

**Environmental Impact Study -
3 Washago Bay Lane,
Township of Scugog
Regional Municipality of Durham Region**

Palmer Project #
2309401

Prepared For
Jeff Cunningham

November 28, 2024

November 28, 2024

Jeff Cunningham
11332 Amos Drive
Campbellville, ON (L0P 1B0)
Golfon61@hotmail.com

Dear Jeff Cunningham:

Re: Environmental Impact Study - 3 Washago Bay Lane, Township of Scugog, Durham Region
Project #: 2309401

Palmer (now SLR) is pleased to submit the attached Scoped Environmental Impact Study (EIS) for the proposed severance at 3 Washago Bay Lane. Based on the findings and recommendations of the report, it is our opinion that with the implementation of the mitigation measures as provided, the proposed severance is environmentally feasible and no negative impacts to the natural environment are expected. Please let us know if you have questions or comments on this submission.

Yours truly,

Palmer™ | PART OF
SLR

Reviewed By:



Austin Adams M.Sc., EP
Technical Director – Arboriculture, Senior Ecologist

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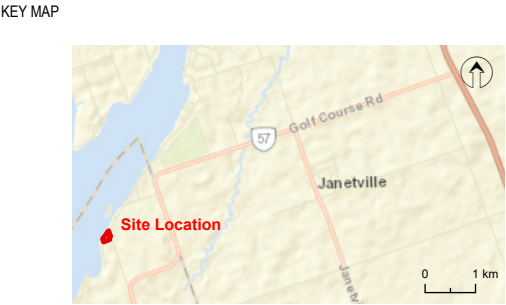
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1. Introduction

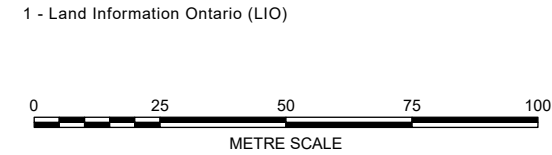
Palmer (now SLR) is pleased to provide this Scoped Environmental Impact Study (EIS) for 3 Washago Bay Lane, Municipality of Durham Region (the Subject Property – **Figure 1**). This EIS has been completed as part of the Plan of Subdivision Application related to the proposed severance.

The Subject Property comprises an area of approximately 1.8 hectares (ha) with a small woodland in the southwest corner, that extends off property. The majority of the Subject Property is anthropogenic with scattered landscaped trees. From aerial imagery, the woodland is continuous with a larger woodland community. There is Kawartha Region Conservation Authority (KRCA) regulated area on and adjacent to the Subject Property

The objectives of this Scoped EIS are to provide a background review, desktop analysis, and field survey to assess the natural heritage features and functions of the Subject Property, assess potential impacts from the proposed severance, and provide mitigation measures where appropriate. In light of natural heritage features and proposed mitigation, this EIS demonstrates conformity to relevant policies.



- LEGEND
- Watercourse ¹
 - Wooded Area ¹**
 - Hedgerow
 - Treed
 - Subject Property (1.8 ha)



North American Datum 1983
Universal Transverse Mercator Projection Zone 17

Scale: 1:1,500
Page Size: Tabloid (11 x 17 inches)

Drawn: SM
Checked: HB
Date: Nov 28, 2024

Source Notes:
Imagery (2022) provided by Durham region GIS REST services. Contains information licensed under the Open Government Licence – Ontario.

CLIENT	Jeff Cunningham	
PROJECT	3 Washago Bay Lane EIS	
TITLE	Site Location	
	REF. NO.	2309401-1-1
	Figure 1	

2. Policy Framework

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 Planning Statement

The *Provincial Planning Statement, 2024* (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, 2024). 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 Environmental Impact Study (EIS) or similar document, 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 in Ecoregion 6E (Crins, Gray, Uhlig, & Wester, 2009). As depicted on the Ministry of Natural Resources and Forestry (MNRF) Natural Heritage Information Centre (NHIC) mapping (Ministry of Natural Resources and Forestry, 2023), there is a woodland feature within the Subject Property (**Map A**). There are no designated areas such as Provincially Significant Wetland (PSW), coastal wetlands,

or Areas of Natural and Scientific Interest (ANSI) on or adjacent to the Subject Property. The presence of the other listed features is determined through municipal policy and/or field observations.



Map A: MNR Mapping, showing woodlands (green) within the Subject Property (red overlay).

2.2 Greenbelt Plan

The Greenbelt Plan builds on the PPS to identify limits to urbanization and to provide permanent protection to the agricultural land base and the ecological and hydrological feature areas and their functions occurring on the landscape of the Greater Golden Horseshoe (Ontario Ministry of Municipal Affairs and Housing, 2017). Within the Greenbelt Area there are Protected Countryside and Urban River Valley land designations. Additionally, Settlement Areas and a Natural Heritage System have been mapped within the Protected Countryside land designation. These areas within the Greenbelt Area are afforded varying protections through their applicable policies.

Key Natural Heritage Features (KNHFs) and Key Hydrological Features (KHF) are also classified within this Plan. KNHFs include the habitat of endangered and threatened species, fish habitat, wetlands, life science areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands, significant wildlife habitat (including habitat of special concern species), sand barrens, savannahs, tallgrass prairies, and alvars. KHF include permanent and intermittent streams, lakes (and their littoral zones), seepage areas and springs, and wetlands. Under the policies of the Greenbelt Plan, a minimum vegetation protection zone (MVPZ) is to be established to protect KNHFs and KHF.

Under the Greenbelt Plan, the Subject Property is designated as Protected Countryside and outside the Natural Heritage System. Proposed development must demonstrate that there will be no negative impacts to key natural heritage features and key hydrologic features or their functions, as well as no negative impact on biodiversity or connectivity of the Natural Heritage System.

Section 3.2.5 of the Greenbelt Plan (Natural Heritage System Policies) states:

“For lands within a key natural heritage feature or a key hydrologic feature in the Protected Countryside, the following policies shall apply:

2. Beyond the Natural Heritage System within the Protected Countryside, key hydrologic features are defined by and subject to the policies of section 3.2.5.

3. Beyond the Natural Heritage System within the Protected Countryside, key natural heritage features are not subject to the policies of section 3.2.5, but are to be defined pursuant to, and subject to the policies of, the PPS.

4. In the case of wetlands, seepage areas and springs, fish habitat, permanent and intermittent streams, lakes and significant woodlands, the minimum vegetation protection zone shall be a minimum of 30 metres measured from the outside boundary of the key natural heritage feature or key hydrologic feature.

5. A proposal for new development or site alteration within 120 metres of a key natural heritage feature within the Natural Heritage System or a key hydrologic feature anywhere within the Protected Countryside requires a natural heritage evaluation or a hydrological evaluation which identifies a vegetation protection zone which:

- a) Is of sufficient width to protect the key natural heritage feature or key hydrologic feature and its functions from the impacts of the proposed change and associated activities that may occur before, during and after construction and, where possible, restore or enhance the feature and/or its function; and*
- b) Is established to achieve and be maintained as natural self-sustaining vegetation.*

Site-specific Relevance of the Greenbelt Plan

The Subject Property contains:

- Significant woodlands which require a 30 m vegetation protection zone
- Habitat of endangered species and threatened species – Butternut was identified within the Subject Property as well as, potential habitat for species at risk (SAR) bats. Development is not permitted within KNHF.

2.3 Region of Durham Official Plan

2.3.1 Natural Heritage Features and Key Hydrological Features

The Regional Municipality of Durham adopted the amendments to the Region of Durham Official Plan (OP) in 2024 (Regional Municipality of Durham, 2024). The Regional Natural Heritage System (NHS) is an overlay that identifies a system of core natural features and the land and water that links these core features together (Regional Municipality of Durham, 2024). The Regional 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;
- Kettle Lakes;
- Seepage areas and springs;

- Lake Simcoe shoreline;
- Natural Areas abutting Lake Simcoe;
- Areas of Natural and Scientific Interest (ANSIs), life science;
- Significant valleylands;
- Significant woodlands;
- Significant wildlife habitat;
- Sand barrens, savannahs and tallgrass prairies; and
- Alvars.

Each KNHF and KHF is to be protected by a vegetation protection zone (VPZ), in accordance with the Greenbelt Plan. As stated in Section 7.4.15 of the Region's OP, an EIS is to be completed for developments in proximity to key natural heritage features or key hydrologic features, which is to include recommendations for appropriate vegetation protection zones, if larger than area municipal minimum widths, between the area of development and/or site alteration.

As it relates to severances under the OP the following policy applies:

11.3.24 Refuse the creation of new lots within the Oak Ridges Moraine and Greenbelt Protected Countryside within or partially within a minimum vegetation protection zone of a key natural heritage feature and/or a key hydrologic feature, unless otherwise specified in this Plan.

2.3.2 Woodland Natural Heritage Features

As outlined in the Region's OP, significant woodlands, are defined as:

Significant Woodlands: at the regional scale are identified as:

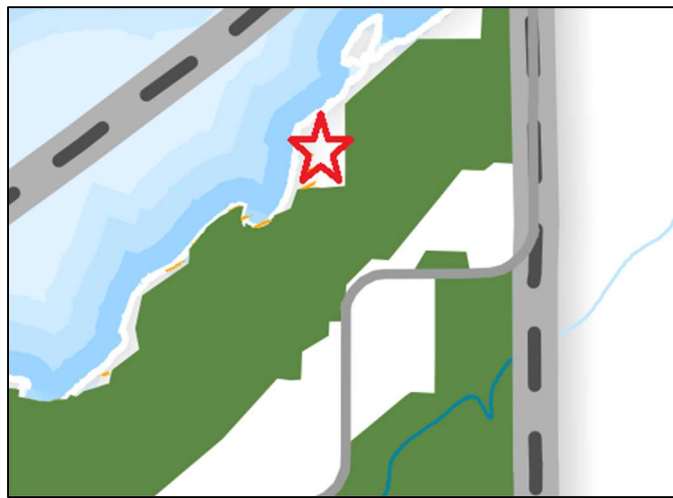
- a) any woodland occurring within the Urban or Whitebelt Area which is two hectares in size or larger; or*
- b) any woodland occurring within the Rural Area which is 10 hectares in size or larger;*
- c) any woodland occurring within the Urban or Whitebelt Area which is one hectare in size or larger or any woodland occurring within the Rural Area which is four hectares in size or larger; and*
 - i) occurs within 30 metres of a significant natural heritage feature, unevaluated wetland greater than 0.5 hectares in size, or fish habitat; or*
 - ii) occurs wholly within an identified linkage area;*
- d) any woodland occurring within the Urban or Whitebelt Area which is one hectare in size or larger or any woodland occurring within the Rural Area which is four hectares in size or larger; and supports:*
 - i) a vegetation community with a provincial ranking of S1, S2, or S3 as designated by the Natural Heritage Information Centre;*
 - ii) rare, uncommon species or species with a restricted habitat preference; or*
 - iii) characteristics of older woodlands, including:*
 - i. woodlands having 10 or more trees per hectare greater than 100 years old; or*
 - ii. woodlands having 10 or more trees per hectare at least 50 centimetres in diameter, or a basal area of eight or more square metres in trees that are at least 40 centimetres in diameter*

The cultural woodland is contiguous with the offsite woodlands and therefore, meets the above criteria under the Region's OP to be a significant woodland.

2.3.3 Natural Heritage System and Enhancement Opportunity Areas

Durham Region's Regional Natural Heritage System (NHS), as mapped on OP Map 2a., consists of Regional NHS and Enhancement Opportunity Areas. The Regional NHS is comprised of the Oak Ridges Moraine Natural Core Areas and Natural Linkage Areas, Greenbelt Natural Heritage System, Growth Plan Natural Heritage System, municipal natural heritage systems, key natural heritage features and key hydrologic features and functions and the linkage areas that connect these features in a system.

Durham Region's OP Map 2a identifies Enhancement Opportunity Area within the Subject Property and Regional NHS is east of the Subject Property as shown in **Map B**. The OP states that *Enhancement opportunity areas are potential linkage areas, adjacent to the regional natural heritage system, where the system can be enhanced through voluntary stewardship and restoration efforts.*

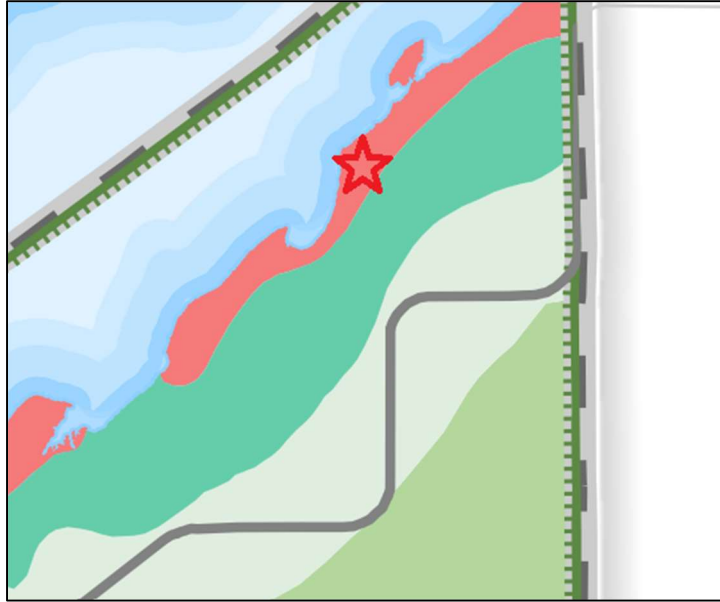


Map B: Durham Region OP Map 2a. (approx. Subject Property is red star, Regional NHS in green, Enhancement Opportunity Areas with orange crosshatch)

2.3.4 Shoreline Residential and Waterfront Areas

The Subject Property occurs within the Shoreline Residential and Waterfront Areas, shown in turquoise and pink on **Map C** (OP Map 1). Durham Official Plan policies generally limit development in Shoreline Residential Areas to infill development. Natural Areas in Waterfront Areas are to be protected and enhanced, while development proposals must demonstrate no negative impact on key natural heritage features or key hydrologic features, flood hazards, wildlife habitat and natural connections.

The Subject Property is located approximately 50 m from Lake Scugog and is divided by Washago Bay Lane and residential lots. The Subject Property does not front onto Lake Scugog, due to the distance (50 m) impacts are not anticipated from the proposed severance.



Map C: Durham Region OP Map 1 Approximate Subject Property is red star, Waterfront Areas in turquoise, Shoreline Residential in pink

2.4 Township of Scugog Official Plan

The Township of Scugog Official Plan (OP) was adopted by Council in June 2009 and the last office consolidation came into effect in September 2017 (Township of Scugog, 2017). The Subject Property is identified within the Township Greenlands System, under Natural Core Area and Linkage Area designation on Schedule A of the Township of Scugog OP (**Map D**). Section 6.3 of the OP states that *Natural core Areas also applies to lands located in the Greenbelt which form a natural 30 metre vegetative protective buffer zone for natural heritage features. The vegetation protection zone is measured from the outside boundary of the Key Natural Heritage or Key Hydrologic Feature. The Natural Heritage System that makes up the Natural Core Area comprises the following Key Natural Heritage Features and Key Hydrologic Features:*

- *Significant habitat of endangered species, threatened species and special concern species;*
- *Fish habitat;*
- *Wetlands;*
- *Life Science Areas of Natural and Scientific Interest (ANSIs);*
- *Significant valleylands;*
- *Significant woodlands;*
- *Significant wildlife habitat;*
- *Sand barrens, savannahs and tall grass prairies; and alvars;*
- *Permanent and intermittent streams;*
- *Lakes;*
- *Seepage areas and springs, and wetlands; and,*
- *A minimum 30 metre vegetative buffer around these features.*

Under section 6.3.1 the objectives of the Natural Core Area designation is to:

- a) Prohibit development or site alteration within key natural heritage features and key hydrologic features and their related vegetative protective buffer area; and,*
- b) Preserve and maintain the environmental features and functions of the vegetative protective buffer area.*

Significant Woodland is identified in the southwestern corner of the Subject Property as designated on Schedule E of the Township of Scugog OP (**Map E**). Section 6.14.2 of the OP states that *development may be permitted, subject to an EIS only if it does not negatively impact the features or the ecological functions for which the area is identified, in areas of significant woodlands situated outside significant valleylands, fish habitat outside of significant woodlands or valleylands, sensitive water quality and areas for natural corridor enhancement.*

Lake Scugog is located approximately 50 m northwest of the Subject Property and is divided by Washago Bay Lane and residential lots. This distance exceeds the 30 m vegetative buffer, therefore impacts to Lake Scugog are not anticipated.



Map D: Scugog OP Schedule A – Natural Core Area – light green, and Linkage Area designation – dark green (approximate Subject Property is red star).



Map E: Scugog OP Schedule E – Showing Significant Woodland within and adjacent to the Subject Property (approximate Subject Property is red star).

Site-specific Relevance of the Township of Scugog Official Plan

The Subject Property contains:

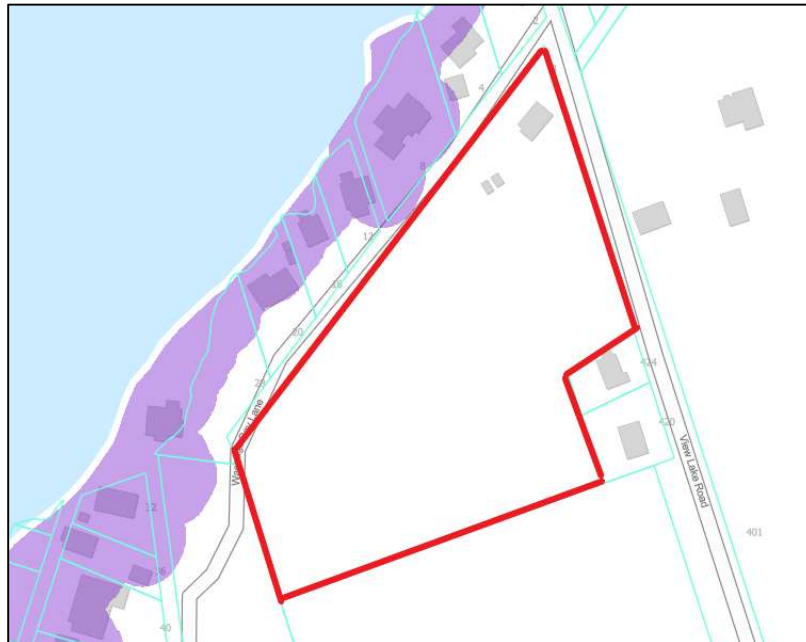
- Natural Core Areas which require a 30 m VPZ from the outside boundary of any KNHF.

- Significant woodland is assumed to be under the “R” in RD (Map E), as the wooded polygon does extend per MNRF mapping (**Map A**). The presence of Butternut also supports its extension onto the Subject Property, per the Core Area mapping for other KNHF.

2.5 Kawartha Region Conservation Authority

As depicted on **Map F**, the Subject Property falls outside Kawartha Region Conservation Authority (KRCA) regulated areas. Wetlands, watercourses and their associated flood limit within the Subject Property, are regulated under the new Ontario Regulation 41/24 – *Prohibited Activities, Exemptions, and Permits* (Government of Ontario, 2024). The Ontario Regulation 41/24 replaces the 36 conservation authority regulations made under section 28 of the Conservation Authorities Act (1990) titled: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Government of Ontario, 2024), which includes former Ontario Regulation 182/06 for the KRCA. The KRCA's Plan Review and Regulation Policies (KRCA, 2013) will also be followed.

Note that with the newly passed provincial Ontario Regulation 41/24 (O. Reg. 41/24), conservation authorities no longer have the mandate to comment on certain natural heritage features; and regulated areas associated with some natural features have been reduced.



Map F: KRCA mapping, showing regulated area (purple polygon) within the Subject Property (red outline)

Site-specific Relevance of KRCA Policy

As the Subject Property is outside regulated area, a permit will not be required from the KRCA prior to development.

2.6 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) (Government of Ontario, 2007).

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 Plan policies.

2.7 Migratory Birds Convention Act

The *Migratory Birds Convention Act*, MBCA (1994) and Migratory Birds Regulations, MBR (2014), together with the provincial *Fish and Wildlife Conservation Act* (1997), protect most species of migratory birds and their nests and eggs anywhere they are found in Canada (Government of Canada, 1994; Government of Ontario, 1997). 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 (Government of Canada, 2018).

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 (now SLR) 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, 2024). 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, Municipal 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):** SAR Records and natural heritage features (Ministry of Natural Resources and Forestry, 2024).
- **Land Information Ontario (LIO):** certain data types including aquatic resource area (ARA) information is available through these publicly available data layers (2024).
- **Atlas of the Breeding Birds of Ontario:** Provides range maps and other information regarding breeding birds in Ontario (Bird Studies Canada, 2024).
- **Ontario Reptile & Amphibian Atlas:** Provides range maps and other information regarding reptile and amphibian species observed in Ontario (Ontario Nature, 2020).
- **Fisheries and Oceans Canada (DFO):** The DFO maintains mapping of aquatic species at risk (SAR) habitats, including the critical habitat, occupied and contributing habitat ranges of SAR and Special Concern species (Fisheries and Oceans Canada, 2024).
- **Aerial Photography, including historical photos:** Available on-line mapping sources were reviewed to identify current potential habitat types, biogeography and terrain.

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 once Species at Risk (SAR) interactions or potential interactions are identified via field investigation and analysis.

3.2 Agency Correspondence

In developing this EIS, Palmer commenced with a review of the Pre-Consultation memo for the project of April 2, 2024 (Roll #1820 040 060 15600), including comments provided by Durham Region, the KRCA and

the Township of Scugog. From this memo, Palmer developed and submitted a Terms of Reference (ToR) for the EIS and submitted it to the Durham Region and the Township of Scugog for review and comment (**Appendix A**).

The Township of Scugog commented that: *Single detached dwellings are permitted use in a Shoreline Residential Zone. While the Official Plan designation does not permit severances in the Natural Linkage Area, the Shoreline Residential zoning for the subject site is deemed to comply with the designation.*

Comments from the KRCA stated to have staff conduct a site visit prior to the application submission to consider any hazards or grading concerns.

3.3 Ecological Surveys

A detailed ecological field investigation program has been completed as part of the EIS study. The following provides a description of the survey methodology employed. The investigation was scoped in consideration of the natural features present on-site. As there are no water bodies or features on-site amphibian habitat and aquatic surveys were not completed.

3.3.1 Ecological Land Classification

Ecological field investigations were undertaken on June 9th and August 1st, 2023. 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. The dripline of the southwestern woodland was surveyed during field investigations using GPS points from the mobile application Avenza. Information collected during ELC includes dominant species cover, community structure, as well as level of disturbance, presence of indicator species, and other notable features. Botanical surveys were completed by traversing the site and recording species observed in each vegetation community. Provincial plant status was based on the *Provincially Rare Flora of Ontario* (Oldham & Brinker, 2009) and the NHIC species lists (Ministry of Natural Resources and Forestry, 2023). Searches for Butternut (*Juglans cinerea*), an *Endangered* tree under the ESA, were completed during the ELC and botanical surveys.

3.3.2 Bat Maternity Roost Survey

A bat maternity roost survey was undertaken based on assessing tree cavities following an approach using methods outlined the *Survey Protocol for Species at Risk Bats within Treed Habitats* (Ministry of Natural Resources and Forestry, 2017). Given the dominance of forest cover on the Subject Property it can be assumed that habitat opportunities may be available and therefore the objective of the assessment was to identify the extent and quality of potential habitat opportunities for Little Brown Myotis, Northern Myotis and Tri-Colored Bat.

The specific survey methods based on the 2017 MNRF protocol consisted of:

- Phase I: Bat Habitat Suitability Assessment

- Phase II: Identification of Suitable Maternity Roost Trees

Surveys were undertaken on March 28, 2024 during tree leaf-off conditions. Based on the size of the on-site forest community (<0.05 ha), transect surveys were completed. Within the Subject Property, Palmer ecologists recorded all “snag” trees identified as potential roost trees that follow the MNRF protocol. The tree species, diameter at breast height (DBH), snag attributes (i.e., cavities, loose bark, crack), snag location, height class, and decay class were recorded for each tree. A general assessment of the estimated snag density was based on a review of the number of total snags within the forest community type.

3.3.3 Species at Risk Habitat Assessment

Prior to field work, existing SAR records were queried with the NHIC database and other online resources (Section 3.1). 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 Significant Wildlife Habitat Screening

The criteria for the identification of Significant Wildlife Habitat (SWH) features are provided in the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (Ontario Ministry of Natural Resources and Forestry, 2015). These criteria were used to screen wildlife habitat within the Subject Property for potential SWH types. Along with field observations and geographical analysis, these criteria were used to provide an assessment and screening for wildlife habitat within the Subject Property for potential SWH within and immediately adjacent to the Subject Property.

3.3.5 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 Vegetation Communities and Flora

The Subject Property occurs on the west side of View Lake Road and south of Washago Bay Lane. Located in an area of anthropogenic influence, including a suburban development to the north and west and agricultural areas to the east. The Subject Property had a gradual slope running northwest towards Lake Scugog. Vegetation communities are mapped on **Figure 2**. The primary vegetation cover is grass species with a cultural woodland located to the southwest and residential area spanning the rest of the Subject Property.

4.1.1 Vegetation Communities

Single Family Residential (CVR 3)

This area consists of most of the lot and contains a single residential dwelling with outbuildings, mowed lawn and manicured Sugar Maple (*Acer Saccharum*), White Spruce (*Picea glauca*) and Blue Spruce (*Picea pungens*) trees (**Photo 1**). The Subject Property had a gradual slope running northwest towards Lake Scugog. It is also likely that the area may have historically been agriculture pasture, due to the surrounding agricultural land uses.



Photo 1: Residential area facing south

Mineral Cultural Woodland Ecosite (CUW1)

This community is a relatively young woodland, with areas of open canopy and a mowed trail running through the center. The canopy consisted of Silver Maple (*Acer saccharinum*) and Trembling Aspen (*Populus tremuloides*), with Eastern White Cedar (*Thuja occidentalis*) and Red Oak (*Quercus rubra*) to a lesser extent. The subcanopy was dominated by Manitoba Maple (*Acer negundo*) with Paper Birch (*Betula papyrifera*), White Elm (*Ulmus americana*) and Black Walnut (*Juglans nigra*). The understory was dense with Alternate Leaved Dogwood (*Cornus alternifolia*) with occasional Green Ash (*Fraxinus pennsylvanica*)

and young Manitoba Maple. The ground cover was dominated by Orchard Grass (*Dactylis glomerata*) with Ground-ivy (*Glechoma hederacea*), Broad-leaved Enchanter's Nightshade (*Circaea lutetiana*) and Ostrich Fern (*Matteuccia struthiopteris*) (**Photo 2**).



Photo 2: Mineral Cultural Woodland Ecosite (CUW1)



LEGEND

- Snag Tree
- Butternut 18 m Setback
- Butternut 25 m Setback
- Watercourse ¹
- Ecological Landscape Classification (ELC)
- Significant Woodland (30 m)
- MECP Regulated Area (25 m)
- Subject Property (1.8 ha)

ELC Legend

CVR_3 - Single family residential
CUW1 - Mineral Cultural Woodland Ecosite

1 - Land Information Ontario (LIO)

01020304050

METRE SCALE

North American Datum 1983
Universal Transverse Mercator Projection Zone 17

Scale: 1:950
Page Size: Tabloid (11 x 17 inches)

Drawn: SM
Checked: HB
Date: Nov 28, 2024

Source Notes:
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NORTH

CLIENT	Jeff Cunningham	
PROJECT	3 Washago Bay Lane EIS	
TITLE	Existing Environmental Conditions	
PalmerSLR	REF. NO.	2309401-2-4
	Figure 2	

4.1.2 Flora

A total of 74 species of vascular plants were recorded within the Subject Property during the 2024 surveys. This included 36 (49%) native species, 34 (46%) species non-native to Ontario, and four species that were identified to the genus only due to the limited representation of key characteristics (**Appendix B**). Most native plants were identified as S4 or S5 ranking, indicating that the species are common in Ontario (Ministry of Natural Resources and Forestry, 2024; Varga, et al., 2000). However, three Butternut trees (*Juglans cinerea*), a G3 and Endangered species, was observed within the Subject Property during the 2024 field investigations.

4.2 Bat Maternity Roost Surveys

A Bat Habitat Suitability Assessment was completed using aerial photography and Palmer's ELC mapping. Based on background review, treed areas within the Subject Property were identified as areas with potential suitable roosting habitat (**Figure 2**).

4.2.1 Phase 2 Results (Identification of Suitable Maternity Roosting Habitat)

During the March 28, 2024 survey, all trees >10 cm DBH within the Subject Property were surveyed for suitable maternity roost characteristics. Two potentially suitable Maternity Roost trees were observed with DBH ranging from 56 – 63 cm (**Table 1**). The two snag trees were deciduous trees: Manitoba Maple and Butternut.

The two potential maternity roost trees are located outside of the development limits (**Figure 3**). The snag attributes consist of cavities, loose bark and/or cracks. Potential roost trees ranged from decay class 1 – healthy, living tree to decay class 3 – Very recently dead, no canopy, bark intact, branches intact (**Table 1**). Snags in healthy or early stage of decay (Decay Class 1 - 3) may be preferred by Little Brown Myotis and Northern Myotis (MNR, 2017).

Table 1. Potential SAR Bat Maternity Roost Trees

Tree No.	Scientific Name	Common Name	DBH (cm)	Decay Class	Height Class*	Snag Attributes	Proposed Outcome
1	Butternut	<i>Juglans cinerea</i>	56	2	1	Cavity at 8 m height.	Retain
2	Manitoba Maple	<i>Acer negundo</i>	63	2	1	Woodpecker holes at 4 m height.	Retain

*Height Class: 1. Dominant – above canopy; 2. Co-dominant – canopy height; 3. Intermediate – just below canopy; 4. suppressed – well below canopy height

According to the MNR protocol, there is no minimum threshold in terms of the number of snags/ha for an ELC ecosite to be considered suitable maternity roost habitat for SAR. An ELC ecosite with 10 or more snags/ha may be considered to be high quality potential maternity roost habitat, as this is the criteria for bat maternity habitat SWH (Ontario Ministry of Natural Resources and Forestry, 2015).

The Subject Property has a snag density less than 10 snags/ha and is therefore not considered high quality potential maternity roost habitat. The calculated snag density for the Subject Property is 6.5 snags/ha as outlined in **Table 2** below.

Table 2. Bat Snag Density for the Subject Property

ELC Ecosite	Size (ha)	# of snags	Snag Density
CUW1	~0.31	2	6.5 snags/ha

4.3 Incidental Wildlife Observations

The overall area is cultural meadow and residential lots with mowed yards. Wildlife habitat opportunities are generally limited within the Subject Property, given the land uses; however, the cultural woodland may provide habitat opportunities. Wildlife expected to be present primarily consist of common, generalist and urban-adapted species such as Raccoon (*Procyon lotor*), Skunk (*Mephitis mephitis*), Grey Squirrel (*Sciurus carolinensis*) and perhaps occasional white-tailed deer (*Odocoileus virginianus*) within the cultural woodland.

5. Significant Natural Heritage Features

For the Subject Property, the on-site potential for Significant Woodlands, Habitat for *Endangered* and *Threatened* species (Species at Risk), and Significant Wildlife Habitat (SWH), are evaluated in relation to the project in the following sections. The Subject Property does not support or have the potential to support other NHF types (e.g., Significant Wetlands and valleylands) and these are not further assessed in this report.

5.1 Significant Woodlands

Significant Woodlands occur within the Subject Property and adjacent lands. Under the Township of Scugog Official Plan Schedule E, Significant Woodlands are identified within and adjacent to the southwestern portion of the Subject Property (**Figure 2**). The ecological features and functions of these woodlands include the following:

- Habitat for Special Concern species (Eastern Wood-Pewee and)
- Potential Habitat for SAR (Red-headed Woodpecker and SAR Bats)
- Confirmed habitat for SAR (Butternut)

The significant woodland within the Subject Property had an open canopy and contained disturbance tolerant species, mainly dominated by Manitoba Maple, indicating low quality habitat. This area is also designated as Natural Core Area of the Township Greenlands.

Criteria for determining woodland significance in the Subject Property was also applied as provided in the Durham Region Official Plan and the Natural Heritage Reference Manual (Ontario Ministry of Natural Resources, 2010; Durham Region, 2020). Section 2.3 of this report states the definition of significant woodland under the Durham Region OP. The southern woodland within the Subject Property does meet the criteria under the Durham Region OP.

The southern woodland community in the Subject Property falls under the two categories listed below pulled from the MNR *Natural Heritage Reference Manual* (2010).

Woodland Size Criteria

Where woodland cover is about 30–60% of the land cover, woodlands 50 ha in size or larger should be considered significant.

Through a general review within the Township of Scugog boundaries, it was determined that the woodland cover is between 30-60%. A such, **woodlands 50 ha or larger** may be considered significant within the Subject Property. The southwestern woodland community is contiguous with an offsite woodland that is >50 ha in size.

Ecological Function Criteria

a. Interior Woodland Habitat

8 ha or more of interior habitat where woodlands cover about 30-60% of the land cover.

As woodland cover within the Township was determined to be between 30-60%, woodlands with **8 ha or more of interior habitat** would be considered significant within the Subject Property. Similar to the size criterion above, the southwestern woodland is contiguous with an offsite woodland that has >8 ha of interior habitat.

b. Proximity to Other Woodlands or Other Habitats:

Woodlands should be considered significant if: a portion of the woodland is located within a specified distance (e.g., 30 m) of a significant natural feature or fish habitat likely receiving ecological benefit from the woodland and the entire woodland meets the minimum area threshold (e.g., 0.5–20 ha, depending on circumstance).

Potential and confirmed SAR habitat is located within the woodland community. As well as potential habitat for species of Special Concern, a SWH feature, is located within the woodland community. As previously stated, the woodland community meets the minimum area threshold (>50 ha).

5.2 Habitat of Endangered and Threatened Species

The ESA provides protection for species listed as Endangered or Threatened in Ontario, including their habitat. The Species at Risk in Ontario (SARO) List also identifies species of Special Concern that may become Threatened or Endangered in the future. Species of Special Concern and their habitats are not protected under the ESA, but through other policies such as Official Plans criteria for SWH as Natural Heritage Features.

Based on available background information, 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 screening 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. Species at risk bat surveys were the only targeted surveys conducted. Based on the rationale provided in **Appendix C**, the following eight SAR have been identified as having potential (although limited) habitat opportunities specifically within the proposed severance parcel (Subject Property):

Birds

- Eastern Wood-Pewee (*Contopus virens*) – Special Concern
- Red-headed Woodpecker (*Melanerpes erythrocephalus*) – Endangered

Reptiles

- Eastern Milksnake (*Lampropeltis triangulum*) – Special Concern

Vascular Plants

- Butternut (*Juglans cinerea*) – Endangered

Mammals

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

The potential presence of the woodland avian species Eastern Wood-Pewee and Red-headed Woodpecker should be considered prior to future development. The CUW1 community provides potential habitat for the woodland avian species, see **Appendix C** for further details.

The Subject Property may also provide limited habitat opportunities for the Special Concern species Eastern Milksnake. Note that no habitat features such as rock piles or potential access to below the frost line (for snakes) were observed on the Subject Property, and the potential for this species is considered very limited.

Three (3) Butternut trees were observed on the Subject Property during field surveys (**Figure 2**). In Ontario, Butternut usually grows in sunny openings and near edges of deciduous forests (Ontario Ministry of Natural Resources and Forestry, 2014). Butternut trees suffer from a highly transmissible fungal disease called butternut canker, which is the cause of their decline and SAR status as Endangered. The habitat for butternut includes a minimum radius of 25 m from the base of the stem of the tree, irrespective of the tree's size (Ontario Ministry of Natural Resources and Forestry, 2014).

Populations of several bat species have been in decline in recent years due to the spread of a fungal pathogen known as white nose syndrome. This includes several species in Ontario, including the Northern Myotis, Little Brown Myotis and Tri-colored Bat, which are all listed as Endangered under the *ESA*, and have general habitat protection. Two suitable snag trees for roosting are located within the Subject Property. Therefore, potential bat maternity roost habitat may be located in the Cultural Woodland.

General avoidance and mitigation for SAR bat habitats is discussed in Section 7.

5.3 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.

SWH is defined by the MNRF in the Significant Wildlife Habitat Technical Guide (Ontario Ministry of Natural Resources, 2000) and Natural Heritage Reference Manual (Ontario Ministry of Natural Resources, 2010) and includes the following categories:

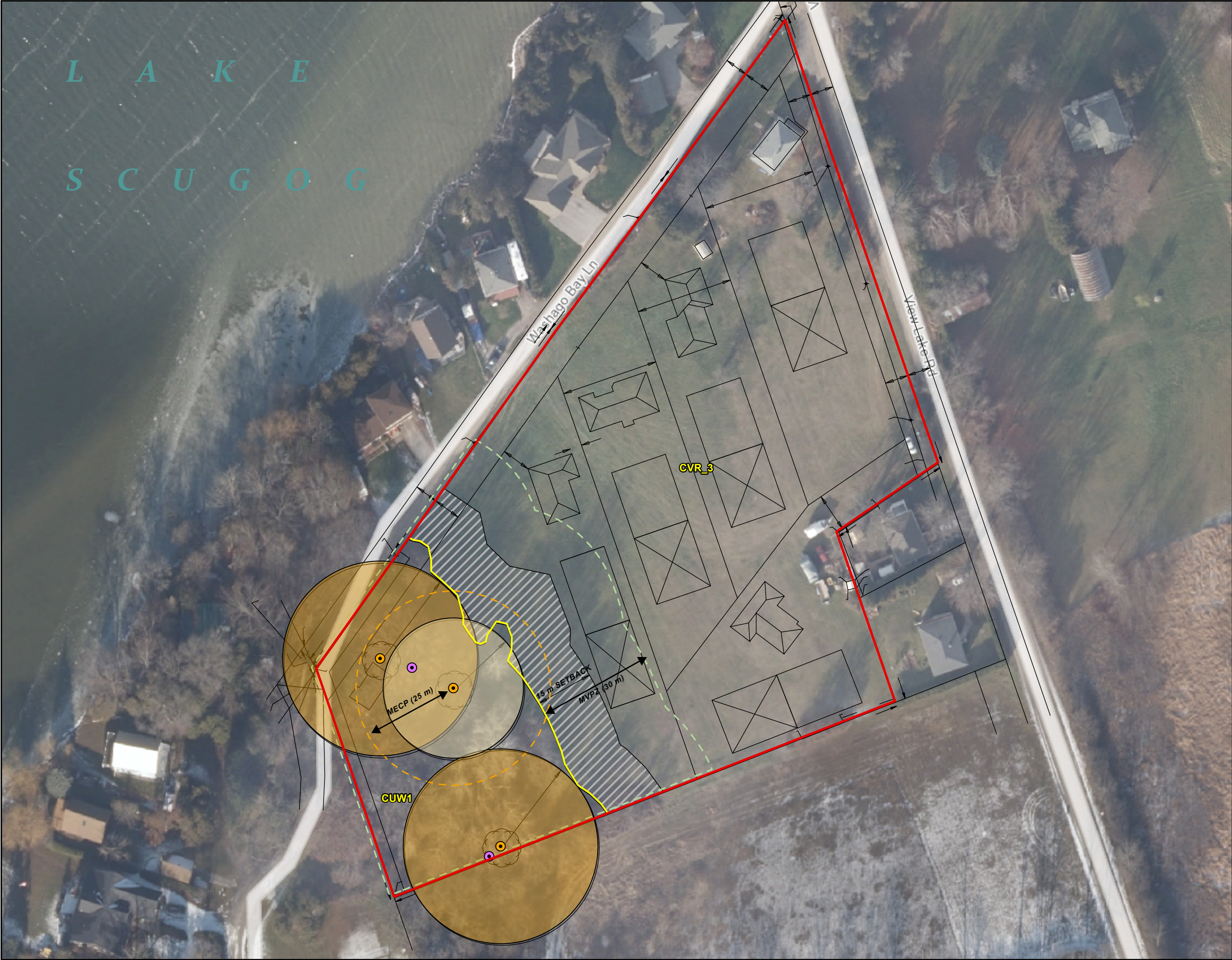
- Seasonal Concentration Areas of Animals;
- Rare Vegetation Communities or Specialized Habitats for Wildlife;
- Habitats of Species of Conservation Concern; and
- Animal Movement Corridors.

Criteria for the identification of these features are provided in the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (OMNRF, 2015). These were used to screen wildlife habitat within the Subject Property for potential SWH (see **Appendix D** for full assessment). Based on the ELC ecosite, habitat screening and field surveys, Palmer has determined that there is one potential SWH: Habitat for Special Concern and Rare Wildlife Species.

The Cultural Woodland in the southwest portion of the Subject Property is considered Potential **Special Concern and Rare Wildlife Species Habitat** SWH, as potential habitat for Eastern Wood-pewee and Northern Milksnake may be present within the Subject Property. Eastern Wood-pewee is still a common species found in many types of deciduous and mixed forest. It is found in small and large forests across southern and central Ontario. Note that no habitat features such as rock piles or potential access to below the frost line were observed on the Subject Property, and the potential for Northern Milksnake is considered very limited.

6. Proposed Development

The proposed severance consists of one existing parcel and four new parcels (**Figure 3**). The new severed parcels range in size and are proposed for residential dwellings with individual septic systems. The proposed severed parcels are on anthropogenic lands, with the woodland located to the southwest of the proposed severance on Lot One. Lot One has been sized to ensure that the woodland natural feature (an Enhancement Opportunity Area) remains unsevered, while still providing for habitable space.



LEGEND

- Snag Tree
- Butternut 18 m Setback
- Butternut 25 m Setback
- Watercourse ¹
- Ecological Landscape Classification (ELC)
- KNHF setback (15 m)
- MECP Regulated Area (25 m)
- Significant Woodland (30 m)
- Subject Property (1.8 ha)

ELC Legend

CVR_3 - Single family residential
CUW1 - Mineral Cultural Woodland Ecosite

1 - Land Information Ontario (LIO)

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NORTH

CLIENT	Jeff Cunningham	
PROJECT	3 Washago Bay Lane EIS	
TITLE	Proposed Severance	
PalmerSLR	REF. NO.	2309401-3-5
	Figure 3	

7. Impact Assessment and Mitigation

The proposed severance footprint is within areas of low ecological constraint, consisting of rural residential land use. Through appropriate setbacks, mitigation and enhancement, potential adverse impacts to the natural heritage features can be avoided.

Based on the environmental constraints identified on **Figure 3** and the subsequent refinement to the proposed severance concept plan, all development is proposed to remain outside of the existing natural heritage features of the Subject Property consisting of significant woodland, SAR habitat and potential SWH features. The natural heritage features and associated setbacks with the greatest outer limit and constraint will generally represent the limit of development.

Direct impacts, such as vegetation clearing, encroachment on SAR habitat and wildlife encounters have been mitigated by the implementation of required setbacks and additional areas to be naturalized (15 m setback). Indirect impacts (e.g., sediment movement from construction-related earthworks) can be mitigated appropriately through implementation of the measures described below.

For any proposed development post-severance, additional field assessments, feature delineation and mitigative design measures will need to be completed, if/as necessary, in consultation with KRCA and the Township of Scugog as part of future design phases.

Although no direct removal or encroachment is proposed into natural heritage features (i.e., development is prohibited from occurring within them), potential for indirect or secondary impacts from subsequent future development on the severed lands would need to continue to be carefully assessed by the consulting team through a collaboration of the project ecologists, hydrogeologists and civil engineers as detailed design application process(es) advances. Through this future process the appropriate stormwater management (SWM) design and mitigation measures will be identified through the Functional Service Report (FSR) stage to ensure that the features and functions of the natural features are maintained.

7.1 Significant Woodland

The Mineral Cultural Woodland Ecosite – CUW1 located in the southwest portion of the Subject Property has been identified as Significant Woodland for the purposes of this EIS. As previously stated, the significant woodland had an open canopy and contained disturbance tolerant species, mainly dominated by Manitoba Maple, indicating low quality habitat. As stated in the Durham OP, each KNHF is to be protected by a vegetative protection zone that is in accordance with the Greenbelt Plan .

Similarly, the Township of Scugog OP provides for a 30 m vegetative buffer around key natural heritage features, including Significant Woodlands. However, Section 6.14.2 of the OP states that development may be permitted in woodlands that are outside significant valleylands, fish habitat outside of significant woodlands or valleylands, sensitive water quality and areas for natural corridor enhancement. An EIS must show that the development will not negatively impact the features or the ecological functions for which the area is identified.

The woodland on the Subject Property does not contain the above features, but does hold confirmed SAR habitat (Butternut), potential SAR habitat (Birds, Bats), and SWH habitat (Section 5). To ensure that these features are not negatively impacted while providing for adjacent development, a dual 30 m and 15 m setback concept has been proposed.

A 30 m setback has been established on the largest extent of the habitat limits of the woodland, as defined by the dripline and the 25 m butternut habitat zone (**Figure 3**). Development of hard surfaces has been proposed to be undertaken outside this area and the setback remaining contained to a single lot, providing for a limited amount of variable setback adjustments (“squaring off”).

Additionally, in order to protect the woodland and the natural features, a 15 m vegetative protection zone has been provided stemming from the dripline defined in collaboration with the KRCA and the municipality, and includes the 25 m butternut habitat zones (**Figure 3**). This setback is entirely within Lot One, and no development will be permitted within. The intent is to restore and enhance this setback with *natural self-sustaining vegetation*. The proposed 15 m setback will protect the woodlands root harm protection zone and identified SAR species/habitat (i.e. Butternut and potential SAR bat habitat).

As adjacent lands are currently comprised of anthropogenic area, it is recommended that the lands located within the outlined woodland 15 m setback, be planted in order to enhance their buffer/protective functions. It is recommended that plantings aim to extend the Significant Woodland community.

The 15 m vegetative protection zone setback is to be seeded and planted to buffer the woodland natural feature from the severance and subsequent development (**Figure 3**). The 15 m setback is to be seeded at a rate of 13.98 kg/ha with a native Ontario Dry Grass Mix (TRCA-SD-2) as detailed in the TRCA *Seed Mix Guideline V.2.0* (Toronto and Region Conservation Authority, 2022). The area should also be seeded with a nurse crop of Common Oats (*Avena sativa*) or Buckwheat (*Fagopyrum esculentu*) at a rate of 30 kgs/ha. The recommended Ontario Dry Grass Mix TRCA-SD-2 includes:

- Big Bluestem (*Andropogon gerardii*)
- Common Milkweed (*Asclepias syriaca*)
- Butterfly Milkweed (*Asclepias tuberosa*)
- Heath Aster (*Symphyotrichum ericoides*)
- Sky Blue Aster (*Symphyotrichum oolentangiense*)
- New England Aster (*Symphyotrichum novae-angliae*)
- Showy Tick-Trefoil (*Desmodium canadense*)
- Canada Wild Rye (*Elymus canadensis*)
- Marsh Sneezeweed (*Helenium autumnale*)
- Oxeye (*Heliopsis helianthoides*)
- Roundheaded Bushclover (*Lespedeza capitata*)
- Wild Bergamont (*Monarda fistulosa*)
- Evening Primrose (*Oenothera biennis*)
- Switch Grass (*Panicum virgatum*)
- Virginia Mountain Mint (*Pycnanthemum virginianum*)
- Black Eyed Susan (*Rudbeckia hirta*)
- Little Blue Stem (*Schizachyrium scoparium*)
- Grey Goldenrod (*Solidago nemoralis*)
- Indian Grass (*Sorghastrum nutans*)

- Sand Drop Seed (*Sporobolus cryptandrus*)

Subsequently, following the Enhanced Reforestation Typicals within the *Guideline for Determining Ecosystem Compensation* (Toronto and Region Conservation Authority, 2023) as a guide, the Woodland setback is to be planted with trees at a density of 2.45 m x 2.45 m (6 m²), and shrubs at a 1 m x 1 m (1 m²) spacing. Replacement tree and species are recommended to be native and common to the KRCA area and suit the existing vegetation assemblage and site conditions, and targeted to provide natural, self-sustaining vegetation. Based on existing site conditions and species composition, suitable native woody species may include (but are not limited to):

Trees:

- Balsam Poplar (*Populus balsamifera*)
- Sugar Maple (*Acer saccharum*)
- Trembling Aspen (*Populus tremuloides*)
- Paper Birch (*Betula papyrifera*)
- Tamarack (*Larix Laricina*)
- Black Walnut (*Juglans nigra*)
- Black Cherry (*Prunus serotina*)

Note that Butternut (*Juglans cinerea*) could also be considered; however, it should be noted that planting of this species would not be required as part of a compensation plan for impacts to this SAR.

Shrubs:

- Alternate-leaved Dogwood (*Cornus alternifolia*)
- Staghorn Sumac (*Rhus typhina*)
- Wild Black Currant (*Ribes americanum*)
- Purple-flowering Raspberry (*Rubus odoratus*)
- Common Elderberry (*Sambucus canadensis*)

The available 15 m setback is approximately 1,600 m² (0.16 ha), and the recommended 6 m² planting spacing would provide for 267 trees and 1,333 shrubs to be planted. To provide a balance between diversity and reproduction opportunities, trees and shrubs are to be planted in groups of 10 per species following the *Guideline for Determining Ecosystem Compensation* (Toronto and Region Conservation Authority, 2023), at the spacing outlined above. For both trees and shrubs, two-to-four-gallon pot sizes are recommended.

7.2 Wildlife

Construction timing windows are recommended for future proposed works to avoid direct or indirect impacts to wildlife species. Vegetation/tree removal from future construction works could affect birds during the breeding bird season. There are a limited amount of landscape trees on Lot Four that may need to be removed, and timing windows would also reduce indirect (noise, activity) impacts on wildlife use of the woodland.

Per the MBCA, any destructive or disruptive activity such as future vegetation removal, cannot occur during the breeding bird period (April 1 – August 31). If future vegetation removal is required during this period, a

qualified ecologist should undertake a bird nesting survey before the works. If active nests are observed, then a site-specific mitigation plan may need to be prepared, including delaying tree removals until the young have fledged the nest. Other sensitive time during which all tree removal should be avoided is the maternity roosting period for Endangered bats (April 1 to September 30); however, potential roost trees are limited to within the woodland, where trees are not proposed for removal.

7.3 Buffers and Setbacks

The proposed developable area, which adheres to natural heritage buffers, and is situated to conform to the policies of the Durham Region and Township of Scugog OPs (Section 2, and **Figure 3**). In addition, buffers associated with SAR considerations and habitat protections under the *Endangered Species Act*, have also been incorporated into the proposed development area consideration.

Buffers are generally defined as vegetated areas of land between development areas and sensitive natural features within which no or very limited site alteration may occur. These buffers function to protect the features within the Cultural Woodland by way of creating a biophysical barrier between an adjacent land use, such as development, and the natural heritage feature.

Setbacks are more simply defined as prescribed distances from the proposed development to a natural resource that requires protection. Setbacks associated with the on-site natural heritage features include the following:

- Vegetation Buffer (from Significant Woodland): 30 m and 15 m (as determined in section 7.1)

7.4 Species at Risk

Potentially suitable maternity roost habitat (e.g., snag trees) is present within the Subject Property within the Woodland. Significant woodlands represent areas with the greatest potential for snag trees, this area will be protected through the proposed 15 m setback.

Potential suitable habitat for Red-headed Woodpecker is present within the Subject Property woodland. Significant woodlands represent areas with the greatest potential for habitat, this area will be protected through the proposed 15 m setback.

Three Butternuts have been identified within the Cultural woodland on the Subject Property. The woodland is proposed to be protected through a 15 m buffer, which encapsulates the regulated 25 m habitat area for these trees (**Figure 3**).

7.5 Significant Wildlife Habitat

The potential Special Concern and Rare Wildlife Species Habitat SWH on the Subject Property is associated with the woodland. Development of the anthropogenic area will not affect habitat features, and the 15 m setback will extend wildlife habitat within the Subject Property.

8. Policy Conformity

A summary of applicable natural heritage policies and the manner in which the proposed severance area meets their requirements is provided in **Table 3**. With the implementation of the abovementioned mitigation measures, there are no predicted negative impacts to the woodland within the Subject Property or its ecological functions.

Table 3. Policy Conformity

Policy Document	Policy Intent/Objective	Implications and Policy Conformity
Provincial Policy Statement	Direction to regional and local municipalities regarding planning policies for the protection and management of natural heritage features.	A significant woodland is located in the southwestern portion of the Subject Property. The PPS defines other (non-provincially significant) features as “Natural Heritage Features” (NHF) of which development should generally be maintained away from. Such NHFs with confirmed or potential relevance to the Subject Property include: SAR habitat (potential) and SWH (potential). Measures to mitigate impacts to such features during future development works have been outlined in this Scoped EIS (i.e. compliance with timing windows for vegetation removals, application of appropriate setbacks and ESC works).
Greenbelt plan	For lands within a key natural heritage feature or a key hydrologic feature in the Protected Countryside, the following policies shall apply: Section 3.2.5 of the Greenbelt Plan (Natural Heritage System Policies) states: <i>3. Beyond the Natural Heritage System within the Protected Countryside, key natural heritage features are not subject to the policies of section 3.2.5, but are to be defined pursuant to, and subject to the policies of, the PPS.</i> <i>4. In the case of wetlands, seepage areas and springs, fish habitat,</i>	Within the Subject Property, the following natural heritage features have been identified: • Significant Woodlands • Potential Significant Wildlife Habitat • Potential Species at Risk Habitat The proposed severance avoids the significant woodland and associated SWH and SAR habitat, although the Greenbelt plan states a 30 m minimum vegetative protection zone. An appropriate vegetation protection zone, commensurate with municipal policy has been applied to the woodland KNHF, and appropriate restoration has been proposed. Conceptual development of hard surfaces and septic has been limited to beyond 30 m, and the 15 m setback to be restored will protect the critical root zone of the

	<i>permanent and intermittent streams, lakes and significant woodlands, the minimum vegetation protection zone shall be a minimum of 30 metres measured from the outside boundary of the key natural heritage feature or key hydrologic feature.</i>	woodland and the natural heritage features found within.
Durham Region Official Plan (2023)	In accordance with policies of the OP, waterfront development shall not negatively impact key natural heritage or hydrologic features. The location and extent of key natural heritage and/or hydrologic features may be further confirmed through an environmental impact study.	The natural heritage feature (woodland) onsite will be protected through an appropriate vegetation protection zone, commensurate with municipal policy has been applied to the woodland KNHF, and appropriate restoration has been proposed, being the 30 m and 15 m setback concept outlined in Section 7.1. No negative impacts are anticipated from the proposed severance.
Township of Scugog Official Plan (2017)	The Subject Property is identified within the Greenlands System, under Natural Core Area and Linkage Area. Section 6.3 of the OP states that <i>Natural Core Areas also applies to lands located in the Greenbelt which form a natural 30 metre vegetative protective buffer zone for natural heritage features.</i> Development may be permitted, subject to an EIS only if it does not negatively impact the features or the ecological functions for which the area is identified, in areas of significant woodlands situated outside significant valleylands, fish habitat outside of significant woodlands or sensitive water quality and areas for natural corridor enhancement.	The significant woodland is located outside of significant valleylands, fish habitat and sensitive water quality and areas for natural corridor enhancement. Therefore, development is permissible if there are no negative impacts to the woodland or the functions contained (SAR habitat, SWH habitat per Section 5). The 30 m and 15 m setback concept outlined in Section 7.1 has been designed to protect those features and functions. The concept retains the woodland as a Core Area to one lot, avoiding severance of the feature. While the remainder of the lot is mapped within Natural Linkage Area, there are no sensitive natural features on these remaining lands, and the Shoreline Residential zoning would allow for severances. No negative impacts are anticipated from the proposed severance.
Kawartha Region Conservation Authority	Ontario Regulation 42/24 – <i>Prohibited Activities, Exemptions, and Permits.</i> Through this regulation, KRCA regulates activities in natural and hazardous areas (e.g., areas in and near rivers, streams, floodplains,	The entire Subject Property is outside regulated by the KRCA, and a permit will not be required. There do not appear to be areas of flood or erosion hazards within the Subject Property.

	wetlands, and slopes and shorelines).	
Endangered Species Act (2007)	Species and the habitat of species designated as Endangered or Threatened are afforded legal protection.	Potential SAR bat habitat and three Butternuts were observed in the onsite woodland. A 30 m and 15 m setback concept has been applied to the woodland, which will protect SAR habitat from the proposed severance and future development. The Scoped EIS has also provided recommended measures to mitigate any potential impacts to SAR during future development stages. Negative impacts are not anticipated following mitigation measures.
Migratory Bird Act (1994)	Protect most species of migratory birds and their nests and eggs anywhere they are found in Canada.	Beyond the severance, limited tree clearing and vegetation removal is anticipated as part of future proposed development. It is recommended that vegetation clearing (outside of the significant woodland) be conducted outside of April 1 – September 30 to ensure no nesting birds or roosting bats are present/impacted.

9. Conclusions

The findings of our study are the result of a background review, field investigations and an analysis of data using a scientific understanding of the ecology of the area, as well as the current natural heritage policy requirements. We have evaluated the environmental sensitivities, constraints and development opportunities of the Subject Property, which are described in this report and illustrated on **Figure 3**.

Based on the results of the EIS it is our professional opinion that the proposed Severance Plan is environmentally feasible, considers potential future development, and would not result in negative impacts to the natural heritage features provided that the recommended mitigation measures described in this report are implemented.

10. Certification

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

Prepared By:



Hayley Brown, B.Sc., Diploma
Ecologist

Approved By:



Austin Adams, M.Sc., EP
Technical Director – Arboriculture, Senior Ecologist

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Appendix A

Correspondence

Pre-Consultation Record Date:	April 02, 2024
Owner(s):	741439 NB Ltd.
Applicant:	D.G. Biddle and Associated Ltd.
Roll No:	1820 040 060 15600
Address and Location:	3 Washago Bay Lane Part Lot 22, Concession 11
Proposed Use(s):	Residential – Single Detached Dwellings
Application Type(s) Requested:	Consent – Lot Creation

Township Staff and Outside Agencies:

- Valerie Hendry, Township of Scugog (Planning) – vhendry@scugog.ca
- Ahasar Syed, Township of Scugog (Planning) – asyed@scugog.ca
- Nick Dawkins, Township of Scugog (Chief Building Official) – ndawkins@scugog.ca
- Denise Stephenson, Township of Scugog (By-law Enforcement) – dstephenson@scugog.ca
- Rob Frasca, Township of Scugog (Public Works) – rfrasca@scugog.ca
- Ethan Green, Township of Scugog (Fire Prevention) – egreen@scugog.ca
- Tyler Dukovic, Township of Scugog (Engineering) – tdukovic@scugog.ca
- Kurt Niles, Region of Durham (Works Department) – Kurt.Niles@durham.ca
- Lori Riviere-Doersam, Region of Durham (Planning Department) - Lori.Riviere-Doersam@Durham.ca
- Lesley Kennedy, Region of Durham (Health Department) – Lesley.Kennedy@durham.ca
- Harmanpreet Kaur, Kawartha Conservation Authority – hkaur@kawarthaconservation.com

DESCRIPTION OF PROPOSAL:

The applicant is proposing to sever the existing residential lot and create five new residential lots while retaining an existing lot with a dwelling. The proposed severance sketch shows 4 lots fronting on Washago Bay Lane and 2 lots fronting on View Lake Road. The development will be on private well and septic. The Region of Durham is the approval authority for Plan of Subdivision Applications. The following joined Pre-Consultation Record has been prepared by Township Staff on behalf of the Region of Durham – Planning Department. The Applicant is advised to submit the subdivision application with all associated fees to the Region as part of the complete application.

PLANNING POLICY CONTEXT:

REGIONAL OFFICIAL PLAN: Shoreline Residential

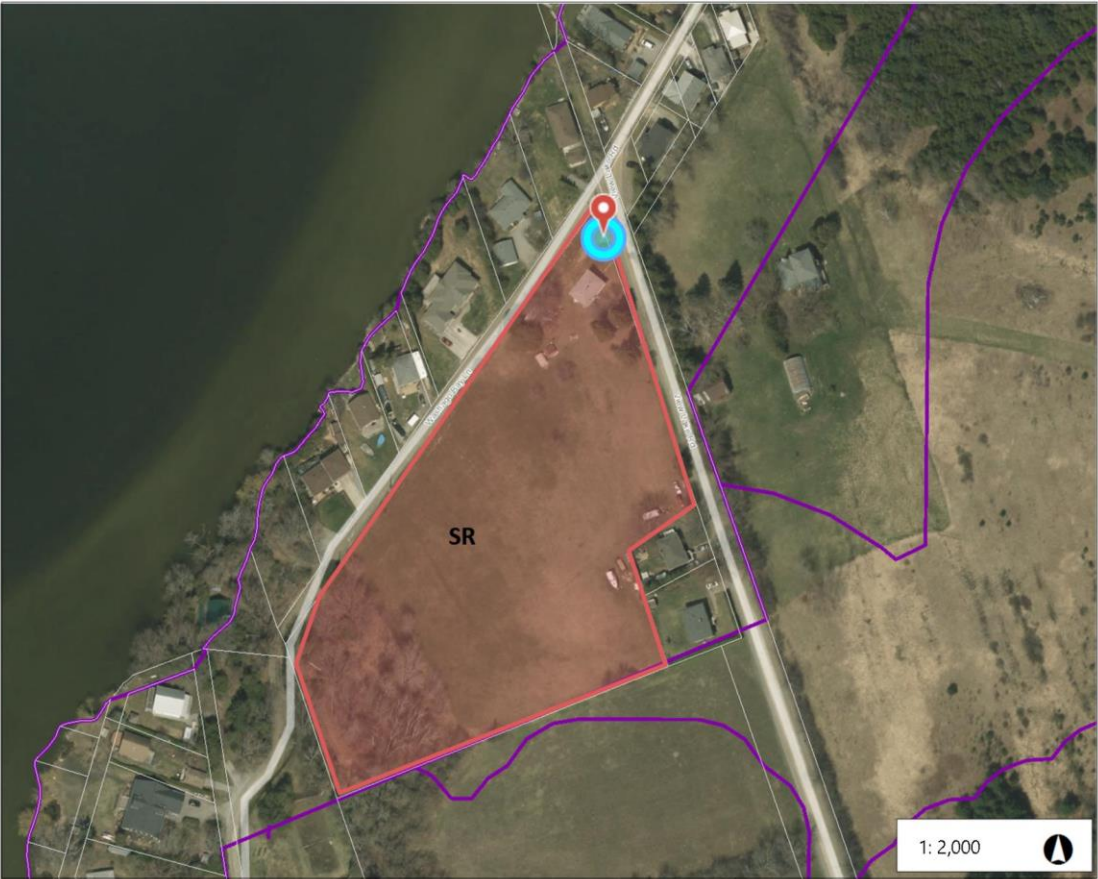
SCUGOG OFFICIAL PLAN: Natural Linkage Area

ZONING BY-LAW 14-14: Shoreline Residential (SR)

MAP OF SUBJECT LAND:



Scugog Map



Legend

☐

Assessments Parcel

☒

Scugog Zoning

☐

Ownership Parcel

Notes

NAD_1983_UTM_Zone_17N
Created By: Township of Scugog

This map is a user generated static output from an internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION

PROPOSED PLAN:



AGENCY COMMENTS:

Region of Durham – Planning Department

- The Applicant is proposing to subdivide the existing lot for a total of 6 residential lots.
- The subject site designated Shoreline Residential in the ROP. The predominant uses in such areas shall be permanent and seasonal residences.
- As per policy 9B.2.23 development within Shoreline Residential Areas shall:
 - Be limited to minor rounding out, infill development, redevelopment and resort development;
 - Not preclude public access to the waterfront, existing and proposed trails or ongoing or planned stewardship and remediation efforts;
 - Minimize erosion, sedimentation and not result in soil and water contamination, or adversely affect the water quality of the adjacent water body;
 - Have frontage on and direct access onto a public road;
 - Be individually serviced with a private drilled well and a private sewage disposal system which complies with the standards of the Ministry of the Environment, Conservation and Parks and the Region;
 - Be subject to Policies 10A.2.2, 10A.2.4 and key natural heritage and hydrologic features policies of Section 2 of this Plan, and to the extent possible, will enhance the ecological features and functions in shoreline areas;
 - Establish or increase the extent and width of a vegetation protection zone along a shoreline to a minimum of 30 metres. Vegetation protection zones shall be determined on a case by case basis in consultation with the appropriate conservation authority;
 - Increase or expand the extent of fish habitat in the littoral zone;
 - Implement efficient sewage disposal facilities in order to reduce nutrient inputs to groundwater and the lake;
 - Integrate landscaping and habitat restoration into the design of the development proposal to enhance the ability of native plants and animals to use the shoreline as both wildlife habitat and a movement corridor; and
 - Determine the capacity of the receiving water body, taking into consideration inputs from both existing and approved development, in order to demonstrate available capacity. Proposals shall comply with any relevant watershed or sub-watershed study and in the case of Lake Simcoe, any such analysis must be considered in the context of the Lake Simcoe Environmental Management Strategy.
- A new ROP was adopted by Regional Council in May 2023 and has been forwarded to the Province for approval. The new ROP maintains the Shoreline Residential designation. The proposed use appears to be permitted by the policy of the ROP.

- Please note that the Region of Durham is the approval authority for plans of subdivision. As part of a complete application, Regional Planning will require the following:
 - **Completed Region of Durham Subdivision Application Form**
 - **Proposed Draft Plan of Subdivision**, please include a land use summary chart breaking out units by type and area on the draft plan
 - **Archaeological Assessment** – the subject site is located in an area of high archaeological potential.
 - **Planning Rationale/Justification Report** – this report, prepared by a qualified planner should address Provincial, Regional and Area Municipal planning policies.
 - **Environmental Impact Study** – this report should address the natural heritage and hydrologic features on and adjacent to the site. It may be peer reviewed at the applicant's expense.
 - **Hydrogeological Study** – this study will look at the proposed impact of the development on groundwater quantity and quality. The proposed development must comply with the Region's Lot Sizing policy.
 - **Site Screening Questionnaire** signed by a Qualified Person or a **Phase One Environmental Site Assessment Report**. If a Phase One ESA Report is provided it must be prepared in accordance with the Province's Brownfields Regulation, be no more than 18 months old at the time of application submission and be accompanied by the Regional Reliance Letter and Certificate of Insurance.

**Region of Durham –
Health Department**

- All proposed developments in the Region of Durham that are on private services must comply with the Region's Drilled Well Policy and Lot Sizing Policy (attached).
- A site servicing plan of the proposed development must illustrate the minimum required footprints for the septic system (prime and reserve), proposed structure(s) and possible well and driveway locations. The septic system footprints must be located in a developable area.
- A hydrogeological study is required that confirms there will be no negative impact on water quality and/or quantity both on or off site. This study must be completed in accordance with the Ministry of the Environment D-5-4 and D-5-5 Guidelines. This study will be subject to peer review at the proponent's expense and positive and supporting comments must be provided by the reviewer.

**Region of Durham –
Works Department**

- The subject site is located outside the urban boundary; therefore, private services shall be utilized for the proposed development.
- The Applicant shall coordinate the design and review of the private septic and well systems with the Regional Health department.
- The proposed development is subject to residential development charges that are due prior to issuance of a building permit.

**Kawartha Conservation
Authority (KCA):**

- KRCA Staff are considering this as a consent application and have a fee of \$500 per lot being created.
- Staff would like to conduct a site visit prior to the application submission to consider any hazards or grading concerns. The site visit fee will be \$550.
- The Subject Site is entirely regulated by KRCA for steep slopes. A Site Visit will be required to determine the extent of hazard on the property.
- KRCA Comments will be based on the results of a site visit. A Permit may be required prior to any future development depending on the findings of the site visit.

**Township of Scugog
(Planning)**

- The Subject Site is designated Natural Linkage Area as per Schedule A of the Township's Official Plan.
- The Subject Site is zoned Shoreline Residential (SR) under the Township's Zoning By-law 14-14 (as amended). Single detached dwellings are permitted use in an SR Zone. While the Official Plan designation does not permit severances in the Natural Linkage Area, the SR zoning for the subject site is deemed to comply with the designation.
- The proposed consent application is for the creation of more than 2 lots and does not comply with the Official Plan's general development policies for Lot Creation. A Plan of Subdivision Application will be required.
- Show location of well and septic systems for each proposed lot
- Show location of dwellings and dimension setbacks to lot lines, floor areas, proposed driveway entrances, garage locations (attached/detached).
- SR Minimum Zoning Regulations to be shown on the Site Plan:
 - Lot Area for each proposed lot; SR requires 3,000m².
 - Lot Frontage for each proposed lot; SR requires 30m
 - Front Yard Setbacks – 7.5m
 - Interior Side Yard Setback – 3m (1.2m where a dwelling has an attached garage)
 - Exterior Side and Rear Yard Setback – 12m
 - Max Lot Coverage – 30%
 - Max Building Height – 12m
 - Max Lot Coverage within 30m of a shoreline – 450m² or 25% (whichever is less)
 - Minimum Driveway Length – 6m
 - Parking Spaces – 2 parking spaces shall be provided on each lot of which one may be located inside a garage.
- Any zoning deficiencies will need to be addressed through a Minor Variance or Zoning By-law Amendment Application. The applicant should submit the application after further consultation with the Township, the Region and the KRCA on the revised lot layout in the draft plan of subdivision.
- Parkland or cash-in-lieu of parkland dedication will be required at the time of the subdivision agreement.
- Development Charges will be applicable at the building permit stage.

- There appear to be Natural Heritage Features on the southwest portion of the site.
- The following plans and reports are required:
 - **Survey Plan**
 - **Draft Plan of Subdivision**
 - **House Siting Plan**

**Township of Scugog
(Building)**

- No comments.

**Township of Scugog
(By-law Enforcement)**

- No comments.

**Township of Scugog
(Public Works)**

- The Township will require a Right-of-Way Road Widening for both Washago Bay Lane and Viewlake Road. The widening will require 23m total ROW width for a rural residential roadway. Washago Bay Lane will require a 17m widening to the south and View Lake Road will require a 12m widening to the west.

**Township of Scugog
(Fire Prevention)**

- No comments.

**Township of Scugog
(Engineering)**

- The following reports/studies will be required:
 - **Functional Servicing Report**
 - **Stormwater Management Report with Low Impact Development strategies**
 - **Operations and Maintenance Manual for LID**
 - **ESC Drawings**
 - **Photometric/Streetlighting Plan**
 - **Grading Plan**
 - **Landscape Plan**
 - **Fill Management Plan and Construction Mitigation Plan**
 - **Cost Estimates (Required at the time of Subdivision Agreement)**
 - **Environmental Impact Study (EIS)**
 - **A Phase 1 Environmental Site Assessment (ESA)** may be required subject to the Region's review of the Site Screening Questionnaire.
 - **Utility Drawings**
 - Any additional drawings/reports at the discretion of the Township's peer engineer.

SUMMARY OF REQUIRED PLANS/REPORTS (MUST BE SIGNED BY A QUALIFIED PERSON):

Subdivision and Zoning By-law or Minor Variance Application Forms. A Zoning By-law Amendment would need to be accompanied by a Planning Justification Report and Draft Zoning By-law and Schedule and Site Plan.
Topographic Survey
Archaeological Assessment
Planning Justification Report
Site Screening Questionnaire / Phase 1 Environmental Site Assessment
Draft Plan of Subdivision
House Siting Plan
Site Grading and Servicing Plan
Environmental Impact Study (EIS)
Hydrological and Geotechnical Study
Functional Servicing Report
Stormwater Management Report
Operations and Maintenance Manual
ESC Drawings
Photometric/Streetlighting Plan
Grading Plan
Landscape Plan
Fill Management Plan
Cost Estimates
Utility Drawings
Number of Copies Required: All Reports and Large sets of Plans: 2 copies of each (large plans to be folded to 8.5 x 11) Reduced set of Plans (11X17): 1 copy of each set (folded in half) Electronic files (PDF) on a USB or via electronic file transfer Ensure dimension on plans are shown in metres.
Application and Agency Review Fees: Kawartha Conservation Authority (cheque payable to the Kawartha Conservation Authority and submitted to the Township as part of the complete application) Site Visit Fee - \$550 Region of Durham – Health Department (cheque payable to the Region of Durham Health Department and submitted to the Township as part of the complete application) Subdivision Review Fee - \$424 per lot Peer Review Examination Fee - \$293 for initial report, \$124 for follow-up reports. Township of Scugog (cheque payable to Township of Scugog)) Subdivision Comments - \$17,455 Township of Scugog Consulting and/or Peer Review Fees The Township will require the services of external consultant services (such as engineering, legal, and/or architect) as part of the review and approval process for this application. The Applicant will be invoiced for any associated consulting fees incurred by the Township. Additional Fees There will be additional fees associated with the required building permit application. Development charges will also be owed at the time of building permit issuance. Here is a link to the current Development Charge rates: https://www.scugog.ca/en/do-business/Development-Charges.aspx

***Notwithstanding the fees noted above, all fees are payable based upon the rate in the fee schedule by-law in effect on the date the application is received. Contact Township staff and**

Durham Region to confirm fees prior to application submission as the fees are subject to periodic review and change.

Please review these notes at your earliest convenience and advise of any errors or omissions. Please note that if applications are not filed within 12 months of the date of this letter, another pre-consultation meeting and checklist of complete application requirements may be required.

Please note that the Township Planning Act application process is subject to modification pending implementation of Bill 109. The applicant is requested to confirm the process prior to submission of any development application.

All submitted documents shall be in accessible format in accordance with O.Reg 191/11.

Appendix B

Flora List

Family	Scientific Name	Common Name	COSEWIC Status	SARA Status	SARO Status	NHIC Ranks			Coefficient of Conservatism	Coefficient of Wetness	Weediness Index	Durham Rank
						Global	Provincial	Exotic				
Aceraceae	<i>Acer negundo</i>	Manitoba Maple				G5	S5		0	0		
Aceraceae	<i>Acer platanoides</i>	Norway Maple				GNR	SNA	SE5		5	-3	
Aceraceae	<i>Acer saccharum</i>	Sugar Maple				G5	S5		4	3		
Aceraceae	<i>Acer x freemanii</i>	Freeman's Maple				GNA	SNA		6	-5		
Apiaceae	<i>Aegopodium podagraria</i>	Goutweed				GNR	SNA	SE5		0	-3	
Malvaceae	<i>Alcea rosea</i>	Hollyhock				GU	SNA	SE4		5	-1	
Brassicaceae	<i>Alliaria petiolata</i>	Garlic Mustard				GNR	SNA	SE5		0	-3	
Apocynaceae	<i>Asclepias syriaca</i>	Common Milkweed				G5	S5		0	5		
Betulaceae	<i>Betula papyrifera</i>	Paper Birch				G5	S5		2	3		
Poaceae	<i>Bromus inermis</i>	Smooth Brome				G5	SNA	SE5		5	-3	
Cyperaceae	<i>Carex pensylvanica</i>	Pennsylvania Sedge				G5	S5		5	5		
Bignoniaceae	<i>Catalpa speciosa</i>	Northern Catalpa				G4?	SNA	SE1		3	-1	
Onagraceae	<i>Circaea canadensis</i>	Broad-leaved Enchanter's Nightshade				G5	S5		2	3		
Cornaceae	<i>Cornus alternifolia</i>	Alternate-leaved Dogwood				G5	S5		6	3		
Poaceae	<i>Dactylis glomerata</i>	Orchard Grass				GNR	SNA	SE5		3	-1	
Apiaceae	<i>Daucus carota</i>	Wild Carrot				GNR	SNA	SE5		5	-2	
Equisetaceae	<i>Equisetum arvense</i>	Field Horsetail				G5	S5		0	0		
Asteraceae	<i>Erigeron philadelphicus</i>	Philadelphia Fleabane				G5	S5		1	-3		
Oleaceae	<i>Fraxinus americana</i>	White Ash				G5	S4		4	3		
Oleaceae	<i>Fraxinus pennsylvanica</i>	Red Ash				G5	S4		3	-3		
Rosaceae	<i>Geum aleppicum</i>	Yellow Avens				G5	S5		2	0		
Rosaceae	<i>Geum urbanum</i>	Wood Avens				G5	SNA	SE3		5	-1	
Lamiaceae	<i>Glechoma hederacea</i>	Ground-ivy				GNR	SNA	SE5		3	-2	
Brassicaceae	<i>Hesperis matronalis</i>	Dame's Rocket				G4G5	SNA	SE5		3	-3	
ASTERACEAE	<i>Hieracium sp.</i>	Hawkweed Species										
Hydrophyllac	<i>Hydrophyllum virginianum</i>	Virginia Waterleaf				G5	S5		6	0		
Fabaceae	<i>Hylodesmum glutinosum</i>	Large Tick-trefoil				G5	S4		6	5		U
Clusiaceae	<i>Hypericum perforatum</i>	Common St. John's-wort				GNR	SNA	SE5		5	-3	
Balsaminace	<i>Impatiens capensis</i>	Spotted Jewelweed				G5	S5		4	-3		
Juglandaceae	<i>Juglans cinerea</i>	Butternut	END	END	END	G3	S2?		6	3		
Juglandaceae	<i>Juglans nigra</i>	Black Walnut				G5	S4?		5	3		U
Asteraceae	<i>Lactuca serriola</i>	Prickly Lettuce				GNR	SNA	SE5		3	-1	
Pinaceae	<i>Larix laricina</i>	Tamarack				G5	S5		7	-3		
Lamiaceae	<i>Leonurus cardiaca</i>	Common Motherwort				GNR	SNA	SE5		5		
Asteraceae	<i>Leucanthemum vulgare</i>	Oxeye Daisy				GNR	SNA	SE5		5	-1	
Liliaceae	<i>Lilium lancifolium</i>	Lance-leaved Tiger Lily				GNR	SNA	SE1		5	-1	
Primulaceae	<i>Lysimachia nummularia</i>	Creeping Yellow Loosestrife				GNR	SNA	SE5		-3	-3	
Rosaceae	<i>Malus coronaria</i>	Sweet Crabapple				G5	S4		5	5		R1
Dryopteridac	<i>Matteuccia struthiopteris</i>	Ostrich Fern				G5	S5		5	0		
Boraginaceae	<i>Myosotis stricta</i>	Upright Forget-me-not				GNR	SNA	SE4		5	-1	
Dryopteridac	<i>Onoclea sensibilis</i>	Sensitive Fern				G5	S5		4	-3		
Oxalidaceae	<i>Oxalis stricta</i>	Upright Yellow Wood-sorrel				G5	S5		0	3		
Vitaceae	<i>Parthenocissus</i>	Virginia Creeper				G5	S4?		6	3		
Pinaceae	<i>Picea glauca</i>	White Spruce				G5	S5		6	3		
Pinaceae	<i>Picea pungens</i>	Blue Spruce				G5	SNA	SE1		3		

Pinaceae	<i>Pinus nigra</i>	Austrian Pine					GNR	SNA	SE3		5	-1	
Plantaginace	<i>Plantago lanceolata</i>	English Plantain					G5	SNA	SE5		3	-1	
Plantaginace	<i>Plantago major</i>	Common Plantain					G5	SNA	SE5		3	-1	
Poaceae	<i>Poa pratensis</i>	Kentucky Bluegrass					G5	S5		0	3		
Salicaceae	<i>Populus balsamifera</i>	Balsam Poplar					G5	S5		4	-3		
Salicaceae	<i>Populus tremuloides</i>	Trembling Aspen					G5	S5		2	0		
Rosaceae	<i>Prunus serotina</i>	Black Cherry					G5	S5		3	3		
Fagaceae	<i>Quercus rubra</i>	Northern Red Oak					G5	S5		6	3		
Rhamnaceae	<i>Rhamnus cathartica</i>	European Buckthorn					GNR	SNA	SE5		0	-3	
Anacardiacea	<i>Rhus typhina</i>	Staghorn Sumac					G5	S5		1	3		
Grossulariace	<i>Ribes aureum</i>	Golden Currant					G5	SNA	SE3		3		
Rosaceae	<i>Rubus idaeus</i>	Red Raspberry					G5	S5		2	3		
Rosaceae	<i>Rubus odoratus</i>	Purple-flowering Raspberry					G5	S5		3	5		
Polygonacea	<i>Rumex crispus</i>	Curled Dock					GNR	SNA	SE5		0	-2	
SALICACEAE	<i>Salix sp.</i>	Willow Species											
Solanaceae	<i>Solanum dulcamara</i>	Bittersweet Nightshade					GNR	SNA	SE5		0	-2	
ASTERACEAE	<i>Solidago sp.</i>	Goldenrod Species											
ROSACEAE	<i>Spiraea sp.</i>	Meadow-sweet Species											
Oleaceae	<i>Syringa vulgaris</i>	Common Lilac					GNR	SNA	SE5		5	-2	
Asteraceae	<i>Taraxacum officinale</i>	Common Dandelion					G5	SNA	SE5		3		
Cupressacea	<i>Thuja occidentalis</i>	Eastern White Cedar					G5	S5		4	-3		
Fabaceae	<i>Trifolium pratense</i>	Red Clover					GNR	SNA	SE5		3	-2	
Fabaceae	<i>Trifolium repens</i>	White Clover					GNR	SNA	SE5		3	-1	
Asteraceae	<i>Tussilago farfara</i>	Coltsfoot					GNR	SNA	SE5		3	-2	
Ulmaceae	<i>Ulmus americana</i>	White Elm					G4	S5		3	-3		
Scrophulariac	<i>Verbascum thapsus</i>	Common Mullein					GNR	SNA	SE5		5	-2	
Fabaceae	<i>Vicia cracca</i>	Tufted Vetch					GNR	SNA	SE5		5	-1	
Violaceae	<i>Viola sororia</i>	Woolly Blue Violet					G5	S5		4	0		
Vitaceae	<i>Vitis riparia</i>	Riverbank Grape					G5	S5		0	0		

LEGEND

SRANK

Provincial Status: Provincial ranks are used by the NHIC to set protection priorities for rare species and naturalcommunities. These ranks are not legal generally uncommon to common in the province. Species ranked S1-S3 are considered to be rare in Ontario. designations. S4 and S5 species are generally uncommon to common in the province. Species ranked S1-S3 are considered to be rare in Ontario.

- S1 Critically Imperiled

Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.
- S2 Imperiled

Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
- S3 Vulnerable

Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
- S4 Apparently Secure

Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5 Secure

Common, widespread, and abundant in the nation or state/province.

SU Unrankable	Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
SNA Unranked	A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SX Presumed Extirpated	Species or community is believed to be extirpated from the nation or state/province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
SH Possibly Extirpated (Historicorical)	Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.
SE# Exotic Status	
S#? Rank Uncertain	
Ontario Ministry of Natural Resources (OMNR). 2018. Natural Heritage Information Centre Species Lists. Last updated January 30, 2018. https://www.ontario.ca/page/get-natural-heritage-information	

COSSARO

END Endangered	A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's ESA.
THR Threatened	A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
SC Special Concern	A species with characteristics that make it sensitive to human activities or natural events.
DD Data Deficient	
EXP Extirpated	A species that no longer exists in the wild in Ontario but still occurs elsewhere.
Ontario Ministry of Natural Resources and Forestry (2018). Species Risk in Ontario. Last updated UNE 28, 2018. https://www.ontario.ca/environment-andenergy/species-risk-type	

COSEWIC

END Endangered	A wildlife species facing imminent extirpation or extinction.
THR Threatened	A wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
SC Special Concern	A wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.
VUL Vulnerable	
NAR Not at Risk	A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.
DD Data Deficient	A category that applies when the available information is insufficient (a) to resolve a wildlife species' eligibility for assessment or (b) to permit an assessment of the wildlife species' risk of extinction.
NA Non-active	
XT Extirpated	A wildlife species that no longer exists in the wild in Canada, but exists elsewhere.

Committee for the Status on Endangered Wildlife in Canada (COSEWIC). 2018. Canadian Wildlife Species at Risk. Last updated February 22, 2018. http://www.sararegistry.gc.ca/sar/index/default_e.cfm

Coefficient of Conservation

Higher values of the coefficients of conservatism, on the scale of 1–10, indicate species that are more “conservative” (or ecologically sensitive), including those least associated with anthropogenic disturbance, least aggressive, least able to spread, and most confined to particular natural habitat’ (Catling. Catling, Paul M. 2013. Using Coefficients of Conservatism and the Floristic Quality Index to assess the potential for serious and irreversible damage to plant communities. Canadian Field-Naturalist 127(3): 285–288.

Coefficient of Wetness

5 - Almost always occur on upland; 3 - Usually occur on uplands; 0 - Found on uplands and in wetlands; -3 Usually occur in wetlands; -5 Almost always occur in wetlands Floristic Assessment System for Southern Ontario (Oldham et al, 1995).

Appendix C

Species at Risk Screening

Appendix C: Species at Risk Screening

NAME	SARA STATUS	SARO	COSEWIC	SCHEDULE	S-RANK	HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	Potential Impacts and Mitigation
AVIFAUNA										
Black Tern (<i>Chlidonias niger</i>)	-	SC	Not at Risk	No Schedule	S3B,S4M	The Black Tern is a small shorebird that builds floating nests in loose colonies in shallow marshes, with a preference for cattails. The Black Tern is a species of special concern in Ontario due to population decline that is thought to be directly related to the loss of wetland habitat and anthropogenic influences in near shore areas of wetlands and shallow water bodies (i.e. fluctuations in water level, boat traffic, and wakes) (Ministry of Natural Resources and Forestry, 2015).	NHIC	N	Suitable habitat not present within the Subject Property.	None.
Bobolink (<i>Dolichonyx oryzivorus</i>)	THR	THR	SC	1	S4B	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).	NHIC	N	Suitable habitat not present within the Subject Property.	None.
Chimney Swift (<i>Chaetura pelagica</i>)	THR	THR	THR	1	S3B	The Chimney Swift is a threatened species which breeds in Ontario and winters in northwestern South America. It is found mostly near urban areas where the presence of chimneys or other manmade structures provide nesting and roosting habitat. Prior to settlement, the Chimney Swift would mainly nest in cave walls and hollow tress. The Chimney Swift initially benefitted from human settlement; however, recent declines in flying insects and the modernization of chimneys are factors attributed to their current population declines. As a threatened species, the Chimney Swift receives protection for both species and habitat under the ESA (Ministry of Natural Resources and Forestry, 2014).	BBA	N	The sole chimney on the Subject Proeprty is a small residential chimney and is considered too small to be potential habitat.	None.
Eastern Meadowlark (<i>Sturnella magna</i>)	THR	THR	THR	1	S4B,S3N	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).	NHIC	N	Suitable habitat not present within the Subject Property.	None.

Eastern Whip-poor-will (<i>Antrostomus vociferus</i>)	THR	THR	SC	1	S4B	Once widespread throughout the central Great Lakes region, distribution of the Eastern Whip-poor-will in this area is now fragmented. Although there is uncertainty about the causes of the population decline, the main threat is likely habitat loss and fragmentation. Additional threats may include car mortality and food supply changes related to pesticides and climate change. The Eastern Whip-poor-will is usually found in areas with a mix of open and forested areas, such as patchy forests with clearings, forests that are regenerating after major disturbances, savannahs, open woodlands or openings in more mature forests. Breeding habitat is dependent on forest structure rather than composition, although common tree associations are pine and oak, and it nests directly on the forest floor. Its distinctive call can be heard at dusk or dawn during the breeding season, and whip-poor-wills heard singing between mid-May and mid-July are likely local breeders (Committee on the Status of Endangered Wildlife in Canada, 2009).	BBA	N	No suitable habitat on the Subject Property	None.
Eastern Wood-Pewee (<i>Contopus virens</i>)	SC	SC	SC	1	S4B	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).	NHIC	P	The cultural woodland within the Subject Property may provide suitable habitat.	The woodland is proposed to be retained with a 15 m setback.
Grasshopper Sparrow (<i>Ammodramus savannarum</i>)	SC	SC	SC	1	S4B	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 (<i>Secale cereale</i>).	NHIC	N	Suitable habitat not present within the Subject Property.	None.
Henslow's Sparrow (<i>Ammodramus henslowii</i>)	END	END	END	1	S1B	Henslow’s Sparrow is found in large fields with tall grass, a dense litter layer, and standing dead vegetation. Continuous patches of grassland of at least 30 hectares are likely required to support Henslow’s sparrow populations, which nest and probably feed on the ground. This species is extremely rare in Ontario, and there have been no confirmed breeding occurrences in the province in many years. Habitat management programs have been undertaken in Ontario to increase the area of grassland through shrub removal and mowing. Due to their reproductive cycle, nest habits, and specialized habitat requirements, Henslow’s sparrow nests and young are particularly vulnerable to the loss and degradation of moist, grassy habitats (Committee on the Status of Species at Risk in Ontario (COSSARO), 2011).	NHIC	N	Suitable habitat not present within the Subject Property.	None.

Least Bittern (<i>Ixobrychus exilis</i>)	THR	THR	THR	1	S4B	The Least Bittern prefers marshes and swamps dominated by emergent vegetation, preferably cattails, interspersed with patches of woody vegetation and open water. The smallest member of the heron family, least bitterns nest in marshes south of the Precambrian Shield in Ontario. Due to the location of the nests close to the water surface, least bittern nests are susceptible to damage as a result of wakes cast by recreational boats (Government of Canada, 2015).	BBA	N	Suitable habitat not present within the Subject Property.	None.
Piping Plover (<i>Charadrius melodus</i>)	END	END	END	1	S1B	The Piping Plover is a small-bodied shorebird, which is well camouflaged against the pale-coloured sandy beaches and alkali flats that it prefers as habitat. Adults have a bold, dark breast band with a smaller band across the brow, a white underbelly, and pale sandy coloured plumage across the back body. They have a short, orange bill used to dig in the sand and gravel beaches for insects and crustaceans, where it spends its life, between the waterline and the edge of the beach environment. The piping plover breeds mainly along the Atlantic coast, Gulf coast, and western Great Lakes. Although not particularly common in Ontario, it is found along the shores of the Great Lakes, and in the Lake of the Woods in northwestern Ontario (Ministry of Natural Resources and Forestry, 2014). Populations of this species are threatened mainly by anthropogenic sources such as: shoreline development, recreation, altered water levels and shorelines, and from direct or unintentional harassment by humans and/or pets (Cornell University, 2015).	NHIC	N	Suitable habitat not present within the Subject Property.	None.
Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>)	END	END	END	1	S3	The Red-headed Woodpecker is a medium-sized bird, with black and white colouring and a bright red head, neck, and breast. Adults often return to the same nesting site year after year. Between May and June, adults often return to the same nesting site and females lay from three to seven eggs. Habitat for the birds includes open woodland and woodland edges, often near man-made landscapes such as parks, golf courses and cemeteries. The red-headed woodpecker is widespread across southern Ontario but rare (Ministry of Natural Resource and Forestry, 2014).	NHIC	P	The cultural woodland within the Subject Property may provide suitable habitat.	The woodland is proposed to be retained with a 15 m setback.
Wood Thrush (<i>Hylocichla mustelina</i>)	THR	SC	THR	1	S4B	The Wood Thrush is a species of Special Concern because of habitat degradation or destruction by anthropogenic development. The Wood Thrush is a medium-sized songbird, generally rusty-brown on the upper parts with white under parts and large blackish spots on the breast and sides, and about 20 cm long. The Wood Thrush forages for food in leaf litter or on semi-bare ground, including larval and adult insects as well as plant material. They seek moist stands of trees with well-developed undergrowth in large mature deciduous and mixed (conifer-deciduous) forests. The Wood Thrush flies south to Mexico and Central America for the winter (Ministry of Natural Resources and Forestry, 2014).	NHIC	N	The cultural woodland is considered too small to provide suitable habitat.	None.
HERPTILES										
Northern Map Turtle (<i>Graptemys geographica</i>)	SC	SC	SC	1	S3	The northern map turtle is a medium sized turtle with a carapace marked by concentric rings that resemble contour lines on a map. The range of this turtle includes larger lakes and rivers that contain an abundance of their primary prey species; molluscs. Shoreline development, water pollution and the spread of the zebra mussel are notable reasons for the decline in populations of this species (Ministry of Natural Resources and Forestry, 2014).	reptile atlas	N	Rivers and lakes are not present within the Subject Property. Therefore, suitable habitat is not present within the Subject Property.	None.

MAMMALS	
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Tri-colored Bat (<i>Perimyotis subflavus</i>)	END	END	END	1	S3?	Tri-colored Bat is a small bat that is widely distributed in eastern North America and whose range extends north to southern Ontario. Tri-colored Bat 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. Tri-colored Bat 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	P	The cultural woodland may provide potential habitat for SAR bats.	The woodland is proposed to be retained with a 15 m setback.
Eastern Small-footed Myotis (<i>Myotis leibii</i>)	No Status	END	No Status	No Schedule	S2S3	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 myotis’ 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 myotis 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	P	The cultural woodland may provide potential habitat for SAR bats.	The woodland is proposed to be retained with a 15 m setback.
Little Brown Myotis (<i>Myotis lucifugus</i>)	END	END	END	1	S3	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 myotis 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 myotis 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	P	The cultural woodland may provide potential habitat for SAR bats.	The woodland is proposed to be retained with a 15 m setback.
Northern Myotis (<i>Myotis septentrionalis</i>)	END	END	END	1	S3	Northern myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Northern myotis 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 myotis can be found in boreal forests but occurs throughout southern Ontario to the north shore of Lake Superior and occasionally as far north as Moosonee. roosting under loose bark and in the cavities of trees. Northern Myotis roosts within tree crevices, hollows and under the bark of live and dead trees, particularly when trees are located within a forest gap. 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	P	The cultural woodland may provide potential habitat for SAR bats.	The woodland is proposed to be retained with a 15 m setback.
OTHER										

Monarch Butterfly (<i>Danaus plexippus</i>)	END	SC	END	1	S2N,S4B	The monarch is an orange and black butterfly with small white spots and is classified as a species of special concern by COSSARO. The monarch relies on milkweed plants as a food source for growing caterpillars, but the adult butterflies forage in diverse habitats for nectar from wildflowers. The greatest threat to the monarch is loss of overwintering habitat in Mexico. Other threats include use of pesticides and herbicides throughout its range (Ministry of Natural Resources and Forestry, 2014).	Ontario Butterfly Atlas	N	No habitat features such as abundant nectar species such as Milkweed were observed on the Subject Property, and the potential for these species is considered very limited. Species was not recorded during 2024 surveys.	None.
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Notes:
SC - Special Concern
THR - Threatened
END - Endangered
S1 - Extremely rare in Ontario
S2 - Very rare in Ontario
S3 - Rare to uncommon in Ontario
S4 - Considered to be common in Ontario
S5 - Species is widespread in Ontario
SH - Possibly extirpated
S#S# - Indicates insufficient information exists to assign a single rank.
S#? - Indicates some uncertainty with the classification due to insufficient data.
S#N - Nonbreeding
S#B - Breeding
Y= Yes, P = Potential, N = No

Appendix D

Significant Wildlife Habitat Screening

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/P/N)	Rationale
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	CUM or CUT is not present within the Subject Property. Therefore, SWH is not present.
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	Marshes, swamps and other water features are not present within the Subject Property. Therefore, SWH is not present.
Shorebird Migratory Stopover Area	Shorebirds	Beaches, Dunes, Meadow Marshes	Shorelines. Sewage treatment ponds and storm water ponds not SWH.	N	Beaches, dunes and meadow marshes are not present within the Subject Property. Therefore, SWH is not present.
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	The cultural woodland onsite is not adjacent to meadow or open water and does not meet the size threshold. Therefore, SWH is not present.
Bat Hibernacula	Big Brown Bat, Tri-coloured Bat	Caves, Crevices, mines, karsts	Buildings and active mine sites not SWH.	N	Caves, crevices and karsts are not present within the Subject Property. Therefore, SWH is not present.
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	The cultural woodland is less than 10 ha. Therefore, SWH is not present.
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	Open water is not present within the Subject Property. Therefore, SWH is not present.
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	Rock outcrops, stone fences, shrubby swamps etc. are not present within the Subject Property. Therefore, SWH is not present.

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	Banks, sandy hills and cliff faces are not present within the Subject Property. Therefore, SWH is not present.
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	Swamp and fen communities are not present within the Subject Property. Therefore, SWH is not present. No heron or egret nests seen.
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	Peninsulas, watercourses are not present within the Subject Property. Therefore, SWH is not present. The Subject Property is out of range for Brewer's Blackbird.
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	The Subject Property is located >5 km away from Lake Ontario. Therefore, SWH is not present.
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	Forest and swamp areas >10 ha are not present within the Subject Property. The Subject Property is also >5 km away from Lake Ontario. Therefore, SWH is not present.
Deer Yarding Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	Deer Yarding areas was not indicated by MNRF data. Therefore, SWH is not present.
Deer Winter Congregation Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	Deer Winter Congregation areas was not indicated by MNRF data. Therefore, SWH is not present.
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	Cliffs and Talus slopes are not present within the Subject Property. Therefore, SWH is not present.
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	Sand Barrens are not present withn the Subject Property. Therefore, SWH is not present.

Alvar	<i>Carex crawei</i> , <i>Panicum philadelphicum</i> , <i>Eleocharis compressa</i> , <i>Scutellaria parvula</i> , <i>Trichostema brachiatum</i> , Loggerhead Shrike	ALO1, ALS1, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2	Alvar >0.5 ha. Need 4 of the 5 Alvar Indicator Spp. <50% vegetation cover are exotic species.	N	Alvars are not present within the Subject Property. Therefore, SWH is not present.
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	The woodland on the Subject Property is not old growth.
Savannah	Prairie Grasses w/ trees	TPS1, TPS2, TPW1, TPW2, CUS2	A Savannah is a <u>tallgrass prairie</u> habitat that has tree cover of 25 – 60%. <50% cover of exotic species.	N	Savannahs are not present within the Subject Property. Therefore, SWH is not present.
Tallgrass Prairie	Prairies Grasses dominate	TPO1, TPO2	An <u>open Tallgrass Prairie</u> habitat has < 25% tree cover. Less than 50% cover of exotic species.	N	Tallgrass Prairies are not present within the Subject Property. Therefore, SWH is not present.
Other Rare Vegetation Communities		Provincially Rare S1 - S3 veg. comm. are listed in Appendix M of SWHTG.	Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps.	N	Rare vegetation communities are not present within the Subject Property. Therefore, SWH is not present.
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	Open water wetlands are not present within or adjacent to the Subject Property. Therefore, SWH is not present.
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	Associated ELC ecosites (FOD,FOM, SWM etc) are not present within the Subject Property. Therefore, SWH is not present. No large stick nests were observed.
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	Large forest, swamp and conifer plantations are not present within the Subject Property. Therefore, SWH is not present.
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	Wetland communities are not present within or adjacent to the Subject Property. Therefore, SWH is not present.
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	Seeps and springs were not observed within the Subject Property during field surveys. Therefore, SWH is not present.

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	Open water wetlands or ponds are not present within or adjacent to the Subject Property. Therefore, SWH is not present.
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	Open water and wetland communities are not present within the Subject Property. Therefore, SWH is not present.
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	Large mature forests >30 ha are not present within the Subject Property. Therefore, SWH is not present.
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	Wetland and open water communities are not present within the Subject Property. Therefore, SWH is not present.
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	Meadow communities are not present within the Subject property. Therefore, SWH is not present.
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	Field areas are actively used for farming or mowed . Therefore, SWH is not present.
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	Meadow and wetland communites are not present within the Subject Property. Therefore, SWH is not present.
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.	P	Eastern Wood-Pewee (Special Concern) potentially occurs on the property. No other rare or Special Concern species are known to occur, and are not expcted to occur, but could potentially.
Animal Movement Corridors					

Amphibians	Amphibians	all ecosites assoc. w/ water	When Breeding Habitat - wetland confirmed	N	Breeding amphibian habitat is not confirmed within the Subject Property. Therefore, SWH is not present.
Deer Movement	White-tailed Deer	all forested ecosites	When Deer Wintering Habitat confirmed	N	Deer Wintering Habitat is not confirmed within the Subject Property. Therefore, SWH is not present.
Exceptions for Ecoregion 6E					
Mast Producing: 6E-14	Black Bear	Forested Ecosites	>30 ha w/ mast producing species: Cherry (berries), Oak, Beech (nuts).	N	Not in Eco-district 6E-14, and forest ecosites with mast producing species is not present within the Subject Property. Therefore, SWH is not present.
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	Not in Ecodistrict 6E-17, nor within range of Sharp-tailed Grouse. Therefore, SWH is not present.