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Scoped Environmental Impact Study for 875 Kingston Road

City of Pickering, Durham Region

Palmer Project #
2106402

Prepared For
Sphere Developments (Kingston) LP

March 29, 2023

March 29, 2023

Rohan Gawri
Sphere Developments (Kingston) LP
170 Robert Speck Parkway, Suite 203,
Mississauga, ON L4Z 3G1

Dear Rohan Gawri:

Re: Scoped Environmental Impact Study for 875 Kingston Road
Project #: 2106402

Palmer is pleased to submit the following Scoped Environmental Impact Study (EIS) report for the property located at 875 Kingston Road, in the City of Pickering, Region of Durham (the Subject Property – **Figure 1**). This Scoped EIS has been completed as part of a Zoning By-law Application for the proposed development of the Subject Property.

The findings of our study are the result of a background review, field investigations, and an analysis of data using the current scientific understanding of the ecology of the area, as well as the current natural heritage policy requirements. We have identified the environmental sensitivities, constraints, and development opportunities of the Subject Property.

Based on the findings and recommendations of this study to date, it is our professional opinion that with the implementation of the mitigation measures provided in this report, the proposed development plan is environmentally feasible.

Please let us know if you have questions or comments on this submission.

Yours truly,

Palmer

Rosalind Chaundy, M.Sc. F.
Senior Ecologist

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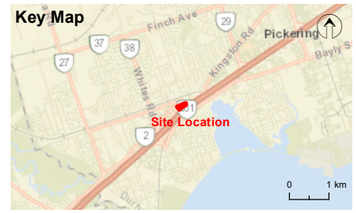
1. Introduction

Palmer has been retained by Sphere Developments (Kingston) LP (the proponent) to complete a Scoped Environmental Impact Study (EIS) for the proposed construction of a 17-storey residential/commercial building, and 4 levels of underground parking, at 875 Kingston Road, City of Pickering (the Subject Property – **Figure 1**). The completion of a Scoped EIS has been prepared as part of a Zoning By-law Amendment (ZBA) to the City of Pickering.

The Subject Property is an area of approximately 1.52 hectares (ha) and currently supports a cultural meadow with a woodland and watercourse, a tributary of Amberlea Creek, which are found along the western portion of the parcel. The portions of the Subject Property associated with the watercourse and floodplain are regulated by the Toronto and Region Conservation Authority (TRCA).

The intent of this Scoped EIS is to inventory and evaluate the sensitivity and significance of the existing natural heritage features and ecological functions associated with the Subject Property and assess the impacts of the proposed development. For the natural heritage features requiring protection, avoidance and mitigation measures are recommended where appropriate, to address potential impacts resulting from the proposed development.

KEY MAP



LEGEND

Watercourse [1]

Subject Property (1.52 ha)

0 25 50 75 100

METRE SCALE

North American Datum 1983
Universal Transverse Mercator Projection Zone 17

Scale: 1:3,000
Page Size: Tabloid (11 x 17 inches)

Drawn: SM
Checked: MV
Date: Aug 19, 2022

Source Notes: Base imagery (2020) provided by Pickering open GIS services.

1 - Land Information Ontario (LIO)

NORTH

CLIENT
154 Riverside Drive LP

PROJECT
875 Kingston Road

TITLE
Site Location

Palmer

REF. NO. 2106402-1-3

Figure 1

Document Path: G:\Shared drives\Projects 2021\21064 - 154 Riverside Drive LP\2106402 - 875 Kingston Road\GIS\1_Workspace\Task 2 - EIS Figures\2106402-1-2- Site Location.mxd

2. Environmental Policy

Relevant planning policies, legislation, and regulatory requirements pertinent to this assessment are summarized in the following sections. The general relevance of these policies to the Subject Property is also noted. More detailed analysis of policy implications is provided in subsequent sections of this report, where relevant.

2.1 Provincial Policy Statement (2020)

The *Provincial Policy Statement* (PPS) provides direction to regional and local municipalities regarding planning policies for the protection and management of natural heritage features and resources (Ontario Ministry of Municipal Affairs and Housing, 2020). The PPS defines eight types of Natural Heritage Features (NHF) and adjacent areas and provides planning policies for each. Of these NHF, development is not permitted in:

- Significant Coastal Wetlands;
- Significant Wetlands in Ecoregions 5E, 6E and 7E;
- Fish Habitat, except in accordance with provincial and federal requirements; or
- Habitat of species designated as Endangered and Threatened, except in accordance with provincial and federal requirements.

Additionally, unless it can be demonstrated through an EIS that there will be no negative impacts on the natural features or their ecological functions, development and site alteration are also not permitted in:

- Significant Wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;
- Significant Woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River);
- Significant Valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River);
- Significant Wildlife Habitat;
- Significant Areas of Natural and Scientific Interest (ANSI);
- Other Coastal Wetlands in Ecoregions 5E, 6E and 7E; and
- Lands defined as Adjacent Lands to all the above natural heritage features.

Each of these natural heritage features is afforded varying levels of protection subject to guidelines, and in some cases, regulations.

Site-specific Relevance of the PPS

The Subject Property is located within Ecoregion 6E (Crins, Gray, Uhlig, & Wester, 2009). As depicted on the Ministry of Northern Development, Mines, Natural Resources and Forestry's (MNDMNRF) Natural Heritage Information Centre (NHIC) mapping, there is a watercourse and a woodland feature running along the western portion of the parcel (**Map A**).

Map A. MNDMNRF NHIC Map depicts the Subject Property comprising of one watercourse (blue line) and a woodland feature (green polygon).

2.2 Growth Plan for the Greater Golden Horseshoe (2020)

The *Growth Plan for the Greater Golden Horseshoe* (GGH) was approved by the Council in 2019 and underwent office consolidation in 2020. The GGH directs growth and the development to ensure economic prosperity, environmental protection, and community support (Ministry of Municipal Affairs and Housing, 2020). This is intended to direct municipalities towards the establishment of appropriate policies to maintain, restore, or enhance biodiversity and connectivity of the system and long-term ecological function (Ministry of Municipal Affairs and Housing, 2020).

The GGH was developed as a supplement to the PPS, and "*builds upon the policy foundation provided by the PPS and provides additional and more specific land use planning policies to address issues facing specific geographic areas in Ontario. This Plan is to be read in conjunction with the PPS. The policies of this Plan take precedence over the policies of the PPS to the extent of any conflict, except where the relevant legislation provides otherwise*."

The growth plan primarily protects land identified in the Greenbelt Area. Schedule 2 of the Growth Plan depicts the Subject Property within the GGH Plan Area and outside of the "Greenbelt Area".

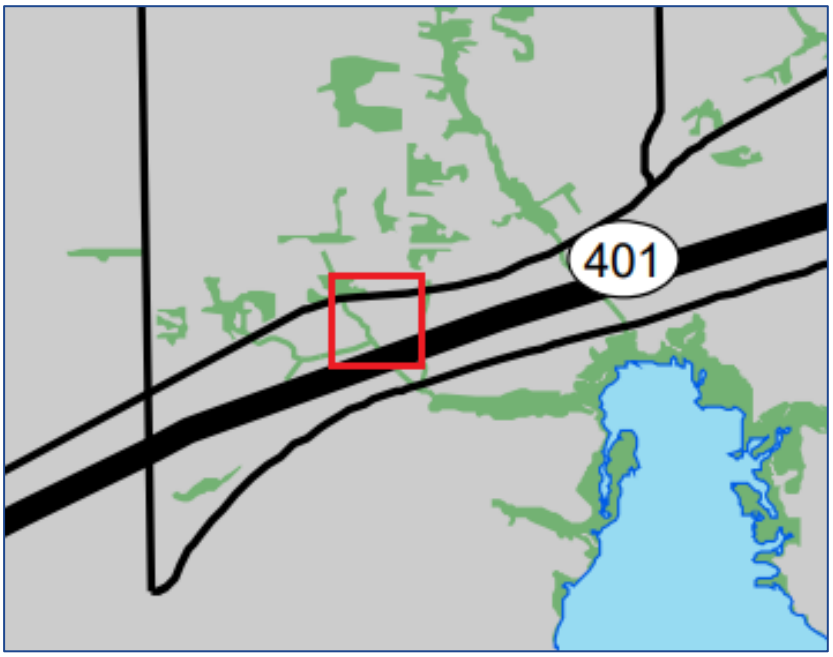
2.3 Durham Region Official Plan (2020)

The Regional Municipality of Durham completed an Office Consolidation of the *Region of Durham Official Plan* (OP) in 2020. The Greenlands system has been defined to ensure the ecological health and renewal of the Region (Regional Municipality of Durham, 2020). The Greenlands system includes defined Key Natural Heritage Features (KNHF) and Key Hydrological Features (KHF), which include:

- Significant habitat of endangered, threatened, special concern and rare species;
- Fish habitat;
- Permanent and intermittent streams:
- Wetlands;
- Lakes, and their littoral zones;
- Seepage areas and springs;
- Aquifers and recharge areas;
- Areas of Natural and Scientific Interest (ANSIs), life science;
- Significant valleylands;
- Significant woodlands;
- Significant wildlife habitat;
- Sand barrens, savannahs, and tallgrass prairies; and
- Alvars.

Site-specific Relevance to the Regional OP

According to the Region's OP Schedule 'B' – Map 'B1d' (Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features), the Subject Property includes KNHFs/KHFs as part of the Greenlands System and is within the Urban Area land designation (**Map B**). As per the OP's Section 2.3.16, within Urban Areas, a vegetation protection zone for these natural features should be determined through an EIS.



Map B. The Region's OP Schedule 'B'- Map 'B1d' depicts the Subject Property as including KNHFs/KHFs (green layer) and within the Urban Area land designation (grey layer).

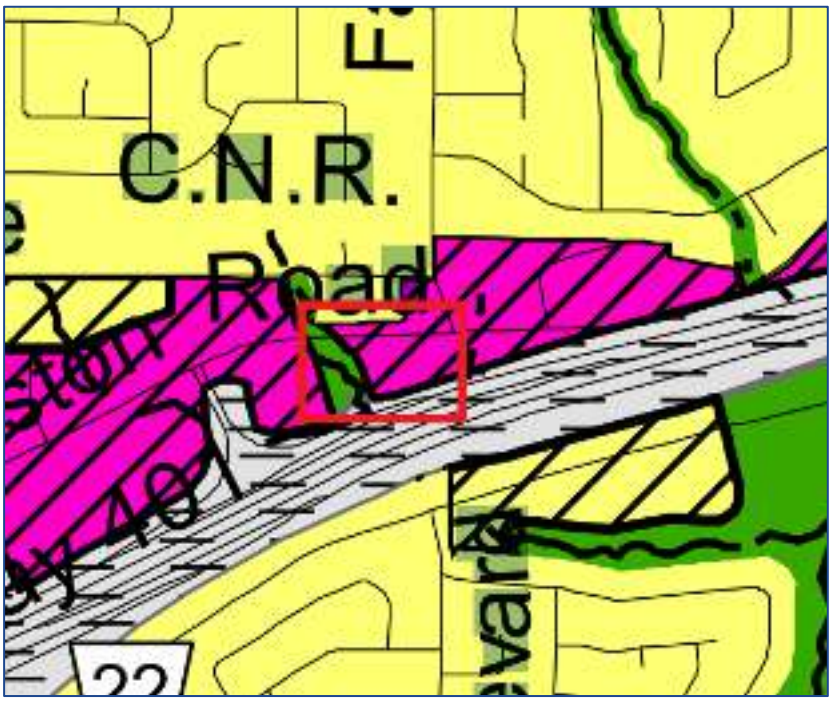
2.4 City of Pickering Official Plan (2018)

The *City of Pickering Official Plan* (OP) 2010 was adopted by Council in 1997. Since that time, a number of amendments have been made to the OP, resulting in the current Pickering Official Plan, Edition 8, dated

October 2018 (City of Pickering, 2018). The City of Pickering has identified KNHFs/KHFs that form the basis of the City's Natural Heritage System. As per the OP's section 2.5, the City will "endeavour to protect the City's critical ecological functions and components from inappropriate human uses and activities, including its stream corridors and significant valleylands, forests, significant woodlands, shorelines, wetlands, ANSIs, rare species, and fish and wildlife habitat, within and outside the City's Natural Heritage System."

Site-specific Relevance of the City OP

According to the City's Schedule 1 (Land Use Structure), the Subject Property is within a "Mixed Corridors" area and contains "Natural Areas" **(Map C**). In addition, as per Schedule 3C (Resource Management: KNHFs/KHFs), the Subject Property contains "Shorelines, Significant Valley Lands and Stream Corridors" and "Permanent & Intermittent Streams" (**Map D**).



Map C. The City's OP Schedule 1 (Land Use Structure) depicts the Subject Property within a "Mixed Corridors" (hatched pink) containing "Natural Areas" (green polygon).

Map D. The City's OP Schedule 3C (Resource Management: Key Natural Heritage and Key Hydrologic Features) depicts the Subject Property comprising of "Shorelines, Significant Valley Lands and Stream Corridors" (blue polygon) and "Permanent & Intermittent Streams" (blue line).

2.5 Toronto and Region Conservation Authority

Toronto and Region Conservation Authority (TRCA) regulates hazard lands including watercourses, valleylands, shorelines, and wetlands, including lands adjacent to these features under the Conservation Authorities Act, 1990 through Ontario Regulation (O. Reg.) 166/06 – *Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses*. The Regulation allows the TRCA to prohibit or regulate development in regulated areas within its jurisdiction where the control of flooding, erosion, dynamic beaches, pollution, or the conservation of land could be affected by development and in other areas where development could interfere in any way with watercourses or wetlands. Toronto and Region Conservation Authority regulations and policies include the following:

- Ontario Regulation 166/06 - *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* (Government of Ontario, 1990). Through this regulation, the TRCA regulates activities in natural and hazardous areas (e.g., areas in and near rivers, streams, floodplains, wetlands, and slopes and shorelines)

- The *Living City Policies* (Toronto and Region Conservation Authority, 2014) and associated *Planning and Development Procedural Manual* (Toronto and Region Conservation Authority, 2014). These documents present the TRCA's planning and permit review practices and technical guidelines. Relevant policies will be discussed in applicable sections of this report.

Site-specific Relevance of the TRCA policies

As depicted in the TRCA's regulation mapping, the Subject Property contains lands regulated under O.Reg.166/06, associated with the watercourse (**Map E**). Under O.Reg. 166/06, a permit would be required from the TRCA prior to development within regulated lands.

As per Section 7.3.1.4 of *The Living City Policies*, it is the TRCA's recommended policy that when:

(b) iii. there exists a natural feature and/or a natural hazard that warrants protection, but it is not captured by Natural System mapping, the limit of the Natural System be determined by the greater of the outer limits of the natural feature and/or natural hazard to development or site alteration, as follows:

Woodlands – a 10-metre buffer from the dripline and any contiguous natural features or areas.

Valley or Stream Corridors – a 10-metre buffer from the greater of the long-term stable top of slope/bank, stable toe of slope, Regulatory flood plain, meander belt, and any continuous natural features or areas.

Map E. TRCA Regulated Area within the southern and western boundaries of the Subject Property (green layer = regulated area, blue layer = floodplain mapping, orange line = meander belt, green line = top of bank).

2.6 Endangered Species Act (2007)

Species designated as Endangered or Threatened by the Committee on the Status of Species at Risk in Ontario (COSSARO) are listed as Species at Risk (SAR) in Ontario (Government of Ontario, 2007). These SAR and their habitats (e.g., areas essential for breeding, rearing, feeding, hibernation, and migration) are afforded legal protection under the Endangered Species Act, 2007 (ESA). This Act is administered by the Ministry of Environment, Conservation and Parks (MECP).

The protection provisions for species and their habitat within the ESA apply only to those species listed as Endangered or Threatened on the SARO list, being Ontario Regulation 230/08 of the ESA. Species listed as Special Concern may be afforded protection through policy instruments respecting significant wildlife habitat (e.g., the PPS) as defined by the Province, or other relevant authority, or other protections contained in Official Plans.

2.7 Migratory Birds Convention Act (1994)

The Migratory Birds Convention Act, 1994 (MBCA) and Migratory Birds regulations, 2014 (MBR), along with the provincial Fish and Wildlife Act, protect most species of migratory birds and their nests and eggs anywhere they are found in Canada (Government of Canada, 1994). General prohibitions under the MBCA and MBR protect migratory birds, their nests and eggs and prohibit the deposit of harmful substances in waters / areas frequented by them. The MBR includes an additional prohibition against incidental take, which is the inadvertent harming or destruction of birds, nests, or eggs.

Compliance with the MBCA and MBR is best achieved through a due diligence approach, which identifies potential risk, based on a site-specific analysis in consideration of the Avoidance Guidelines and Best Management Practices information on the Environment Canada website.

3. Study Approach

The approach to the study has been scoped in consideration of existing site conditions, applicable policy, and feedback received through ongoing agency liaison.

3.1 Background Review

Palmer has reviewed relevant background material to provide a focus to field investigations and ensure compliance with applicable regulations and policy. Background information collection is guided by the Natural Heritage Information Request Guide (Ministry of Natural Resources and Forestry, 2018). Current direction from the Ministry of Natural Resources and Forestry (MNRF) and Ministry of Environment, Conservation and Parks (MECP) is to gather natural heritage information and species occurrence records from available sources; the NHIC Make-a-Map application being the main source of information and records from the Ministry itself (Ministry of Natural Resources and Forestry, 2022). Information gathered is recommended to be balanced and supplemented by professional ecological review of potential habitats and characteristics of a project site.

Background review for the Subject Property included the collection of relevant mapping and reports, including regulations and policies, Official Plans, and zoning by-laws; and the NHIC Make-a-Map application for species occurrences and designated area mapping. In addition to these sources, the following data sources were reviewed for the project:

- Natural Heritage Information Centre (NHIC) database;
- Land Information Ontario (LIO) database (2022);
- Department of Fisheries and Oceans (DFO) Aquatic Habitat and Species at Risk Mapping;
- Ontario Breeding Bird and Reptile and Amphibian Atlases;
- Durham Region Official Plan, 2020;
- City of Pickering Official Plan, 2018;
- Toronto and Region Conservation Authority mapping.

Other sources of information, such as aerial photography and topographic maps, were also consulted prior to commencing field assessments. Following the Information Request Guide, MECP advice and direction should be solicited if Species at Risk (SAR) interactions or potential interactions are identified via field investigation and analysis.

3.2 Agency Consultation

A Terms of Reference (TOR) was submitted by Palmer to the TRCA for review on June 16, 2022. A response, accepting the scope of work, was received from the TRCA on June 27, 2022 (**Appendix A**).

It is Palmer's understanding that the Top of Slope and Dripline delineation were completed in collaboration with the TRCA on June 9, 2021 and were acceptable to that authority.

3.3 Ecological Surveys

Existing conditions in the Subject Property were assessed by Palmer ecologists during spring and summer 2022. Weather conditions and site investigations for each site visit are summarized in **Table 1** below:

Table 1. Spring 2022 Field Investigations Summary

Date	Field Investigations	Weather Conditions
June 13, 2022	Ecological Land Classification, Aquatic Habitat Assessment, Incidental Wildlife Observations	21ºC, sunny, 6 km/h winds
July 15, 2022	Ecological Land Classification, Aquatic Habitat Assessment, Incidental Wildlife Observations	25ºC, sunny, 5 km/h winds

3.3.1 Botanical Survey and Ecological Land Classification

Vegetation communities were mapped and described following the Ecological Land Classification (ELC) System for Southern Ontario protocols (Lee, et al., 1998) and unpublished 2008 update tables. Vegetation community boundaries were delineated on field maps through the interpretation of recent aerial photographs and refined in the field. Information collected during the ELC includes dominant species cover, community structure, as well as level of disturbance, presence of indicator species, and other notable features. A botanical survey was completed by traversing the Subject Property and recording species observed across the property. Local plant rarity status is based on the Greater Toronto Area within The Vascular Plant Flora of the Greater Toronto Area (Varga, et al., 2000). Provincial plant status was based on the Rare Flora of Ontario (Oldham & Brinker, 2009) and the Natural Heritage Information Centre (Ministry of Natural Resources and Forestry, 2022).

3.3.2 Aquatic Habitat Assessment

An aquatic habitat assessment was conducted along the watercourse situated near the western boundary of the Subject Property. Stream characteristics collected during the survey included the following:

- Channel structure and morphology;
- Bank condition and signs of erosion;
- Substrate type and composition;
- Riparian vegetation;
- Canopy cover;
- Visual water quality; and,
- Presence of in-stream barriers;

Results of the aquatic habitat assessment are detailed in Section 4.4 of this report.

3.3.3 Species at Risk Habitat Assessment

For the purposes of this report, Species at Risk (SAR) include species listed as Endangered, Threatened or Special Concern under Ontario's ESA. The protection provisions for species and their habitat within the *ESA* apply only to those species listed as endangered or threated on the SARO list. Special Concern species may be afforded protection through policy instruments respecting significant wildlife habitat as defined by the Province or other relevant authority, or other protections contained in Official Plan policies.

Prior to field work, existing SAR records were queried with the NHIC database and other background resources. Habitat opportunities for SAR on the site were then assessed by comparing habitat preferences of species deemed to have potential to occur against current site conditions. The species noted during the NHIC search and others known through professional experience to have potential to occur were considered in the assessment.

3.3.4 Incidental Wildlife Observations

All incidental observations of wildlife were recorded by Palmer during the investigations. Incidental observations included direct sightings and indirect evidence such as nests, tracks, scat, and browse.

4. Existing Conditions

4.1 Physiography

The Subject Property is located within the Lake Simcoe-Rideau Ecoregion 6E. This region extends from Lake Huron in the west to the Ottawa River in the east and includes most of the Lake Ontario shore and the Ontario portion of the St. Lawrence River Valley. The Subject Property is found within the relatively flat Sand Plain of the Iroquois Plain. The Iroquois Plain is a mosaic of till, drumlins, and silty lacustrine deposits. The tow most important substrates of the area are Darlington loam and Newcastle loam (Chapman & Putnam, 1984).

4.2 Vegetation Communities and Flora

4.2.1 Vegetation Communities

The Subject Property is largely comprised of culturally influenced land characterized as cultural meadow and thicket. The main natural feature within the property is a watercourse (tributary of Amberlea Creek) and a woodland found along the western boundary. Ecological field investigations identified a total of three natural vegetation communities within the Subject Property, in addition to the watercourse feature. The watercourse and woodland feature were characterized during Palmer's 2022 field investigations. These vegetation communities are illustrated on **Figure 2** and described below.

Dry-Fresh Deciduous Forest (FOD4)

This community was located on the western portion of the Subject Property (**Photo 1**). A number of exotic and invasive species were observed within this vegetation community. Very high levels of noise, from Highway 401 traffic, was noted during the vegetation survey. This community was characterized as a young to mid-aged, riverine forest with rolling and steep slopes and occasional standing snags and deadfall logs. This woodland's canopy and subcanopy (75% cover) were dominated by Manitoba Maple (*Acer negundo*), with frequent willow (*Salix* sp.), and occasional American Elm (*Ulmus americana*) and American Basswood (*Tilia americana*) recorded. The understory, providing 60% cover, was similarly dominated by Manitoba Maple with abundant European Buckthorn (*Rhamnus cathartica*), and frequent Red-Osier Dogwood (*Cornus sericea*) and Riverbank Grape (*Vitis riparia*) individuals. The groundcover was quite dense at the time of the 2022 field investigations (80% cover) and was dominated by Dog-Strangling Vine (*Vincetoxicum rossicum*), with abundant Dame's Rocket (*Hesperis matronalis*) and numerous Common Comfrey (*Symphytum officinale*) and Garlic Mustard (*Alliaria petiolate*). The occasional jewelweed *(Impatiens* sp.), buttercup (*Ranunculus* sp.), goldenrod (*Solidago* sp.), Poison Ivy (*Toxicodendron radicans*), and Thicket Creeper (*Parthenocissus inserta*) were observed near the watercourse.

Photo 1. A Dry-Fresh Deciduous Forest community on the western portion of the Subject Property (June 13, 2022)

Mineral Cultural Meadow (CUM1)

The Cultural Meadow communities observed within the Subject Property were indicative of past anthropogenic disturbance and were dominated by exotic and invasive species. The communities to the east and northwest corner of the Subject Property were dominated by invasive Dog-Strangling Vine (*Vincetoxicum rossicum*) with abundant Smooth Broome (*Bromus inermis*) and grasses (*Poa* sp.). Frequent Bedstraw (*Galium* sp.) and the occasional Cow Vetch (*Vicia cracca*), Creeping Juniper (*Juniperus horizontalis*), Russian Olive (*Elaeagnus angustifolia*), Common Teasel (*Dipsacus fullonum*), and Riverbank Grape (*Vitis riparia*) were also recorded throughout the meadow communities (**Photo 2**). A small CUM1 community was observed in the southwest corner of the Subject Property and was dominated by White Clover (*Trifolium repens*), Bird's-foot Trefoil (*Lotus* sp.), Yellow Sweet Clover (*Melilotus officinalis*), and Common Dandelion (*Taraxacum officinale*).

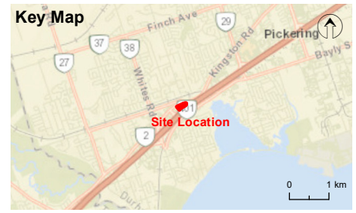
Photo 2. A Mineral Cultural Meadow community in the eastern portion of the Subject Property (June 13, 2022).

Mineral Cultural Thicket

This community was located at the northeastern edge of the Subject Property (**Photo 3**). Shrub species provided more than 25 % cover and mostly consisted of Russian Olive with occasional European Buckthorn. A few trees were noted, including Manitoba Maple and a willow.

Photo 3. Mineral Cultural Thicket community located at the northeastern edge of the Subject Property (June 13, 2022)

KEY MAP



LEGEND

- Watercourse [1]
- Dripline staked with TRCA (June 9, 2021)
- Top of Slope staked with TRCA (June 9, 2021)
- ELC Community
- Subject Property (1.52 ha)

ELC LEGEND

CUM1: Mineral Cultural Meadow
CUT1: Mineral Cultural Thicket
FOD4: Dry-Fresh Deciduous Forest
HR: Hedgerow

0 10 20 30 40
METRE SCALE

North American Datum 1983
Universal Transverse Mercator Projection Zone 17

Scale: 1:750
Page Size: Tabloid (11 x 17 inches)

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Source Notes: Base imagery (2020) provided by Pickering open GIS services.

1 - Land Information Ontario (LIO)

NORTH

CLIENT: 154 Riverside Drive LP

PROJECT: 875 Kingston Road

TITLE: **Existing Environmental Conditions**

Palmer

REF. NO. 2106402-2-3

Figure 2

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4.2.2 Flora

A total of 59 species of vascular plants were recorded within the Subject Property (**Appendix B**). Based on these findings, 34% of the species identified are native to Ontario. Several highly invasive species were recorded within the property, including European Buckthorn, Dog-strangling Vine, and Garlic Mustard. The recorded presence of non-native species is indicative of past disturbance in the Subject Property, typical of developed areas in the Greater Toronto Area (GTA) (Morton & Venn, 1984). Oldham et al. (1995) indicate that in southern Ontario plant communities, non-native flora presence averages between 20 and 30%, thus this area has a higher-than-average non-native component. Furthermore, all native plants are identified as S5 or S4 ranking, indicating that they are common within Ontario (Ministry of Natural Resources and Forestry, 2022). Following the 2019 TRCA flora list for the Greater Toronto Area, all species were listed as common (L5, L4) or alternatively as exotic (L+) (Toronto and Region Conservation Authority, 2019). No SAR plants were recorded during the 2022 field investigations

4.3 Wildlife

4.3.1 Incidental Wildlife

The following incidental wildlife was recorded during the 2022 field investigations: American Robin (*Turdus migratorius*), American Goldfinch (Spinus tristis), Cedar Waxwing (*Bombycilla cedrorum*), Downy Woodpecker (*Picoides pubescens*), Song Sparrow (*Melospiza melodia),* and Red-winged Blackbird (*Agelaius phoeniceus*). Due to the urban environment, wildlife habitat opportunities within the Subject Property are generally limited. Wildlife expected to be present consisting of common, generalist and urban-adapted species such as Raccoon (*Procyon lotor*), Skunk (*Mephitis mephitis*) and Coyote (*Canis latrans*).

4.4 Aquatic Habitat Assessment

A tributary of Amberlea Creek was assessed on the Subject Property during Palmer's field investigations on June 13 and July 15, 2022. It is Palmer's understanding from both background review and field reconnaissance that the tributary begins north of Kingston Road, flows south through the deciduous forest on the Subject Property and exits underneath Highway 401. Considerable cover is provided by overhanging vegetation (**Photo 4**). The wetted channel measured 3-4 metres (m) in width, 0.1-0.2 m in depth, with semi-clear clarity and moderate flow. Abundant gravel, frequent rocks, and sand substrates were observed during Palmer's June 13 field investigation. Bank height of the tributary ranged from 1-1.7 m throughout the Subject Property. One section of the bank (southeast) was noted to be very eroded and contained exposed soil (**Photo 5**).

Riparian vegetation provided 60% cover and was dominated by Creeping Buttercup (*Ranunculus repens*), Coltsfoot (*Tussilago farfara*), and Dame's Rocket (*Hesperis matronalis*). Abundant Manitoba Maple (*Acer negundo*), frequent Common Comfrey (*Symphytum officinale*) and Dog-Strangling Vine (*Vincetoxicum rossicum*) were also noted in the riparian areas. At the southern limit of the Subject Property, a small pocket of Common Reed (*Phragmites australis*) was recorded. Algae was observed within the wetted channel.

Photo 4. A tributary of Amberlea Creek observed in the western portion of the Subject Property (June 13, 2022)

Photo 5. Eroded bank noted on the southeast side of the tributary (June 13, 2022)

5. Assessment of Significance

5.1 Species at Risk

Prior to field investigations, a background review was completed for potential SAR habitat opportunities. The NHIC database, the Ontario Breeding Bird Atlas (OBBA), the Ontario Reptile and Amphibian Atlas (ORAA), and DFO aquatic SAR mapping were screened for SAR records. Based on professional experience, it was determined that larger trees may present habitat opportunities for SAR bat species and that Butternut may be present.

Based on available background information and the spring/summer 2022 field investigations, the Subject Property was screened for potential SAR habitat opportunities. The assessment was conducted by comparing habitat preferences of species deemed to have potential to occur against current site conditions. This SAR habitat assessment can be found in **Appendix C**, providing a detailed description of each species' habitat (including those deemed to not have potential habitat), as well as a discussion of habitat suitability within the Subject Property, potential impacts, and mitigation, where applicable. Based on the rationale provided in **Appendix C**, the following five SAR were identified as having potential within the Subject Property:

Birds

- Eastern Wood-pewee (*Contopus virens*) – Special Concern

Mammals

- Little Brown Myotis (Myotis lucifugus) – Endangered
- Northern Myotis (Myotis septentrionalis) – Endangered
- Eastern Small-footed Myotis (Myotis leibii) – Endangered
- Tri-colored Bat (Perimyotis subflavus) – Endangered

Potential impacts and mitigation measures for SAR bats habitat are addressed in Section 7.5 below.

5.2 Significant Wildlife Habitat

Significant Wildlife Habitat (SWH) can be difficult to appropriately determine at the site-specific level, as the assessment must incorporate information from a wide geographic area and consider other factors such as regional resource patterns and landscape effects. To help with site level assessments, the MNRF has developed the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (Ontario Ministry of Natural Resources, 2015). The planning authorities have the responsibility to identify Significant Wildlife Habitat. With the exception of wintering deer yards (as mapped by the MNRF), the detailed identification and designation of SWH has not been completed in Durham Region or the City of Pickering.

Significant Wildlife Habitat is considered a significant feature in Provincial, Regional, and City of Pickering OP policies. SWH is defined by the MNRF in the Significant Wildlife Habitat Technical Guide (Ontario Ministry of Natural Resources, 2000) and the Natural Heritage Reference Manual (MNRF, 2010) and includes the following broad categories:

- Habitats of Seasonal Concentration of Animals;
- Rare Vegetation Communities or Specialized Habitats for Wildlife;
- Habitats of Species of Conservation Concern; and
- Animal Movement Corridors.

Criteria for the identification of these features are also provided in the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (Ontario Ministry of Natural Resources, 2015). These criteria were used to provide a screening for wildlife habitat within the Subject Property for potential SWH within and immediately adjacent to the proposed development footprint, as detailed in **Appendix D**.

No SWH were identified as having potential to occur within and adjacent to the Subject Property.

5.3 Watercourse and Stream Corridor/Valleyland

The Tributary of Amberlea Creek is found within the Amberlea Creek subwatershed as part of the Frenchman's Bay watershed (TRCA, 2013). The section of the Tributary that passes through the Subject Property provides potential fish habitat, riparian habitat, and facilitates drainage from adjacent lands. Based on fish surveys completed between 2003 to 2011 at one station downstream of the property (south of Bayly Street), the following six species were recorded: Blacknose Dace (*Rhinichthys atratulus*), Longnose Dace (*Rhinichthys cataractae),* Creek Chub (*Semotilus atromaculatus*), sucker (*Catostomus* sp.), Bluntnose Minnow (*Pimephales notatus*), and Fathead Minnow (*Pimephales promelas*). These species are representative of a tolerant warmwater community. According to the Aquatic Resource Area database and the DFO SAR mapping, there are no SAR aquatic species found within the Tributary.

This watercourse is mapped in the Region's and City's Natural Heritage System as per the Region's OP Schedule B and the City's OP Schedule 1. In addition, the City OP Schedule 3 C identifies the watercourse as "Permanent & Intermittent Stream" and the associated corridor as "Shorelines, Significant Valley Lands and Stream Corridors" (**Map D**). Both the watercourse and corridor/valley land are components of the Region's and City's Key Natural Heritage Features. As such, the Tributary and its associated corridor as considered local significant features.

5.4 Woodlands

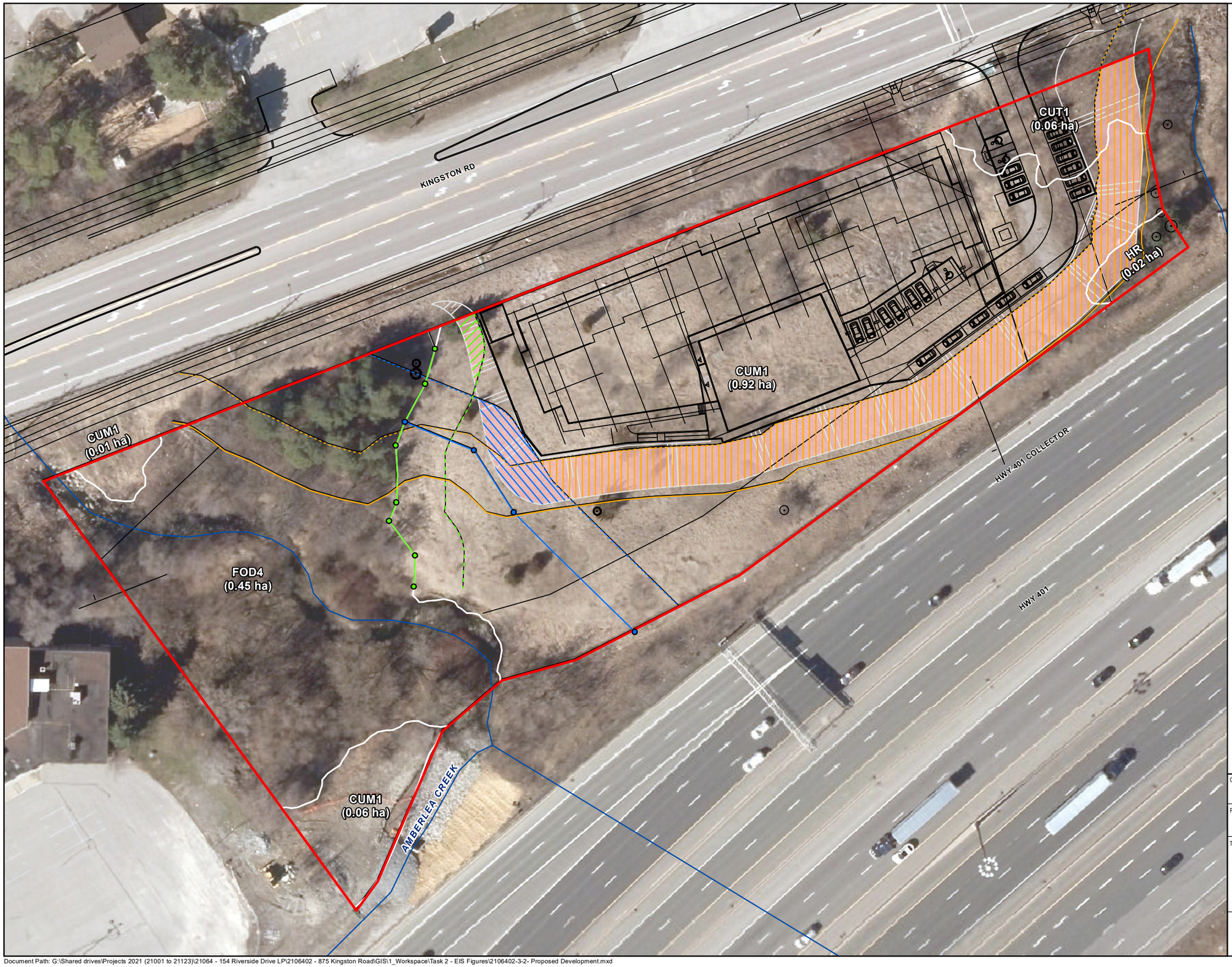
The deciduous forest (FOD4) is a 0.45 ha woodland feature located on the western portion of the Subject Property. This feature is captured in the Region's and City's Natural Heritage System as per the Region's OP Schedule B and the City's OP Schedule 1. Similarly, the City OP Schedule 3 C identifies the wooded area within the "Stream Corridor" area, and it is contained along the Amberlea Creek tributary. The Region and the City define Significant Woodlands as "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 site quality, species composition, or part management history."

During the 2022 field investigations, this feature was noted to be highly disturbed due to presence of invasive species, noise pollution (from Highway 401), and extensive erosion along the stream banks. In addition, the City's OP Schedule 3B does not map this community as a Significant Woodland. Although

generally identified as a low-quality wooded area, it likely provides stability to the riparian corridor and provides thermal mitigation to the watercourse through tree shade. Despite its low quality, the FOD4 community is located along the tributary (considered a KNHF) and provides shading and allochthonous material to the creek system. It is not considered as a Significant Woodland (nor is it mapped as such), however its ecological functions are provided and protected under the stream corridor/valleyland category.

6. Proposed Development

The proposed development is shown on **Figure 3** and detailed on the drawing entitled *Site Plan (Drawing No.1)* prepared by Icon Architects and dated March 1, 2023. Based on this plan, the proposed development includes the construction of a 17-storey residential/commercial building with above ground parking (19 spaces) and four levels of underground parking. One access road (from Kingston Road) is proposed on the east side of the development that will align with Fairport Road (north of Kingston Road). A 10-metre development setback is proposed between the building and the woodland, top of slope, and floodline. Due to the sloped topography of the site, grading (0.16 ha) and the installation of two retaining walls will be required primarily within the 10-metre floodplain setback, and also marginally within the top of bank and dripline buffers



LEGEND

- Watercourse [1]
- Dripline staked with TRCA (June 9, 2021)
- Woodland Setback (10 m)
- Top of Slope staked with TRCA (June 9, 2021)
- Top of Slope Setback (10 m)
- Floodline (TRCA)
- Floodline Setback (10 m)
- ELC Community *(white continuous line)*
- Development Plan
- Grading Plan
- Subject Property (1.52 ha)

Grading Encroachments

- Buffer Encroachment Area (0.16 ha)
- Woodland Buffer Encroachment Area (0.004 ha)
- Top of Slope Buffer Encroachment Area (0.017 ha)
- Floodline Buffer Encroachment Area (0.144 ha)

ELC LEGEND

CUM1: Mineral Cultural Meadow
CUT1: Mineral Cultural Thicket
FOD4: Dry-Fresh Deciduous Forest
HR: Hedgerow

0 10 20 30 40
METRE SCALE

North American Datum 1983
Universal Transverse Mercator Projection Zone 17

Scale: 1:750
Page Size: Tabloid (11 x 17 inches)

Drawn: SM
Checked: MV
Date: Mar 29, 2023

Source Notes: Base imagery (2020) provided by Pickering open GIS services.

1 - Land Information Ontario (LIO)

NORTH

CLIENT: 154 Riverside Drive LP

PROJECT: 875 Kingston Road

TITLE: **Proposed Development**

Palmer

REF. NO. 2106402-3-5

Figure 3

Document Path: G:\Shared drives\Projects 2021 (21001 to 21123)\21064 - 154 Riverside Drive LP\2106402 - 875 Kingston Road\GIS\1_Workspace\Task 2 - EIS Figures\2106402-3-2- Proposed Development.mxd

7. Impact Assessment and Mitigation Measures

7.1 Vegetation Communities and Flora

As discussed, much of the Subject Property is comprised of anthropogenic/culturally influenced communities (i.e., cultural meadow, cultural thicket, hedgerow). Although removals of these communities will result in some loss of wildlife habitat, these areas are considered low-quality and thus do not pose significant constraints to the proposed development.

7.1.1 Woodland

The woodland located on the western portion of the Subject Property is proposed to be retained and protected with a 10-metre setback, as per the TRCA's *Living Cities Policies*. This setback area will be subject to restoration and enhancement (Section 7.3). Due to the sloped nature of the property and the need to level the development area, grading will temporarily impact a small area (0.004 ha) of the woodland setback (**Figure 3**). Currently, this area is a cultural meadow (low-quality community) and is included as part of the enhancement efforts. As such, this area will be restored to a condition better than current and is not considered a loss from the woodland setback.

To minimize impacts to trees along the edge of the feature, it is proposed to protect them with temporary tree protection fencing according to their designated Tree Protection Zones (TPZ). Impacts to trees along this feature and in other areas of the Subject Property will be addresses through a separate tree inventory and preservation plan.

7.2 Watercourse/Valleyland

The watercourse and its associated valleyland, mapped by the City as KNHFs ("Permanent & Intermittent Stream" and "Shorelines, Significant Valley Lands and Stream Corridors"), are proposed to be avoided and protected from development. A 10-metre setback is proposed from the associated top of slope. This setback will be temporarily impacted by grading due to the sloped nature of the property and the need to level the development area. This area (0.017 ha) will be restored to a condition better than current (cultural meadow) with native plantings that will improve erosion conditions on site (**Figure 3**).

During the construction phase of the development there is potential for erosion and off-site transport of sediment to be directed to the watercourse. Therefore, to avoid potential impacts to the feature the project will implement Best Practices related to Erosion Sediment Control (ESC) measures, including a comprehensive ESC plan. These measures will be used by the contractor and should meet guidelines as outlined in the *Erosion and Sediment Control Guideline for Urban Construction* (Greater Golden Horseshoe Conservation Authorities, 2006), or equivalent standards. With appropriate ESC measures and compensation no negative impacts to the watercourse or its ecological functions are anticipated.

With regards to other construction substances (i.e., fuel, oil, hydraulic fluid, etc.) it is recommended that a spill kit and plan be implemented by the proponent or contractor to address any release of hydrocarbons to

the surrounding environment and prevent them from being drawn downstream into the watercourses. All machinery or equipment is recommended to be re-fueled or serviced at least 30 m from any watercourse

7.3 Buffer Enhancements

It is recommended that lands located within the woodland, floodplain, and top of slope setbacks (currently comprised of cultural meadow) be planted in order to enhance their protective functions and to be restored in a condition better than current. Replacement tree and shrub species are recommended to be native to TRCA's watershed, and targeted to provide *natural, self-sustaining vegetation* (Toronto and Region Conservation Authority, 2014). Plantings should also suit the existing vegetation assemblage and site conditions of the property. Based on existing site conditions, suitable woody species may include (but are not limited to):

- Sugar Maple (*Acer saccharum*)
- Trembling Aspen (*Populus tremuloidies*)
- Basswood (*Tilia americana*)
- Eastern White Cedar (*Thuja occidentalis*)
- Black Rasperry (*Rubus occidentalis*)
- Alternate-leaved Dogwood (*Cornus alternifolia*)

A detailed restoration planting plan is proposed to be completed in the future when a Site Plan Application submission is required.

7.4 Wildlife Habitat

As part of the SWH screening, there is no SWH within the Subject Property. The proposed works have the potential to impact urban wildlife (e.g., primarily common birds and mammals) due to tree removals.

To avoid and mitigate impacts to breeding birds and ensure compliance with the MBCA, removal of vegetation should be completed outside of the breeding bird season (April 1 – August 31). However, development timing may require clearing within that window. Should this prove to be the case, it is recommended that shortly before vegetation clearing a qualified biologist complete an active nest search (using a variety of techniques including observation of bird behaviour) of the trees proposed for removal, to ensure that there are no conflicts with the MBCA. A no-nesting result is most likely to be found early and late in the season (i.e., April and August). If nesting activity is detected, clearing activities should be delayed until it can be determined that the birds have fledged and left the nest.

7.5 Species at Risk

As part of the SAR screening, there is potential for SAR bats and Eastern Wood-pewee (low potential) to use the deciduous forest as habitat. No snag trees were observed within the cultural meadow and thicket communities. As such, no impacts to SAR bats are anticipated as the proposed development will not encroach into the forest community and no suitable roosting habitat was observed within the individual trees

to be removed. Similarly, though there is a low potential for Eastern Wood-pewee, no impacts are anticipated as the forest community will not be impacted by the proposed development.

8. Policy Conformity

A summary of applicable natural heritage policies and the manner in which the proposed development plan meets their requirements is provided in **Table 2**. With the implementation of the mitigation, there are no predicted negative impacts to the Natural Heritage Features observed within and surrounding the Subject Property or their ecological functions.

Table 2. Policy Conformity

Policy Document	Policy Intent/Objective	Implications and Policy Conformity
Migratory Birds Convention Act	The Migratory Birds Convention Act (MBCA), 1994 and Migratory Birds Regulations (MBR), 2014 protect most species of migratory birds and their nests	Vegetation removal should be completed between September 1 and March 31 of any given year. Biologist to screen for nest(s) for any proposed vegetation removal outside of this period.
Endangered Species Act	Species designated as Endangered or Threatened by the Committee on the Status of Species at Risk in Ontario (COSSARO) are listed as Species at Risk in Ontario (SARO). These species at risk (SAR) and their habitats (e.g., areas essential for breeding, rearing, feeding, hibernation and migration) are afforded legal protection under the Endangered Species Act (ESA).	Based on the SAR screening, potential SAR bat habitat was identified within the FOD community. However, no impacts are anticipated as the proposed development will not encroach into this community.
Provincial Policy Statement	Direction to regional and local municipalities regarding planning policies for the protection and management of natural heritage features.	Significant natural heritage features as listed under the PPS within the property include potential fish habitat (tributary of Amberlea Creek). This feature will be protected with a 10-metre setback and recommended mitigation measures.
Growth Plan for GGHA	Directs growth and the development to ensure economic prosperity, environmental protection, and community support.	As per *the Regional Natural Heritage System for the Growth Plan of the Greater Golden Horseshoe – Technical Report on Criteria, Rationale and Methods* the general Subject Property is located in Settlement designation, and therefore the natural heritage policies of the Growth Plan do not apply.
Region of Durham Official Plan	Greenlands System encapsulates Key Natural Heritage Features (KNHF) and Key Hydrological Features (KHF). Development or site alteration within the Regional Greenlands System shall be accompanied by an Environmental Impact Study (EIS)	With the implementation of setbacks and mitigations, potential impacts to KNHF/KHF have been avoided and/or mitigated. Therefore, the development plan conforms to the policies of the Durham Regional Official Plan.

City of Pickering Official Plan	The City of Pickering has identified KNHFs/KHFs that form the basis of the City's Natural Heritage System. City policies require the protection of KNHFs and KHFs from development.	With the implementation of setbacks and mitigations, potential impacts to KNHF/KHF have been avoided and/or mitigated. Therefore, the development plan conforms to the policies of the City of Pickering Official Plan.
Toronto and Region Conservation Authority (O. Reg. 166/06)	TRCA regulates activities in natural and hazardous areas.	The Subject Property is within the TRCA regulated area; therefore, a permit will be required. The watercourse and valleyland (as delineated by Top of Slope) are appropriately protected.

9. Conclusion

The findings of this Scoped EIS are the result of a background review, field investigations and an assessment of ecological data, as well as the current natural heritage policy requirements. We have identified the natural environmental sensitivities, constraints and development opportunities associated with the proposed development plan. Based on the findings and recommendations of this study to date, it is our professional opinion that with the implementation of the mitigation measures provided in this report, the proposed development plan is environmentally feasible.

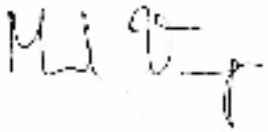
10. Certification

This report was prepared, reviewed, and approved by the undersigned:

Prepared By:

Karisa Tyler, M.Sc.
Ecologist

Prepared By:



Manuela Vernaza, B.Sc.
Ecologist

Reviewed By:

Rosalind Chaundy, M.Sc. F.
Senior Ecologist

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Appendix A

TRCA Correspondence

Palmer

Manuela Vernaza <manuela.vernaza@pecg.ca>

Terms of Reference: 875 Kingston Road, Pickering

3 messages

Manuela Vernaza <manuela.vernaza@pecg.ca> Thu, Jun 16, 2022 at 9:39 AM
To: stephanie.dore@trca.ca, valerie.hendry@durham.ca
Cc: Rohan Gawri <rohan@spheredevelopments.ca>, Rosalind Chaundy <rosalind.chaundy@pecg.ca>

Good morning Stephanie and Valerie,

Please find attached a Terms of Reference related to a Scoped Environmental Impact Study for the property at 875 Kingston Road in Pickering.

Please let me know if you require any additional information or have any questions regarding the TOR's content.

Kind Regards,

Manuela Vernaza, B.Sc.
Junior Ecologist
(she/her)

Palmer

| c (647) 554 4939 **| e** manuela.vernaza@pecg.ca

Learn More:
www.pecg.ca

Palmer_TOR_875 KingstonRd_June16,2022.pdf
463K

Stephanie Dore <Stephanie.Worron@trca.ca> Mon, Jun 20, 2022 at 12:09 PM
To: Manuela Vernaza <manuela.vernaza@pecg.ca>

Good Morning Manuela,

Thank you for providing this information. We will circulate this to our Ecologists and get back to you as soon as they have provided me with some comments.

Thank you,

Stephanie Dore, RPP, MCIP
Senior Planner
Development Planning and Permits | Development and Engineering Services

T: (416) 661-6600 ext. 5907
E: stephanie.dore@trca.ca
A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca

Toronto and Region Conservation Authority

From: Manuela Vernaza <manuela.vernaza@pecg.ca>
Sent: Thursday, June 16, 2022 9:40 AM
To: Stephanie Dore <Stephanie.Worron@trca.ca>; valerie.hendry@durham.ca
Cc: Rohan Gawri <rohan@spheredevelopments.ca>; Rosalind Chaundy <rosalind.chaundy@pecg.ca>
Subject: Terms of Reference: 875 Kingston Road, Pickering

Good morning Stephanie and Valerie,

Please find attached a Terms of Reference related to a Scoped Environmental Impact Study for the property at 875 Kingston Road in Pickering.

Please let me know if you require any additional information or have any questions regarding the TOR's content.

Kind Regards,

Manuela Vernaza, B.Sc.
Junior Ecologist
(she/her)

[Quoted text hidden]

Stephanie Dore <Stephanie.Worron@trca.ca> Mon, Jun 27, 2022 at 12:06 PM
To: Manuela Vernaza <manuela.vernaza@pecg.ca>, "valerie.hendry@durham.ca" <valerie.hendry@durham.ca>
Cc: Rohan Gawri <rohan@spheredevelopments.ca>, Rosalind Chaundy <rosalind.chaundy@pecg.ca>

Good Morning Manuela,

Please see our Ecologists response provided for you below:

Thank you for circulation the proposed TOR by Palmer (June 2022). Generally, the proposed scoped ToR is acceptable subject to the addition/refinement of the following:

Background Information Review

- Please ensure that the background information include review of ecological data available (e.g: Breeding bird atlas, amphibian atlas etc).
- Screen for Species at Risk (SAR), listed under the *Endangered Species Act, 2007,* based on existing or potential habitat. Additional species-specific surveys may be required if SAR habitat is present,

please contact the Ministry of Environment, Conservation and Parks (MECP) for further direction. Include any relevant correspondence with the MECP as an appendix.

Field Assessments

- Ensure a botanical survey is carried out and a vascular plant list is provided in addition to the ELC;
- Assess for Significant Wildlife Habitat as per the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, January 2015).
- Undertake an aquatic/watercourse assessment. Determine if there are opportunity for any barrier removals.

Impact Assessment

- Identify and provide detailed descriptions of natural features, key natural heritage features and key hydrologic features in the study area, their function, and connectivity to the broader natural heritage system that they are within. Determine the significance of these natural heritage features.
- Map all natural heritage features (KHNFs & KHFs), vegetation communities and other environmental features (watercourses, wetlands, areas of groundwater discharge, significant woodland and/or wildlife habitat etc.) and/or other environmental constraints on a current high quality ortho-air photo, and show their setbacks / Minimum Vegetation Protection Zones.
- Provide an assessment of the potential environmental impacts (direct/indirect) posed by the proposed development on the natural heritage feature(s) form and/or function;
- Investigate on-site LIDs and infiltration opportunities to mitigate impacts from stormwater management;
- Demonstrate opportunities to enhance the features and buffer within the site with robust restoration efforts and/or invasive species management strategies among other initiatives;

- A policy conformity exercise should be undertaken for all applicable provincial, municipal and TRCA policies.

If you have any questions, please let me know.

Kind Regards,

Stephanie Dore, RPP, MCIP
Senior Planner
Development Planning and Permits | Development and Engineering Services

T: (416) 661-6600 ext. 5907
E: stephanie.dore@trca.ca
A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca

Toronto and Region Conservation Authority

From: Manuela Vernaza <manuela.vernaza@pecg.ca>
Sent: Thursday, June 16, 2022 9:40 AM
To: Stephanie Dore <Stephanie.Worron@trca.ca>; valerie.hendry@durham.ca
Cc: Rohan Gawri <rohan@spheredevelopments.ca>; Rosalind Chaundy <rosalind.chaundy@pecg.ca>
Subject: Terms of Reference: 875 Kingston Road, Pickering

Good morning Stephanie and Valerie,

Please find attached a Terms of Reference related to a Scoped Environmental Impact Study for the property at 875 Kingston Road in Pickering.

Please let me know if you require any additional information or have any questions regarding the TOR's content.

Kind Regards,

Manuela Vernaza, **B.Sc.**
Junior Ecologist
(she/her)

[Quoted text hidden]

Appendix B

Flora List

Appendix B

Flora List

Scientific Name	Common Name	S Rank	SARO Status	TRCA RANKS 2019
Acer negundo	Manitoba Maple	S5	-	L+?
Acer saccharinum	Silver Maple	S5	-	L4
Ailanthus altissima	Tree-of-heaven	SNA	-	L+
Alliaria petiolata	Garlic Mustard	SNA	-	L+
Asclepias syriaca	Common Milkweed	S5	-	L5
Bidens frondosa	Devil's Beggarticks	S5	-	L5
Bromus inermis	Smooth Brome	SNA	-	L+
Carex sp.	Sedge Species	-	-	-
Centaurea sp.	Knapweed Species	-	-	-
Convolvulus arvensis	Field Bindweed	SNA	-	L+
Cornus sericea	Red-osier Dogwood	S5	-	L5
Crataegus sp.	Hawthorn Species	-	-	-
Daucus carota	Wild Carrot	SNA	-	L+
Dipsacus fullonum	Common Teasel	SNA	-	L+
Echium vulgare	Common Viper's Bugloss	SNA	-	L+
Elaeagnus angustifolia	Russian Olive	SNA	-	L+
Erigeron annuus	Annual Fleabane	S5	-	
Fraxinus pennsylvanica	Red Ash	S4	-	L5
Galium aparine	Common Bedstraw	S5	-	L5
Geum urbanum	Wood Avens	SNA	-	L+
Hesperis matronalis	Dame's Rocket	SNA	-	L+
Impatiens capensis	Spotted Jewelweed	S5	-	L5
Juglans nigra	Black Walnut	S4?	-	L5
Juniperus horizontalis	Creeping Juniper	S5	-	L3
Leucanthemum vulgare	Oxeye Daisy	SNA	-	L+
Lonicera tatarica	Tatarian Honeysuckle	SNA	-	L+
Lotus corniculatus	Garden Bird's-foot Trefoil	SNA	-	L+
Lythrum salicaria	Purple Loosestrife	SNA	-	L+
Malus sp.	Apple Species	-	-	-
Melilotus officinalis	Yellow Sweet-clover	SNA	-	L+

Myosotis sp.	Forget-me-not Species	-	-	-
Parthenocissus vitacea	Thicket Creeper	S5	-	L5
Phalaris arundinacea	Reed Canarygrass	S5	-	L+?
Phragmites australis	Common Reed	S4?	-	L+
Picea pungens	Blue Spruce	SNA	-	L+
Pinus sylvestris	Scots Pine	SNA	-	L+
Poa sp.	Bluegrass Species	-	-	-
Pulmonaria officinalis	Common Lungwort	SNA	-	L+
Ranunculus repens	Creeping Buttercup	SNA	-	L+
Rhamnus cathartica	European Buckthorn	SNA	-	L+
Rhus typhina	Staghorn Sumac	S5	-	L5
Robinia pseudoacacia	Black Locust	SNA	-	L+
Rosa multiflora	Multiflora Rose	SNA	-	L+
Salix cordata	Heart-leaved Willow	S4	-	LX
Salix sp.	Willow Species	-	-	-
Solidago sp.	Goldenrod Species	-	-	-
Symphytum officinale	Common Comfrey	SNA	-	L+
Syringa vulgaris	Common Lilac	SNA	-	L+
Taraxacum officinale	Common Dandelion	SNA	-	L+
Tilia americana	Basswood	S5	-	L5
Toxicodendron radicans	Poison Ivy	S5	-	
Trifolium repens	White Clover	SNA	-	L+
Tussilago farfara	Coltsfoot	SNA	-	L+
Typha angustifolia	Narrow-leaved Cattail	SNA	-	L+
Ulmus americana	White Elm	S5	-	L5
Ulmus pumila	Siberian Elm	SNA	-	L+
Vicia cracca	Tufted Vetch	SNA	-	L+
Vincetoxicum rossicum	European Swallowwort	SNA	-	L+
Vitis riparia	Riverbank Grape	S5	-	L5

Appendix C

Species at Risk Screening

NAME	Provincial Status (ESA)	HABITAT REQUIREMENTS	SOURCE OF RECORD	POTENTIAL HABITAT PRESENT (Y/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
AVIFAUNA						
Canada Warbler (*Cardellina canadensis*)	SC	The Canada Warbler is found in a variety of forest types, but is most abundant in moist, mixed forests with a well-developed, dense shrub layer. This species can also be locally abundant in regenerating forests following natural or anthropogenic disturbances. Nests are usually located on or near the ground on mossy logs, and along stream banks. In Canada, habitat loss due to conversion of swamp forests, agricultural activities and road development have contributed to the species' significant long-term decline, and its special concern designation. A reduction in forests with a well-developed shrub-layer has also likely impacted Canada warblers throughout their breeding range in Ontario (Committee on the Status of Endangered Wildlife in Canada, 2008).	OBBA (2001-2005)	N	The small and disturbed forest community within the property does not provide suitable habitat for this species.	None
Grasshopper Sparrow (*Ammodramus savannarum*)	SC	Grasshopper Sparrow are specialized to open relatively short grassland habitat, preferably grasslands with relatively sparse cover such as those in areas of poor soils, including alvars, moraines, and sand plains and generally does not favour tall grass moist meadows. It will also breed in manmade hayfields and occasionally in cereals such as Rye (*Secale cereale*).	OBBA (2001-2005)	N	The cultural meadow community is not large enough and does not provide sufficient grass species to provide potential habitat for this species.	None
Golden-winged Warbler (*Vermivora chrysoptera*)	SC	The Golden-winged Warbler is classified as a species of special concern by COSSARO. It is a small grey songbird, with yellow patches on its wings and forehead. Nests are built on the gound, in areas with young shrubs surrounded by mature forest. Threats to the species include habitat loss, hybridization with blue-winged warblers, and nest parasitism by brown-headed cowbirds (Ministry of Natural Resources and Forestry, 2014).	OBBA (2001-2005)	N	The thicket community within the Subject Property is not suitable for this species.	None
Eastern Meadowlark (*Sturnella magna*)	THR	The Eastern Meadowlark is a bird that prefers pastures and hayfields, but is also found to breed in orchards, shrubby fields and human use areas such as airports and roadsides. Eastern meadowlarks can nest from early May to mid-August, in nests that are built on the ground and well-camouflaged with a roof woven from grasses. The decline in population of these species is thought to be at least partially related to habitat destruction and agricultural practices (Ministry of Natural Resources and Forestry, 2014).	OBBA (2001-2005)	N	The cultural meadow community is not large enough and does not provide sufficient grass species to provide potential habitat for this species.	None
Bank Swallow (*Riparia riparia*)	THR	The Bank Swallow is threatened by loss of breeding and foraging habitat, destruction of nesting habitat and widespread pesticide use. Bank swallows are small songbirds with brown upperparts, white underparts and a distinctive dark breast band. It averages 12 cm long and weighs between 10 and 18 grams. The swallow can be distinguished in flight from other swallows by its quick, erratic wing beats and its almost constant buzzy, chattering vocalizations. They nest in burrows in natural and human-made settings where there are vertical faces in silt and sand deposit, including banks of rivers and lakes, active sand and gravel pits or former ones where the banks remain suitable. The birds breed in colonies ranging from several to a few thousand pairs (Ministry of Natural Resources and Forestry, 2014).	OBBA (2001-2005)	N	Banks were not sufficiently tall nor vertical. Addtitionally, no burrows were observed within the banks of the watercourse.	None
Bobolink (*Dolichonyx oryzivorus*)	THR	The Bobolink is found in grasslands and hayfields, and feeds and nests on the ground. This species is widely distributed across most of Ontario; however, are designated at risk because of rapid population decline over the last 50 years (Ministry of Natural Resources and Forestry, 2014). The historical habitat of the bobolink was tallgrass prairie and other natural open meadow communities; however, as a result of the clearing of native prairies and the post-colonial increase in agriculture, bobolinks are now widely found in hayfields. Due to their reproductive cycle, nesting habits, and use of agricultural areas, bobolink nests and young are particularly vulnerable to loss as a result of common agricultural practices (i.e. first cut hay).	OBBA (2001-2005)	N	The cultural meadow community is not large enoug and does not provide sufficient grass species to provide potential habitat for this species.	None

Eastern Wood-Pewee (*Contopus virens*)	SC	The Eastern Wood-pewee is classified as a species of special concern by COSSARO. Their population has been gradually declining since the mid-1960's (The Cornell Lab of Ornithology, 2015). The Eastern Wood-pewee is a "flycatcher", a bird that eats flying insects, that lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It prefers intermediate-age forest stands with little understory vegetation. Threats to the population are largely unknown; however, causes may include loss of habitat due to urban development and decreases in the availability of flying insect prey (Ministry of Natural Resources and Forestry, 2014).	OBBA (2001-2005)	Y	The forest community is potential habitat for this species, although the broken canopy and proximity to highway 401 noise mean the species is unlikley occur.	None, as the forest community will not be encroached by the proposed development.
HERPTILES						
Snapping Turtle (*Chelydra serpentina*)	SC	The snapping turtle is a species of special concern in Ontario due to the potential for the species to become threatened or endangered as a result of biological factors or other identified threats. While not presently protected by law, the snapping turtle has been recognized as a species of special concern by COSSARO. Snapping turtles spend the majority of their lives in water and travel slightly upland to gravel or sandy embankments or beaches to lay their eggs (Ontario Ministry of Natural Resources and Forestry, 2014).	ORAA	N	The watercourse is not connected to a suitable wetland habitat for this species.	None
VASCULAR PLANTS						
Butternut (*Juglans cinerea*)	END	The butternut is designated as endangered by COSSARO and is tracked by the NHIC as a species at risk. The tree is federally regulated by the Species at Risk Act (2002). Butternut belongs to the walnut family and produces edible nuts which are a preferred food source for wildlife. The range of butternut trees is south of the Canadian Shield on soils derived from calcium rich limestone bedrock. Butternut trees, which at one time were much more common to the south extending to the northern aspect of zone 6E, have been declining due to factors including forest loss and disease. Butternut trees suffer from a highly transmissible fungal disease called butternut canker. Butternut canker is causing very rapid decline in this tree species across its native range. The fungal disease is easily transmitted by wind and is very difficult to prevent. Trees often die within a few years of infection by butternut canker (Ministry of Natural Resource and Forestry, 2014).	Professional Experience	Y	Though the property may provide suitable conditions for Butternuts to grow, none were observed within the Subject Property during the 2022 field investigations.	None
MAMMALS						
Eastern Small-footed Myotis (*Myotis leibii*)	END	The eastern small-footed myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Eastern small-footed bat's fur has black roots and shiny light brown tips, giving it a yellowish-brown appearance. Its face mask, ears and wings are black, and its underside is grayish-brown, about 8 cm long in size and weighs 4-5 grams. In the spring and summer, eastern small-footed bats will roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. They change their roosting locations daily and hunt at night for insects to eat, including beetles, mosquitos, moths, and flies. They hibernate in winter, often in caves and abandoned mines. They can be found from south of Georgian Bay to Lake Erie and east to the Pembroke area, and choose colder and drier sites (Ministry of Natural Resources and Forestry, 2014).	Professional Experience	Y	Low potential. There are limited large snags with ideal peeling and/or cavities within the Study Area.	None, the proposed development will not encroach into the woodland. Individual trees to be removed within the cultural meadow do not provide suitable roosting habitat.
Little Brown Myotis (*Myotis lucifugus*)	END	Little brown myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Little brown bats have glossy brown fur and usually weigh between four and 11 grams. Bats are nocturnal. During the day they roost in trees and buildings. They often select attics, abandoned buildings and barns for summer colonies where they can raise their young. Little brown bats hibernate from October or November to March or April, most often in caves or abandoned mines that are humid and remain above freezing – an ideal environment for the fungus to grow and flourish. The syndrome affects bats by disrupting their hibernation cycle, so that they use up body fat supplies before the spring when they can once again find food sources (Ministry of Natural Resources and Forestry, 2014).	Professional Experience	Y	Low potential. There are limited large snags with ideal peeling and/or cavities within the Study Area.	None, the proposed development will not encroach into the woodland. Individual trees to be removed within the cultural meadow do not provide suitable roosting habitat.
Northern Myotis (*Myotis septentrionalis*)	END	The northern long-eared myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Northern long-eared bats have dull yellow-brown fur with pale grey bellies. They are approximately eight cm long, with a wingspan of about 25 cm, and usually weigh six to nine grams. Northern long-eared bats can be found in boreal forests, roosting under loose bark and in the cavities of trees. These bats hibernate from October or November to March or April, most often in caves or abandoned mines (Ministry of Natural Resources and Forestry, 2014).	Professional Experience	Y	Low potential. There are limited large snags with ideal peeling and/or cavities within the Study Area.	None, the proposed development will not encroach into the woodland. Individual trees to be removed within the cultural meadow do not provide suitable roosting habitat.

Tri-colored Bat (Eastern Pipistrelle) (*Perimyotis subflavus*)	END	The eastern pipistrelle is a small bat that is widely distributed in eastern North America and whose range extends north to southern Ontario. The eastern pipistrelle is rare in this region of Ontario which is at the northernmost limit of the natural range for the species. These bats prefer to nest in foliage, tree cavities and woodpecker holes, and are occasionally found in buildings; though this is not their preferred habitat. Winter hibernation takes place in caves, mines and deep crevices. Eastern pipistrelles feed primarily on small insects and prefer an open forest habitat type in proximity to water (University of Michigan Museum of Zoology, 2004).	Professional Experience	Y	Low potential. There are limited large snags with ideal peeling and/or cavities within the Study Area.	None, the proposed development will not encroach into the woodland. Individual trees to be removed within the cultural meadow do not provide suitable roosting habitat.

Appendix D

Significant Wildlife Habitat Screening

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
Seasonal Concentration Areas of Animals					
Waterfowl Stopover and Staging Areas (Terrestrial)	Ducks	CUM + CUT ecosites	Fields with sheet-water flooding mid-March to May	N	No suitable fields, meadows present within subject property. The subject property does not support any of the required ELC Ecosites of a suitable size or function.
Waterfowl Stopover and Staging Area (Aquatic)	Ducks, Geese	Ponds, Lakes, Inlets, Marshes, Swamps, Shallow Water Ecosites	Sewage & SWM ponds **not** SWH. Reservoir managed as a large wetland or pond/lake qualifies.	N	Lack of sufficient water and wetland ecosites with suitable function.
Shorebird Migratory Stopover Area	Shorebirds	Beaches, Dunes, Meadow Marshes	Shorelines. Sewage treatment ponds and storm water ponds **not** SWH.	N	Suitable habitat is absent within the Subject Property.
Raptor Wintering Area	Eagles, Hawks, Owls	**Hawks/Owls:** Combination of both Forest and Cultural Ecosites **Bald Eagle:** Forest or swamp near open water (hunting ground)	**Raptors:** >20ha, with a combo of forest and upland. Meadow (>15ha) with adjacent woodlands. **Eagles:** open water, large trees & snags for roosting.	N	Suitable habitat is absent within the Subject Property.
Bat Hibernacula	Big Brown Bat, Tri-coloured Bat	Caves, Crevices, mines, karsts	Buildings and active mine sites **not** SWH.	N	Suitable habitat is absent within the Subject Property.
Bat Maternity Colonies	Big Brown Bat, Silver-haired Bat	Decidious or mixed forests and swamps.	Mature deciduous and mixed forests with >10/ha cavity trees >25 cm DBH.	N	Suitable habitat is absent within the Subject Property.
Turtle Wintering Area	**Turtles** (Midland, N. Map, Snapping)	SW, MA, OA, SA, FEO, BOO (requires open waters)	**Free water beneath ice.** Soft mud substrate. Permanent water bodies, large wetlands, bogs, fens with adequate DO.	N	Suitable habitat is absent within the Subject Property.
Reptile Hibernaculum	Snakes	**Snakes:** Any ecosite (esp. w/ rocky areas), other than very wet ones. **Five-lined Skink:** FOD and FOM, FOC1, FOC3 - with rock outcrops	**Access below frost line:** burrows; **rock** crevices, piles or slopes, **stone** fences or foundations. Conifer/shrubby swamps/swales, poor fens, depressions in bedrock w/ accumulations of sphagnum moss or sedge hummock ground cover.	N	No suitable habitats were observed during field surveys.
Colonially-nesting Bird Breeding Habitat (Bank and Cliff)	Cliff Swallow, N. Rough-winged Swallow	Banks, sandy hills/piles, pits, slopes, cliff faces, bridge abutments, silos, barns.	Exposed soil banks, **not** a licensed/permitted aggregate area or new man-made features (2 yrs).	N	Suitable habitat is absent within the Subject Property.
Colonially-nesting Bird Breeding Habitat (Tree/Shrubs)	Great Blue Heron, Black-crowned NightHeron, Great Egret, Green Heron	SWM2, SWM3, SWM5, SWM6, SWD1 to SWD7, FET1	Nests in live or dead standing trees in wetlands, lakes, islands and peninsulas. Shrubs and emergents may be used. Nests in trees are 11 - 15 m from ground, near tree tops.	N	Suitable habitat is absent within the Subject Property.

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
Colonially-nesting Bird Breeding Habitat (Ground)	Herring Gull, Great Black-backed Gull, Little Gull, Ring-billed Gull, Common Tern, Caspian Tern, Brewer's Blackbird	**Gulls/Terns:** Rocky island or peninsula in lake or river. **Brewer's Blackbird:** close to watercourses in open fields or pastures with scattered trees or shrubs.	**Gulls/Terns:** islands or peninsulas with open water or marshy areas. **Brewers Blackbird colonies:** on the ground in low bushes close to streams and irrigation ditches.	N	Suitable habitat is absent within the Subject Property.
Migratory Butterfly Stopover Area	Painted Lady, Red Admiral, **Special Concern:** Monarch	Combination of open (CU) and forested (FO) ecosites (need one from each).	≥10 ha, located within 5 km of Lake Ontario. Undisturbed sites, with preferred nectar species.	N	Suitable habitat is absent within the Subject Property.
Landbird Migratory Stopover Areas	All migratory songbirds. All migrant raptor species.	Forest (FO) and Swamp (SW) ecosites	Woodlots >10 ha within 5 km of Lake Ontario. If multiple woodlands are along the shoreline, those <2 km from L. Ontario are more significant.	N	Woodlot does not exceed 10 ha. Lack of large woodlands.
Deer Yarding Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	Suitable habitat is absent within the Study Area. No Deer Yarding Areas mapped by the MNRF.
Deer Winter Congregation Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	Suitable habitat is absent within the Study Area. No Deer Wintering Areas mapped by the MNRF.
Rare Vegetation Communities					
Cliffs and Talus Slopes		TAO, TAS, CLO, CLS, TAT, CLT e.g., Niagara Escarpment (contact NEC)	**Cliff:** near vertical bedrock >3m **Talus Slope:** coarse rock rubble at the base of a cliff	N	Suitable habitat is absent within the Subject Property.
Sand Barren		SBO1, SBS1, SBT1	Sand Barrens >0.5 ha. Vegetation can vary from patchy and barren to tree covered, but <60%. <50% vegetation cover are exotic species.	N	Suitable habitat is absent within the Subject Property.
Alvar	*Carex crawei, Panicum philadelphicum, Eleocharis compressa, Scutellaria parvula, Trichostema brachiatum,* Loggerhead Shrike	ALO1, ALS1, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2	Alvar >0.5 ha. **Need 4 of the 5 Alvar Inidcator Spp**. <50% vegetation cover are exotic species.	N	Suitable habitat is absent within the Subject Property.

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
Old Growth Forest	Trees >140 yrs; heavy mortaily = gaps. Multi-layer canopy, lots of snags and downed logs	FOD, FOC, FOM, SWD, SWC, SWM	Woodland areas ≥30 ha with a≥10 ha interior habitat, assuming a 100 m buffer at edge of forest.	N	No communities represented within subject property.
Savannah	Prairie Grasses w/ trees	TPS1, TPS2, TPW1, TPW2, CUS2	A Savannah is a tallgrass prairie habitat that has tree cover of 25 – 60%. <50% cover of exotic species.	N	No communities represented within subject property.
Tallgrass Prairie	Prairies Grasses dominate	TPO1, TPO2	An open Tallgrass Prairie habitat has < 25% tree cover. Less than 50% cover of exotic species.	N	No communities represented within subject property.
Other Rare Vegetation Communities		Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of SWHTG.	Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps.	N	No communities represented within subject property.
Specialized Habitat for Wildlife					
Waterfowl Nesting Area	Ducks	Upland habitats adjacent to: MAS1 to MAS3, SAS1, SAM1, SAF1, MAM1 to MAM6, SWT1, SWT2, SWD1 to SWD4 (>0.5 ha open water wetlands, alone or collectively).	Extends 120 m from a wetland or wetland complex. Upland areas should be at least 120 m wide. Wood Ducks and Hooded Mergansers use cavity trees (>40 cm dbh).	N	Suitable habitat is absent within the Subject Property.
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat	Osprey, Bald Eagle	FOD, FOM, FOC, SWD, SWM, SWC directly adjacent to riparian areas	Nesting areas are associated with waterbodies along forested shorelines, islands, or on structures over water.	N	Suitable habitat is absent within the Subject Property.
Woodland Raptor Nesting Habitat	Barred Owl. **Hawks:** N. Goshawk, Cooper's, Sharp-shinned, Red-shouldered, Broad-winged.	Forests (FO), swamps (SW), and conifer plantations	>30 ha with > 10 ha interior habitat.	N	Suitable habitat is absent within the Subject Property.
Turtle Nesting Areas	Midland Painted Turtle **Special Concern:** Snapping Turtle, Northern Map Turtle	Exposed mineral soil (sand or gravel) areas adjacent (<100m) or within: MAS1 to MAS3, SAS1, SAM1, SAF1, BOO1	Nest sites within open sunny areas with soil suitable for digging. Sand and gravel beaches.	N	Suitable habitat is absent within the Subject Property.
Seeps and Springs	Wild Turkey, Ruffed Grouse, Spruce Grouse, White-tailed Deer, Salamander spp.	Seeps/Springs are areas where ground water comes to the surface.	Any forested area within the headwaters of a stream/river system. **(2 or more confirms SWH type).**	N	No seeps observed within the Subject Property.
Amphibian Breeding Habitat (Woodland)	Woodland Frogs and Salamanders	FOC, FOM, FOD, SWC, SWM, SWD	Open water wetlands, pond or woodland pool of >500 m^2 within or adjacent to wooded areas. Permanent ponds or holding water until mid-July preferred.	N	Suitable habitat is absent within the Subject Property.

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
Amphibian Breeding Habitat (Wetlands)	Toads, Frogs, and Salamanders	SW, MA, FE, BO, OA and SA. Typically isolated (>120m) from woodland ecosites, however larger wetlands may be adjacent to woodlands.	Open water wetland ecosites >500m^2 isolated from woodland ecosites with high species diversity. Permanent water with abundant vegetation for bullfrogs.	N	Suitable habitat is absent within the Subject Property.
Woodland Area-Sensitive Bird Breeding Habitat	Birds (area-sensitive species)	FOC, FOM, FOD, SWC, SWM, SWD	Large mature (>60 years) forest stands/woodlots >30 ha. Interior forest habitat >200m from forest edge.	N	Suitable habitat is absent within the Subject Property.
Habitat of Species of Conservation Concern					
Marsh Bird Breeding Habitat	Wetland Birds	MAM1 to MAM6, SAS1, SAM1, SAF1, FEO1, BOO1 **Green Heron**: SW, MA and CUM1	Wetlands with shallow water and emergent vegetation. Gr. Heron @ edges of these types w/ woody cover.	N	Suitable habitat is absent within the Subject Property.
Open Country Bird Breeding Habitat	Upland Sandpiper, Grasshopper Sparrow, Vesper Sparrow, N. Harrier, Savannah Sparrow, **Short-eared Owl (SC)**	CUM1, CUM2	Grassland/meadow >30 ha. Not being actively used for farming. Habitat established for 5 years or more.	N	Suitable habitat is absent within the Subject Property.
Shrub/Early Successional Bird Breeding Habitat	**Brown Thrasher + Clay-coloured Sparrow (indicators),** Field Sparrow, Black-billed Cuckoo, E. Towhee, Willow Flycatcher, Yellow-breasted Chat, Golden-winged Warbler	CUT1, CUT2, CUS1, CUS2, CUW1, CUW2	Large field areas succeeding to shrub and thicket habitats > 10 ha. Areas not actively used for farming in the last 5 years.	N	Suitable habitat is absent within the Subject Property.
Terrestrial Crayfish	Chimney or Digger Crayfish; Devil Crayfish or Meadow Crayfish	MAM1 to MAM6, MAS1 to MAS3, SWD, SWT, SWM. CUM1 sites with inclusions of the aforementioned.	Wet meadow and edges of shallow marshes (no minimum size) should be surveyed for terrestrial crayfish (typc. protected by wetland setbacks).	N	Suitable habitat is absent within the Subject Property.
Special Concern and Rare Wildlife Species	Any species of concern or rare wildlife species	Any ELC code.	Presence of species of concern or rare wildlife species.	N	Suitable habitat is absent within the Subject Property. No species of special concern observed.
Animal Movement Corridors					
Amphibians	Amphibians	all ecosites assoc. w/ water	When Breeding Habitat - wetland confirmed	N	Suitable habitat is absent within the Subject Property.
Deer Movement	White-tailed Deer	all forested ecosites	When Deer Wintering Habitat confirmed	N	Suitable habitat is absent within the Subject Property.
Exceptions for Ecoregion 6E					
Mast Producing: 6E-14	Black Bear	Forested Ecosites	>30 ha w/ mast producing species: Cherry (berries), Oak, Beech (nuts).	N	Suitable habitat is absent within the Subject Property.

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
Leks: 6E-17	Sharp-tailed Grouse	CUM, CUS, CUT	Grassland/meadow >15 ha adjacent to shrublands, >30 ha adjacent to woodlands. Low agricultural intensity.	N	Suitable habitat is absent within the Subject Property.