and has been submitted to the NHIC. Correspondence with the MECP has been initiated and final determinations can be provided under separate cover. Potential impacts to SAR are addressed in **Section 8.1.1** and 8.1.2.

### 5.2.13 Incidental Wildlife

Incidental wildlife species observed within the Project Location are listed in Table 10. Cedar Waxwing is considered widespread and secure (S5) in the province of Ontario based on the provincial conservation rankings assigned by the NHIC. Great Egret is considered very rare and imperiled (S2) in the province of Ontario based on the provincial conservation rankings assigned by the NHIC. The Great Egret individual was observed flying north toward Lake St. Clair and no breeding evidence was observed. Of the two incidental species observed, none are considered SAR.

Table 10: Incidental Wildlife Observations

Scientific Name	Common Name	SARA <sup>1</sup>	ESA <sup>2</sup>	SRank <sup>3</sup>	Evidence
Birds					
Ardea alba	Great Egret	---	---	S2B	Observed



Scientific Name	Common Name	SARA <sup>1</sup>	ESA <sup>2</sup>	SRank <sup>3</sup>	Evidence
<i>Bombycilla cedrorum</i>	Cedar Waxwing	---	---	S5B	Observed

<sup>1</sup>Status identified under the federal Species at Risk Act; <sup>2</sup>Status identified under the provincial Endangered Species Act; <sup>3</sup>SRank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5: S5 = widespread and secure, S2 = very rare and imperiled, B = breeding; --- denotes no information or not applicable.

Potential impacts related to wildlife within the Study Area are included in **Section 8.1.1**.

Refer to **Section 9.0** for recommended mitigation measures to prevent impacts to wildlife and/or their habitats.

## Ecological Function

The Project Location was assessed based on existing characteristics (if any) to determine the presence of potential natural heritage features, SWH, SAR habitat, etc. North Neighbourhood Phase 6 is comprised of agriculture (southeastern part), a treed Fencerow with European Common Reed inclusion (through the central part), and Forb Meadow (extreme northwestern and western parts). North Neighbourhood Phase 7 is comprised of agriculture with scattered trees closest to the western and northern boundaries. Ecological function is predominately restricted to the more natural (Forb Meadow) and treed communities (Fencerow) within the Project Location and include providing confirmed SWH for five SCC plant species and candidate SAR habitat for Eastern Foxsnake and SAR bats, prevention of erosion and runoff, facilitating hydrological and nutrient cycling, water retention, improving localized soil, and water and air quality.

Parts of the EPA lands are proposed to be retained and parts of the EPA lands are proposed to be developed. As per Section 5.3.4 of the City's OP, lands designated as EPA may be able to tolerate appropriately designed development. EPA's may be partially developed provided that the development conserves the significant natural features and/or functions. Refer to **Section 8.0** for further discussion on the EPA lands.

In conclusion, parts of the EPA lands are proposed to be developed. Within the proposed development for North Neighbourhood Phase 6, three SCC (2 Field Thistle, 2 Eastern Stiff-leaved Goldenrod, and 27 Giant Ironweed) were observed, confirmed SWH exists (0.24 ha), and candidate SAR habitat for Eastern Foxsnake exists (2.26 ha). Potential impacts and recommended mitigation measures to prevent impacts to SCC/SAR and their habitats, as well as significant natural features are discussed in **Section 8.0** and 9.0.

## Description of the Proposed Development

---

The overall proposed development will generally include:

- Residential development with associated parking and roadways and
- Landscaped areas throughout the proposed development (Figure 5).

The proposed main access points to this development will be heading south from Wyandotte Street East to North Neighbourhood Phase 6 and heading north from Wyandotte Street East to North Neighbourhood Phase 7 (Figure 5). Construction of the proposed development would include the removal of approximately 0.71 ha of Forb Meadow and 1.55 ha of Fenceorw with European Common Reed inclusion (Figure 5). Landscaping may include, but is not limited to, fencing, sod, and tree plantings. The associated impacts of the development and recommended mitigation and enhancement measures will be discussed in **Section 8.0** and **Section 9.0**.

## 8.0 Potential Impact Identification and Analysis

### 8.1 Potential Direct Impacts

Potential direct impacts are those that are immediately evident as a result of the development. Typically, the adverse effects of direct impacts are most evident during the site preparation and construction phase of a development. The potential direct impacts of the proposed development include the following:

- Loss of/disturbance to wildlife and wildlife habitat;
- Tree and vegetation removal;
- Diversion of surface water flows and stormwater management; and
- Erosion and sedimentation into natural features.

Each of these potential impacts are discussed in subsequent sections.

#### 8.1.1 Loss of/Disturbance to Wildlife and Wildlife Habitat

In general, wildlife, including a historical Bald Eagle nest, confirmed SWH and candidate SAR habitat, may be impacted due to vegetation clearing within the proposed development area (i.e. within the Forb Meadow and Fencerow communities). Wildlife habitat for fauna may be impacted by construction in the following ways:

- Displacement, injury, or death resulting from ignition, operation, and/or contact with heavy equipment during clearing and grading activities and
- Disturbance to wildlife as a result of noise associated with construction activities, particularly during breeding periods.

More specifically, SCC (2 Field Thistle, 2 Eastern Stiff-leaved Goldenrod, and 27 Giant Ironweed) were identified within the Project Location. These populations of SCC plants are located within the proposed development footprint (Figure 3).

Mitigation measures to avoid impacts to wildlife are discussed in **Section 9.3**.

#### 8.1.2 Tree and Vegetation Removal

The proposed development plan indicates the preservation of 278 trees (195 client-owned trees and 83 not client-owned trees) and the removal of 336 trees (336 client-owned trees and 0 not client-owned trees). Refer to the Natural Site Features Inventory & Preservation Study for North Neighbourhood Phase 6 and 7, prepared by Dillon Consulting Limited dated September 2023, for more details. The proposed

development plan indicates the removal of 0.71 ha of the Forb Meadow and 1.55 ha of the Fencerow communities (Figure 5), to facilitate grading and construction of the development. Tree/ground vegetation removal will result in a reduction of tree and vegetation cover, wildlife habitat loss, and alteration of soil conditions. On a site level, the impacts of tree and vegetation removal may include:

- Direct loss of trees;
- Decreased floral species richness and abundance;
- Altered soil conditions and water availability;
- Loss of native seed banks; and
- Physical injury, root damage, and compaction of trees not intended for removal that may result from construction operations.

Refer to **Section 9.4** for mitigation and enhancement opportunities.

### 8.1.3 Diversion of Surface Water Flows and Stormwater Management

The potential impacts of changes to land use and land cover on the health of a watershed have been well documented and can include changes to groundwater infiltration, run off, stream flow regime, water quality, stream channel erosion, and wildlife habitat. More specifically, changes may include:

- Direct “footprint” effects such as the loss of natural land cover;
- Indirect “flow related” effects such as increased frequency of high stream flows, accelerated stream channel erosion, and deterioration of water quality; and
- Cumulative effects such as changes in aquatic community composition may arise from a combination of changes affecting upstream areas.

The proposed development will increase the amount of impervious land on the property leading to increased surface runoff. The proposed stormwater strategy includes:

- A local storm sewer to convey a 1:5 year design storm event without surcharging closer than 0.3 m from the proposed roadway surface;
- The proposed rights-of-way will be designed to convey the 1:100 year design storm event with levels below 0.3 m; and
- The North Neighbourhood Pond (outside of the Study Area to the west) to provide the retained quality and quantity storage.

The proposed SWM for the development will use best management practices to mitigate potential negative effects of increased discharge into receiving waters and is further discussed in **Section 9.1**. Provided these mitigation measures are followed, the potential ecological impact of stormwater discharge is expected to be minimal.

Refer to **Section 9.1** for mitigation measures related to surface flows.

#### 8.1.4 Erosion and Sedimentation into Natural Features

Construction activity, especially operations involving the handling of earthen material, increases the availability of sediment for erosion and transport via surface drainage. Due to the anticipated reduction in infiltration rates post-development, there is the potential for natural features within the area to be impacted as a result of the development if construction best management practices are not implemented.

Potential impacts to these features may include, but are not limited to:

- Reduced water quality and degradation of nearby drains/wetlands; and
- Disturbance to or loss of additional vegetation due to the deposition of dust and/or overland mobilization of soil.

Due to the potential impacts, control measures must be selected that are appropriate for the erosion potential of the site and it is important that they be implemented and modified on a staged basis to reflect the site activities. Furthermore, their effectiveness decreases with sediment loading and therefore inspection and maintenance is required.

Refer to **Section 9.2** for mitigation measures related to erosion and sedimentation.

## 8.2 Potential Indirect Impacts

Potential indirect impacts are those that do not always manifest in the core development area, but in the lands adjacent to the development. Indirect impacts can begin in the construction phase; however, they can continue post-construction. Typical indirect impacts from the proposed development include increased anthropogenic disturbance and colonization of non-native and/or invasive species.

### 8.2.1 Anthropogenic Disturbance

Disturbance to local wildlife communities due to indirect impacts on the surrounding/adjacent lands to the proposed development could result if left unmitigated. Noise, light, vibration, and human presence are potential indirect impacts that can adversely influence the population size and breeding success of local wildlife. These effects are more pronounced when new development is introduced in non-urban areas. Although lands within the Study Area are already disturbed by anthropogenic land uses, mitigation measures that further address anthropogenic disturbance have been included in **Section 9.0**.

### Colonization of Non-native and/or Invasive Species

Physical site disturbance may increase the likelihood that non-native and/or invasive flora species will be introduced to the surrounding vegetation communities. Non-native and invasive flora can establish in disturbed sites more efficiently than native flora and can then encroach into adjacent undisturbed areas. This type of colonization is currently occurring within the Project Location. Species including European Common Reed (*Phragmites australis* ssp. *australis*), Common Buckthorn (*Rhamnus cathartica*), White Sweet-clover (*Melilotus albus*), Wild Parsnip (*Pastinaca sativa*), Canada Thistle (*Cirsium arvense*), and Fuller's Teasel (*Dipsacus fullonum*) were identified within the Project Location. In order to maximize ecological function on adjacent lands, removal of invasive species paired with planting of native tree and shrub species is recommended.

## 9.0 Mitigation Measures and Opportunities for Enhancement

Mitigation involves the avoidance or minimization of development impacts through good design, construction practices, or restoration and enhancement activities. The feasibility of mitigation options have been evaluated based on the natural features within and adjacent to the Project Location. The impact assessment highlighted four potential direct impacts, which include; loss of/disturbance to wildlife and wildlife habitat, tree and vegetation removal, diversion of surface water flows and stormwater management, and erosion and sedimentation into natural features.

A variety of mitigation techniques can be used to minimize or eliminate the potential impacts noted above. These measures include Stormwater Management Plan, Erosion and Sediment Control (ESC) Plan, Wildlife Impact Mitigation Plan, Plant Transplantation, and Environmental Monitoring Plan. Each mitigation measure recommended for the proposed development is introduced below.

### 9.1 Stormwater Management Plan

A local storm sewer will convey stormwater to the North Neighbourhood Pond (outside of the Study Area to the west), which will provide the retained quality and quantity storage. This strategy is based on the criteria established in the Windsor/Essex Region Stormwater Management Standards Manual (2018).

### 9.2 Erosion and Sediment Control Plan

In order to mitigate the adverse environmental impacts caused by the release of sediment-laden runoff, measures for Erosion and Sediment Control (ESC) are recommended for the construction site. Mitigation measures include the installation of geotextile silt fences, rock check dams, ditch checks, temporary sediment ponds, designated topsoil stockpile areas, and cut-off swales and ditches to divert surface flows to the appropriate sediment control area. Additional mitigation measures include:

- Standard duty silt fencing (OPSD 219.110) and/or other equivalent erosion and sediment controls should be installed around the perimeter of the work area to clearly demarcate the development area and prevent erosion and sedimentation into adjacent habitats. Erosion and sediment control measures should be monitored regularly to ensure they are functioning properly and if issues are identified, should be dealt with promptly;
- Stockpiling of excavated material should not occur outside the delineated work area. If stockpiling is to occur outside of this area, silt fencing should be used to contain any spoil piles



to prevent sedimentation into adjacent areas. Further, stockpiling of excavated materials should not occur within 30 m of watercourses;

- A spill response plan should be developed and implemented as required;
- The use of silt socks, dewatering ponds, etc. should be implemented to avoid sedimentation and erosion into adjacent areas as required. If dewatering requires more than 50,000 Liters (L) of water to be pumped per day, appropriate permits must be obtained from the MECP prior to the dewatering; and
- Use of mud mats at the construction entrance prior to commencing earthworks to minimize the tracking of mud onto municipal roads.

### 9.3 Wildlife Impact Mitigation Plan

Strategies to mitigate impacts to general wildlife prior to and during construction are recommended:

- Tree/vegetation removal should be conducted outside of the breeding bird season (no removal between April 1 to August 31). Should removals be required during this season, appropriate nest searches should be conducted by a qualified biologist. Bird nest searches are recommended to be completed 48 hours prior to clearing activities. If active nests are found, work within a species-specific setback from the nest should be established by a qualified biologist, until the nest fate is either successful (i.e. young have fledged and can leave the area on their own accord) or unsuccessful (i.e. the nest is no longer active). Confirmation of nest inactivity should be confirmed by a qualified biologist prior to encroachment into the buffer. If no nests are present, clearing may occur. This is in accordance with the federal *Migratory Birds Convention Act* (1994);
- Tree removal should be conducted outside of the active bat active season (no removal between April 1 to September 30). Should removals be required during this season, appropriate bat exit surveys should be conducted by a qualified biologist. Ideally, bat exit surveys should be conducted during June. Each candidate roost should be monitored on two separate evenings under appropriate weather conditions (i.e. temperature above 10 degrees Celsius, no rain, and low wind). Monitoring should take place from 30 minutes before sunset until 60 minutes after sunset;
- Visual monitoring for wildlife species and avoidance, where encountered, if possible;
- If necessary, have a qualified biologist monitor construction in the areas of potential wildlife habitat. If wildlife are found within the construction area, they should be relocated by a qualified biologist (someone who is both trained in proper snake handling and maintains a Wildlife Scientific Collector's Authorization) to an area outside of the development into an area of appropriate habitat, as necessary;
- If an injured or deceased SAR is found, the individual must be placed in a non-airtight container that is maintained at an appropriate temperature and an Authorized Wildlife Custodian (authorized under the Fish and Wildlife Conservation Act) in the area should be contacted and the MECP notified as soon as reasonably possible; and

- General awareness training for staff prior to commencement of construction regarding typical SAR species that could potentially enter the construction site.

### 9.3.1 Fish and Wildlife Conservation Act

With the presence of the old Bald Eagle nest within the development footprint, regulatory requirements were followed under Section 7 (Nests and eggs) of the FWCA. The proposed works involved moving/destroying one, inactive Bald Eagle nest. Accordingly, an authorization was required under the FWCA. The client received an Authorization to Destroy/Take/Possess Nests and Eggs to destroy/take/possess one, inactive Bald Eagle nest close to the Project Location.

To compensate for the removal/destruction of the old Bald Eagle nest, two artificial nesting platforms on trees within the greater area of the Project Location was completed. Scoping for suitable platform locations on suitable trees was conducted by a qualified Dillon biologist and avifaunal specialist Phil Roberts on July 9 and August 25, 2021. The August 25, 2021 visit was also conducted by Karen Cedar (City of Windsor naturalist). Care was taken to select suitable, healthy trees which exhibited a suitable growth form in which to install a platform. Tree locations were also selected to maximize discovery by the Bald Eagle pair (i.e. close to the Project Location), yet minimize public access and disturbance (i.e. away from public trails, houses, etc.).

### 9.3.2 Mitigation Measures Required by the MECP

Aside from general mitigation measures detailed above, the MECP has also recommended the following specific mitigation measures for similar projects within the area:

- Any species listed as Endangered or Threatened on the Species at Risk in Ontario (SARO) List that is encountered at the Project Location must be protected from all harm and harassment;
- All on-site personnel must be made aware of the potential presence of SAR;
- Any SAR incidentally encountered must be protected from harm and harassment. If a SAR is encountered, it should be given adequate time to leave the area before starting work. Activities within 30 m must cease until the individual disperses. If a SAR must be moved, a qualified biologist should be contacted for advice/help before it is moved;
- Any SAR individual that is present at the project site and have the potential to be impacted should be reported to MECP as soon as reasonably possible;
- If vegetation removal is to be completed during the active season (i.e. March to November), the area to be excavated/cleared of vegetation should be walked and visually surveyed for the presence of SAR snakes and breeding birds each day, prior to initiating these activities. Vegetation should be trimmed initially using handheld devices while visually surveying for SAR snakes, prior to removal with heavy machinery and excavation/grading activities. Vegetation

removal should occur on sunny days when air temperatures are between 15 and 30 °C, when SAR snakes are most active and can flee the disturbance area;

- Prior to development commencement, standard duty silt fence should be installed around the perimeter of the work area. The fence will serve a dual purpose for erosion control measures and wildlife exclusion. The use of mesh or netting type stabilization material must not be used due to the risk of entanglement of SAR snakes;
- Soil stockpiles (if created) should have slopes to 70 degrees or less to avoid creating suitable habitat for Bank Swallow. If needed, Best Management Practices for the Protection, Creation and Maintenance of Bank Swallow Habitat in Ontario (OMNRF, 2017) should be consulted;
- Construction and vegetation clearing equipment that is left idle for over one hour or is parked overnight on the property should be surveyed for the presence of snakes before (re)ignition. This visual examination should include all lower components of the machinery, including operational extensions and running gear; and
- During the active season for snake species (March 15 to November 30), individuals may find and occupy materials and equipment stored on site. Care should be taken to maintain a clean, debris-free work site and avoid the creation of debris stockpiles (e.g. storage of plywood, rubber mats, topsoil, lumber, bricks, and other construction materials should be avoided).

#### 9.4 Plant Transplantation and Habitat Enhancement

Two SCC, Field Thistle (2 stems), Eastern Stiff-leaved Goldenrod (2 stems), and Giant Ironweed (27 stems) are located where the development is proposed. As such, we recommend that these stems be transplanted to the retained Forb Meadow to the west of North Neighbourhood Phase 6. In addition, with the removal of confirmed SWH (0.24 ha) we recommend enhancement of the retained Forb Meadow to the west of North Neighbourhood Phase 6. Hand removal of invasive species paired with hand planting of native species is recommended to ensure a high-quality habitat for numerous SCC within the northern Forb Meadow.

#### 9.5 Environmental Monitoring Plan

The Environmental Monitoring Plan (EMP) should be carried out through the duration of construction activities on-site to ensure that the erosion and sediment control measures operate effectively and to monitor the potential impacts, if any, upon the natural environment. The duration of construction is defined as the period of time from the beginning of earthworks until the site is stabilized. Site stabilization is defined as the point in time when the roads have been paved, buildings have been built, lawns have been sodded, identified plants have been transplanted, and restoration plantings have been completed.

The EMP would consist of monitoring the erosion and sediment measures, the transplanted plants, and the enhancement habitat. Erosion and sediment control measures would be regularly monitored, and they will require periodic cleaning (e.g. removal of accumulated silt), maintenance and/or re-construction.

Inspections of all of the erosion and sediment controls on the construction site should be undertaken by a monitor who is a Canadian Certified Inspector of Sediment and Erosion Control (CAN-CISEC). If control measures are found to be compromised/impaired, they should be repaired and/or replaced as soon as possible.

The EMP will be implemented during active construction periods in the development area with the following frequency:

- On a bi-weekly basis; and/or
- After every 10 mm or greater rainfall event.

Enhancement plantings and protected vegetation areas will require periodic monitoring to ensure that they are not impacted by adjacent development. Should any negative impacts be observed, necessary steps will be taken to ensure that the impacted vegetation is either restored or replaced.

The following details are recommended for a two-year maintenance and care program within the retained Forb Meadow area for transplanted plants and enhancement plantings:

#### Year One

- Establishment of a development limit for equipment/machinery;
- Removal of non-native vegetation (i.e. European Common Reed, Common Buckthorn, White Sweet-clover, Wild Parsnip, Canada Thistle, and Fuller's Teasel), where applicable; and
- Watering and weeding of newly planted areas, as required, for proper establishment of plantings.

#### Year Two

- Removal of invasive species regeneration;
- Replacement of dead material from plantings;
- Replenishment of mulch within planted areas, where required; and
- Regular watering and weeding of the buffer area throughout the growing season.

## Summary

This EER was prepared for the proposed residential developments located southeast of the intersection of Wyandotte Street East and future extension of Clover Avenue (east and south of 569 Adelaide Avenue) and also north of the intersection of Wyandotte Street East and future extension of Lublin Avenue (east of 10835 Riverside Drive East) (the “Project Location”) within the City of Windsor. The proposed developments are referred to as North Neighbourhood Phase 6 and Phase 7, which are part of a larger seven phase residential development in the North Neighbourhood of the East Riverside Planning Area in Windsor. This EER has been prepared due to the presence of EPA within the Study Area. The EER will form part of an application package for submission to the City of Windsor.

A review of background resources, including Land Information Ontario and the City of Windsor Official Plan, indicated that the land is designated as Residential (Schedule D) and Residential Neighbourhood (Schedule ER-2). To the west of the Project Location, Open Space (Schedule D and ER-2), and Neighbourhood Park (Schedule ER-3) designations exist. Partially within the Project Location (North Neighbourhood Phase 6) Environmental Policy Area A (Schedule C) designation exist.

Extensive field studies were conducted between 2020 and 2023 to confirm the presence/absence of significant wildlife habitat, SCC, and/or SAR within the Project Location. The field study results were used to determine the potential ecological function of any natural features within the Study Area and also to determine potential impacts on any natural features as a result of the proposed development. Six SCC (only three within the Project Location), confirmed SWH (0.24 ha within the Project Location), and candidate SAR habitat (2.26 ha of Eastern Foxsnake Category 2/3 and four potential SAR bat roosting trees) were observed.

Part of the Project Location (part of North Neighbourhood Phase 6) is within EPA lands, is confirmed SWH, and is candidate SAR habitat. Without receiving MECP approval yet, we have demonstrated that the proposed development will not only conserve the significant natural feature and/or functions, we are recommending enhancement of the retained EPA lands. This recommendation meets the intent of having no negative impacts on the present natural features. The proposed development will require the removal of approximately 0.71 ha of Forb Meadow and 1.55 ha of Fencerow.

Three SCC (2 Field Thistle, 2 Eastern Stiff-leaved Goldenrod, and 27 Giant Ironweed) were observed within the proposed development for North Neighbourhood Phase 6. Stems of these SCC that are located within the proposed development footprint are recommended to be transplanted to the nearby, retained Forb Meadow community.

Provided the mitigation measures, best management practices, and enhancement recommendations outlined in this EER are followed, the proposed development should result in no negative impacts on the natural features or their ecological function.

# References

---

- Birds Canada. 2021. Ontario Breeding Bird Atlas Instructions for General Atlassing.
- Birds Canada. 2023. The 124<sup>st</sup> Christmas Bird Count.
- Bird Studies Canada. 2008. Marsh Monitoring Program Participant's Handbook for Surveying Amphibians.
- Cadman, M.D., D.A. Sutherland, G.G. Beck, D. Lapage, and A.R. Couturier. 2008. Atlas of the Breeding Birds of Ontario. Bird Studies Canada.
- Chapman and Putnam. 1984. Physiography of Southern Ontario; Ontario Geological Survey, Map P.2715. Scale 1: 600 000.
- Conservation Authorities Act. (R.S.O. 1990, C-27). <https://www.ontario.ca/laws/statute/90c27>. Accessed 2023.
- City of Windsor. 2008. Update to the CNHS Inventory.
- City of Windsor. 2013. City of Windsor Official Plan and Schedules.
- Dobbyn, J. 1994. Atlas of the Mammals of Ontario. Federation of Ontario Naturalists.
- Endangered Species Act, 2007. (S.O. 2007, C-6). <https://www.ontario.ca/laws/statute/07e06>. Accessed 2023.
- Essex Region Conservation Authority. 1994. Environmentally Significant Areas Status Update.
- Essex Region Conservation Authority. 2013. Essex Region Natural Heritage System Strategy – (An Update to the Essex Region Biodiversity Conservation Strategy). Essex, Ontario. 319 pages.
- Fisheries and Oceans Canada. 2023. Aquatic Species at Risk Map. <http://www.dfo-mpo.gc.ca/species-especies/sara-lep/map-carte/index-eng.html>. Accessed 2023.
- Hayman, D., M. Child, and D. Hector. 2005. Fish Habitat Management Plan for the Essex Region. Prepared by the Essex Region Conservation Authority, Ontario Ministry of Natural Resources and the Department of Fisheries and Oceans.
- Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig, and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.
- Lee, H. 2008. Southern Ontario Ecological Land Classification – Vegetation Type List. London, Ontario.
- Matheny, N.P. and J.R. Clark. 1994. A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas – 2<sup>nd</sup> Edition. International Society of Arboriculture.

- Migratory Birds Convention Act, 1994. (S.C. 1994, C-22). <http://laws-lois.justice.gc.ca/eng/acts/m-7.01/>. Accessed 2023.
- Nelson, M. and D. Lebedyk. 2019. Environmental Impact Assessment Guideline. Essex Region Conservation Authority.
- Oldham, M.J. 1983. Environmentally significant areas of the Essex region. Essex Region Conservation Authority.
- Oldham, M.J, W.D. Bakowsky, and D.A. Sutherland. 1995. Floristic quality assessment system for southern Ontario. Natural Heritage Information Centre. Peterborough, Ontario, Canada.
- Oldham, M.J. and S.R. Brinker. 2009. Rare Vascular Plants of Ontario, Fourth Edition. Natural Heritage Information Centre, Ontario Ministry of Natural Resources. Peterborough, Ontario.
- Ontario Butterfly Atlas. 2023. <https://www.ontarioinsects.org/atlas/>. Accessed 2023.
- Ontario Geological Survey. 1991. Bedrock geology of Ontario, southern sheet; Ontario Geological Survey, Map 2544, scale 1: 1 000 000.
- Ontario Ministry of Agriculture, Food and Rural Affairs. 2023. Agricultural Information Atlas. <http://www.gisapplication.lrc.gov.on.ca/AIA/Index.html?viewer=AIA.AIA&locale=en-US>. Accessed 2023.
- Ontario Ministry of Environment, Conservation and Parks. 2019. Client's Guide to Preliminary Screening for Species at Risk.
- Ontario Ministry of Municipal Affairs and Housing. 2020. Provincial Policy Statement.
- Ontario Ministry of Natural Resources and Forestry. 2000. Significant wildlife habitat technical guide. 151pp.
- Ontario Ministry of Natural Resources and Forestry. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement 2005. Second Edition. Toronto: Queen's Printer for Ontario.
- Ontario Ministry of Natural Resources and Forestry. 2011. Survey Methodology under the Endangered Species Act, 2007: *Dolichonyx oryzivorus* (Bobolink).
- Ontario Ministry of Natural Resources and Forestry. 2013. Survey Protocol for Eastern Meadowlark (*Sturnella magna*) in Ontario.
- Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E. 41pp.
- Ontario Ministry of Natural Resources and Forestry. 2016. Survey Protocol for Ontario's Species at Risk Snakes. Ontario Ministry of Natural Resources and Forestry, Species Conservation Policy Branch. Peterborough, Ontario. ii + 17 pp.



Ontario Ministry of Natural Resources and Forestry. 2016. Technical Memo: Aylmer District MNRF Guidance on Identifying Activities/Areas Not Likely to Contravene the Endangered Species Act, 2007 in the County of Essex & City of Windsor.

Ontario Ministry of Natural Resources and Forestry. 2023. Make a Map: Natural Heritage Areas. [http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR\\_NHLUPS\\_NaturalHeritage&viewer=NaturalHeritage&locale=en-US](http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US). Accessed 2023.

Ontario Reptile and Amphibian Atlas. 2023. <https://www.ontarioinsects.org/herp/index.html>. Accessed 2023.

Richards, N.R., A.G. Caldwell, and F.F. Morwick. 1949. Soil Survey of Essex County. Report No. 11 of The Ontario Soil Survey. Experimental Farms Service, Dominion Department of Agriculture and the Ontario Agricultural College.

Species at Risk Act, 2002. (S.C. 2002, C. 29). <https://laws.justice.gc.ca/eng/acts/S-15.3/>. Accessed 2023.

Williams, P.H., R.W. Thorp, L.L. Richardson, and S.R. Colla. 2014. Bumble Bees of North America. Princeton University Press.

# Figures



# NORTH NEIGHBOURHOOD

## ENVIRONMENTAL EVALUATION REPORT

1027458 ONTARIO INC.

### PROJECT LOCATION

FIGURE 1

- Project Location
- Study Area (120 m)



SCALE 1:3,500

0 25 50 100 m



MAP DRAWING INFORMATION:  
 DATA PROVIDED BY MNR, DILLON CONSULTING  
 AERIAL IMAGERY PROVIDED BY ESRI

MAP CREATED BY: DU  
 MAP CHECKED BY: BM  
 MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 22-4864/66  
 STATUS: DRAFT  
 DATE: 2023-09-15

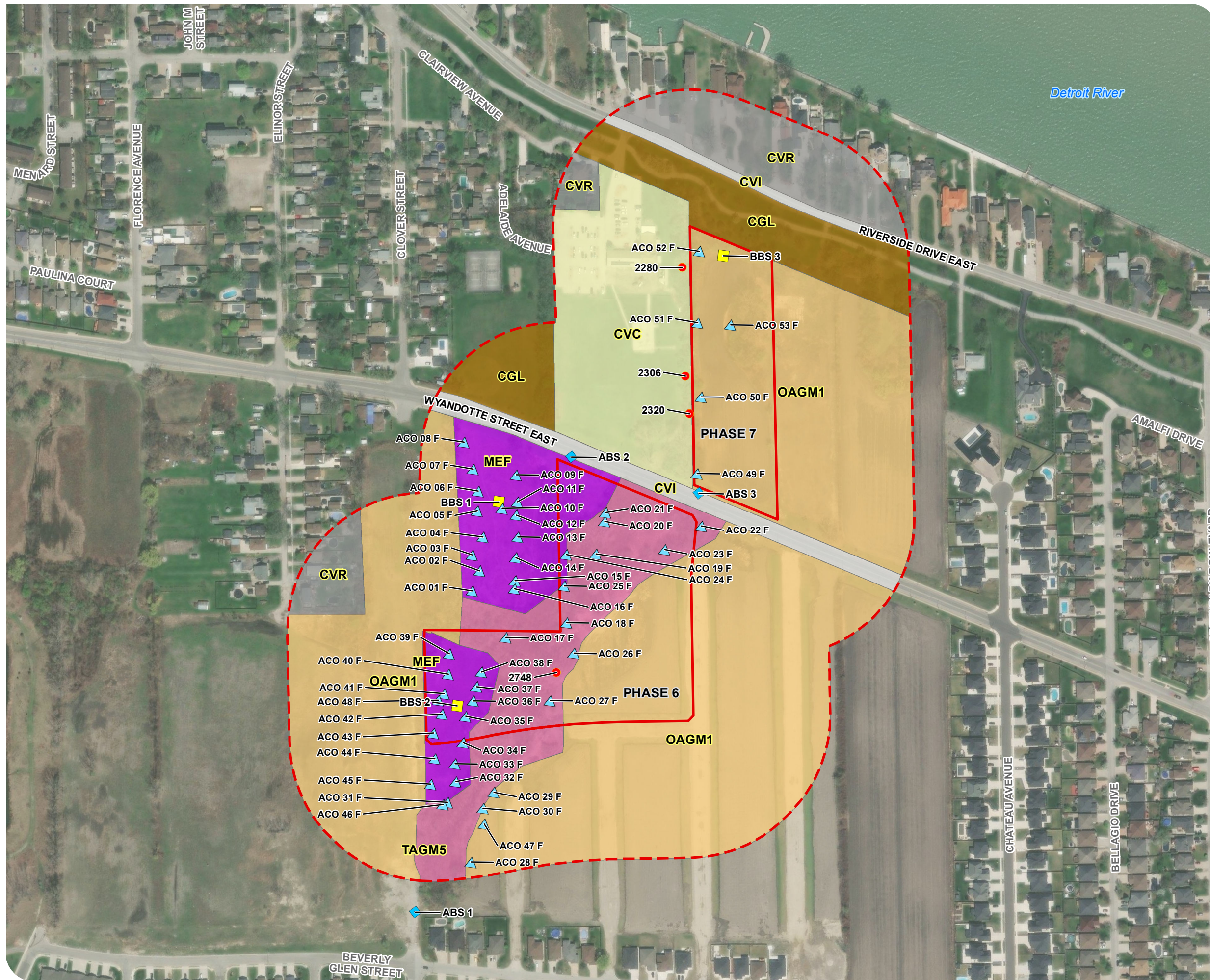
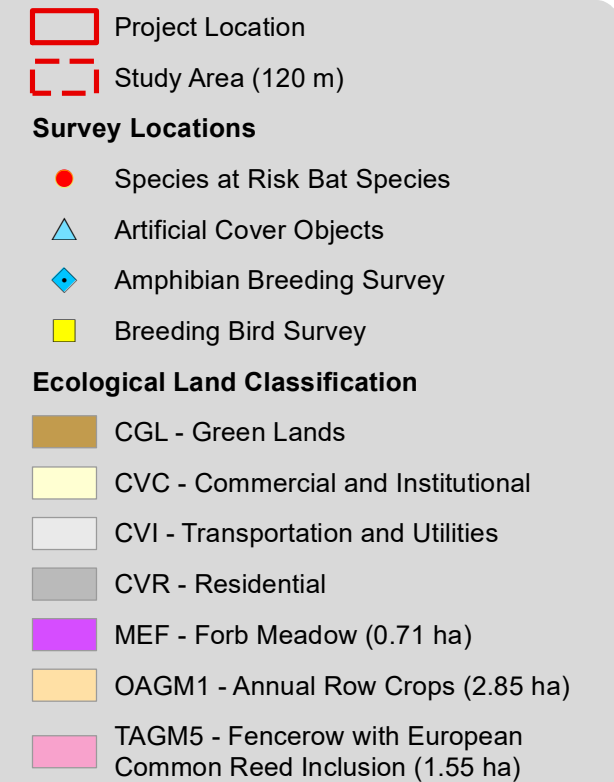
# NORTH NEIGHBOURHOOD

## ENVIRONMENTAL EVALUATION REPORT

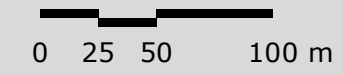
1027458 ONTARIO INC.

### SURVEY LOCATIONS AND ECOLOGICAL LAND CLASSIFICATION

FIGURE 2



SCALE 1:3,250



MAP DRAWING INFORMATION:  
 DATA PROVIDED BY MNR, DILLON CONSULTING  
 AERIAL IMAGERY PROVIDED BY ESRI

MAP CREATED BY: DU  
 MAP CHECKED BY: BM  
 MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 22-4862  
 STATUS: DRAFT  
 DATE: 2023-09-15



# NORTH NEIGHBOURHOOD

## ENVIRONMENTAL EVALUATION REPORT

1027458 ONTARIO INC.

### SIGNIFICANT WILDLIFE HABITAT

FIGURE 3

- Project Location
- Study Area (120 m)

#### Species of Conservation Concern

- Biennial Gaura
- Climbing Prairie Rose
- Eastern Stiff-leaved Goldenrod
- Eastern Wood-Pewee
- Field Thistle
- Giant Ironweed

#### Confirmed Significant Wildlife Habitat

- Special Concern and Rare Wildlife Species (0.24 ha)

SCALE 1:3,250



MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR, DILLON CONSULTING  
AERIAL IMAGERY PROVIDED BY ESRI

MAP CREATED BY: DU  
MAP CHECKED BY: BM  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 22-4864/66  
STATUS: DRAFT  
DATE: 2023-09-18






# NORTH NEIGHBOURHOOD

## ENVIRONMENTAL EVALUATION REPORT

1027458 ONTARIO INC.

### SPECIES AT RISK

FIGURE 4

-  Project Location
-  Study Area (120 m)
- Candidate Species at Risk Habitat**
  -  Eastern Foxsnake Category 2/3 (2.26 ha)
- Species at Risk**
  -  Chimney Swift
  -  SAR Bat Species



SCALE 1:3,250

0 25 50 100 m



MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR, DILLON CONSULTING  
AERIAL IMAGERY PROVIDED BY ESRI

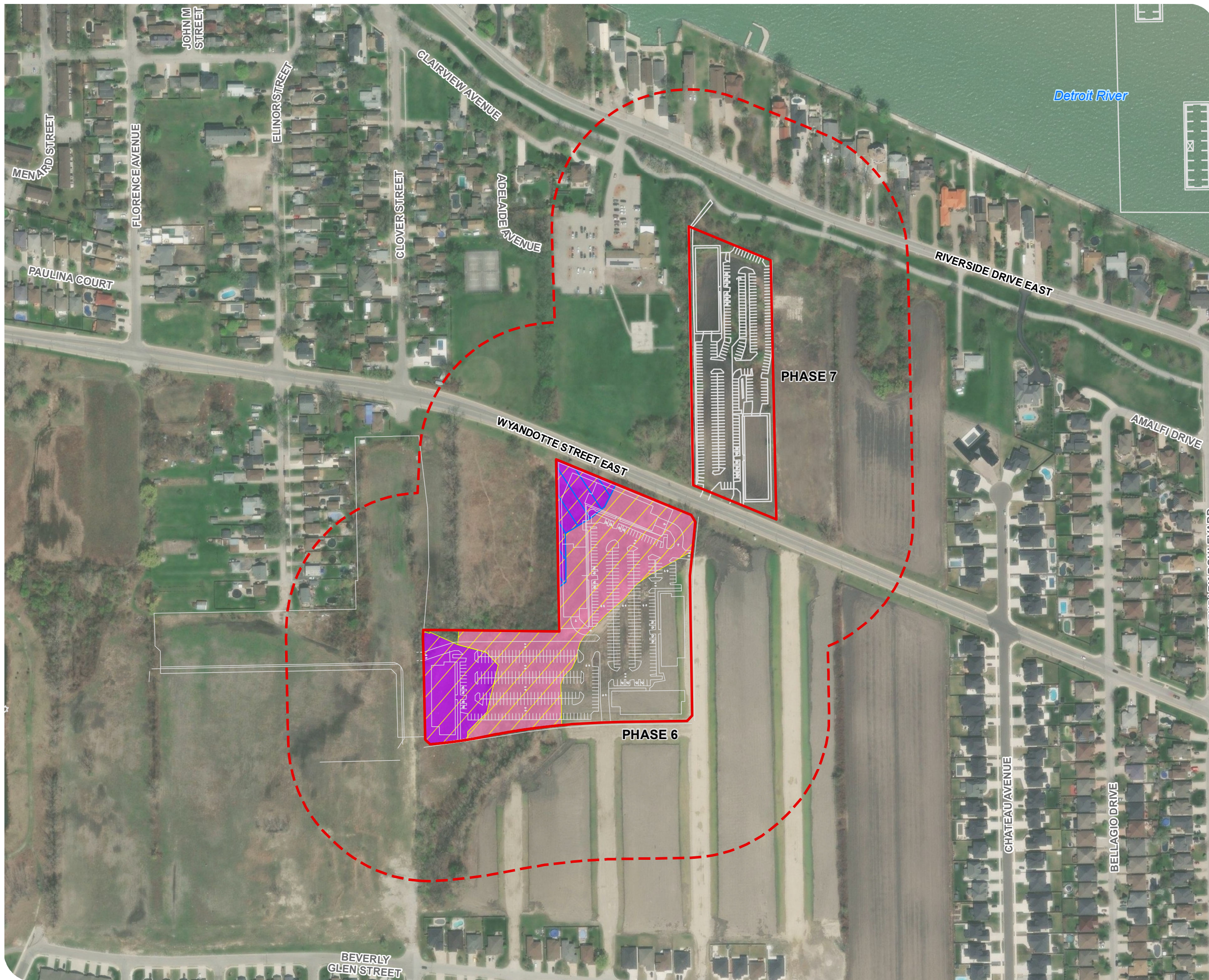
MAP CREATED BY: DU  
MAP CHECKED BY: BM  
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 22-4864/66

STATUS: DRAFT

DATE: 2023-09-15




# NORTH NEIGHBOURHOOD

## ENVIRONMENTAL EVALUATION REPORT

1027458 ONTARIO INC.

### PROPOSED DEVELOPMENT PLAN AND POTENTIAL IMPACTS

FIGURE 5

-  Project Location
-  Study Area (120 m)
-  Proposed Development
- Candidate Species at Risk Habitat**
-  Eastern Foxsnake Category 2/3 (2.26 ha)
- Confirmed Significant Wildlife Habitat**
-  MEF - Forb Meadow (0.24 ha)
- ELC Units Removed**
-  MEF - Forb Meadow (0.71 ha)
-  TAGM5 - Fencerow with European Common Reed Inclusion (1.55 ha)

SCALE 1:3,250



MAP DRAWING INFORMATION:  
DATA PROVIDED BY MNR, DILLON CONSULTING  
AERIAL IMAGERY PROVIDED BY ESRI

MAP CREATED BY: DU  
MAP CHECKED BY: BM  
MAP PROJECTION: NAD 1983 UTM Zone 17N

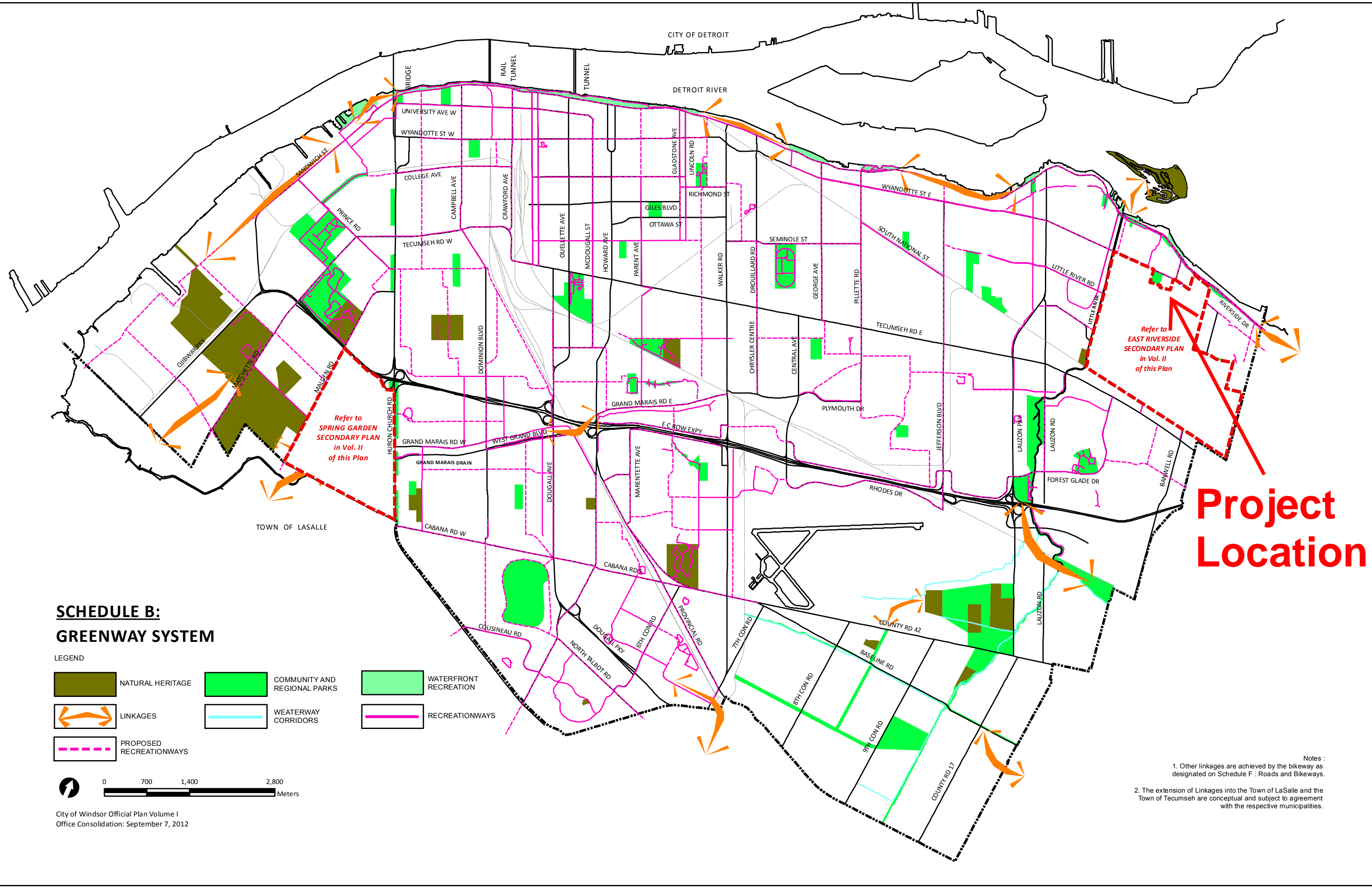


PROJECT: 22-4864/66  
STATUS: DRAFT  
DATE: 2023-09-18

# Appendix A

## Background Mapping









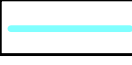
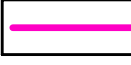

**Project Location**

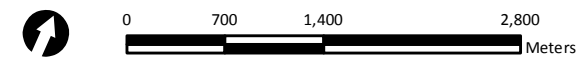
Refer to  
SPRING GARDEN  
SECONDARY PLAN  
in Vol. II  
of this Plan

Refer to  
EAST RIVERSIDE  
SECONDARY PLAN  
in Vol. II  
of this Plan

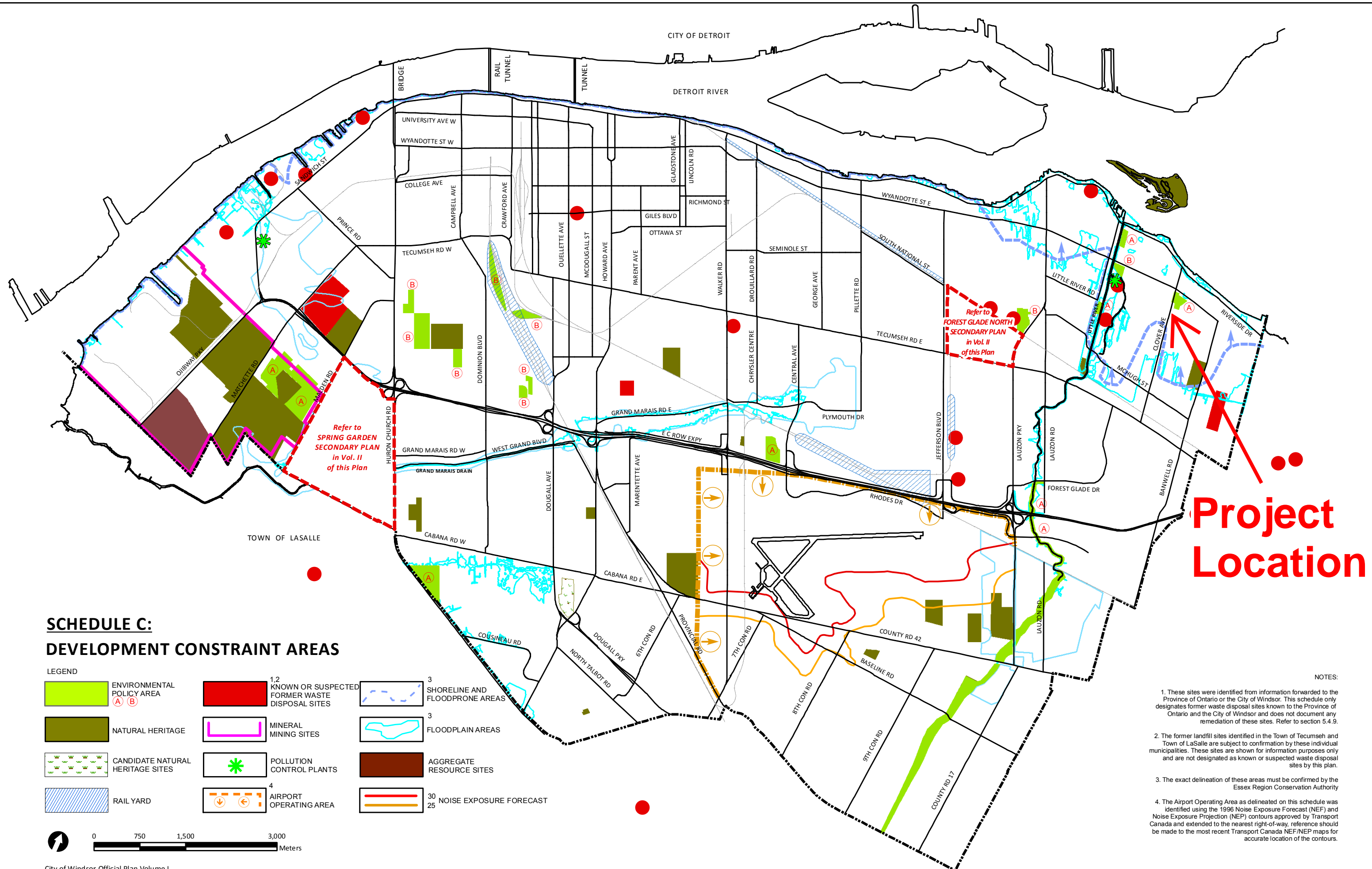
**SCHEDULE B:  
GREENWAY SYSTEM**

LEGEND

	NATURAL HERITAGE		COMMUNITY AND REGIONAL PARKS		WATERFRONT RECREATION
	LINKAGES		WATERWAY CORRIDORS		RECREATIONWAYS
	PROPOSED RECREATIONWAYS				



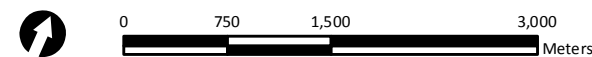
- Notes:
1. Other linkages are achieved by the bikeway as designated on Schedule F : Roads and Bikeways.
  2. The extension of Linkages into the Town of LaSalle and the Town of Tecumseh are conceptual and subject to agreement with the respective municipalities.

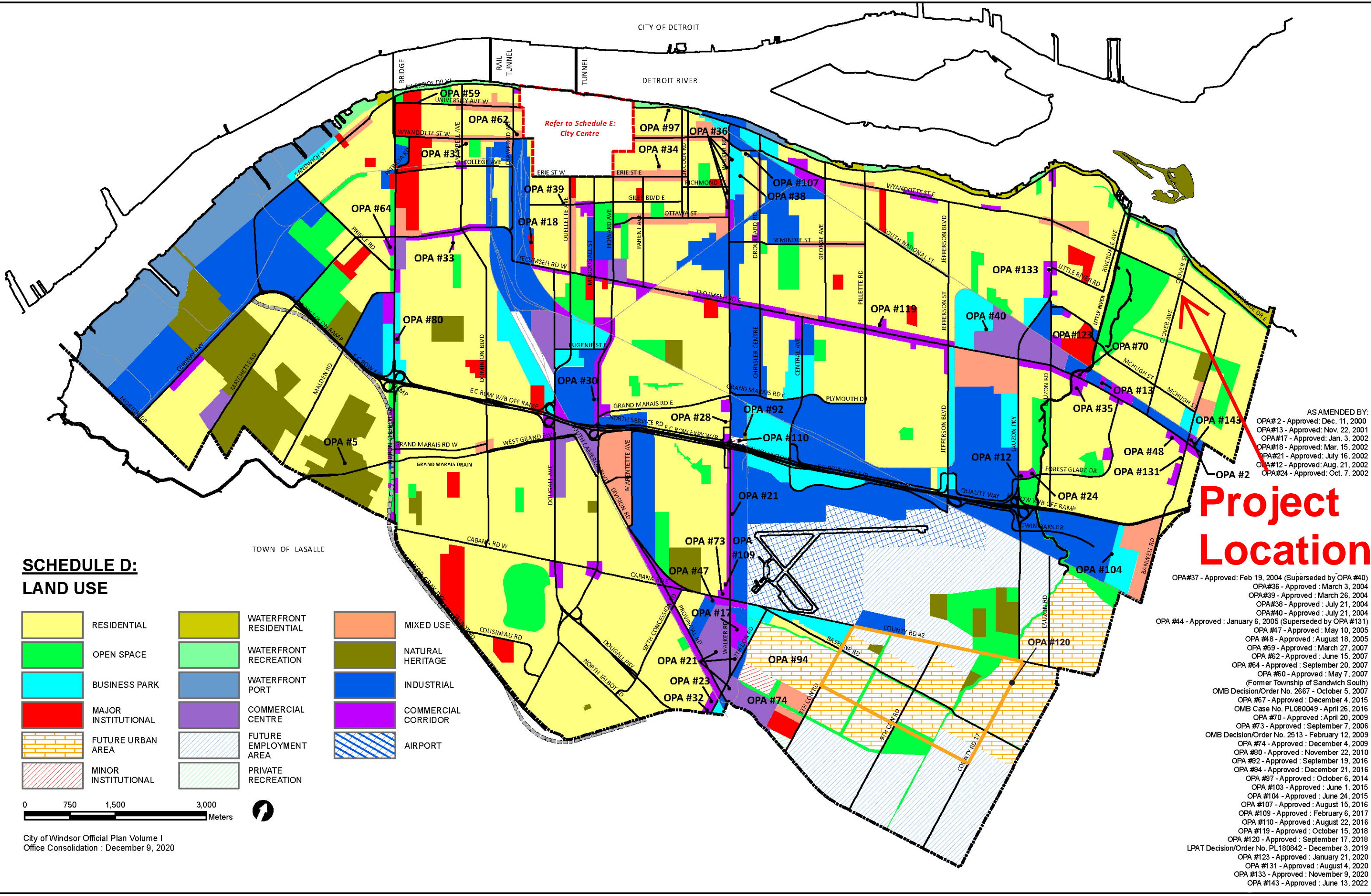


**SCHEDULE C:  
DEVELOPMENT CONSTRAINT AREAS**

LEGEND	
	ENVIRONMENTAL POLICY AREA (A, B)
	NATURAL HERITAGE
	CANDIDATE NATURAL HERITAGE SITES
	RAIL YARD
	1, 2 KNOWN OR SUSPECTED FORMER WASTE DISPOSAL SITES
	MINERAL MINING SITES
	POLLUTION CONTROL PLANTS
	4 AIRPORT OPERATING AREA
	3 SHORELINE AND FLOODPRONE AREAS
	3 FLOODPLAIN AREAS
	AGGREGATE RESOURCE SITES
	30, 25 NOISE EXPOSURE FORECAST

- NOTES:**
1. These sites were identified from information forwarded to the Province of Ontario or the City of Windsor. This schedule only designates former waste disposal sites known to the Province of Ontario and the City of Windsor and does not document any remediation of these sites. Refer to section 5.4.9.
  2. The former landfill sites identified in the Town of Tecumseh and Town of LaSalle are subject to confirmation by these individual municipalities. These sites are shown for information purposes only and are not designated as known or suspected waste disposal sites by this plan.
  3. The exact delineation of these areas must be confirmed by the Essex Region Conservation Authority
  4. The Airport Operating Area as delineated on this schedule was identified using the 1996 Noise Exposure Forecast (NEF) and Noise Exposure Projection (NEP) contours approved by Transport Canada and extended to the nearest right-of-way, reference should be made to the most recent Transport Canada NEF/NEP maps for accurate location of the contours.





**SCHEDULE D:  
LAND USE**

	RESIDENTIAL		WATERFRONT RESIDENTIAL		MIXED USE
	OPEN SPACE		WATERFRONT RECREATION		NATURAL HERITAGE
	BUSINESS PARK		WATERFRONT PORT		INDUSTRIAL
	MAJOR INSTITUTIONAL		COMMERCIAL CENTRE		COMMERCIAL CORRIDOR
	FUTURE URBAN AREA		FUTURE EMPLOYMENT AREA		AIRPORT
	MINOR INSTITUTIONAL		PRIVATE RECREATION		

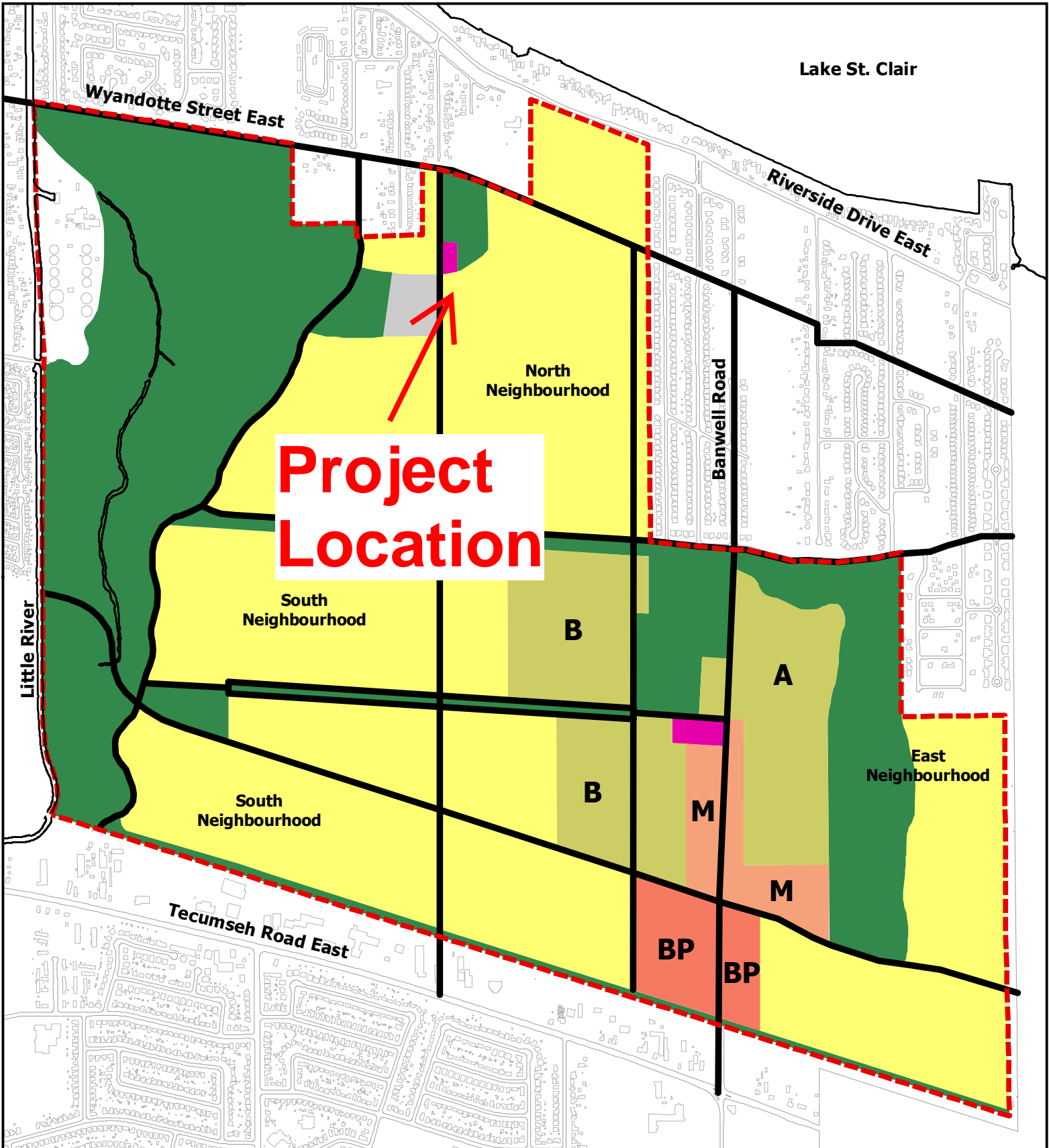


City of Windsor Official Plan Volume I  
Office Consolidation : December 9, 2020

- AS AMENDED BY:
- OPA#2 - Approved: Dec. 11, 2000
  - OPA#13 - Approved: Nov. 22, 2001
  - OPA#17 - Approved: Jan. 3, 2002
  - OPA#18 - Approved: Mar. 15, 2002
  - OPA#21 - Approved: July 16, 2002
  - OPA#12 - Approved: Aug. 21, 2002
  - OPA#24 - Approved: Oct. 7, 2002

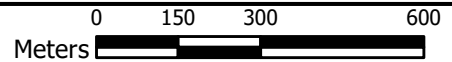
# Project Location

- OPA#37 - Approved: Feb 19, 2004 (Superseded by OPA #40)
- OPA#36 - Approved: March 3, 2004
- OPA#39 - Approved: March 26, 2004
- OPA#38 - Approved: July 21, 2004
- OPA#40 - Approved: July 21, 2004
- OPA #44 - Approved: January 6, 2005 (Superseded by OPA #131)
- OPA #47 - Approved: May 10, 2005
- OPA #48 - Approved: August 18, 2005
- OPA #59 - Approved: March 27, 2007
- OPA #62 - Approved: June 15, 2007
- OPA #64 - Approved: September 20, 2007
- OPA #60 - Approved: May 7, 2007 (Former Township of Sandwich South)
- OMB Decision/Order No. 2667 - October 5, 2007
- OPA #67 - Approved: December 4, 2015
- OMB Case No. PL080049 - April 26, 2016
- OPA #70 - Approved: April 20, 2009
- OPA #73 - Approved: September 7, 2006
- OMB Decision/Order No. 2513 - February 12, 2009
- OPA #74 - Approved: December 4, 2009
- OPA #80 - Approved: November 22, 2010
- OPA #92 - Approved: September 19, 2016
- OPA #94 - Approved: December 21, 2016
- OPA #97 - Approved: October 6, 2014
- OPA #103 - Approved: June 1, 2015
- OPA #104 - Approved: June 24, 2015
- OPA #107 - Approved: August 15, 2016
- OPA #109 - Approved: February 6, 2017
- OPA #110 - Approved: August 22, 2016
- OPA #119 - Approved: October 15, 2018
- OPA #120 - Approved: September 17, 2018
- LPAT Decision/Order No. PL180842 - December 3, 2019
- OPA #123 - Approved: January 21, 2020
- OPA #131 - Approved: August 4, 2020
- OPA #133 - Approved: November 9, 2020
- OPA #143 - Approved: June 13, 2022

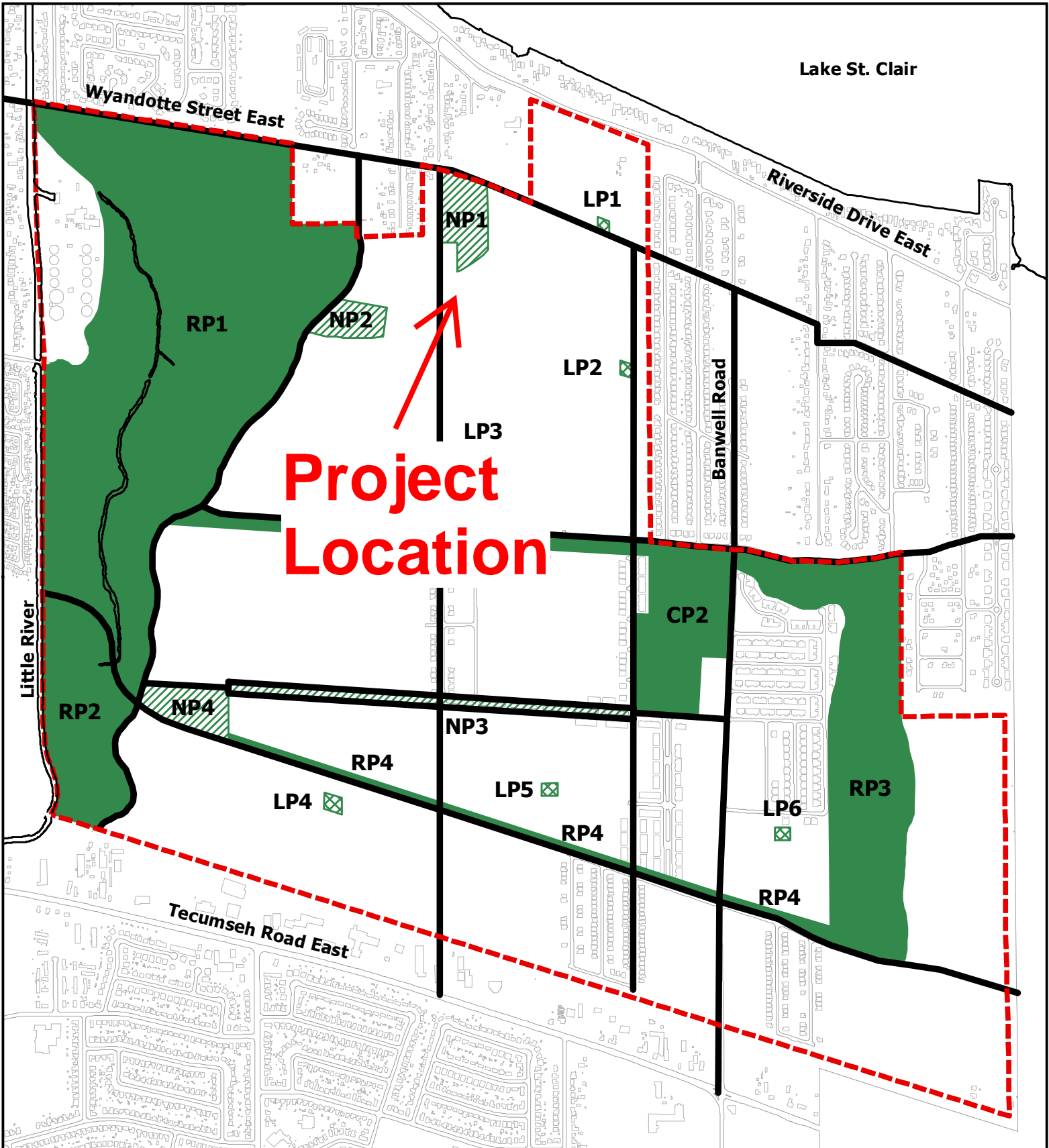


# EAST RIVERSIDE PLANNING AREA

## SCHEDULE ER-2 : LAND USE PLAN



Residential Neighbourhood	<b>M</b> Banwell Road Mixed Use Corridor	School Site
<b>A</b> Core Residential Area A	<b>BP</b> Business Park	Open Space
<b>B</b> Core Residential Area B	Institutional	Boundary of Planning Area



Lake St. Clair

Wyandotte Street East

Riverside Drive East

Banwell Road

Little River

RP1

NP1

LP1

NP2

LP2

LP3

**Project Location**

CP2

RP2

NP4

NP3

RP4

LP4

LP5

RP4

LP6

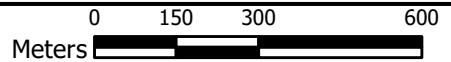
RP3

RP4

Tecumseh Road East

# EAST RIVERSIDE PLANNING AREA

## SCHEDULE ER-3 : GREENWAY SYSTEM PLAN



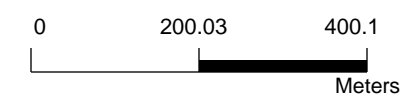
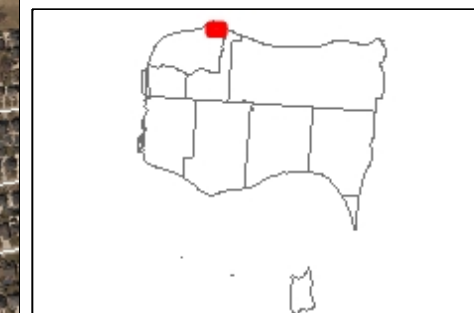
- RP Regional Park
- CP Community Park
- NP Neighbourhood Park
- LP Local Park
- Boundary of Planning Area

Legend

- COE.ERCA.wms\_MunicipalDrains\_ERCA - Larg
  - Natural
  - Municipal Drain (Open)
  - Municipal Drain (Closed)
  - Unknown/Other Status (Open)
  - Unknown/Other Status (Closed)
  - Private/Roadside (Open)
  - Private/Roadside (Closed)
- Conservation Areas
  - Provincially Significant Wetland (PSW)
  - Area of Natural & Scientific Interest (ANSI)
  - Environmentally Significant Area (ESA)
  - Significant Valley Land (SVL)
- Existing Natural Feature (ERNHSS Report, 201
  - Open Water
  - Marsh
  - Swamp
  - Forest
  - Other Terrestrial Natural Feature
- Limit of Regulated Area



Location



1: 9,000 12/23/2022

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

All data copyright 2022. Data provided by ERCA, Ontario Ministry of Natural Resources and Forestry, Queen's Printer for Ontario, County of Essex. Assessment parcel provided by Teranet Enterprises Inc. Data provided to public with permission.  
Data herein is provided on an 'as is' basis. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable, and are for visual reference only. It is the responsibility of the end user to determine if this material is suitable for their use. Map not to be used for navigation or plan of survey.  
Aerial photography copyright the City of Windsor/County of Essex/Ontario Ministry of Natural Resources and Forestry, Queen's Printer for Ontario/ERCA.

Notes

+ Search for Address 🔍
🗺️
📏
👁️
🏠

### Find Aquatic Species at Risk

Select Area Results

Save
Clear

Critical habitat for these species is found within the outlined area:

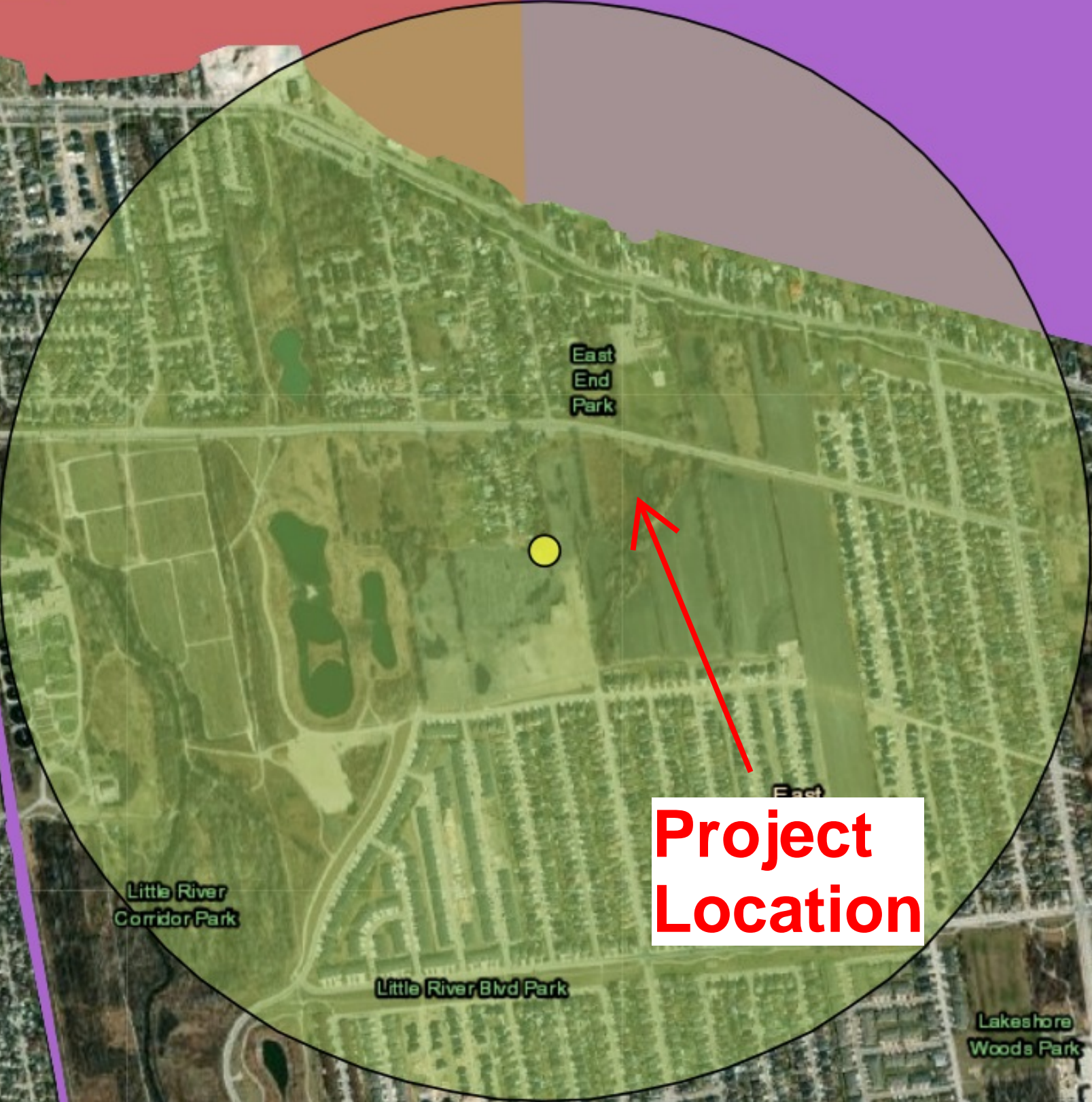
[Northern Madtom](#)

Species at risk found (or potentially found) within the outlined area:

[Northern Madtom](#) - Endangered

[Channel Darter](#) - Endangered

[Silver Lamprey](#) - Special Concern







**Project Location**

# Appendix B

## Site Photographs



<p>Photograph 1</p> <p>November 5, 2020</p> <p>Looking north from south of Phase 6.</p> <p>Note: Annual Row Crops (OAGM1; foreground) and Fencerow with European Common Reed inclusion (TAGM5; right).</p>	
<p>Photograph 2</p> <p>November 5, 2020</p> <p>Looking northeast within the southern meadow.</p> <p>Note: Forb Meadow (MEF; foreground) and Fencerow with European Common Reed inclusion (TAGM5; background).</p>	

<p>Photograph 3</p> <p>November 24, 2020</p> <p>Looking west from the eastern part of Phase 6.</p> <p>Note: Annual Row Crops (OAGM1; foreground) and Fencerow with European Common Reed inclusion (TAGM5; background).</p>	
<p>Photograph 4</p> <p>November 24, 2020</p> <p>Looking south from within the northern meadow.</p> <p>Note: Forb Meadow (MEF; foreground) and Fencerow with European Common Reed inclusion (TAGM5; background).</p>	

Photograph 5

March 31, 2021

Looking north from south of Phase 6.

Note: One adult Bald Eagle sitting on the nest (assumed incubating/ brooding at the time).





Photograph 6

May 24, 2022

Looking northwest from the southern part of Phase 7.

Note: Annual Row Crops (OAGM1; foreground) with scattered trees in the background.



<p>Photograph 7</p> <p>September 22, 2022</p> <p>Looking north within the southern meadow.</p> <p>Note: Forb Meadow (MEF; foreground) and Fencerow with European Common Reed inclusion (TAGM5; background).</p>	
<p>Photograph 8</p> <p>September 22, 2022</p> <p>Looking south within the southern meadow.</p> <p>Note: Forb Meadow (MEF; foreground) and Fencerow with European Common Reed inclusion (TAGM5; background).</p>	

Photograph 9

September 22,  
2022

Looking north  
within the  
northern meadow.

Note: Forb  
Meadow (MEF).



Photograph 10

July 12, 2023

Climbing Prairie  
Rose (Special  
Concern and S3)  
within the  
northern meadow.



Photograph 11

July 21, 2023

Field Thistle (S3)  
within the  
northern meadow.



Photograph 12

July 21, 2023

Eastern Stiff-leaved  
Goldenrod (S3)  
within the  
northern meadow.



Photograph 13

July 21, 2023

Giant Ironweed (S1?) within the northern meadow.



Photograph 14

August 4, 2023

Biennial Gaura (S3) within the northern meadow.



# Appendix C

## Vegetation List



Table 1: Vegetation Species identified within the Project Location

Family	Scientific Name	Common Name	SARA Status <sup>1</sup>	ESA Status <sup>2</sup>	SRank <sup>3</sup>	CC <sup>4</sup>	CW <sup>5</sup>	Invasive Priority for Control <sup>6</sup>	Noxious	Phase 5 Tree Inventory	Phase 6&7 Tree Inventory
Equisetaceae	<i>Equisetum arvense</i>	Field Horsetail	---	---	S5	0	0	---	---		
Pinaceae	<i>Picea pungens</i>	Blue Spruce	---	---	SNA	---	---	---	---		
Pinaceae	<i>Pinus strobus</i>	Eastern White Pine	---	---	S5	4	3	---	---	x	
Cyperaceae	<i>Carex vulpinoidea</i>	Fox Sedge	---	---	S5	3	-5	---	---		
Cyperaceae	<i>Cyperus esculentus</i>	Perennial Yellow Flatsedge	---	---	S5	1	-3	---	---		
Poaceae	<i>Dactylis glomerata</i>	Orchard Grass	---	---	SNA	---	3	C3	---		
Poaceae	<i>Echinochloa crus-galli</i>	Large Barnyard Grass	---	---	SNA	---	-3	---	---		
Poaceae	<i>Phragmites australis</i> ssp. <i>australis</i>	European Common Reed	---	---	SNA	---	-4	C1	---		
Apiaceae	<i>Cicuta maculata</i> var. <i>maculata</i>	Spotted Water-hemlock	---	---	S5	6	-5	---	---		
Apiaceae	<i>Daucus carota</i>	Wild Carrot	---	---	SNA	---	5	C4	---		
Apiaceae	<i>Pastinaca sativa</i>	Wild Parsnip	---	---	SNA	---	5	C1	Y		
Asteraceae	<i>Ambrosia artemisiifolia</i>	Annual Ragweed	---	---	S5	0	3	---	Y		
Asteraceae	<i>Ambrosia trifida</i>	Great Ragweed	---	---	S5	0	-1	---	Y		
Asteraceae	<i>Arctium minus</i>	Common Burdock	---	---	SNA	---	5	---	---		
Asteraceae	<i>Cichorium intybus</i>	Chicory	---	---	SNA	---	5	---	---		
Asteraceae	<i>Cirsium arvense</i>	Canada Thistle	---	---	SNA	---	3	C3	---		
Asteraceae	<i>Cirsium discolor</i>	Field Thistle	---	---	S3	9	5	---	---		
Asteraceae	<i>Erigeron philadelphicus</i>	Philadelphia Fleabane	---	---	S5	1	-3	---	---		
Asteraceae	<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	---	---	S5	2	-2	---	---		
Asteraceae	<i>Leucanthemum vulgare</i>	Oxeye Daisy	---	---	SNA	---	5	C4	---		
Asteraceae	<i>Solidago altissima</i> ssp. <i>altissima</i>	Eastern Late Goldenrod	---	---	S5	1	3	---	---		
Asteraceae	<i>Solidago rigida</i> ssp. <i>rigida</i>	Eastern Stiff-leaved Goldenrod	---	---	S3	9	4	---	---		
Asteraceae	<i>Sonchus arvensis</i> ssp. <i>arvensis</i>	Field Sow-thistle	---	---	SNA	---	1	---	Y		
Asteraceae	<i>Symphyotrichum ericoides</i> var. <i>ericoides</i>	White Heath Aster	---	---	S5	4	4	---	---		
Asteraceae	<i>Symphyotrichum lanceolatum</i> ssp. <i>lanceolatum</i>	Panicled Aster	---	---	S5	3	-3	---	---		
Asteraceae	<i>Symphyotrichum novae-angliae</i>	New England Aster	---	---	S5	2	-3	---	---		
Asteraceae	<i>Taraxacum officinale</i>	Common Dandelion	---	---	SNA	---	3	---	---		
Asteraceae	<i>Vernonia gigantea</i>	Giant Ironweed	---	---	S1?	7	0	---	---		
Brassicaceae	<i>Alliaria petiolata</i>	Garlic Mustard	---	---	SNA	---	0	C1	---		
Brassicaceae	<i>Brassica rapa</i>	Field Mustard/Turnip	---	---	SNA	---	5	---	---		
Brassicaceae	<i>Hesperis matronalis</i>	Dame's Rocket	---	---	SNA	---	5	C3	---		

Family	Scientific Name	Common Name	SARA Status <sup>1</sup>	ESA Status <sup>2</sup>	SRank <sup>3</sup>	CC <sup>4</sup>	CW <sup>5</sup>	Invasive Priority for Control <sup>6</sup>	Noxious	Phase 5 Tree Inventory	Phase 6&7 Tree Inventory
Brassicaceae	<i>Thlaspi arvense</i>	Field Penny-cress	---	---	SNA	---	5	---	---		
Cornaceae	<i>Cornus racemosa</i>	Gray Dogwood	---	---	S5	2	-2	---	---		
Caprifoliaceae	<i>Lonicera tatarica</i>	Tartarian Honeysuckle	---	---	SNA	---	3	C1	---		
Caprifoliaceae	<i>Sambucus canadensis</i>	Common Elderberry	---	---	S5	5	-2	---	---		
Dipsacaceae	<i>Dipsacus fullonum</i>	Fuller's Teasel	---	---	SE5	---	5	C3	---		
Fabaceae	<i>Gleditsia triacanthos inermis</i>	Thornless Honey-locust	---	---	SNA	3	0	---	---		x
Fabaceae	<i>Glycine max</i>	Soy Bean	---	---	SNA	---	5	---	---		
Fabaceae	<i>Lotus corniculatus</i>	Garden Bird's-foot Trefoil	---	---	SNA	---	1	---	---		
Fabaceae	<i>Melilotus albus</i>	White Sweet-clover	---	---	SNA	---	3	C1	---		
Fabaceae	<i>Melilotus officinalis</i>	Yellow Sweet-clover	---	---	SNA	---	3	C2	---		
Fabaceae	<i>Robinia pseudoacacia</i>	Black Locust	---	---	SNA	---	4	C3	---		x
Fabaceae	<i>Securigera varia</i>	Common Crown-vetch	---	---	SNA	---	5	C2	---		
Fabaceae	<i>Trifolium pratense</i>	Red Clover	---	---	SNA	---	2	---	---		
Fagaceae	<i>Quercus rubra</i>	Northern Red Oak	---	---	S5	6	3	---	---		
Apocynaceae	<i>Apocynum cannabinum</i>	Hemp Dogbane	---	---	S5	3	0	---	---		
Asclepiadaceae	<i>Asclepias incarnata</i>	Swamp Milkweed	---	---	S5	6	-5	---	---		
Asclepiadaceae	<i>Asclepias syriaca</i>	Common Milkweed	---	---	S5	0	5	---	---		
Asclepiadaceae	<i>Asclepias tuberosa</i>	Butterfly Milkweed	---	---	S4	8	5	---	---		
Balsaminaceae	<i>Impatiens capensis</i>	Spotted Jewelweed	---	---	S5	4	-3	---	---		
Juglandaceae	<i>Juglans nigra</i>	Black Walnut	---	---	S4	5	3	---	---		x
Lamiaceae	<i>Glechoma hederacea</i>	Ground Ivy	---	---	SNA	---	3	---	---		
Lamiaceae	<i>Lycopus americanus</i>	American Water-horehound	---	---	S5	4	-5	---	---		
Lamiaceae	<i>Prunella vulgaris ssp. vulgaris</i>	Self-heal	---	---	SNA	---	0	---	---		
Lamiaceae	<i>Pycnanthemum virginianum</i>	Virginia Mountain-mint	---	---	S4	8	-4	---	---		
Lamiaceae	<i>Stachys palustris</i>	Marsh Hedge-nettle	---	---	SNA	---	-5	---	---		
Verbenaceae	<i>Verbena hastata</i>	Blue Vervain	---	---	S5	4	-4	---	---		
Verbenaceae	<i>Verbena urticifolia</i>	White Vervain	---	---	S5	4	-1	---	---		
Malvaceae	<i>Abutilon theophrasti</i>	Velvetleaf	---	---	SNA	---	4	---	---		
Malvaceae	<i>Hibiscus trionum</i>	Flower-of-an-hour	---	---	SNA	---	5	---	---		
Tiliaceae	<i>Tilia cordata</i>	Little-leaf Linden	---	---	SNA	---	---	C3	---		x
Lythraceae	<i>Lythrum salicaria</i>	Purple Loosestrife	---	---	SNA	---	-5	C1	---		
Onagraceae	<i>Circaea canadensis</i>	Broad-leaved Enchanter's Nightshade	---	---	S5	3	3	---	---		

Family	Scientific Name	Common Name	SARA Status <sup>1</sup>	ESA Status <sup>2</sup>	SRank <sup>3</sup>	CC <sup>4</sup>	CW <sup>5</sup>	Invasive Priority for Control <sup>6</sup>	Noxious	Phase 5 Tree Inventory	Phase 6&7 Tree Inventory
Onagraceae	<i>Oenothera biennis</i>	Common Evening Primrose	---	---	S5	0	3	---	---		
Onagraceae	<i>Oenothera gaura</i>	Biennial Gaura	---	---	S3	4	4	---	---		
Plantaginaceae	<i>Plantago lanceolata</i>	English Plantain	---	---	SNA	---	0	---	---		
Plantaginaceae	<i>Plantago rugelii</i>	Rugel's Plantain	---	---	S5	1	0	---	---		
Polygonaceae	<i>Fallopia dumetorum</i>	Hedge Bindweed	---	---	SNA	---	---	---	---		
Polygonaceae	<i>Persicaria maculosa</i>	Spotted Lady's-thumb	---	---	SNA	---	-3	---	---		
Polygonaceae	<i>Rumex crispus</i>	Curly Dock	---	---	SNA	---	-1	---	---		
Ranunculaceae	<i>Ranunculus acris</i>	Tall Buttercup	---	---	SNA	---	-2	---	---		
Rhamnaceae	<i>Rhamnus cathartica</i>	Common Buckthorn	---	---	SNA	---	3	C1	Y		x
Vitaceae	<i>Parthenocissus inserta</i>	Thicket Creeper	---	---	S5	3	3	---	---		
Vitaceae	<i>Parthenocissus quinquefolia</i>	Virginia Creeper	---	---	S4?	6	1	---	---		
Vitaceae	<i>Vitis riparia</i>	Riverbank Grape	---	---	S5	0	-2	---	---		
Grossulariaceae	<i>Ribes americanum</i>	Wild Black Currant	---	---	S5	4	-3	---	---		
Rosaceae	<i>Agrimonia parviflora</i>	Swamp Agrimony	---	---	S4	4	-1	---	---		
Rosaceae	<i>Fragaria virginiana</i>	Wild Strawberry	---	---	S5	2	1	---	---		
Rosaceae	<i>Geum aleppicum</i>	Yellow Avens	---	---	S5	2	-1	---	---		
Rosaceae	<i>Geum canadense</i>	White Avens	---	---	S5	3	0	---	---		
Rosaceae	<i>Malus</i> sp.	Apple species	---	---	---	---	---	---	---	x	
Rosaceae	<i>Potentilla anserina</i> ssp. <i>anserina</i>	Common Silverweed	---	---	S5	5	-4	---	---		
Rosaceae	<i>Potentilla recta</i>	Sulphur Cinquefoil	---	---	SNA	---	5	---	---		
Rosaceae	<i>Prunus</i> sp.	Cherry species	---	---	---	---	---	---	---	x	
Rosaceae	<i>Prunus virginiana</i>	Choke Cherry	---	---	S5	2	1	---	---		
Rosaceae	<i>Rosa setigera</i>	Climbing Prairie Rose	SC	SC	S3	5	2	---	---		
Rosaceae	<i>Rubus allegheniensis</i>	Alleghany Blackberry or Common Blackberry	---	---	S5	2	2	---	---		
Rubiaceae	<i>Galium aparine</i>	Cleavers	---	---	S5	4	3	---	---		
Salicaceae	<i>Populus deltoides</i> ssp. <i>deltoides</i>	Eastern Cottonwood	---	---	S5	4	-1	---	---	x	x
Salicaceae	<i>Salix</i> sp.	Willow species	---	---	---	---	---	---	---	x	
Aceraceae	<i>Acer negundo</i>	Manitoba Maple	---	---	S5	0	-2	C2	---	x	x
Aceraceae	<i>Acer platanoides</i>	Norway Maple	---	---	SNA	---	5	C1	---		
Aceraceae	<i>Acer rubrum</i>	Red Maple	---	---	S5	4	0	---	---		
Aceraceae	<i>Acer saccharinum</i>	Silver Maple	---	---	S5	5	-3	---	---		x
Aceraceae	<i>Acer x freemanii</i>	Freeman's Maple	---	---	SNA	---	---	---	---	x	x

Family	Scientific Name	Common Name	SARA Status <sup>1</sup>	ESA Status <sup>2</sup>	SRank <sup>3</sup>	CC <sup>4</sup>	CW <sup>5</sup>	Invasive Priority for Control <sup>6</sup>	Noxious	Phase 5 Tree Inventory	Phase 6&7 Tree Inventory
Anacardiaceae	<i>Rhus hirta</i>	Staghorn Sumac	---	---	S5	1	5	---	---		
Anacardiaceae	<i>Toxicodendron radicans</i>	Climbing Poison Ivy	---	---	S5	5	-1	---	Y		
Oleaceae	<i>Fraxinus pennsylvanica</i>	Green Ash	---	---	S4	3	-3	---	---	x	x
Moraceae	<i>Morus alba</i>	White Mulberry	---	---	SNA	---	0	C1	---	x	x
Ulmaceae	<i>Ulmus americana</i>	American Elm	---	---	S5	3	-2	---	---	x	x
Urticaceae	<i>Urtica dioica</i> ssp. <i>dioica</i>	European Stinging Nettle	---	---	SNA	---	-1	---	---		

1 – Status identified by the Committee on the Status of Endangered Wildlife in Canada under the federal Species at Risk Act, 2002;

2 – Species at Risk in Ontario List under the provincial Endangered Species Act, 2007;

3 – Ontario Conservation SRank; S5 = secure; S4= apparently secure; SNA = non-native or exotic species to Ontario;

4 – Coefficient of Conservatism (CC) (Floristic Quality Assessment System for Southern Ontario 1995). Each native taxon is assigned a rank of 0 to 10 ("coefficient of conservatism") based on its degree of fidelity to a range of synecological parameters. Species found in a wide variety of plant communities, including disturbed sites, are assigned ranks of 0 to 3. Species that are typically associated with a specific plant community, but tolerate moderate disturbance, are assigned ranks of 4 to 6. Rankings of 7 to 8 were applied to those species associated with a plant community in an advanced successional stage that has undergone minor disturbance. Those species with high degrees of fidelity to a narrow range of synecological parameters are assigned a value of 9 to 10;

5 – Coefficient of Wetness (CW) (Floristic Quality Assessment System for Southern Ontario 1995). The wetness index gives an indication of where plant species are typically found. A wetness value (coefficient of wetness) between -5 and 5. A value of -5 was assigned to Obligate Wetland (OBL) species and a value of 5 to Obligate Upland species (UPL), with intermediate values assigned to the remaining categories. The wetland categories and their corresponding values are as follows:

OBL (-5) Obligate Wetland - Occurs almost always in wetlands under natural conditions (estimated > 99% probability).

FACW+ (-4) Facultative Wetland - Usually occurs in wetlands, but occasionally found in non-wetlands (estimated 67-99% probability).

FACW (-3)

FACW- (-2)

FAC + (-1) Facultative - Equally likely to occur in wetlands or non-wetlands (estimated 34-66% probability).

FAC 0

FAC- (1)

FACU+ (2) Facultative Upland - Occasionally occurs in wetlands, but usually occurs in non-wetlands (estimated 1-33 % probability).

FACU (3)

FACU- (4)

UPL (5) Obligate Upland - Occurs almost never in wetlands under natural conditions (estimated <1 % probability).

6 – Invasive Exotic Plant Species Rankings for Southern Ontario (Draft - Urban Forest Associates/MNRF 2014). Category 1 (C1) - Top Priority: Widespread invasive species that exclude most other species and dominate sites indefinitely. Some are an imminent threat to human health. They are the top priority for control but control may be difficult and some are beyond control at present. Biocontrols may be the only affective long-term control option. Plants in this category are a threat to a natural area wherever they occur because they disperse widely and benefit from human disturbances. Control where possible and do not plant.

# Appendix D

## Floristics Data



# Appendix E

## SAR Observation Reporting Form

index	SCIENTIFIC NAME	COMMON NAME	OBSERVATION DATE (YYYY-MM-DD)	OBSERVER	OBSERVER EMAIL	OBSERVATION DETAILS
	Scientific Name of the observed species.	Common Name of the observed species.	Date the species was observed, enter as YYYY-MM-DD. Zeros can be used if you don't know the month or day.	The name of the person(s) who made the observation (or their agency name or "private citizen")	Contact Information for the observer. The NHIC may wish to contact the observer for more information about the observation.	Description of the observation. For example, number of individuals observed, gender of species observed, life stage of
1	Ardea alba	Great Egret	2023-06-28	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	One adult individual was observed after a formal breeding bird point count flying north toward Lake St. Clair and no breeding evidence was observed.
2	Haliaeetus leucocephalus	Bald Eagle	2021-03-19	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	One adult Bald Eagle observed on the nest, incubating or brooding.
3	Haliaeetus leucocephalus	Bald Eagle	2021-03-31	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	One adult Bald Eagle observed on the nest, incubating or brooding.
4	Haliaeetus leucocephalus	Bald Eagle	2021-04-15	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	Adult male flying in the area and flew northeast out of sight. Adult female standing in the nest looking down and also incubating or brooding.
5	Haliaeetus leucocephalus	Bald Eagle	2021-04-27	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	Adult female standing in the nest. Two nestlings observed.
6	Haliaeetus leucocephalus	Bald Eagle	2021-11-19	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	Adult Bald Eagle flew from the northwest carrying a long stick and perched near the nest tree.
7	Chaetura pelagica	Chimney Swift	2023-05-30	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	Observed foraging over point count #3.
8	Chaetura pelagica	Chimney Swift	2023-06-16	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	Observed foraging over point count #1.



<u>LOCATION</u> A descriptive name for the location where the observation was made. <u>This is used to confirm the</u>	<u>EASTING</u> UTM, NAD 83, Zone 17 T	<u>NORTHING</u> UTM, NAD 83, Zone 17 T	<u>UNCERTAINTY DISTANCE (meters)</u> Uncertainty distance shows how close the coordinates are to the species observed. For example, GPS reading from a road but species was	<u>COORDINATE SOURCE</u> What was used to determine the coordinates? That is GPS, Google Maps, National Topographic Map, Ontario Base Map	<u>HOW IDENTIFIED</u> Explanation of how you identified it as this species, which similar species you considered and how you eliminated them.	<u>PHOTO?</u> Did you take a photo(s) of the species? Yes/No. Please attach all	<u>PHOTO LOCATION</u> Where is the photo(s)? For example a url if it is posted publicly somewhere. If photos are submitted enter
South of Riverside Drive East, between Clover Street and Greenpark Boulevard, City of Windsor, County of Essex	342459	4688763	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
North of Beverly Glen Street and Lubin Avenue, City of Windsor, County of Essex	342505	4688298	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
North of Beverly Glen Street and Lubin Avenue, City of Windsor, County of Essex	342505	4688298	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
North of Beverly Glen Street and Lubin Avenue, City of Windsor, County of Essex	342505	4688298	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
North of Beverly Glen Street and Lubin Avenue, City of Windsor, County of Essex	342505	4688298	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
North of Beverly Glen Street and Lubin Avenue, City of Windsor, County of Essex	342505	4688298	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
North of Beverly Glen Street and Lubin Avenue, City of Windsor, County of Essex	342505	4688298	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
South of Riverside Drive East, between Clover Street and Greenpark Boulevard, City of Windsor, County of Essex	342459	4688763	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342294	4688522	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A

<u>SPECIMEN?</u>	<u>SPECIMEN COMMENTS</u>	<u>ADDITIONAL REMARKS</u>
Was a specimen collected? Yes/No.	Comments about the specimen(s) collected For example the name of the person who verified the identity of the specimen, where the	Additional comments about the observation.
No	N/A	No breeding evidence observed.
No	N/A	Nest moved under Section 7 of the Fish and Wildlife Conservation Act, 1997.
No	N/A	Nest moved under Section 7 of the Fish and Wildlife Conservation Act, 1997.
No	N/A	Nest moved under Section 7 of the Fish and Wildlife Conservation Act, 1997.
No	N/A	Nest moved under Section 7 of the Fish and Wildlife Conservation Act, 1997.
No	N/A	Nest moved under Section 7 of the Fish and Wildlife Conservation Act, 1997.
No	N/A	No breeding evidence observed.
No	N/A	No breeding evidence observed.

9	<i>Chaetura pelagica</i>	Chimney Swift	2023-06-16	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	Observed foraging over point count #2.
10	<i>Chaetura pelagica</i>	Chimney Swift	2023-06-16	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	Observed foraging over point count #3.
11	<i>Chaetura pelagica</i>	Chimney Swift	2023-06-28	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	Observed foraging over point count #1.
12	<i>Chaetura pelagica</i>	Chimney Swift	2023-06-28	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	Observed foraging over point count #2.
13	<i>Chaetura pelagica</i>	Chimney Swift	2023-06-28	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	Observed foraging over point count #3.
14	<i>Contopus virens</i>	Eastern Wood-pewee	2023-05-30	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	One singing male was heard from east of point count #3. No probable or confirmed breeding evidence was observed.
15	<i>Cirsium discolor</i>	Field Thistle	2023-07-21	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	2 stems
16	<i>Solidago rigida</i> ssp. <i>rigida</i>	Eastern Stiff-leaved Goldenrod	2023-07-21	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	2 stems
17	<i>Solidago rigida</i> ssp. <i>rigida</i>	Eastern Stiff-leaved Goldenrod	2023-07-21	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	2 stems
18	<i>Vernonia gigantea</i>	Giant Ironweed	2023-07-21	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	9 stems

Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342283	4688340	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
South of Riverside Drive East, between Clover Street and Greenpark Boulevard, City of Windsor, County of Essex	342459	4688763	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342294	4688522	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342283	4688340	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
South of Riverside Drive East, between Clover Street and Greenpark Boulevard, City of Windsor, County of Essex	342459	4688763	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
South of Riverside Drive East, between Clover Street and Greenpark Boulevard, City of Windsor, County of Essex	342459	4688763	3	GPS	Very experienced with this species. I have been birding since 1995.	No	N/A
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342379	4688524	3	GPS	Very experienced with this species.	Yes	See email attachment.
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342276	4688488	3	GPS	Very experienced with this species.	No	N/A
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342379	4688524	3	GPS	Very experienced with this species.	Yes	See email attachment.
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342290	4688511	3	GPS	Very experienced with this species.	No	N/A

No	N/A	No breeding evidence observed.
No	N/A	No breeding evidence observed.
No	N/A	No breeding evidence observed.
No	N/A	No breeding evidence observed.
No	N/A	No breeding evidence observed.
No	N/A	No breeding evidence observed.
No	N/A	No
No	N/A	No
No	N/A	No
No	N/A	No

19	Vernonia gigantea	Giant Ironweed	2023-07-21	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	3 stems
20	Vernonia gigantea	Giant Ironweed	2023-07-21	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	27 stems
21	Vernonia gigantea	Giant Ironweed	2023-07-21	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	1 stem
22	Oenothera gaura	Biennial Gaura	2023-08-04	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	3 stems
23	Oenothera gaura	Biennial Gaura	2023-08-04	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	6 stems
24	Oenothera gaura	Biennial Gaura	2023-08-04	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	1 stem
25	Rosa setigera	Climbing Prairie Rose	2023-07-21	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	5 stems
26	Rosa setigera	Climbing Prairie Rose	2023-07-21	Brad McLeod	<a href="mailto:bmcleod@dillon.ca">bmcleod@dillon.ca</a>	4 stems

Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342322	4688435	3	GPS	Very experienced with this species.	No	N/A
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342352	4688549	3	GPS	Very experienced with this species.	Yes	See email attachment.
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342342	4688440	3	GPS	Very experienced with this species.	No	N/A
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342312	4688475	3	GPS	Very experienced with this species.	Yes	See email attachment.
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342316	4688445	3	GPS	Very experienced with this species.	No	N/A
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342291	4688507	3	GPS	Very experienced with this species.	No	N/A
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342316	4688441	3	GPS	Very experienced with this species.	Yes	See email attachment.
Southeast of Wyandotte Street East and Clover Street, City of Windsor, County of Essex	342316	4688504	3	GPS	Very experienced with this species.	No	N/A

