DILLON CONSULTING

Lakefront Heights Inc.

Official Plan and Zoning By-Law Amendments

Environmental Evaluation Report
Lakefront Heights Development
Windsor, Ontario

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1.0 Introduction

Dillon Consulting Limited (Dillon) has been retained by Lakefront Heights Inc. (the "client") to conduct natural environmental studies and an Environmental Evaluation Report (EER) for a proposed residential development at the property known as Lakefront Heights (the "Project Location"), in the City of Windsor, County of Essex (Figure 1). 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 is 1.66 hectares (ha) in size and consists of an open lawn that is regularly maintained and small, treed areas (mainly planted landscape trees) to the east and west of the Project Location. 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 (Appendix A) for this EER was sent to the City of Windsor on April 1, 2022, and 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 City of Windsor 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	• 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)
Fisheries and Oceans Canada (DFO)	• Aquatic Species at Risk Map: Accessed to determine aquatic at-risk occurrences
Government of Ontario	
Provincial Policy Statement (2020)	• Policies within Section 2.1 related to natural heritage features • Policies within Section 2.2 related to water
Ministry of Environment, Conservation and Parks (MECP)	• Endangered Species Act (ESA; 2007) • Species at Risk in Ontario (SARO) List (O. Reg. 230/08) • Client's Guide to Preliminary Screening for Species at Risk (2019)
Ministry of Municipal Affairs and Housing (MMAH)	• More Homes Built Faster Act (MHBFA; 2022)
Ministry of Natural Resources and Forestry (MNRF)	• Natural Heritage Information Centre (NHIC) database (Squares: 17LG4187, 17LG4188, 17LG4189, 17LG4287, 17LG4288, 17LG4289, 17LG4387, 17LG4388, 17LG4389; MNRF, 2022)

Source	Record Reviewed/Requested
	• MNRF Make a Map: Natural Heritage Areas (MNRF, 2022) • Natural Heritage Reference Manual, Second Edition (OMNR, 2010) • MNRF Significant Wildlife Habitat Technical Guide (OMNR, 2000) • Significant Wildlife Habitat Eco-region 7E Criterion Schedules (OMNRF, 2015) • 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 (2016)
Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)	• Agricultural Information Atlas (OMAFRA, 2022); reviewed area drains
Municipal Government(s)	
City of Windsor	• Update to the CNHS Inventory (2008) • Official Plan (2013)
Additional Sources	
Wildlife Atlases and Distribution Data	• Ontario Breeding Bird Atlas (OBBA; Cadman *et al.*, 2008). Second Atlas (2001-2005) – data for square 17LG48 – grid based on 10 km^2 system.
	• Christmas Bird Count (CBC; Birds Canada, 2022). Count circle North Shore (ONNS) – Historical Records from 2000 – 2019.
	• Rare Vascular Plants of Ontario (Fourth Edition; Oldham and Brinker, 2009). Distribution data for rare vascular plants.
	• Ontario Reptile and Amphibian Atlas (ORAA; Ontario Nature, 2022). List of reptile and amphibian species occurrences for square 17LG48.
	• Ontario Butterfly Atlas (OBA; Toronto Entomologists Association, 2022). List of butterfly species occurrences for square 17LG48. • Atlas of the Mammals of Ontario (Dobbyn, 1994). Distribution data for mammals.
	• Bumble Bees of North America (Williams *et al.*, 2014). Distribution data for bumble bees.
Essex Region Conservation Authority (ERCA)	• Environmentally Significant Areas of the Essex Region (Oldham, 1983) • Environmentally Significant Areas Status Update (ERCA, 1994) • Essex Region Natural Heritage System Strategy (2013) • Environmental Impact Assessment Guidelines (Nelson and Lebedyk, 2019)
Bedrock Geology of Ontario, Southern Sheet	• Reviewed bedrock geology of Ontario (Ontario Geological Survey, 1991)
Physiography of Southern Ontario	• Reviewed the physiography of Ontario (Chapman and Putnam, 1984)
Soil Survey of Essex County	• Reviewed the soil classification of Essex County (Richards *et al.*, 1949)

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 MNRF 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 SAR in the general area. For more information about the preliminary screening results for SAR, refer to **Section 3.2.7**.

2.1.1 More Homes Built Faster Act

In November 2022, the More Homes Built Faster Act (MHBFA; 2022) came into effect in Ontario. The purpose of the MHBFA is to help build more homes and make life more affordable for Ontario Citizens. Specifically, as of January 1, 2023, the Act has set clear limits on what Conservation Authorities are permitted to comment on as part of the planning approvals process, keeping their focus on Natural Hazards and Flooding. Under the MHBFA Schedule 2, Section 16, the Conservation Authorities Act was amended, and O.Reg 158/06 (Essex Region Conservation Authority) was revoked. Therefore, regulation of areas is now determined only under Section 28 of the Conservation Authority Act, which has been repealed and substituted as of April 1, 2024.

2.1.2 City of Windsor Official Plan

The purpose of the City of Windsor Official Plan (OP) 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 and goals. As such, the City's OP provides the policy framework that will guide where new development can be located; how existing and future neighbourhoods will be strengthened; how the environment will be enhanced; what municipal services, such as roads, water mains, sewer and parks, will be provided; and when and in what order the City will grow (City of Windsor, 2013).

The City's OP designates the Project Location as Residential (Schedule D; Appendix B). The closest natural heritage designation (Environmental Policy Area A) is located approximately 30m to the southwest of the Project Location and within the Study Area (Schedule C; Appendix B), south of Wyandotte Street East. As per section 5.3.4.1 in the OP, "*Environmental Policy Area A may be partially developed provided that the development conserved the significant natural features and/or functions".*

2.1.3 Essex Region Conservation Authority

In accordance with Schedule 2, Section 16 of the More Homes Built Faster Act (2022), ERCA is no longer authorized to implement and enforce the Regulation of Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses (*O. Reg. 158/06*). However, under Section 28 of the Conservation Authorities Act (1990), ERCA regulations still apply in the area under its jurisdiction. 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 Study Area is located within the ERCA's Regulated Area. The area is within the 1:100 year flood line (Figure 2).

3.0 Results of Background Review

The Project Location is located south of Riverside Drive East and north of Wyandotte Street East. The Project Location consists of former commercial land for the Riverside Sportsmen Club which have been severed. The surrounding land uses are varied and are described as follows:

- North: Commercial, Green lands (Ganatchio Trail/Regional Park/Open Space; Residential);
- East: Agriculture;
- South: Agriculture; Environmental Policy Area A; and
- West: Green lands (playground); Residential.

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 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.

No aquatic habitat was identified within or adjacent to the Study Area through background review, and therefore no aquatic assessments were proposed.

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 Colwood Fine Sandy Loam with Clyde Clay to the south. Both Colwood Fine Sandy Loam with Clyde Clay are poorly drained with a topography being level to slightly undulating. The Project Location itself has a level topography.

3.2.2 Significant Woodlands

A review of background mapping and resources did not identify forest/treed areas designated as Natural Heritage, Environmental Policy Area B, or Candidate Natural Heritage Sites within and/or adjacent to the Project Location. Lands designated as Environmental Policy Area A is present to the southwest of the Project Location.

The potential for Significant Woodlands to be present within the Study Area is discussed further in **Section** 5.1.6.

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** 5.1.7.

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** 5.1.8.

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.

3.2.6 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), as well as 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[1]	ESA[2]	SRank[3]	Info Source[4]
Birds					
Haliaeetus leucocephalus	Bald Eagle	---	SC	S2N,S4B	CBC, OBBA
Lepidoptera					
Danaus plexippus	Monarch	END	SC	S2N,S4B	OBA
Reptiles					
Chelydra serpentina	Snapping Turtle	SC	SC	S3	ORAA
Plants					
Vernonia gigantea	Giant Ironweed	---	---	S1?	NHIC
Vernonia missurica	Missouri Ironweed	---	---	S3?	NHIC
Rosa setigera	Climbing Prairie Rose	SC	SC	S3	NHIC

[1]Status identified under the federal Species at Risk Act: END = Endangered, SC = Special Concern; [2]Status identified under the provincial Endangered Species Act: SC = Special Concern; [3]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; [4]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; and
- Special Concern and Rare Wildlife Species.

The property falls within the Eastern Lake St. Clair Important Bird Area, though the natural communities within the Study Area are not likely to provide candidate SWH for bird breeding habitat. The potential for SWH to be present within the Study Area is discussed further in **Section 5.1.9**

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 (1994). Through background review, several SAR listed in Table 3 have been identified with the potential to occur within the vicinity of the Study Area based on the available habitat present.

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

Scientific Name	Common Name	SARA[1]	ESA[2]	SRank[3]	Info Source[4]
Reptiles					
Pantherophis gloydi	Eastern Foxsnake (Carolinian population)	END	END	S2	ORAA, MECP Reg. Habitat, MNRF
Thamnophis butleri	Butler's Gartersnake	END	END	S2	ORAA, MNRF
Mammals					
Myotis leibii	Eastern Small-footed Myotis	---	END	S2S3	MWH
Myotis lucifugus	Little Brown Myotis	END	END	S4	MWH
Myotis septentrionalis	Northern Myotis	END	END	S3	MWH
Pipistrellus subflavus	Tri-colored Bat	END	END	S3?	MWH
Plants					
Juglans cinerea	Butternut	END	END	S3?	NHIC

[1]Status identified under the federal Species at Risk Act: END = Endangered; [2]Status identified under the provincial Endangered Species Act: END = Endangered; [3]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; [4]Information sources include: MECP Reg. Habitat = MECP Regulated Habitat (O. Reg. 242/08), MNRF = Information Request, MWH = Digital Distribution Maps of the Mammals of the Western Hemisphere, version 3.0, NHIC = MNRF Natural Heritage Information Centre, 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 5.1.10**.

4.0 Methodology of Biophysical Inventory

The results of the background review were used to assist in scoping the field program. Field work conducted for the EER occurred in 2022 and 2024 when weather conditions and timing were deemed suitable based on the survey protocols being implemented (Table 4). Fieldwork consisted of Ecological Land Classification (ELC), SAR Assessment, vegetation survey, cavity/snag survey, and tree inventory. 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**
Ecological Land Classification, SAR Assessment, Vegetation Survey, and Cavity/Snag Survey	
March 10, 2022	2°C, no precipitation, 20% cloud cover
Tree Inventory	
April 10, 2024	15-17°C, no precipitation, 50-75% cloud cover

4.1 Terrestrial Environment

4.1.1 Ecological Land Classification

During the late winter vegetation survey, 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 5.1.1**.

4.1.2 Ecological Field Reconnaissance and SAR Assessment

Being familiar with likely SAR within the Study Area and following our preliminary screening for SAR, one SAR assessment was conducted. The assessment consisted of walking throughout the Project Location and immediately adjacent lands (where permission was granted) looking for SAR and assessing for potential SAR habitat.

Results of the ecological field reconnaissance and SAR assessment are discussed in **Section 5.1.2**.

4.1.3 Vegetation Survey

A one-season vegetation survey was conducted during late winter. The vegetation survey was conducted using wandering transects to determine species presence, richness, and abundance of floral species within the Study Area. Search effort was concentrated throughout the entirety of the Project Location and immediately adjacent lands. Species nomenclature is based on the species lists for Ontario maintained by the NHIC which uses international standards for taxonomy and nomenclature.

As the Project Location consists of regularly-maintained lawn, small, treed areas, and urban infrastructure, no further vegetation surveys were proposed.

Results of the vegetation surveys are discussed in **Section 5.1.3**.

4.1.4 Cavity/Snag Survey

A cavity/snag survey was conducted during the leaf-off period (i.e. fall to early spring) by walking through potential bat maternity roost habitat with binoculars and noting suitable cavities and/or snags. Search effort was focused on the small, treed areas. If suitable cavity/snags were observed, the location, tree species, diameter-at-breast-height (DBH), tree height, number of cavities, and cavity height, were recorded.

Results of the cavity/snag survey is discussed in **Section 5.1.4**.

4.1.5 Tree Inventory

A tree inventory was conducted on April 10, 2024 (just inside the leaf-on period) 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, as well as any City-owned tree with a DBH of less than 10 cm. 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 inventoried trees. 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 were assessed using the method outlined in the International Society of Arboriculture publication *A Photographic Guide to the Evaluation of Hazard Trees in Urban Area - 2nd Edition* (Mattheny and Clark, 1994). Using this guide, an overall condition rating (i.e. dead, hazard, poor, fair, good, or excellent) was given to each inventoried tree. 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 5.1.5**.

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 Terrestrial Environment

5.1.1 Ecological Land Classification

The entirety of the Project Location was classified as Commercial and Institutional (CVC) lands and consists of regularly-maintained lawn, urban infrastructure, and small, treed areas to the east and west. Reference photos for the plant communities observed can be found in Appendix C and a full plant list is presented in Appendix D. Other communities (largely cultural) exist outside of the Project Location (Figure 3). None of the documented vegetation communities are considered rare in Ontario.

The only natural community within the Study Area is a Forb Meadow (MEF) that exists south of the Project Location, across Wyandotte Street East. This area is designated as an Environmental Policy Area A by the City's OP. The entirety of the meadow and treed fencerow communities exist outside of the Project Location.

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

5.1.2 Ecological Field Reconnaissance and SAR Assessment

No SAR were observed during the field reconnaissance and SAR assessment. Correspondence with the MECP has been initiated, but given the current land use within the Project Location and following the field work, no negative impacts to SAR and/or SAR habitat are anticipated.

5.1.3 Vegetation Surveys

A total of 19 flora species (three were only identified to the genus level) were documented during the vegetation studies (including the tree inventory below). Of these 16 species that could be identified to the species level, approximately 46% are listed as native species (S5; widespread and secure) and 54% are listed as non-native species, therefore a status ranking is not applicable as the species is not a suitable target for conservation activities (SNA rank).

No species observed are SCC, or listed as endangered, or threatened under the ESA.

A list of flora species observed is provided in Appendix D. 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 E. Photographs taken during the site visits are provided in Appendix C. Potential impacts related to vegetation within the Project Location is included in **Section 8.1.2** and 8.2.2.

5.1.4 Cavity/Snag Survey

Four suitable trees were observed within the Study Area. Following the ELC surveys, no communities were observed to be suitable for bat maternity colonies within the Project Location.

5.1.5 Tree Inventory

Refer to the separate Natural Features Inventory & Preservation Study, prepared by Dillon for further details regarding this project. The tree inventory for this project documented 85 trees. A total of 10 species of trees were documented, with 8 species identified to the species level and 2 species identified to the genus level. Manitoba Maple (*Acer negundo*) was the dominant species, accounting for 51% of the trees inventoried, followed by Silver Maple (*Acer saccharinum*) at 15%. A summary of inventoried trees can be found in Table 5 below.

Overall, out of the 85 documented trees, 75 (88%) are native to Ontario, while 4 (5%) are non-native species. The remaining 6 trees (7%) could not be classified as non-native or native due to their condition or because identification only to genus level was possible.

Table 5: Summary of Inventoried Trees by Species

Family	**Scientific Name**	Common Name	SARA[1]	ESA[2]	SRank[3]	Invasive Priority for Control[4]	Count
Tiliaceae	*Tilia cordata*	Little-leaf Linden	---	---	SNA	C3	2
Tiliaceae	*Tilia sp.*	Linden species	---	---	---	---	2
Salicaceae	*Populus deltoides ssp. deltoides*	Eastern Cottonwood	---	---	S5	---	6
Salicaceae	*Salix sp.*	Willow species	---	---	---	---	4
Aceraceae	*Acer negundo*	Manitoba Maple	---	---	S5	C2	43
Aceraceae	*Acer rubrum*	Red Maple	---	---	S5	---	1
Aceraceae	*Acer saccharinum*	Silver Maple	---	---	S5	---	13
Aceraceae	*Acer x freemanii*	Freeman's Maple	---	---	SNA	---	11
Moraceae	*Morus alba*	White Mulberry	---	---	SNA	C1	2
Ulmaceae	*Ulmus americana*	American Elm	---	---	S5	---	1
Total							85

[1]Status identified under the federal Species at Risk Act; [2]Status identified under the provincial Endangered Species Act; [3]SRank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5: S5 = widespread and secure, SNA = not applicable; [4]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.

5.1.6 Significant Woodlands

The biophysical inventory results are consistent with the background review. While small, treed areas exist to the east and west of the Project Location, they are not designated as significant natural features by the City's OP.

A Treed Fencerow (TAGM5) and Forb Meadow (MEF) southwest of the Project Location and within the Study Area is designated as Environmental Policy Area A in the City's OP (2013). In addition, the wooded fencerow meets the size criteria for significant woodland as described in the MNRF Natural Heritage Reference Manual (MNRF, 2010). The proposed development will be restricted to the property north of Wyandotte Street East, and therefore, impacts to the policy area will be minimal/non-existent.

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

5.1.7 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.

5.1.8 Significant Valleylands

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

5.1.9 Significant Wildlife Habitat

Based on the observations made during the site investigations, as well as the results of the ELC (Figure 3), no candidate or confirmed SWH were observed within the Study Area.

During the site investigations, no SCC were observed.

Potential impacts to SWH are addressed in **Section 8.1.1** and 8.1.2.

5.1.10 Species at Risk

No SAR were observed within the Project Location during the site investigation. The habitat community within the Project Location is not considered suitable SAR habitat due to land uses (Riverside Sportsmen Club commercial land uses). Following the preliminary screening for SAR and knowing that SAR habitat may be present within 1 km of the Project Location, MECP was engaged to determine potential SAR habitat and usage within the area. On February 2, 2023, confirmation was received from the MECP that the proposed development will likely not contravene the ESA.

5.1.11 Incidental Wildlife

Incidental wildlife species observed within the Project Location are listed in Table 6. 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 eleven incidental species observed, none are listed as endangered or threatened under the ESA.

Table 6: Incidental Wildlife Observations

Scientific Name	Common Name	SARA[1]	ESA [2]	SRank[3]	Evidence
Birds					
Agelaius phoeniceus	Red-winged Blackbird	---	---	S4	Observed
Branta canadensis	Canada Goose	---	---	S5	Observed
Cardinalis cardinalis	Northern Cardinal	---	---	S5	Observed
Junco hyemalis	Dark-eyed Junco	---	---	S5B	Observed
Larus delawarensis	Ring-billed Gull	---	---	S5B,S4N	Observed
Passer domesticus	House Sparrow	---	---	SNA	Observed
Picoides pubescens	Downy Woodpecker	---	---	S5	Observed
Scolopax minor	American Woodcock	---	---	S4B	Pair Observed
Sturnus vulgaris	European Starling	---	---	SNA	Observed
Turdus migratorius	American Robin	---	---	S5B	Observed
Mammals					
Sciurus carolinensis	Eastern Gray Squirrel	---	---	S5	Observed

[1]Status identified under the federal Species at Risk Act;

[2]Status identified under the provincial Endangered Species Act;

[3]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; --- denotes no information or not applicable.

Potential impacts related to wildlife within the Study Area are included in **Section 8.1.1** and 8.1.2.

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

6.0 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. As most of the Project Location is comprised of maintained lawn with a concrete pad on commercial land, ecological function is minimal. Small, treed areas exist along the western and eastern Project Location boundaries which mainly consist of planted landscaping trees. Ecological function on the Project Location is predominately restricted to the trees on the western and eastern boundaries and may act to prevent erosion and runoff, facilitate hydrological and nutrient cycling, water retention, improve localized soil, and water and air quality. Vegetation removal will be required in the southeast portion of the Project Location, and may include select trees on the east and western boundaries.

The Environmental Policy Area A adjacent to the site (southwest of the Project Location, across Wyandotte Street East) consists of forb meadow and a wooded fencerow. This area may provide the most ecological function within the Study Area, including providing habitat for a variety of wildlife. The proposed development will be limited to the Project Location north of Wyandotte Street East, and is not expected to impact this area.

In conclusion, no SCC or SAR individuals were observed within the Project Location. Potential impacts and recommended mitigation measures to prevent impacts to wildlife and their habitats, as well as significant natural features are discussed in Section 8.0 and 9.0.

7.0 Description of the Proposed Development

The overall proposed development will include multi-unit residential buildings, above and ground level parking, and associated landscaping. The residential buildings will be constructed on the southern portion of the Project Location, with the parking lot and landscaped areas occupying the remaining land.

The proposed main access point to this development will be heading north from Wyandotte Street East (Figure 4). Construction of the proposed development would include the removal of approximately 0.22 ha of vegetation (Figure 5). Landscaping may include, but is not limited to, fencing, sod, and tree plantings. The associated impacts of the development and recommended mitigation 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 may be impacted due to minimal vegetation clearing within the proposed development area. 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, vegetation in the southeast portion of the Project Location is proposed to be removed (Figure 5). Due to the relatively small Project Location, the surrounding environment consisting mainly of residential and urban development, and the absence of suitable SAR habitat, no SCC or SAR are expected to be impacted by construction in the Project Location.

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 ground vegetation removal limited to minimal vegetation within the Project Location (0.22 ha; Figure 5), to facilitate grading and construction of the development. Tree removal will result in a reduction of tree and vegetation cover, marginal 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.

The Project Location provides minimal ecological function and thus, any tree and vegetation removal will result in minimal habitat loss, minimal reduction of natural cover in the area, and minimal reduction in ecological function. No SCC or SAR are expected to be impacted by construction in the Project Location.

Refer to **Section 9.3** and 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 servicing for the development will use best management practices to mitigate potential negative effects.

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 9.2** and 9.3.

8.2.2 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*), Wild Parsnip (*Pastinaca sativa*), Little-leaf Linden (*Tilia cordata*), Manitoba Maple (*Acer x freemanii*), and White Mulberry (*Morus alba*) 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 has 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, and Environmental Monitoring Plan. Each mitigation measure recommended for the proposed development is introduced below.

9.1 Stormwater Management Plan

Stormwater is proposed to be directed into the existing stormwater trunk sewer located along the Wyandotte Street East right-of-way, and discharged into North Neighbourhood Pond located southwest of the proposed development. The proposed buildings and parking lot will be serviced through a new storm sewer network constructed within the proposed parking lot, and will connect to the existing sewer located south of the development.

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 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 is 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 Mitigation Measures Required by the MECP

Aside from general mitigation measures detailed above, the MECP has also indicated the following mitigation measures for similar developments within the greater 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 (particularly Eastern Foxsnake);
- 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 (with a Ministry-approved animal care protocol) should be contacted for advice/help before it is moved;
- SAR observations at the project site should be reported to MECP as soon as reasonably possible;
- Any digging/excavation activities and vegetation clearing associated with the project should be conducted outside of the breeding bird season (April 1 to August 31) and active bat/snake season (March 15 to November 30);
- 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 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, silt fencing should be installed around the perimeter of the work area. Where silt fencing is proposed for erosion and sediment control (ESC) measures, netting type material should be avoided to prevent potential entanglement of snakes. Where silt fencing is proposed, it will function as a dual purpose (i.e. ESC measures and wildlife/snake exclusion);
- 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 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, and lawns have been sodded.

The EMP would consist of monitoring the erosion and sediment measures. 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 25 mm or greater rainfall event.

The Environmental Policy Area A to the southwest will require periodic monitoring to ensure that it is not impacted by adjacent development. Should any negative impacts be observed, necessary steps will be taken to ensure that impacted vegetation is either restored or replaced.

Minimal vegetation clearing is proposed within the project development area. Due to the relatively small Project Location area, the lack of SCC or SAR plant species, and the surrounding environment being predominantly urban and residential land, plant transplantation and a maintenance and care program are not proposed as part of the EMP.

10.0 Summary

This EER was prepared for the proposed residential development located south of Riverside Drive East, within the City of Windsor. This EER has been prepared as required by the City of Windsor (pre-submission letter dated April 1, 2022 and Stage 1 planning consultation dated March 25, 2024). 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, with the closest natural heritage designation (Environmental Policy Area A) located approximately 30 m to the southwest of the Project Location, across Wyandotte Street East. The proposed development will be limited to the Project Location, and is not expected to impact the Environmental Policy Area.

The most recent detailed field studies were conducted in 2022 and 2024 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. The biophysical inventory did not find presence of candidate SWH, confirmed SWH, or SCC within the Study Area.

As the Project Location is entirely comprised of residential and commercial land, limited vegetation removal is proposed, and no SWH/SAR habitat is present, the development is anticipated to have no negative impacts on natural features.

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

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Figures

LAKEFRONT HEIGHTS INC.

LAKEFRONT HEIGHTS CONDOMINIUM DEVELOPMENT ENVIRONMENTAL EVALUATION REPORT

PROJECT LOCATION

FIGURE 1

Project Location (1.66 ha)

Study Area (120 m)

KEY MAP

SCALE 1:2,000

0 25 50 100 m

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, THE CITY OF WINDSOR

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

DILLON CONSULTING

PROJECT: 21-2104
STATUS: DRAFT
DATE: 2024-06-11

FILE LOCATION: K:\2021\212104\Product\Client\EER\F1_SiteLocation.mxd

LAKEFRONT HEIGHTS INC.

LAKEFRONT HEIGHTS
CONDOMINIUM DEVELOPMENT
ENVIRONMENTAL EVALUATION
REPORT

NATURAL HERITAGE FEATURES

FIGURE 2

- Project Location (1.66 ha)
- Study Area (120 m)
- Wooded Area (MNRF, 2023)
- Floodplain 100 Year* (ERCA)

City of Windsor

- Community Regional Park
- Recreation Ways

*Note Approximate Extents Only

SCALE 1:2,000

0 25 50 100 m

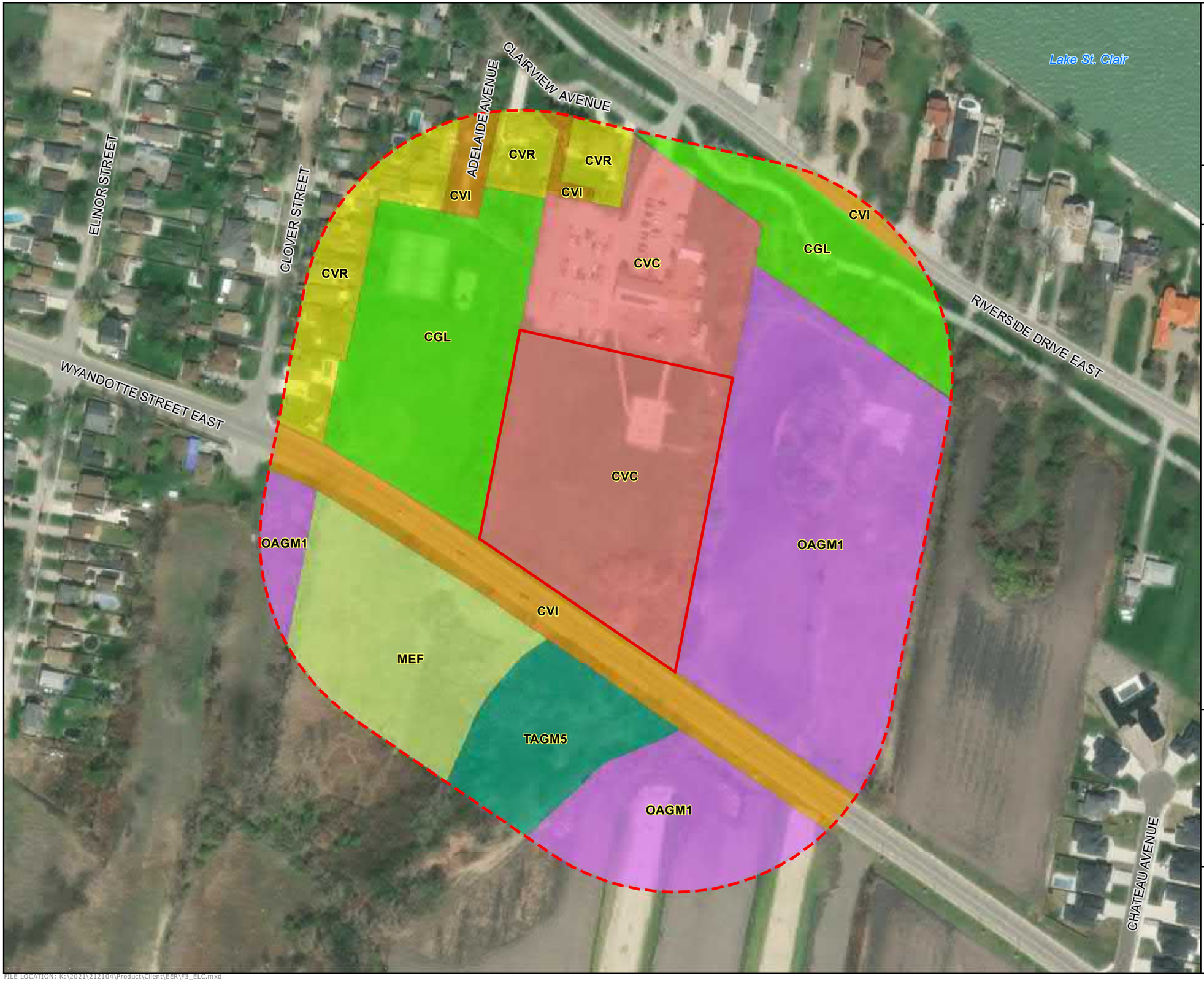
MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, THE CITY OF WINDSOR

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

DILLON CONSULTING

PROJECT: 21-2104
STATUS: DRAFT
DATE: 2024-06-11

FILE LOCATION: K:\2021\212104\Product\Client\EER\F2_NaturalHeritageFeature.mxd



LAKEFRONT HEIGHTS INC.

LAKEFRONT HEIGHTS CONDOMINIUM DEVELOPMENT ENVIRONMENTAL EVALUATION REPORT

ECOLOGICAL LAND CLASSIFICATION

FIGURE 3

- Project Location (1.66 ha)
- Study Area (120 m)

Ecological Land Classification

- CGL: Greenlands
- CVC: Commercial and Institutional
- CVI: Transportation
- CVR: Residential
- MEF: Forb Meadow
- OAGM1: Annual Row Crops
- TAGM5: Fencerow with European Common Reed Inclusion

*Note Approximate Extent

SCALE 1:2,000

0 25 50 100 m

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, THE CITY OF WINDSOR

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

DILLON CONSULTING

PROJECT: 21-2104
STATUS: DRAFT
DATE: 2024-06-11

FILE LOCATION: K:\2021\212104\Product\Client\EER\F3_ELC.mxd

LAKEFRONT HEIGHTS INC.

LAKEFRONT HEIGHTS
CONDOMINIUM DEVELOPMENT
ENVIRONMENTAL EVALUATION
REPORT

PROPOSED DEVELOPMENT PLAN

FIGURE 4

- Project Location (1.66 ha)
- Study Area (120 m)
- Proposed Development

*Note Approximate Extent

SCALE 1:2,000

0 25 50 100 m

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, THE CITY OF WINDSOR

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

DILLON CONSULTING

PROJECT: 21-2104
STATUS: DRAFT
DATE: 2024-06-16

FILE LOCATION: K:\2021\212104\Product\Client\EER\F4_ProposedDevelopmentPlan.mxd

LAKEFRONT HEIGHTS INC.

LAKEFRONT HEIGHTS
CONDOMINIUM DEVELOPMENT
ENVIRONMENTAL EVALUATION
REPORT

VEGETATION REMOVAL

FIGURE 5

- Project Location (1.66 ha)
- Study Area (120 m)
- Vegetation Removal (0.22 ha)

SCALE 1:2,000

0 25 50 100 m

N W E S

MAP DRAWING INFORMATION:
DATA PROVIDED BY MNRF, THE CITY OF WINDSOR

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

DILLON CONSULTING

PROJECT: 21-2104
STATUS: DRAFT
DATE: 2024-06-11

FILE LOCATION: K:\2021\212104\Product\Client\EER\F5_VegetationRemoval.mxd

Appendix A
Terms of Reference

MEMO

TO:	Planning & Building Services Department, Planning Division, City of Windsor
FROM:	Jaimie Bortolotti and Brad McLeod, Dillon Consulting Limited
CC:	Melanie Muir, Dillon Consulting Limited
DATE:	April 1, 2022
SUBJECT:	Environmental Evaluation Report Terms of Reference for the proposed development at 10835 Riverside Drive East, City of Windsor
OUR FILE:	21-2104

Background

Dillon Consulting Limited (Dillon) has been retained by Lakefront Heights Inc. (the "client") to undertake natural environment services for a proposed development at 10835 Riverside Drive East, in the City of Windsor, County of Essex, Ontario (the "Project Location"). The Project Location and Study Area boundary (120 meters beyond the property limits) are shown on Figure 1, attached. The field work component of this project has been completed during the 2022 field season. It is important to note that appropriate surveys have been determined through a preliminary screening for Species at Risk (SAR).

In accordance with the City of Windsor (the "City") Official Plan (OP; 2013), the Project Location falls within lands designated as Residential on Schedule D (Land Use Plan), with Environmental Policy Area A located within adjacent lands to the south.

Based on historical knowledge, the most up-to-date aerial photography, and a recent habitat assessment site visit, the current land use within the Project Location is comprised of the Riverside Sportsmen Club, including a parking lot, large banquet hall, open fields that are regularly-maintained, and a narrow, wooded hedgerow (mainly planted landscape trees). Residential dwellings are present directly to the north and west, agriculture is present to the east, and a small, disjunct meadow is present to the south.

An Environmental Evaluation Report (EER) has been requested by the City of Windsor. The EER will be completed in accordance with Section 5 of the City's OP and the Essex Region Conservation Authority (ERCA) Environmental Impact Assessment Guidelines (Nelson and Lebedyk 2019). The purpose of the EER is to document the existing conditions of the natural environment, and specifically, the presence of significant natural features as outlined in Section 2 of the Provincial Policy Statement, which include:

- Significant wetlands;
- Significant woodlands;
- Significant valleylands;
- Significant wildlife habitat;

- Significant areas of natural and scientific interest (ANSI's);
- Fish habitat;
- Habitat of Endangered or Threatened species;
- Sensitive surface water features; and
- Sensitive ground water features.

The EER will identify the potential impacts that the proposed development may have on these features, and develop recommendations that will appropriately minimize or eliminate impacts to natural features.

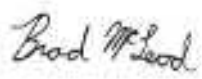
In order to address the policies of both the City's OP as well as ERCA's EIA Guidelines, we have prepared the following Terms of Reference (ToR) for the City's approval. A ToR check-list is provided below, outlining the required field studies and other components. After conducting a preliminary screening for SAR and based on our knowledge of the area, there is the potential for several SAR to be present within the vicinity of the Study Area; including, but not limited to, Eastern Foxsnake (Pantherophis gloydi). SAR concerns will be addressed under separate cover with the Ministry of Environment, Conservation and Parks (MECP). The City will be informed of MECP consultation and approvals that are required, as necessary.

We thank you for your time in reviewing the ToR and we look forward to working together with you as we move forward.

Please let me know if you have any questions.

Yours Sincerely,

DILLON CONSULTING LIMITED



Brad McLeod, M.Sc.
Biologist

Terms of Reference Checklist

Introduction/Approach

☒ The EER must be undertaken by a qualified professional in environmental or related sciences to the satisfaction of the City.

☒ The EER should describe and illustrate the boundaries of the Project Location and Study Area along with existing land use and details regarding the type of development.

☒ The EER will include the zoning and all designations of OP's pertaining to the Project Location and Study Area. This includes land use designations from other municipal planning and/or policy documents, such as Secondary Plans.

☒ Land use designations from other applicable planning documents (i.e. City of Windsor) will be clearly described and the limits identified in the report mapping.

Biophysical Inventory

☒ The existing conditions, such as natural features and functions located within the Study Area must be clearly described and clearly mapped on the most up-to-date aerial imagery.

☒ All designated environmental features (i.e. natural hazard features or other natural heritage features identified in the OP's) must be identified in the mapping and described in the report. These features include provincial or regional Areas of Natural and Scientific Interest (ANSI's), Provincially and Locally Significant Wetlands (PSW's and LSW's), Environmentally Significant Areas (ESA's), Significant Wildlife Habitat, Significant Woodlands, Significant Valleylands, unevaluated wetlands, etc.

☒ The EER should identify the extent of natural heritage/hazard features (should they be located within the Study Area, pending access). Boundaries of natural heritage features should be confirmed in the field and mapped on a figure in the report.

☒ A description of the soils, landforms, and surficial geology based on a review of readily-available mapping and literature must be described in the report. Available topographical information will be provided on constraints mapping and will include any staking done to date as well as the calculated hazard limits, if applicable.

☒ Hydrological and hydrogeological resources and issues, including wellhead protection areas, surface water features, recharge/discharge zones, meander belts, groundwater quality and quantity, groundwater elevations and flow directions, and connections between groundwater and surface water features will be identified in the report based on data from the consulting team, if it is available.

☒ The vegetation communities must be identified using the Ecological Land Classification (ELC) System for Southern Ontario protocol (Lee et al. 1998) with 2008 updates (Lee 2008) to vegetation type, where possible. The communities will be identified on report mapping using the appropriate ELC codes, as well as described in the text. As a component of the ELC, a plant list, organized by vegetation community must be included. The list will indicate provincially-, regionally-, and/or locally-rare, Threatened or Endangered species. This should include information from the Natural Heritage Information Centre (NHIC).

Note: ELC was completed on March 10, 2022.

☒ A one-season vegetation survey is required. A list of vegetation species observed will be compiled using the Southern Ontario Floral Inventory Analysis, must include plant communities based on ELC, and will indicate each species rarity and/or designations under the Endangered Species Act (ESA; 2007), where applicable. This should include information from the NHIC.

Note: A late-winter vegetation survey was completed on March 10, 2022. As the Project Location consists of regularly-maintained lawn and urban infrastructure, no further vegetation surveys are proposed.

☐ The EER requires a breeding bird survey. The survey must be conducted during the breeding bird season at an appropriate time of day, in appropriate weather conditions, and by a qualified professional. A minimum of two surveys are required and they must follow generally-accepted scientific protocols, such as those outlined in the Ontario Breeding Bird Atlas Instructions for General Atlassing (Birds Canada 2021). A list of the breeding birds must be included. The list will indicate any provincially-, regionally-, and/or locally-rare, Threatened or Endangered species.

Note: No breeding bird surveys are currently proposed for the Project as no suitable habitat was identified.

☐ The EER requires a snake survey. The survey will be completed based on our experience with requirements related to SAR in the area, where applicable, and conducted in accordance with generally-accepted protocols described within Survey Protocol for Ontario's Species at Risk Snakes (OMNRF 2016).

Note: No snake surveys are currently proposed for the Project as no suitable habitat was identified.

☐ The EER requires an amphibian breeding survey. The survey must be conducted during the amphibian breeding season and by a qualified professional. Surveys will be conducted in accordance with generally-accepted protocols, such as the Marsh Monitoring Program Participant's Handbook for Surveying Amphibians (Bird Studies Canada 2009). If present, the list will indicate any provincially-, regionally-, and/or locally-rare, Threatened or Endangered species.

Note: No amphibian habitat is present within the Study Area, therefore amphibian breeding surveys are not proposed.

☐ An aquatic assessment should be conducted due to the presence of suitable fish habitat as identified in background documents and confirmed on-site. The assessment should include a description of watercourses or other fish habitat on and/or adjacent to the Project Location (where site access is permitted).

Note: No aquatic habitat is present within the Study Area, therefore aquatic assessments are not proposed.

☒ Habitat for Species at Risk will be assessed within the Project Location due to the identification of potential SAR in background documents. The assessment should include a description of suitable habitat and associated possible SAR.

☒ All incidental wildlife observed should be reported on and included in the EER. The list must include an analysis for the presence of federally-, or provincially-rare, Threatened, or Endangered species.

☒ All records of federally-, or provincially-rare, Threatened, or Endangered species observed during formal surveys or incidentally, will be submitted to the NHIC using the most up to date version of the Ontario Species at Risk Observation Reporting Form.

Biophysical Analysis

☒ The biophysical analysis will address current policy, technical documents, and legislation including, but not limited to, the Endangered Species Act (ESA; 2007), the Provincial Policy Statement (PPS; 2020), Natural Heritage Reference Manual (2010), Significant Wildlife Habitat Technical Guide (2000), Significant Wildlife Habitat Ecoregion 7E Criteria Schedules (2015), etc.

☐ The staking of significant natural features (e.g. woodlots, PSW's, etc.) may be required. Staking will generally occur between the end of May and the end of October. Any staking that occurs outside of this time may require a confirmatory visit between May and October.

Note: No significant natural features were identified within the Project Location.

☒ The EER will include a biophysical analysis that identifies the significance of natural features and functions.

☒ A functional assessment of the Study Area describing the ecology of the natural heritage features and functions within the Study Area should be provided. The functional assessment may include ecological function, wetland function, natural heritage features and landscapes, benefits of importance to humans, and corridors and linkages, as required.

Development Proposal Description

☒ The EER will, at a minimum, include a preliminary site plan showing the type(s) and location(s) of the proposed development overlaid on a recent orthophoto. The site plan will clearly show setbacks and/or buffers, including distance from proposed development areas and proposed structures to lot lines and/or to environmental features and functions designated for protection, where applicable.

☒ The EER will describe other relevant issues (e.g. servicing, stormwater management, municipal drainage, open space dedication, hazards, etc.) from an ecological perspective, pending receipt of relevant reports from other disciplines, should they have the potential to impact the identified

natural hazard/heritage features. These can be highlighted within the proposed development description, or, where applicable, under the potential impact assessment.

Potential Impact Assessment

☒ Mapping (at a minimum) shall consist of the following:

a) All mapping must have a title, figure number, north arrow, legend, and scale or scale bar.
b) A site location map that provides the regional or watershed context of the Study Area.
c) The extent of the natural heritage system and its components must be clearly demarcated on an air photo base, if applicable.
d) The locations of all watercourses and waterbodies.
e) Vegetation communities must be delineated and identified using ELC.
f) The location of any rare, Threatened, or Endangered species and/or populations may be referenced in the EIA, where appropriate.
g) The location of any important wildlife features (e.g. hibernacula, den, stick nest, etc.) may be identified pending sensitivity to public information.

☒ The potential impacts to the features and functions of natural areas should be identified and discussed.

☒ An assessment of the potential impact on significant wildlife habitat at a local, watershed, and provincial (if applicable) level should be provided using the Ecoregion 7E criteria schedules.

☒ In the case of significant natural heritage features and other significant natural features (as confirmed through field studies), the EER must demonstrate that there is no development or site alteration within the feature with the exception of uses as specified in the OP and/or prior approvals. The EER must determine appropriate buffers from significant natural features.

☒ The EER should include one or more figures which overlays the proposed development on the ecological constraints of the site. The analysis should determine the area(s) and type(s) of natural features and function that may be directly and/or indirectly impacted by the proposed development. Proposed buffers which will protect natural features and functions should be clearly shown on figures. Rationale for proposed buffers will also be provided.

Mitigation Strategies

☒ Avoidance of any natural heritage feature is the preferred approach to mitigation unless otherwise specified in the OP and/or prior approvals.

☒ Determine adequate buffers through the identification of the critical function and protection zones of any identified natural areas.

☒ Where avoidance of a feature is not feasible or possible, all feasible mitigation measures/approaches should be explored and described in the report. These may include edge management plans, buffer plantings, fencing, low impact designs (LID), etc.

☒ The EER should provide a detailed outline of mitigation measures intended to eliminate or reduce potential construction-related impacts to areas designated for protection. Recommendations for Best Management Practices during construction should be provided. This may include silt fencing, tree protection, fencing, identification of timing or seasonal constraints to construction or restoration, etc.

☒ Mitigation for negative impacts on the natural features or their ecological functions (or to achieve no net negative impact) may include, at the discretion of the planning authority, approaches to replace lost areas or functions. If acceptable, replacement shall, to the extent possible, occur within the same watershed as the proposed development or site alteration. The appropriate amount of replacement will be determined through discussions with the City and will be agreed to by all parties in writing.

☒ If monitoring is required, the details of a monitoring program must be agreed to in writing by the pertinent planning authorities, and other parties (if required).

Conclusions

☒ The EER will summarize the key finding of the report including the biophysical inventory and analysis, assessment of potential impacts, impact avoidance measures, mitigation measures, and opportunities for environmental enhancement. The conclusion will include a final recommendation to approve/not approve the development proposal based on the results of the study, and identify conditions of approval required to achieve no negative impact.

References

Bird Studies Canada. 2009. Marsh Monitoring Program Participant's Handbook for Surveying Amphibians. 2009 Edition. 13 pages. Published by Bird Studies Canada in cooperation with Environment Canada and the U.S. Environmental Protection Agency. February 2009.

Birds Canada. 2021. Ontario Breeding Bird Atlas Instructions for General Atlassing.

City of Windsor. 2013. City of Windsor Official Plan and Schedules.

Endangered Species Act, 2007. (S.O. 2007, C-6). https://www.ontario.ca/laws/statute/07e06. Accessed 2019.

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.T. 2008. Southern Ontario Ecological Land Classification – Vegetation Type List. London, Ontario.

Nelson, M. and D. Lebedyk. 2019. Environmental Impact Assessment Guideline. Essex Region Conservation Authority.

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. 2015. Significant Wildlife Habitat Habitat Criteria Schedules for Ecoregion 7E. 41pp.

Ontario Ministry of Natural Resources and Forestry. 2016. Survey Protocol for Ontario's Species at Risk Snakes. Species Conservation Policy Branch. Peterborough, Ontario. ii + 17pp.

Attachment

Figure 1 – Project Location

LAKEFRONT HEIGHTS INC.

10835 RIVERSIDE DRIVE EAST

ENVIRONMENTAL EVALUATION REPORT
TERMS OF REFERENCE

PROJECT LOCATION
FIGURE 1.0

PROJECT LOCATION
(± 1.66 ha)

STUDY AREA (120m BUFFER)

MAP/DRAWING INFORMATION
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. ALL DIMENSIONS AND BOUNDARY INFORMATION SHOULD BE VERIFIED BY AN O.L.S PRIOR TO CONSTRUCTION.

SCALE : N.T.S.

N
W E
S

SOURCE: COUNTY OF ESSEX
AERIAL PHOTOGRAPHY (2021)

CREATED BY: ESB
CHECKED BY: BTM
DESIGNED BY: ESB

File Location:
c:\pw working directory\projects 2021\32esb\dms32529\21-2104 riverside sportsman tor figure.dwg
March, 22, 2022 1:20 PM

DILLON CONSULTING

PROJECT: 21-2104
STATUS: FINAL
DATE: 03/22/2020

Appendix B
Background Mapping

Ontario

Ministry of Natural Resources and Forestry

Make-a-Map: Natural Heritage Areas

Notes:

Map created: 3/14/2022

Legend

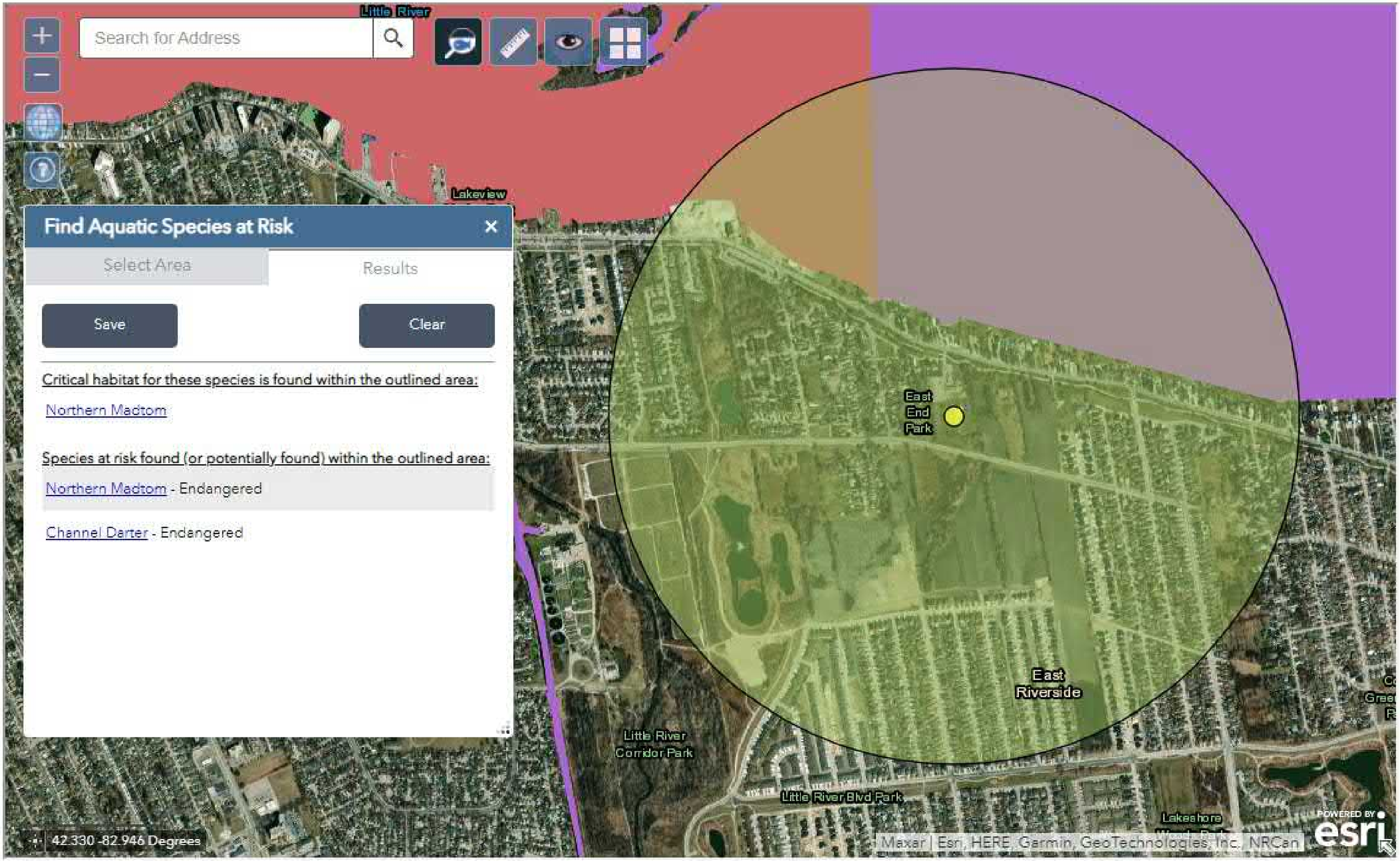
- Assessment Parcel
- ANSI
- Earth Science Provincially Significant/sciences de la terre d'importance provinciale
- Earth Science Regionally Significant/sciences de la terre d'importance régionale
- Life Science Provincially Significant/sciences de la vie d'importance provinciale
- Life Science Regionally Significant/sciences de la vie d'importance régionale
- Evaluated Wetland
- Provincially Significant/considérée d'importance provinciale
- Non-Provincially Significant/non considérée d'importance provinciale
- Unevaluated Wetland
- Woodland
- Conservation Reserve
- Provincial Park
- Natural Heritage System

0 0.2 Kilometres

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources and Forestry(OMNRF) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

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

Projection: Web Mercator


Search for Address
Little River
Lakeview
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
East End Park
East Riverside
Little River Corridor Park
Little River Blvd Park
Lakeshore
42.330 -82.946 Degrees
Maxar | Esri, HERE, Garmin, GeoTechnologies, Inc., NRCan
POWERED BY esri

SCHEDULE B:
GREENWAY SYSTEM

Project Location

CITY OF DETROIT

DETROIT RIVER

TOWN OF LASALLE

TOWN OF TECUMSEH

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

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

LEGEND

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

0 700 1,400 2,800 Meters

City of Windsor Official Plan Volume I
Office Consolidation: September 7, 2012

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.

Project Location

CITY OF DETROIT

DETROIT RIVER

BRIDGE

RAIL TUNNEL

TUNNEL

UNIVERSITY AVE W

WYANDOTTE ST W

SANDWICH ST

COLLEGE AVE

PRINCE RD

CAMPBELL AVE

CRAWFORD AVE

GLADSTONE AVE

UNCOLN RD

RICHMOND ST

GILES BLVD

OTTAWA ST

OUELLETTE AVE

MCDOUGALL ST

HOWARD AVE

PARENT AVE

WALKER RD

DROUILLARD RD

SEMINOLE ST

GEORGE AVE

PILLETTE RD

WYANDOTTE ST E

SOUTH NATIONAL ST

LITTLE RIVER RD

TECUMSEH RD W

TECUMSEH RD E

OJIBWAY PKY

MARCHETTE RD

MALDEN RD

DOMINION BLVD

CHRYSLER CENTRE

CENTRAL AVE

PLYMOUTH DR

JEFFERSON BLVD

LAUZON PKY

LAUZON RD

JUTTLE RIVER

CLOVER AVE

RIVERSIDE DR

MCHUGH ST

Refer to FOREST GLADE NORTH SECONDARY PLAN in Vol. II of this Plan

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

HURON CHURCH RD

GRAND MARAIS RD W

GRAND MARAIS RD E

WEST GRAND BLVD

E C ROW EXPY

GRAND MARAIS DRAIN

DOUGALL AVE

MARENTETTE AVE

RHODES DR

FOREST GLADE DR

BANWELL RD

TOWN OF LASALLE

TOWN OF TECUMSEH

CABANA RD W

CABANA RD E

COUSINEAU RD

DOUGALL PKY

NORTH TALBOT RD

6TH CON RD

PROVINCIAL RD

7TH CON RD

8TH CON RD

9TH CON RD

COUNTY RD 42

COUNTY RD 17

BASELINE RD

LAUZON RD

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

0 750 1,500 3,000 Meters

City of Windsor Official Plan Volume I
Office Consolidation: September 7, 2012

NOTES:

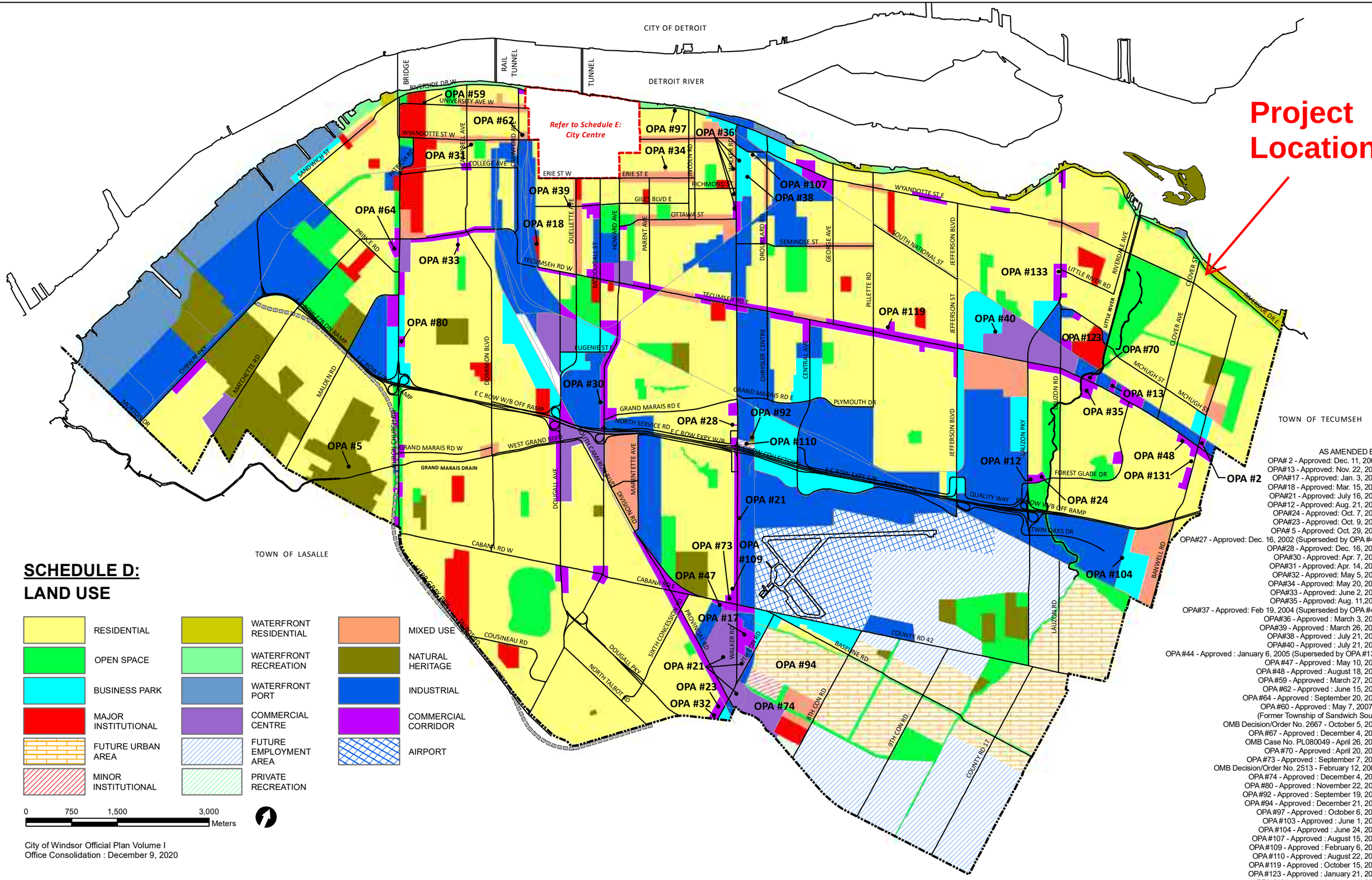
1. These sites were identified from information forwarded to the Province of Ontario or the City of Windsor. This schedule only designates former waste disposal sites known to the Province of Ontario and the City of Windsor and does not document any remediation of these sites. Refer to section 5.4.9.

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.

Project Location



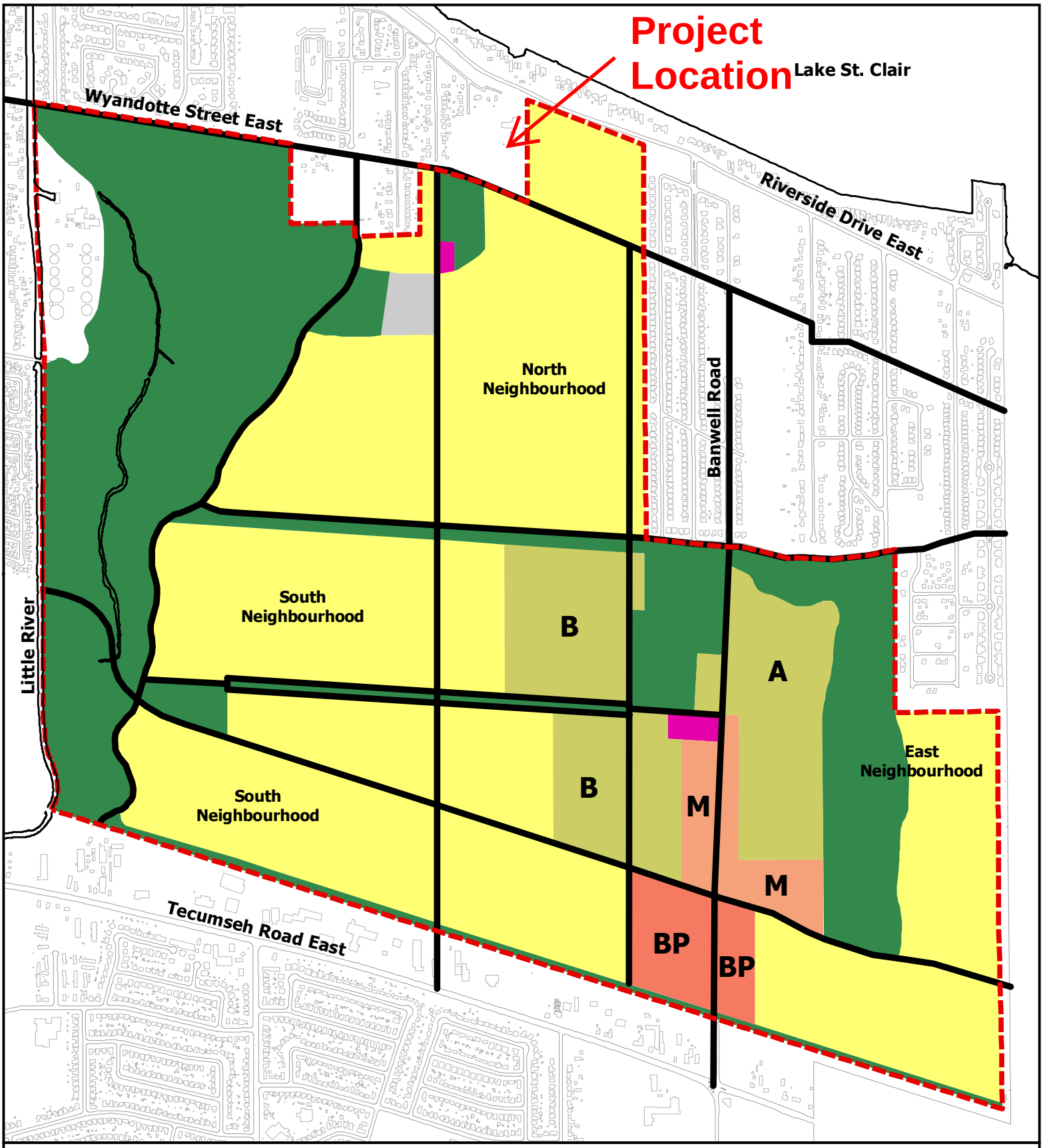
SCHEDULE D: LAND USE

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

0 750 1,500 3,000 Meters

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
OPA#23 - Approved: Oct. 9, 2002
OPA# 5 - Approved: Oct. 29, 2002
OPA#27 - Approved: Dec. 16, 2002 (Superseded by OPA #40)
OPA#28 - Approved: Dec. 16, 2002
OPA#30 - Approved: Apr. 7, 2003
OPA#31 - Approved: Apr. 14, 2003
OPA#32 - Approved: May 5, 2003
OPA#34 - Approved: May 20, 2003
OPA#33 - Approved: June 2, 2003
OPA#35 - Approved: Aug. 11,2003
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 #123 - Approved : January 21, 2020
OPA #131 - Approved : August 4, 2020
OPA #133 - Approved : November 9, 2020



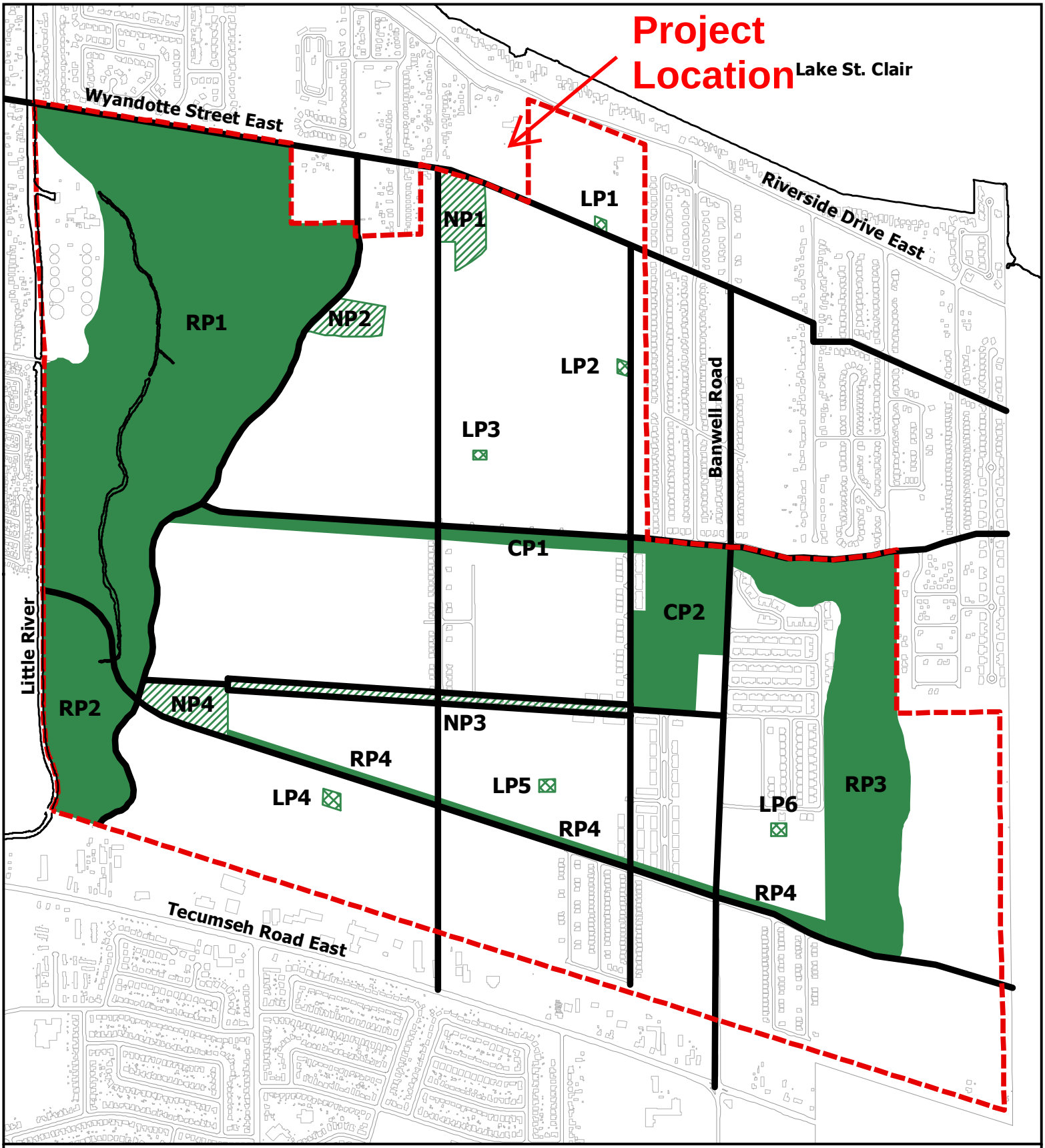
EAST RIVERSIDE PLANNING AREA

SCHEDULE ER1-2 : LAND USE PLAN

Meters 0 150 300 600

- Residential Neighbourhood
- A — Core Residential Area A
- B — Core Residential Area B
- M — Banwell Road Mixed Use Corridor
- BP — Business Park
- Institutional
- School Site
- Open Space
- Boundary of Planning Area

City of Windsor Official Plan Volume II
Date of OMB Approval : September 25, 2000
Office Consolidation : YYYY/MM/DD



EAST RIVERSIDE PLANNING AREA

SCHEDULE ER1-3 : GREENWAY SYSTEM PLAN

Meters 0 150 300 600

RP Regional Park

CP Community Park

NP Neighbourhood Park

LP Local Park

Boundary of Planning Area

City of Windsor Official Plan Volume II
Date of OMB Approval : September 25, 2000
Office Consolidation : YYYY/MM/DD

Essex Region Conservation Authority

Public Interactive Mapping

Legend

COE.ERCA.wms_MunicipalDrains_ERCA - Larg
- Natural
- Channelized; Open
- Tiled; Closed
- Other

Parcel Fabric - City
Parcel Fabric - County
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

0 77.79 155.6
Meters

1: 3,500 3/14/2022

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

Notes

Appendix C
Site Photographs

Photograph 1 March 10, 2022 Looking north from the north-western corner of the Project Location. Note: Commercial and Institutional (CVC) with some scattered trees.	
Photograph 2 March 10, 2022 Looking north-east from the north-western corner of the Project Location. Note: Commercial and Institutional (CVC). Existing Riverside Sportsman's Club building and parking area.	

Photograph 3 March 10, 2022 Looking south from the north-western corner of the Project Location, looking into the proposed development area. Note: Commercial and Institutional (CVC) with some trees.	
Photograph 4 March 10, 2022 Looking south-east from the north-western corner of the Project Location, looking into the proposed development area. Note: Commercial and Institutional (CVC) with some trees in the background.	

Photograph 5 March 10, 2022 Looking west from the north-western corner of the Project Location, facing the neighbouring property to the west. Note: Facing the neighbouring property to the west (CGL – Greenlands)	
Photograph 6 March 10, 2022 Looking east from the south-eastern corner of the Project Location. Note: Commercial and Institutional (CVC) in the foreground with some scattered trees. Annual Row Crops (OAGM1) in the background.	

Photograph 7 March 10, 2022 Looking north from the south-eastern corner of the Project Location. Note: Commercial and Institutional (CVC).	
Photograph 8 March 10, 2022 Looking south from the south-eastern corner of the Project Location. Note: Commercial and Institutional (CVC) in the foreground, Fencerow with European Common Reed inclusion (TAGM5) in the background across Wyandotte Street East.	

Photograph 9 March 10, 2022 Looking south-west from the south-eastern corner of the Project Location. Note: Commercial and Institutional (CVC) in the foreground with Fencerow with European Common Reed inclusion (TAGM5) in the background.	
Photograph 10 March 10, 2022 Looking south from the north-eastern corner of the Project Location. Note: Commercial and Institutional (CVC) with hedgerow.	

Photograph 11 March 10, 2022 Looking south-west from the north-eastern corner of the Project Location. Note: Commercial and Institutional (CVC).	

Appendix D
Vegetation List

Table 1: Vegetation Species identified within the Project Location

Family	Scientific Name	Common Name	SARA Status[1]	ESA Status[2]	SRank[3]	CC[4]	CW[5]	Invasive Priority for Control[6]	Noxious
Aceraceae	Acer x freemanii	Freeman's Maple	---	---	SNA	---	---	---	---
Aceraceae	Acer negundo	Manitoba Maple	---	---	S5	0	-2	C2	---
Apiaceae	Pastinaca sativa	Wild Parsnip	---	---	SNA	---	5	C1	Y
Asteraceae	Solidago altissima ssp. altissima	Eastern Late Goldenrod	---	---	S5	1	3	---	---
Asteraceae	Symphyotrichum novae-angliae	New England Aster	---	---	S5	2	-3	---	---
Lamiaceae	Glechoma hederacea	Ground Ivy	---	---	SNA	---	3	---	---
Moraceae	Morus alba	White Mulberry	---	---	SNA	---	0	C1	---
Pinaceae	Picea pungens	Blue Spruce	---	---	SNA	---	---	---	---
Plantaginaceae	Plantago lanceolata	English Plantain	---	---	SNA	---	0	---	---
Poaceae	Poa sp.	Bluegrass species	---	---	---	---	---	---	---
Poaceae	Phragmites australis ssp. australis	European Common Reed	---	---	SNA	---	-4	C1	---
Salicaceae	Populus deltoides ssp. deltoides	Eastern Cottonwood	---	---	S5	4	-1	---	---
Tiliaceae	Tilia cordata	Little-leaf Linden	---	---	SNA	---	---	C3	---
Typhaceae	Typha latifolia	Broad-leaved Cattail	---	---	S5	3	-5	---	---

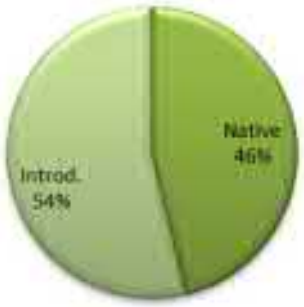
1 – Status identified by the Committee on the Status of Endangered Wildlife in Canada under the federal Species at Risk Act, 2002;
2 – Species at Risk in Ontario List under the provincial Endangered Species Act, 2007;
3 – Ontario Conservation SRank; S5 = secure; SNA = non-native or exotic species to 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 E
Floristics Data



Mean Coefficient of Conservatism

Native Spp.	All Spp.	Scale	
		10.00	
		9.50	
		9.00	
		8.50	
		8.00	
		7.50	
		7.00	
		6.50	
		6.00	
		5.50	>4.5 remnant has natural area potential
		5.00	(relatively intact natural area with high floristic
		4.50	quality)
		4.00	>3.5 Sufficient floristic quality to be of remnant
		3.50	natural quality
		3.00	
		2.50	
2.33		2.00	
		1.50	
	1.08	1.00	
		0.50	
		0.00	

Floristic Quality Index (FQI)

Native Spp.	All Spp.	Scale	
		100.00	
		95.00	
		90.00	
		85.00	
		80.00	
		75.00	
		70.00	
		65.00	
		60.00	>50 Extremely rare and represent a significant
		55.00	component of Ontario's native biodiversity and
		50.00	natural landscapes
		45.00	>35 Possess sufficient conservatism and richness
		40.00	to be floristically important from a Provincial
		35.00	perspective
		30.00	
		25.00	
		20.00	<20 Minimal significance from a natural quality
		15.00	perspective
		10.00	
5.72		5.00	
		0.00	

Mean Coefficient of Wetness

Native Species	All Species	Scale	
		5.0	Strong
		4.5	
		4.0	
		3.5	
		3.0	Predominance of upland species
		2.5	
		2.0	
		1.5	
		1.0	
	0.85	0.5	Slight
		0.0	
		-0.5	Slight
-0.83		-1.0	
		-1.5	
		-2.0	
		-2.5	
		-3.0	Predominance of wetland species
		-3.5	
		-4.0	
		-4.5	
		-5.0	Strong