

Scoped Environmental Impact Study 7230 Lundy's Lane, Niagara Falls

Prepared For:

1000462328 Ontario Inc.

Prepared By:

Beacon Environmental Limited

Date:

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Project:

219502



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GUIDING SOLUTIONS IN THE NATURAL ENVIRONMENT

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Report Versions Issued

Version	Date	Revisions
1.	March 2024	First submission

1. Introduction

Beacon Environmental Limited (Beacon) was retained by 1000462328 Ontario Limited to prepare a Scoped Environmental Impact Study (EIS) in support of a proposed development for lands located at 7230 Lundy's Lane in the City of Niagara Falls (hereafter, the "subject property"; **Figure 1**).

Portions of the subject property are designated as a Natural Heritage System (NHS) in the Niagara Region Official Plan and an Environmental Conservation Area (ECA) in the City of Niagara Falls Official Plan. An EIS is required for development proposed within or adjacent to the Natural Heritage System to demonstrate that, over the long term, there will be no significant negative impact on natural heritage features or their functions.

This Scoped EIS characterizes the natural heritage features and functions associated with the subject property based on background information sources and scoped field investigations, assesses potential impacts on the natural heritage features, and recommends appropriate mitigation measures to avoid, minimize, or off-set impacts to the natural heritage features and functions. The Scoped EIS also examines the proposed development in the context of the applicable provincial and municipal natural heritage policies and regulations to ensure that the development is policy compliant.

This Scoped EIS follows the EIS Terms of Reference which were established in consultation with the Niagara Region staff. The EIS Terms of Reference and comments from Regional staff are included in **Appendix A**.

2. Policy Review

The following is a summary of the key provincial and municipal natural heritage policies that apply to the subject property.

2.1 *Endangered Species Act (2007)*

The Ontario *Endangered Species Act* (ESA) provides legal protection to endangered and threatened species and their habitats in Ontario.

When a species is listed as endangered or threatened, its general habitat is automatically protected. General habitat includes areas or features that the species requires to carry out its life processes. A specific habitat regulation may be developed based on an approved Recovery Strategy for a species. The specific habitat regulation replaces the general habitat protection and is then regulated under the (ESA).

Where threatened or endangered species occur, development or site alteration must comply with the requirements of the ESA. If an activity will impact a threatened or endangered species or its habitat, then the activity must be authorized by the Ministry of the Environment, Conservation, and Park (MECP). In some cases, a permit may be required to undertake an activity, and sometimes a Notice of

Activity may be registered with the MECP. The regulation provides exemptions for some species and certain types of activities.

2.2 Provincial Policy Statement (2020)

Under the *Planning Act* (1990), municipalities are required to conduct land use planning in a manner that is consistent with the policies of the Provincial Policy Statement (PPS) (MMAH, 2014). The PPS contains policies related to the protection of natural heritage features and functions, as well as natural hazards.

Under Section 2.1 of the PPS, no development or site alteration is permitted within:

- a) *Habitat of Endangered and Threatened species;*
- b) *Significant wetlands south of the Canadian Shield; and*
- c) *Significant coastal wetlands.*

Development or site alteration may be permitted within the following features if has been demonstrated (typically through an Environmental Impact Study (EIS) or a comparable technical study) that there will be no negative impacts on the natural features or their ecological functions:

- a) *Significant wetlands north of the Canadian Shield;*
- b) *Significant Woodlands south and east of the Canadian Shield;*
- c) *Significant valleylands south and east of the Canadian Shield;*
- d) *Significant wildlife habitat; and*
- e) *Significant Areas of Natural and Scientific Interest (ANSIs).*



Furthermore, consistent with Policy 2.1.6 of the PPS, no development is permitted on lands adjacent to the features listed above unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

Each of these features is afforded varying levels of protection subject to guidelines, and in some cases, regulations. Of these features, Provincially Significant Wetlands (PSWs) are identified by the Ministry of Natural Resources and Forestry (MNRF) and Significant Woodlands are identified by the upper or lower tier municipality (i.e., in this case the Region of Niagara and City of Niagara Falls). Significant habitat of endangered or threatened species is approved by the MECP if a species is identified through existing information and confirmed on a property through site specific investigation. Fish habitat is governed by Fisheries and Oceans Canada (DFO). The identification and regulation of the remaining features is the responsibility of the municipality or other planning authority. Where features have been identified at the Provincial, Regional or local levels, verification and some level of refinement may be required on a site-specific basis.

2.3 Regional Municipality of Niagara Official Plan (2022)

Section 3 of the Niagara Region Official Plan details the policies regarding the Natural Environment System within the Niagara Region, which is comprised of a NHS and a Water Resource System.



Site Location		Figure 1	
7230 Lundy's Lane EIS			
		Project: 219502 Last Revised: February 2024	
Client: 1992334 Ontario Limited		Prepared by: BD Checked by: DW	
	1:5,300	Inset Map: 1:50,000	
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The NHS includes wetlands, valleylands, wildlife habitat, and components such as supporting features and areas, linkages, buffers, and enhancement areas.

The NHS is presented in Schedule C1 of the Regional Official Plan and individual features and components of the Natural Environment System are presented in Schedule C2. Components and features of the Natural Environment System illustrated in Schedule C2 include:

- Significant woodlands;
- Other woodlands;
- Provincially significant wetlands;
- Other wetlands and non-provincially significant wetlands;
- Life science areas of natural and scientific interest;
- Earth science areas of natural and scientific interest;
- Permanent and intermittent streams;
- Inland lakes; and
- Linkages.

Key hydrologic areas are part of the Natural Environment System and are mapped as a separate overlay on Schedule C3. Hydrological features identified on Schedule C3 include:

- Shoreline areas;
- Significant Groundwater Recharge Areas;
- Highly Vulnerable Aquifers; and
- Permanent and intermittent streams.

Other features and components of the Natural Environmental System for lands outside of the Provincial NHS and the Niagara Escarpment Plan Area listed in Schedule L of the Regional Official Plan that are not individually mapped on Schedules C2 or C3 include:

- Significant Valleylands;
- Significant Wildlife Habitat;
- Habitat of Threatened and Endangered Species;
- Seepage Areas and Springs;
- Significant Surface Water Contribution Areas;
- Supporting Features and Areas;
- Minimum and Mandatory Buffers, Vegetation Protection Zones;
- Setbacks to regulated features/areas in accordance with Niagara Peninsula Conservation Authority (NPCA) policies; and
- Hazardous lands associated with flooding and erosion.

Not all of the features and components of the natural environment system have been mapped in the Regional Official Plan. Additional features may be identified through area-specific or site-specific studies such as an EIS, hydrological evaluation, or subwatershed study.

Changes to the limits or classification of individual features or components of the natural environment system identified through Regional criteria may be considered based on the findings of EIS, hydrological evaluation, or subwatershed study approved by the Region.

Portions of the subject property are identified as Significant Woodland and Other Woodland on Schedule C2 of the Regional Official Plan.

The subject property is subject to the policies of Section 3.1.9 pertaining to lands outside of a Provincial NHS and outside of the Niagara Escarpment Plan Area.

Per Policy 3.1.9.6.1, development and site alteration is not permitted in provincially significant wetlands, significant coastal wetlands, or significant woodlands.

Per Policy 3.1.9.6.2 development and site alteration may be permitted in the following in the following natural heritage features and areas if it has been demonstrated through the preparation of an EIS that there will be no negative impacts on the natural features or their ecological functions:

- Other woodlands;
- Significant valleylands;
- Significant wildlife habitat; and
- Areas of natural and scientific interest.

Per Policy 3.1.9.8.1, a proposal for new development or site alteration adjacent to a natural heritage feature or area requires an EIS and/or hydrological evaluation to determine that there will be no negative impacts on the feature or its ecological and/or hydrological functions.

Per Policy 3.1.9.10.1, within settlement areas, mandatory buffers from natural heritage features and areas are required. The width of an ecologically appropriate buffer must be determined through an EIS and/or hydrological evaluation.

Per Policy 3.1.9.10.2, development or site alteration is not permitted in the mandatory buffer unless it has been demonstrated through an EIS that there will be no negative impacts and the buffer will continue to provide the ecological function for which it was intended.

Per Policy 3.1.13.1, development or site alteration is not permitted in habitat of endangered or threatened species, except in accordance with Provincial and Federal requirements.

Policies 3.1.15 and 3.1.16 refer to “supporting features and areas” and “enhancement areas”, which may be considered for inclusion within the Natural Environment System.

Per Policy 3.1.15.1:

Supporting features and areas are lands that have been restored or have the potential of being restored, and include:

- a. grasslands, thickets, and meadows that support the ecological functions of adjacent key natural heritage features, key hydrologic features, and/or natural heritage features and areas;*
- b. valleylands, which includes lands that may have ecological and/or hydrologic functions, that are not significant valleylands, and are not the site of a permanent or intermittent stream that is regulated by the Conservation Authority;*
- c. wildlife habitat that is not considered to be significant wildlife habitat; and*
- d. enhancement areas, which are the subject of Section 3.1.16 of this Plan.*

Policy 3.1.15.3 states:

If supporting features and areas are identified through an environmental impact study, hydrological evaluation, or subwatershed study an evaluation shall determine:

- a. the extent of the supporting feature or area along with its ecological functions and relationship to nearby key natural heritage features, key hydrologic features and/or natural heritage features and areas;*
- b. whether the supporting feature or area should be protected because it supports the ecological and/or hydrologic functions of nearby key natural heritage features, key hydrologic features and/or natural heritage features and areas; and*
- c. conditions to be attached to the approval of the proposed development or site alteration.*

Policy 3.1.16.1 states:

Enhancement areas are intended to consist of natural self-sustaining vegetation that increase the ecological resilience and function of individual key natural heritage features, key hydrologic features and/or natural features and areas, or groups of such features, by:

- a. increasing the size of key natural heritage features, key hydrologic features and/or natural heritage features and areas;*
- b. connecting key natural heritage features, key hydrologic features and/or natural heritage features and areas to create larger contiguous natural areas;*
- c. improving the shape of key natural heritage features, key hydrologic features and/or natural heritage features and areas to increase interior habitat conditions;*
or
- d. including critical function zones and important catchment areas for sustaining ecological functions.*

Per 3.1.16.3, to determine if enhancement areas should be identified within or adjacent to a feature, an evaluation shall be completed that assesses the potential ecological benefit of an enhancement area, considers an appropriate shape and size of an enhancement area for ecological benefit, considers how the enhancement area can be incorporated into the design and layout of the proposed development; and assesses potential compatible uses within the enhancement area (e.g. stormwater management).

2.4 City of Niagara Falls Official Plan (1993, Office Consolidation 2024)

Schedules A and A1 with its appendices IIIA to IIIE of The City of Niagara Falls Official Plan identifies Environmental Protection Areas (EPA) and Environmental Conservation Areas (ECA) as well as natural corridors, linkages, water resources, municipal drains and other natural heritages features. The EPA designation applies to Provincially Significant Wetlands, NPCA regulated wetlands greater than 2 ha in size, Provincially Significant Life Science ANSIs, significant habitat of threatened and endangered species, floodways and erosion hazard areas and environmentally sensitive areas.

Within the City, the ECA designation includes significant woodlands, significant valleylands, significant wildlife habitat, fish habitat, significant Life and Earth Science ANSIs, sensitive ground water areas, and locally significant wetlands or NPCA wetlands less than 2 ha in size.

Section 11.2 details development policies for EPA and ECA. Development or site alteration is generally not permitted in the EPA, except where it has been approved by the NPCA or other appropriate authority. Within ECA, limited development, including minor expansions to an existing legal use or a single-family residential development on an existing lot of record, may be permitted provided it can be demonstrated through an EIS that there will be no negative impact on a natural heritage feature or its ecological function.

The ECA designation provides protection for natural heritage features but recognizes that the extent of the designation may be further refined through on-site study (e.g. EIS). If it has been demonstrated through an EIS that an area currently designated ECA does not meet the criteria for that designation, then the policies of the adjacent land use designation will apply (policy no. 11.2.27).

Portions of the subject property are identified as ECA (significant woodland) in the City's Official Plan, which correspond with the areas mapped as ECA in the Region's Official Plan.

3. Methodology

3.1 Background Review

Background information was gathered and reviewed for the subject property and adjacent lands. This involved consideration of the following documents or information sources:

- Provincial Policy Statement (2020);
- Niagara Region Official Plan (2022);
- City of Niagara Falls Official Plan (January 2024 consolidation);
- Niagara Region Environmental Impact Study Guidelines, Version 2 (January 2018);
- NPCA Watershed Explorer website;
- Natural Heritage Information Centre (NHIC) on-line database;
- Current and historic aerial imagery;
- Ontario Reptile and Amphibian Atlas;
- Ontario Breeding Bird Atlas;
- Ontario Mammal Atlas;
- Government of Ontario Species at Risk website (<https://www.ontario.ca/page/species-risk>);
- Species at risk range maps <https://www.ontario.ca/environment-and-energy/species-risk-ontario-list>; and
- Natural and physical feature layers from LIO—these geospatial layers include wetlands (provincially significant and un-evaluated wetlands), and watercourses with thermal regime.

3.2 Field Investigations

Beacon ecologists undertook seasonal field investigations on the subject property in 2019 and 2020. Seasonal surveys included a floral inventory, vegetation community classification, and breeding bird surveys, and bat habitat assessment. An additional survey was conducted in 2023 to update the floral inventory and vegetation community classification. Incidental wildlife observations were also noted. A

summary of the seasonal field visits and survey dates is presented in **Table 1**. More detailed survey descriptions are provided in the subsections that follow.

Table 1. Summary of 2020 - 2023 Field Investigations

Field Investigation	Dates
Breeding Amphibian Surveys	May 20 and June 8, 2020
Breeding Bird Surveys	June 3 and 17, 2020
Ecological Land Classification and Flora	November 19, 2019; April 8, May 22, June 26, August 12, September 23, 2020; and August 11 and September 6, 2023
Other Wildlife (Incidental Observations)	April 8, May 22, June 26, 2020
Bat Habitat Assessment	April and June 2020
Woodland Staking	September 6, 2023

3.2.1 Vegetation

3.2.1.1 Vegetation Communities and Flora

Vegetation communities on the subject property were mapped and described following the protocols of the Ecological Land Classification (ELC) system for Southern Ontario (Lee *et al.* 1998). This involved delineating vegetation communities on aerial photos of the property and recording pertinent information on the community structure and composition.

A list was compiled of all flora species observed on the property.

3.2.2 Wildlife Habitat

3.2.2.1 Breeding Bird Surveys

Two breeding bird surveys were conducted for the subject property in the mornings of June 3 and 17, 2020 with start times of 0700, and 0615 hrs. respectively, while the temperature was within 5° C of normal, it was not raining, nor excessively windy. The breeding bird community was surveyed using a roving type survey, in which all parts of the subject property were walked to within 50 m and all birds heard or observed and showing some inclination toward breeding were recorded as breeding species. All birds heard and seen were recorded in the location observed on an aerial photograph of the site.

3.2.2.2 Amphibians and Reptiles

A nocturnal call survey is the primary method for identifying breeding habitat for anurans (frogs and toads). Surveys focussed on seasonal wet depressions. Weather details (i.e., air temperature, precipitation, wind speed, and cloud cover) at the time of survey were recorded (see **Table 2**). Surveys were conducted using the point count method whereby the surveyor stands at a set point for a specific period of time and record all species that can be heard calling over that time from within a 100 m radius sample area. Each survey station was surveyed for a minimum of three minutes. The approximate

locations of calling anurans were noted and chorus activity for each species was assigned a call code as follows:

- Code 0 – no calls;
- Code 1: individual calls do not overlap and calling individuals can be discretely counted;
- Code 2: calls of individuals sometimes overlap, but numbers of individuals can still be estimated; or
- Code 3: overlap among calls seems continuous (full chorus), and a count estimate is impossible.

Table 2. 2020 Anuran Survey Details

Details	Survey Round 1	Survey Round 2
Date:	May 20, 2020	June 8, 2020
Start time:	21:19	21:34
Temp (°C):	18	21
Wind (Beaufort scale)*:	0-1	0
Cloud cover (%):	<10	<10
Precipitation	None	None

An early spring (March/April) survey was not undertaken for this site. Wood frogs typically call through March and April (to early May); however, given that the subject property is isolated within a heavily urbanized area, the likelihood of Wood Frog being present is very low. The vast majority of species call between May and June; therefore, the later spring surveys are critical for identifying most anurans.

While conducting other surveys (ELC, flora, breeding birds), informal surveys for snakes were undertaken by turning over potential cover objects (e.g. logs, anthropogenic debris) and the property was examined for the presence of potential snake hibernacula (e.g. hollow stumps, rock piles, old foundations).

3.2.2.3 Bats

Several bat species are listed as endangered in Ontario, including Eastern Small-footed Myotis (*Myotis leibii*), Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*). These species over-winter in caves and mines. Maternal roosts are often associated with cavity trees and sometimes old buildings (e.g., attics).

The *Survey Protocol for Species at Risk Bats within Treed Habitats Little Brown Myotis, Northern Myotis & Tri-Colored Bat* (MNR 2017) includes three steps for identifying habitat of Endangered bats:

- Step 1: Complete ELC mapping to determine if any coniferous, deciduous or mixed wooded ecosite, including treed swamps, that includes trees at least 10 cm diameter-at-breast height (dbh) are present. If suitable habitat is to be impacted by a proposed activity, project proponents should proceed to step 2.

- Step 2: Conduct surveys for suitable bat maternity roost trees within the coniferous, deciduous or mixed wooded ecosites. Trees with cavities, loose bark, and/or cracks may support maternity roost habitat for Little Brown Myotis and Northern Myotis (MNRF 2017). In addition, according to the MNRF guidelines (2017), oak trees and, to a lesser extent, maple trees are preferred habitat for Tri-colored Bat and the following trees should be documented:
- Any oak tree >10cm DBH;
 - Any maple tree >10cm DBH if the tree includes dead/dying leaf clusters; and
 - Any maple tree >25cm DBH.
- Step 3: Conduct acoustic surveys within each ELC ecosite determined to be suitable maternity roost habitat in Step 1 to confirm presence/absence of Endangered bat species. The optimal locations of acoustic detectors within the ELC communities are determined based on the data collected in Step 2.

Based on ELC mapping, the subject property supports wooded areas comprised of several woodland community types (**Figure 2**). Snag surveys (Step 2) were conducted in April 2020, which confirmed the presence of potential maternity roost trees on the property associated with ELC unit 1a and 1b.

Acoustic monitoring was conducted between June 1 and June 15, 2020, to determine if endangered bats are associated with the subject property. Eleven SM4BAT passive monitors, equipped with a SMM-U1 ultrasonic, omni-directional, microphone was installed in ELC units 1a and 1b. The microphones were deployed at least 2.5 m above the ground and were oriented to optimize echolocation detections. The monitor was programmed to record during triggered events each night for a period of six hours beginning at half an hour before sunset. A 12dB gain setting was used based on the SMM-U1 microphone, the surrounding habitat and proximity to potential roost trees. The unit was programmed to record with a 256 kHz sample rate and the high pass filter was set to 16 kHz to eliminate low frequency noise but to still capture the lowest frequency bat calls (e.g., Hoary Bat for the study area). All files were recorded as full spectrum in .WAV format. Recordings from the detectors were analyzed using Kaleidoscope software.

4. Existing Conditions

4.1 Soils and Topography

The subject property is relative flat, sloping gently to the south. Quaternary mapping (OGS 1997) indicates that the property overlies glaciolacustrine deposits of silt and clay.

4.2 Vegetation Communities

The subject property supports a number of woodland features, small thickets, and cultural meadows. Vegetation communities are illustrated in **Figure 2**.

ELC Unit 1: Dry-Fresh Sugar Maple-Oak Deciduous Forest (FOD5-3)

The subject property supports a mature deciduous forest community classified as a Dry-Fresh Sugar Maple-Oak Deciduous Forest (FOD5-3) (**Photograph 1**). This community is dominated by Sugar Maple (*Acer saccharum*) in association with Red Oak (*Quercus rubra*), Black Walnut (*Juglans nigra*), Basswood (*Tilia americana*), and Black Cherry (*Prunus serotina*). The subcanopy is dominated by White Ash (*Fraxinus americana*) and Sugar Maple. The understory consists of White Ash, Choke Cherry (*Prunus virginiana*), and Sugar Maple. Dominant ground covers are Thicket Creeper (*Parthenocissus vitacea*), Poison Ivy (*Toxicodendron rhydbergii*), Rosy Sedge (*Carex rosea*), Enchanter's Nightshade (*Circea lutetiana*), Yellow Trout-lily (*Erythronium americanum*), Garlic Mustard (*Alliaria 10etiolate*), and May-Apple (*Podophyllum peltatum*).

ELC Unit 2: Fresh-Moist Poplar Deciduous Forest (FOD8-1)

This woodland community is a young stand of Trembling Aspen (*Populus tremuloides*) with rare occurrences of Black Walnut, Red Oak, Red Maple (*Acer rubrum*), and Eastern Cottonwood (*Populus deltoides*). The understory consists of Gray Dogwood (*Cornus racemosa*), Tatarian Honeysuckle (*Lonicera tatarica*), Multiflora Rose (*Rosa multiflora*), and Privet (*Ligustrum vulgare*). Dominant ground covers are White Avens (*Geum canadense*), Thicket Creeper, Enchanter's Nightshade, and Poison Ivy.

ELC Unit 3: Mineral Cultural Thicket (CUT1)

There are a number of small shrub features dominated by Gray Dogwood, in association with Common Buckthorn (*Rhamnus cathartica*), Tatarian Honeysuckle, willows, Trembling Aspen, and Privet. Ground covers are sparse but include Thicket Creeper, Tall Goldenrod (*Solidago altissima*), asters (*Symphyotrichm* spp.), Fowl Manna Grass (*Glyceria striata*), and Enchanter's Nightshade.

ELC Unit 4: Cultural Meadow (CUM1)

This meadow community is dominated by various non-native grasses and ruderal forbs such as Ox-eye Daisy, Curly Dock (*Rumex crispus*), Yellow Rocket (*Barbarea vulgaris*), Common Evening Primrose (*Oenothera biennis*), and Annual Fleabane (*Erigeron annuus*). The area contains scattered trees and small clumps of trees, including Sugar Maple, Red Maple, Eastern Cottonwood, Black Walnut, and Black Cherry. This meadow is periodically mowed as part of the property maintenance regime. The meadow contains two small, seasonally wet depressions toward the south end of the subject property, which are dry and vegetated in the summer and not readily distinguishable from the meadow.



Legend

- ▭ Subject Property
- ▭ ELC Communities
- Staked Dripline
- Watercourse (MNRF 2023)

Unit	Code	Community Description
1	FOD5-3	Dry - Fresh Sugar Maple - Oak Deciduous Forest
2	FOD8-1	Fresh - Moist Poplar Deciduous Forest
3	CUT1	Mineral Cultural Thicket
4	CUM1	Mineral Cultural Meadow

Existing Conditions

Figure 2

7230 Lundy's Lane EIS



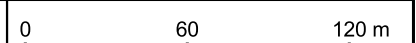
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Prepared by: BD
Checked by: DW



1:2,800



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Photograph 1. Dry-Fresh Sugar Maple-Oak Deciduous Forest (FOD5-3) June 2020

4.3 Flora

A total of 146 species of vascular plants were identified on or immediately adjacent to the subject property. Of these, 54 (37%) are non-native to Ontario. Of the 92 native species, 78 have a provincial conservation status rank of S5 (secure), 12 are S4 (apparently secure) and two are S4/S5 (secure/apparently secure). No provincial species of conservation concern (S1-S3) were found on the property.

No regionally rare species were observed; however, five regionally uncommon species were noted on the property. A complete plant list with conservation status is included in **Appendix B**.

4.4 Breeding Birds

A total of 25 species of breeding birds were recorded on the subject property during the 2020 breeding season (**Appendix C**). This avian diversity is reflective of the habitat diversity at this location, discussed in the preceding section which includes forest, thickets, and meadow.

The majority of breeding records are common species regularly found in urbanizing areas including the following species, of which three or more breeding pairs were recorded: American Robin (*Turdus migratorius*), Gray Catbird (*Dumetella carolinensis*), Song Sparrow (*Melodia melodpiza*), Northern Cardinal (*Cardinalis cardinalis*) and Blue Jay (*Cyanocitta cristata*).

A number of breeding birds typically associated with forested habitats were encountered. These species include Red-tailed Hawk (*Buteo jamaicensis*), Great-crested Flycatcher (*Myarchis crinitus*), Eastern Wood-pewee (*Contopus virens*) and Red-eyed Vireo (*Vireo olivaceus*). One pair of each of these woodland species was recorded. Species often associated with habitat edges were present in the transition zones or woodland edges as well, such as Indigo Bunting (*Passerina cyanea*) and Baltimore Oriole (*Icterus galbula*).

A number of species typically closely associated with moist thicket habitats were also noted and these included Red-winged Blackbird (*Agelaius phoeniceus*), Gray Catbird (*Dumetella carolinensis*), Common Yellowthroat (*Geothlypis trichas*) and Willow Flycatcher (*Empidonax traillii*).

Area-sensitive birds are those that require larger tracts of suitable habitat in which to breed or are those that have a higher breeding success in larger areas of suitable habitat. No such species were recorded on the subject property.

No species ranked as S1 through S3 (Critically Imperiled through Vulnerable) by the province, or species protected under the ESA were encountered. One Eastern Wood-pewee territory was recorded, a species that is designated as Special Concern under the ESA. This designation does not afford the species any protection under this legislation and these birds remain commonly encountered in urban and fragmented habitat patches.

4.5 Amphibians and Reptiles

No amphibians were heard calling from the subject property during nocturnal surveys and no incidental observations were made.

A single unidentified snake was observed on June 26, 2020, near the north end of the subject property,

4.6 Bats

Based on an assessment of woodland features associated with the subject property, ELC units 1a and 1b contain trees that are potential maternity roosts for endangered bats as well as non-endangered bats.

Based on an analysis of acoustic monitoring data, Little Brown Myotis was recorded on multiple detectors in ELC unit 1a and, to a lesser extent, ELC unit 1b. Based on the level of calling activity, Little Brown Myotis is likely utilizing ELC unit 1a for maternity roosting and potentially ELC unit 1b.

Northern Myotis and Tri-colored Bat were also recorded from ELC unit 1a; however, the number of calls recorded over the entire 15-night monitoring period was very low (four for Northern Myotis and eight for Tri-colored Bat), suggesting that these calls are associated with foraging individuals or incidental fly-bys.

5. Summary of Natural Heritage Features and Constraints

Based on information collected through the background review and field investigations, features on the subject property were identified/evaluated for significance according to criteria and guidance provided in the Niagara Region Official Plan and provincial guidelines, including the Significant Wildlife Habitat (SWH) Technical Guide (OMNR 2000) and the Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E (MNRF 2015).

5.1 Habitat for Threatened and Endangered Species

A screening for habitat of threatened and endangered species was completed for the subject property. As part of the assessment, Beacon conducted a review of available natural heritage information resources including:

- Provincially Tracked Species Layer from Land Information Ontario (LIO);
- Ontario Breeding Bird Atlas;
- Ontario Reptile and Amphibian Atlas;
- Natural Heritage Information Centre (NHIC) Data via the Make-A-Map application; and
- Species at risk range maps <https://www.ontario.ca/environment-and-energy/species-risk-ontario-list>.

The subject property was examined during field investigations to determine if it supports habitat or potential habitat for threatened or endangered species that are known to occur in the Niagara Falls area (based on existing records and species range maps). Based on this screening, it was determined that the property supports potentially suitable habitat for a number of SAR plants and bird species; however, field investigations confirmed that no SAR plants or birds occur within the subject property.

Based on acoustic monitoring, it was confirmed that maternity roost habitat for Little Brown Myotis is likely associated ELC units 1a. ELC unit 1b also represents potential maternity roosting.

5.2 Provincially Significant Wetlands

There are no PSWs on or adjacent to the subject property.

5.3 Other Wetlands

No other wetlands were identified on the subject property.

5.4 Areas of Natural and Scientific Interest

There are no ANSIs on or adjacent to the subject property.

5.5 Significant Valleylands

There are no significant valleylands on or adjacent to the subject property.

5.6 Significant Wildlife Habitat

According to the significant Wildlife Habitat Technical Guidelines (MNR 2000), there are four main categories of Significant Wildlife Habitat (SWH):

1. Seasonal Concentration Areas of Animals;
2. Rare Vegetation Communities or Specialized Habitat for Wildlife;
3. Habitat for Species of Conservation Concern; and
4. Animal Movement Corridors.

Within each of these categories, there are multiple types of SWH, each intended to capture a specialized type of habitat that may or may not be captured by other existing feature-based categories (e.g., significant wetlands, significant woodlands). The Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E (MNRF 2015) was used as a preliminary screening for SWH on the property. A full SWH screening table is included in **Table E-1** of **Appendix E**.

Based on the assessment, ELC units 1a and 1b represent potential SWH for Bat Maternity Colonies.

ELC unit 1b also supports a single pair of Eastern Wood-pewee, which is designated Special Concern in Ontario. Eastern Wood-pewee is a common, relatively abundant forest bird in southern Ontario that can be found in both small and large woodlands of a variety of forest types, particularly deciduous and mixed forest, including urban and fragmented forest patches. While the provincial ecoregional criteria state that the presence of any species of provincial concern should be considered SWH, it is Beacon's opinion that the presence of a single pair of Eastern Wood Pewee should not necessarily be designated SWH as there are a number of other factors that should be considered when designating SWH for species of conservation concern. Notably, Table Q-3 of Appendix Q of the Significant Wildlife Habitat Technical Guide (OMNR 2000) contains a number of criteria and guidelines for identifying and evaluating species/habitats of special concern. The applicability of these criteria and guidelines to the subject property are summarized in **Table E-2** of **Appendix E**. In consideration of the criteria presented in **Table E-2, Appendix E**, the woodlot on the subject property does not meet the SWH Technical Guide criteria for designating species/habitats of special concern, largely because it only supports a single breeding pair of Eastern Wood Pewee, is too small and isolated to sustain a viable population of Eastern Wood-pewee over the long term, and provides little opportunity for the long-term sustainability of the species.

5.7 Significant Woodlands

Significant woodlands are identified on the subject property in the Regional Official Plan. The limits of the significant woodland were staked by the Region on September 6, 2023.

According to the table 4.0 Definitions and Criteria of the Regional Official Plan, to be identified as significant, a woodland must meet the definition of forest according to ELC and meet one or more of the following criteria:

- a. *two hectares or greater in size;*
- b. *one hectare or greater in size meeting at least one of the following criteria:*
 - i. *naturally occurring (i.e. not planted) trees*
 - ii. *treed areas planted with the intention of restoring woodland;*
 - iii. *10 or more trees per hectare greater than 100 years old or 50 cm or more in diameter;*
 - iv. *wholly or partially within 30 m of a provincially significant wetland or habitat of an endangered or threatened species;*
 - v. *overlapping or abutting one or more of the following features:*
 1. *permanent streams or intermittent streams;*
 2. *fish habitat;*
 3. *significant valleylands;*
- c. *0.5 hectares or greater in size meeting at least one of the following criteria:*
 - i. *a provincially rare treed vegetation community with an S1, S2 or S3 in its ranking by the MNR's N.H.I.C.;*
 - ii. *habitat of a woodland plant species with an S1, S2 or S3 in its ranking or an 8, 9, or 10 in its Southern Ontario Coefficient of Conservatism by the NHIC, consisting of 10 or more individual stems or 100 or more sqm of leaf coverage;*
 - iii. *any woodland overlapping or abutting one or more of the following features: significant wildlife habitat; habitat of threatened species and endangered species; or non-provincially significant wetlands*
- d. *any size overlapping or abutting one or more of the following features:*
 - i. *provincially significant wetland; and*
 - ii. *life science area of natural and scientific interest*

The woodland on the west side of the property (ELC Unit 1a) is over 2 ha in size, is potential SWH, and likely maternity roost habitat for endangered bats; therefore, it meets several criteria for significance. ELC unit 1b is over 1 ha and comprised of naturally occurring trees, is potential SWH, and potential habitat for endangered bats, thus meeting several criteria for designation as significant woodland.

5.8 Other Woodlands

The regional official plan defines *Other Woodlands* as *woodlands* determined to be ecologically important in terms of features, functions, representation, or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system. This definition does not include woodlands that meet the criteria for *significant woodlands*. Furthermore, the plan identifies

Other Woodland as a terrestrial treed area that must have ≥ 25 percent tree cover and meet one or more of the following criteria:

- a. *an average minimum width of 40 m and is ≥ 0.3 ha, measured to crown edges; or*
- b. *any size abutting a significant woodland, wetland or permanent stream.*

Treed areas that “abut” a significant woodland, wetland or permanent stream are considered adjacent when located within 20 m of each other.

Other woodlands are identified based on the Ecological Land Classification methodology. Terrestrial vegetation communities that would meet the ≥ 25 percent tree cover are identified in Table 5-1.

The Niagara Region NHS mapping identifies an “Other Woodland” in the northern portion of the property, between the two Significant Woodland blocks; however, Beacon determined that this area is part of the cultural meadow community (ELC unit 4).

A very small (0.15 ha) patch of Poplar forest (ELC Unit 2) was delineated in the southwestern portion of the subject property. This feature was not staked by the Region as part of the Significant Woodland and does not meet any criteria for significance outlined in Section 5.7. Notwithstanding its small size, it is within 20 m of the significant woodland and, therefore, meets criterion b to qualify as “Other Woodland”.

5.9 Fish Habitat

There is no fish habitat on the subject property. The Hydro Canal, located approximately 60 m to the west, is considered fish habitat.

5.10 Supporting Features and Areas and Enhancement Areas

The property contains small patches of shrub thicket and an area of cultural meadow that is periodically mowed. Given the small size of the thicket features and the on-going maintenance associated with the meadow, these areas provide limited supportive function to the significant woodland and are not recommended to be included as supporting features or areas of the natural environment system.

5.11 Summary of Natural Heritage Features and Constraints

In summary, the subject property supports the following natural heritage features:

- Habitat for Threatened or Endangered Species (i.e. maternity roost habitat for bats)
- Significant Woodland;
- Potential Significant Wildlife Habitat; and
- Other Woodland.

Both maternity roost habitat for endangered bats and potential SWH are associated with the significant woodlands.

Within settlement areas, the Reginal Official Plan requires that mandatory buffers to natural heritage features be determined through an EIS.

According to the Natural Heritage Reference Manual (MNR 2010) potential benefits and functions of buffers include: reduction of encroachment, reduction of light and noise, space for tree fall, protection of root zones, enhancement of woodland interior, location of trails, and attenuation of runoff. Mitigation measures other than, or in addition to, buffers can be utilized to sufficiently minimize impacts on natural features.

The width of ecological buffers is generally established through consideration of the potential risks associated with the proposed development and the relative sensitivity of the natural heritage features and functions proposed for protection. Buffers are intended to mitigate against potential adverse impacts on natural heritage features, such as vegetation removal, drainage alterations, noise, dust, artificial light, and other human related disturbances. Consideration of the landscape matrix (e.g. rural, urban, natural) and existing land uses is important for assessing both the sensitivity of a feature and potential impacts of a development.

For this development, a 10 m buffer was provided to the Significant Woodland. Based on the location of the property within a heavily urbanized area, Beacon considers a 10 m naturalized buffer to the Significant Woodland and associated habitats, in combination with other mitigation measures and best management practices (e.g., fencing, restorative plantings) recommended in this report (**Section 7.2**), to be ecologically-appropriate for protecting the feature and its ecological functions from potential impacts related to the proposed redevelopment (**Section 6**).

6. Proposed Development

The proposed development is located at the northeast corner of the subject property and includes two nine-story, 25-unit apartment buildings and a parking lot (with 73 parking spaces and 37 bicycle parking spaces). The proposed development provides a 10 m buffer to the significant woodland as illustrated in **Figure 3**.

7. Impact Assessment and Proposed Mitigation

7.1 Impact Assessment

7.1.1 Significant Woodland and Wildlife Habitat

The proposed development will be located in the northeastern portion of the subject property. This is an open disturbed area with a little ground cover, mostly covered with gravel, and has a few scattered trees on the eastern boundary. This cultural vegetation will require removal to accommodate the proposed development. No significant natural features or species were found in this area.

A 10 m buffer was applied to the dripline of the significant woodland as recommended in **Section 5.9**, therefore; no encroachments or direct impacts on the woodland and associated wildlife habitat are anticipated.

Indirect impacts associated with development such as noise and light resulting from construction activity and a change in land use can, in some contexts, affect wildlife that inhabit adjacent natural areas. However, given the situation of the property within an urban matrix and close proximity to a major highway (QEW) corridor, wildlife inhabiting this area would be adapted to noise and light disturbances and other stressors of the urban environment. The proposed development is not expected to introduce new disturbances or exacerbate existing stressors that would have a negative impact on the wildlife communities.

Post construction, residential use of the property could potentially impact the adjacent natural areas. Potential impacts include:

- Dumping yard waste and accumulation of debris in natural areas;
- Informal trails and trampling of vegetation;
- Removal of natural vegetation; and
- Storage of materials, placement of structures.

Generally, there is a higher risk of residential encroachment-related impacts associated with lower density residential development (e.g. singles dwellings where rear yards back on natural areas). Such impacts are less likely to be an issue with apartment buildings adjacent to the natural area as is the case with this development. The provided 10 m buffer will mitigate potential encroachment-related impact and fencing (discussed in **7.2**) at the development limit will discourage uncontrolled access to the natural area and prevent accumulation of debris from the adjacent lands.

7.1.2 Fish Habitat

The proposed development is located over 60 m from the Hydro Canal; therefore, no impacts on adjacent fish habitat will occur.



Legend

- ▭ Subject Property
- ▭ ELC Communities
- Proposed Development
- Staked Dripline
- - - Staked Dripline + 10 m
- Watercourse (MNR 2023)

Unit	Code	Community Description
1	FOD5-3	Dry - Fresh Sugar Maple - Oak Deciduous Forest
2	FOD8-1	Fresh - Moist Poplar Deciduous Forest
3	CUT1	Mineral Cultural Thicket
4	CUM1	Mineral Cultural Meadow

Proposed Development

Figure 3

7230 Lundy's Lane EIS



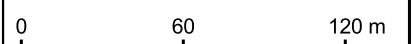
Project: 219502
Last Revised: March 2024

Client: 1992334 Ontario Limited

Prepared by: BD
Checked by: DW



1:2,800



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Ontario Orthoimagery Baselayer: 2023 (FBS)

7.2 Mitigation and Enhancement Recommendations

In addition to the 10 m buffer that was provided to the woodland, the following mitigation measures are recommended to avoid or minimize impacts to the natural heritage features on the subject property as well as wildlife (e.g. breeding birds) that may inhabit areas outside the NHS.

- All construction and development related activities should be confined to the established limit of development, apart from those areas subject to naturalization where landscaping works shall be required;
- Soil erosion from construction sites can result in adverse environmental impacts to natural heritage and hydrological features if sediment-laden stormwater runoff reaches nearby woodlots and watercourses. Therefore, an erosion and sediment control plan should be prepared prior to any site alteration or construction. Measures for erosion and sediment control for the subject property should include installing silt fence at the limit of development;
- A Buffer Planting Plan is recommended to enhance the ecological function of the buffer. This plan should include a diversity of native trees and shrubs that are compatible with the existing forest community and at a density that provides immediate protection. A mix of fast-growing species that are adapted to the conditions found along edges/disturbed areas and late successional species representative of the existing woodland are recommended;
- Permanent fencing should be installed at the buffer limit to discourage residential encroachments and uncontrolled access to the natural area in accordance with policy 11.1.11 of the City of Niagara Official Plan. This fence should comply with the City of Niagara Falls Site Plan Guidelines; and
- The federal *Migratory Birds Convention Act* (1994) protects the nests, eggs and young of most bird species from harm or destruction. Environment Canada considers the general nesting period of breeding birds in southern Ontario to be between late March and the end of August. This includes times at the beginning and end of the season when only a few species might be nesting. The broad bird nesting season in southern Ontario is April 1 to August 31. Beacon recommends that during the peak period of bird nesting, no vegetation clearing or disturbance to nesting bird habitat occur – i.e., between May 16 and July 15. In the shoulder seasons of April 1 to May 15, and July 16 to August 31, Beacon suggests that vegetation clearing could occur, but only after an Ecologist with appropriate avian knowledge has surveyed the area to confirm lack of nesting. If nesting activity is detected, then vegetation clearing (in an area around the nest) must wait until nesting has concluded. Between September 1 and March 31, vegetation clearing can occur without nest surveys, but the requirement for nest protection under the Act still holds (i.e., if an active nest is known it should be protected).

8. Policy conformity

A summary of how the proposed development conforms with applicable natural heritage policies and regulations is provided in **Table 3**.

Table 3. Policy Conformity Assessment

APPLICABLE POLICY / LEGISLATION	Policy Intent/Summary	EIS Findings
Ontario <i>Endangered Species Act</i> (2007)	Provides legal protection to endangered and threatened species and their habitats	The significant woodlands (ELC units 1a and 1b) represent potential habitat for Little Brown Myotis. No development is proposed with these woodlands; therefore, no impacts on habitat for endangered bats is anticipated.
Provincial Policy Statement (2020)		
1. Habitat for Threatened and Endangered Species	The PPS does not permit development or site alteration in habitat for threatened and endangered species except in accordance with provincial and federal requirements.	Same as above.
2. Significant Wetlands	<p>The PPS does not permit development or site alteration in Significant Wetlands, except for conservation, wildlife management and stewardship purposes.</p> <p>The PPS allows for development or site alteration on lands adjacent to Significant Wetlands if it can be demonstrated that such activities will not adversely impact upon the feature and its functions.</p>	There are no PSWs on or adjacent to the subject property.
3. Significant Woodlands	The PPS does not permit development or site alteration in Significant Woodlands unless it can be demonstrated through an EIS that there will be no negative impacts.	<p>ELC units 1a and 1b are designated Significant Woodland in the Regional Official Plan and City of Niagara Official Plan. The EIS confirmed that portions of the woodland qualify as significant woodland based on Regional criteria.</p> <p>The proposed development will not result in any loss of the significant woodland and a 10 m buffer was applied to mitigate impacts of adjacent development. No impacts on the significant woodland are anticipated provided that the mitigation measures are implemented.</p>
4. Significant Valleylands	The PPS allows for development or site alteration in Significant Valleylands if it can be demonstrated through an EIS that there will be no negative impacts.	There are no significant valleylands associated with the subject property.
5. Significant Wildlife Habitat	The PPS allows for development or site alteration in SWH if it can be demonstrated through an EIS that there will be no negative impacts.	Potential SWH is associated with the significant woodland. These habitats are protected. No impacts are anticipated provided the mitigation measures recommended in this report are implemented.
6. Significant Areas of Natural and	The PPS allows for development or site alteration in Significant ANSIs if it can be	There are no ANSIs on or adjacent to the subject property.

APPLICABLE POLICY / LEGISLATION	Policy Intent/Summary	EIS Findings
Scientific Interest (ANSI)	demonstrated through an EIS that there will be no negative impacts.	
7. Fish Habitat	Development and site alteration are not permitted in fish habitat except in accordance with provincial and federal requirements.	The Hydro Canal adjacent to the property is fish habitat. The development is over 60 m from the canal. No impacts are anticipated.
Region of Niagara Official Plan	<p>The Regional Official Plan identified a Natural Environment System comprised on natural heritage and hydrological features.</p> <p>Policies pertaining to the protection of features and components of the Natural Environment System depend on the geographic area in which a property is located.</p> <p>The subject property is subject to the policies of Section 3.1.9 for lands located within a settlement area outside of Provincial Natural Heritage Systems and the Niagara Escarpment Plan Area.</p> <p>Per the policies of Section 3.1.9, development and site alteration is not permitted in provincially significant wetlands, significant coastal wetlands, or significant woodlands. Development and site alteration may be permitted in the following in the following natural heritage features and areas if it has been demonstrated through the preparation of an EIS that there will be no negative impacts on the natural features or their ecological functions:</p> <ul style="list-style-type: none"> • other woodlands; • significant valleylands ; • SWH • ANSIs <p>Buffers are required for natural heritage features. Within settlement areas, the buffer width must be determined by an EIS.</p>	<p>ELC units 1a and 1b are designated Significant Woodland in the Regional Official Plan and City of Niagara Official Plan. The EIS confirmed that portions of the woodland qualify as significant woodland based on Regional criteria and are also potential SWH and habitat for endangered bats. The proposed development will not result in any loss of the significant woodland, potential SWH, or maternity roost habitat for endangered bats.</p> <p>A 10 m buffer was applied to mitigate impacts of adjacent development based on consideration of the sensitivity of the woodland feature and the potential impacts of the proposed development.</p> <p>No impacts on the significant woodland are anticipated provided that the mitigation measures are implemented.</p> <p>An “Other Woodland” was identified in the southern part of the subject property. The proposed development will not impact the feature.</p> <p>No other features or components of the Natural Environment System were identified on the subject property in relation to the development proposal.</p>
City of Niagara Falls Official Plan	<p>The City of Niagara Falls Official Plan identifies a natural heritage system of Environmental Protection Areas (EPA) and Environmental Conservation Areas (ECA).</p> <p>No development is permitted within EPA features. Some forms of development may be permitted within ECA lands if it has been</p>	<p>The significant woodlands (ELC unit 1a and 1b) are designated ECA in the City’s Official Plan. The EIS confirmed that portions of the woodland qualify as significant woodland based on Regional criteria.</p> <p>The proposed development will not result in any loss of the significant woodland or</p>

APPLICABLE POLICY / LEGISLATION	Policy Intent/Summary	EIS Findings
	demonstrated that there will be no significant negative impact on the feature or its ecological function.	associated wildlife habitat. A 10 m buffer was applied to mitigate impacts of adjacent development. No impacts on the significant woodland or its ecological functions are anticipated provided that the mitigation measures are implemented.

9. Conclusion

This Scoped EIS has been prepared for a proposed residential development at 7230 Lundy's Lane in the City of Niagara Falls. The EIS describes the natural heritage features and ecological functions associated with the subject property, assesses the potential direct and indirect impacts of the proposed development on these features and functions, and recommends mitigation and enhancement measures to protect and restore the features and their functions.

The subject property supports mature deciduous forest which qualifies as Significant Woodland in the Niagara Region. The woodland also represents potential SWH and maternity roost habitat for endangered bats. The property also supports cultural meadow, small thickets, and an "other woodland".

The proposal for the subject property consists of a two 50 units nine storey condominium apartment development. The development is confined to an existing disturbed area at the northeast corner of the property. A 10 m buffer was provided to the significant woodland to protect the feature and mitigate potential negative impacts of adjacent development. Additional measures recommended in this report to avoid or minimize impacts on the woodland include:

- Confining construction and development related activities to the established limit of development, outside of features and buffers;
- Preparing and implanting an erosion and sediment control plan;
- Preparing and implementing a Buffer Planting Plan;
- Installing permanent fencing at the limit of development; and
- Removing vegetation from the development area when birds are not nesting.

In conclusion, it is not anticipated that the proposed re-development will negatively impact the natural heritage features and ecological functions associated with the subject property and is in conformity with applicable federal, provincial, and municipal natural heritage policies and legislation provided that the mitigation measures recommended in this Scoped EIS are implemented.

Prepared by:
Beacon Environmental Ltd.



Dan Westerhof, B.Sc., M.E.S.
Senior Terrestrial Ecologist,
ISA Certified Arborist (ON-1536A)

Prepared by:
Beacon Environmental Ltd.



Said Mohamed, B.Sc., Cert. Env. Assessment
Ecologist

Reviewed by:
Beacon Environmental Ltd.



Jamie Nairn, M.Sc., P.Ag.
Senior Ecologist

10. References

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Niagara Region Official Plan (Office Consolidation 2022).

Appendix A



From: [Boudens, Adam](#)
To: [Dan Westerhof](#)
Cc: [Dennis Sargeson](#); [William Heikoop](#); [Said Mohamed](#); [Italia Gilberti](#)
Subject: RE: 7230 Lundy's Lane Niagara Falls
Date: March 13, 2024 3:24:22 PM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[2024-03-06_7230 Lundys Lane EIS TOR_219502_FINAL.pdf](#)

Hi Dan,

Environmental Planning staff have reviewed the attached EIS TOR for the subject lands. While staff offer no objection to the proposed TOR, please note that the shelf-life of completed surveys is typically 5 years. As such, provided a complete application is received this year, there are no concerns with using the 2020 field surveys. However, if a complete application is circulated in 2025, additional surveys may be required.

Please include a copy of the TOR and this correspondence in the final Report.

Thanks,
Adam



Adam Boudens, MSc
Senior Environmental Planner /
Ecologist
Niagara Region, 1815 Sir Isaac Brock Way,
Thorold, ON, L2V 4T7
P: (905) 980-6000 ext. 3770
W: www.niagararegion.ca
E: adam.boudens@niagararegion.ca



My workday may look different from your workday. Please do not feel obligated to respond outside of your normal working hours.

From: Dan Westerhof <dwesterhof@beaconenviro.com>
Sent: Wednesday, March 6, 2024 3:39 PM
To: Boudens, Adam <Adam.Boudens@niagararegion.ca>
Cc: Dennis Sargeson <dsargeson@fallsviewgroup.com>; William Heikoop <WHeikoop@ucc.com>; Said Mohamed <SMohamed@beaconenviro.com>; Italia Gilberti <igilberti@sullivanmahoney.com>
Subject: RE: 7230 Lundy's Lane Niagara Falls



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Hi Adam

Please find attached EIS TOR for the above noted property. Let me know if you have any comments or questions.

Thanks,

Dan Westerhof, B.Sc., M.E.S.
Senior Terrestrial Ecologist, ISA Certified Arborist
BEACON ENVIRONMENTAL
373 Woolwich Street, Guelph, ON N1H 3W4
T) 548.761.3839 C) 519.362.8595
www.beaconenviro.com

From: Boudens, Adam <Adam.Boudens@niagararegion.ca>
Sent: Thursday, August 24, 2023 10:30 AM
To: Dan Westerhof <dwesterhof@beaconenviro.com>; Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>
Cc: Brittany Bussi <bbussi@fallsviewgroup.com>; Dennis Sargeson <dsargeson@fallsviewgroup.com>; William Heikoop <WHeikoop@ucc.com>; Said Mohamed <SMohamed@beaconenviro.com>
Subject: RE: 7230 Lundy's Lane

Sounds good, see you then.

Adam Boudens, Msc
Senior Environmental Planner/Ecologist
Growth Strategy and Economic Development
Niagara Region
1815 Sir Isaac Brock Way, P.O. Box 1042
Thorold, ON L2V 4T7
Phone: **905-980-6000 ext. 3770** Toll-free: 1-800-263-7215
www.niagararegion.ca



From: Dan Westerhof <dwesterhof@beaconenviro.com>
Sent: Thursday, August 24, 2023 10:19 AM
To: Boudens, Adam <Adam.Boudens@niagararegion.ca>; Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>
Cc: Brittany Bussi <bbussi@fallsviewgroup.com>; Dennis Sargeson

<dsargeson@fallsviewgroup.com>; William Heikoop <WHeikoop@ucc.com>; Said Mohamed <SMohamed@beaconenviro.com>

Subject: RE: 7230 Lundy's Lane

CAUTION EXTERNAL EMAIL: This email originated from outside of the Niagara Region email system. Use caution when clicking links or opening attachments unless you recognize the sender and know the content is safe.

Hi Adam,

Let's go with Sept 6 at 1:30 pm.

Thanks,

Dan Westerhof, B.Sc., M.E.S.
Senior Terrestrial Ecologist, ISA Certified Arborist
BEACON ENVIRONMENTAL
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From: Boudens, Adam <Adam.Boudens@niagararegion.ca>
Sent: Wednesday, August 23, 2023 12:44 PM
To: Dan Westerhof <dwesterhof@beaconenviro.com>; Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>
Cc: Brittany Bussi <bbussi@fallsviewgroup.com>; Dennis Sargeson <dsargeson@fallsviewgroup.com>; William Heikoop <WHeikoop@ucc.com>
Subject: RE: 7230 Lundy's Lane

Hi Dan,

No problem. I have the following availability:

- Tuesday September 5th: 10-12pm; 2:30-4pm
- Wednesday September 6th: 9-11:30am; 1:30-4pm
- Thursday September 7th: 2-4pm

- Monday September 11th: AM or PM
- Tuesday September 12th: 10-12pm; 2:30-4pm
- Wednesday September 13th: AM or PM
- Thursday September 14th: AM or PM
- Friday September 15th: AM or PM

Thanks,
Adam

Adam Boudens, Msc
Senior Environmental Planner/Ecologist
Growth Strategy and Economic Development
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From: Dan Westerhof <dwesterhof@beaconenviro.com>
Sent: Wednesday, August 23, 2023 10:18 AM
To: Boudens, Adam <Adam.Boudens@niagararegion.ca>; Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>
Cc: Brittany Bussi <bbussi@fallsviewgroup.com>; Dennis Sargeson <dsargeson@fallsviewgroup.com>; William Heikoop <WHeikoop@ucc.com>
Subject: RE: 7230 Lundy's Lane

CAUTION EXTERNAL EMAIL: This email originated from outside of the Niagara Region email system. Use caution when clicking links or opening attachments unless you recognize the sender and know the content is safe.

Hey Adam

I'm just getting caught up after being away last week. I'm tied up the rest of this week and off again next week. What's your availability like the first or second week of Sept?

Thanks,

Dan Westerhof, B.Sc., M.E.S.
Senior Terrestrial Ecologist, ISA Certified Arborist
BEACON ENVIRONMENTAL
373 Woolwich Street, Guelph, ON N1H 3W4
T) 548.761.3839 C) 519.362.8595
www.beaconenviro.com

From: Boudens, Adam <Adam.Boudens@niagararegion.ca>
Sent: Tuesday, August 15, 2023 4:05 PM
To: Dan Westerhof <dwesterhof@beaconenviro.com>; Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>

Cc: Brittany Bussi <bbussi@fallsviewgroup.com>; Dennis Sargeson <dsargeson@fallsviewgroup.com>; William Heikoop <WHeikoop@ucc.com>
Subject: RE: 7230 Lundy's Lane

Hi Dan,

Not a problem. I have the following availability:

Monday August 21st: 9-12pm
Tuesday August 22nd: 10:30am – 2pm
Wednesday August 23rd: 9-12pm
Thursday August 24th: AM or PM
Friday August 25th: 9-10:30am

Monday August 28th: AM or PM
Tuesday August 29th: anytime after 10:30am
Wednesday August 30th: anytime after 10:30am
Thursday August 31st: AM or PM
Friday September 1st: AM or PM

Thanks,
Adam

Adam Boudens, Msc
Senior Environmental Planner/Ecologist
Growth Strategy and Economic Development
Niagara Region
1815 Sir Isaac Brock Way, P.O. Box 1042
Thorold, ON L2V 4T7
Phone: **905-980-6000 ext. 3770** Toll-free: 1-800-263-7215
www.niagararegion.ca



From: Dan Westerhof <dwesterhof@beaconenviro.com>
Sent: Thursday, August 10, 2023 8:48 AM
To: Boudens, Adam <Adam.Boudens@niagararegion.ca>; Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>
Cc: Brittany Bussi <bbussi@fallsviewgroup.com>; Dennis Sargeson <dsargeson@fallsviewgroup.com>; William Heikoop <WHeikoop@ucc.com>
Subject: RE: 7230 Lundy's Lane

CAUTION EXTERNAL EMAIL: This email originated from outside of the Niagara Region email system. Use caution when clicking links or opening attachments unless you recognize the sender and know the content is safe.

Hi Adam

Sorry I was not able to get back to you sooner. We had a bit of hold up on our end. Can you provide a couple new dates/times that you are available to meet us on site?

Thanks,

Dan Westerhof, B.Sc., M.E.S.
Senior Terrestrial Ecologist, ISA Certified Arborist
BEACON ENVIRONMENTAL
373 Woolwich Street, Guelph, ON N1H 3W4
T) 548.761.3839 C) 519.362.8595
www.beaconenviro.com

From: Boudens, Adam <Adam.Boudens@niagararegion.ca>
Sent: Wednesday, July 5, 2023 12:04 PM
To: Dan Westerhof <dwesterhof@beaconenviro.com>; Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>
Cc: Matt Kernahan <matt@ucc.com>; Brittany Bussi <bbussi@fallsviewgroup.com>; Dennis Sargeson <dsargeson@fallsviewgroup.com>
Subject: RE: 7230 Lundy's Lane

Hi Dan,

Sorry for the delay. I have the following availability for a site visit:

Monday July 10th: AM only
Tuesday July 11th: 10am-12pm
Wednesday July 12th: AM or PM
Thursday July 13th: AM or PM
Friday July 14th: AM or PM

Monday July 17th: AM or PM
Tuesday July 18th: 10am-12pm; 2pm-4pm
Wednesday July 19th: AM or PM
Thursday July 20th: PM only

Thanks,
Adam

Adam Boudens, Msc

**Senior Environmental Planner/Ecologist
Growth Strategy and Economic Development**

Niagara Region

1815 Sir Isaac Brock Way, P.O. Box 1042

Thorold, ON L2V 4T7

Phone: **905-980-6000 ext. 3770** Toll-free: 1-800-263-7215

www.niagararegion.ca



From: Dan Westerhof <dwesterhof@beaconenviro.com>

Sent: Friday, June 23, 2023 9:48 AM

To: Boudens, Adam <Adam.Boudens@niagararegion.ca>; Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>

Cc: Matt Kernahan <matt@ucc.com>; Brittany Bussi <bbussi@fallsviewgroup.com>; Dennis Sargeson <dsargeson@fallsviewgroup.com>

Subject: 7230 Lundy's Lane

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Hi Adam

Beacon has been retained to prepare a Scoped EIS for 7230 Lundy's Lane. It's our understanding that Regional staff would like to visit the site prior to scoping the EIS requirements.

Can you provide a couple dates/times that you are available to meet us on site?

Thanks,

Dan Westerhof, B.Sc., M.E.S.

Senior Terrestrial Ecologist, ISA Certified Arborist

BEACON ENVIRONMENTAL

373 Woolwich Street, Guelph, ON N1H 3W4

T) 548.761.3839 C) 519.362.8595

www.beaconenviro.com

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the original and any copy of it from your computer system. Thank you.

March 6, 2024

BEL 219502

Adam Boudens
Senior Environmental Planner/Ecologist
Niagara Region
1815 Sir Isaac Brock Way
Thorold, ON L2V 4T7

Re: EIS Terms of Reference – 7230 Lundy’s Lane, City of Niagara Falls

Dear Mr. Boudens:

Beacon Environmental Limited (Beacon) has prepared the following Terms of Reference (ToR) for a Scoped Environmental Impact Study (EIS) in support of a OPA/ZBA and site plan for a condominium development at the northeast corner of 7230 Lundy’s Lane in the City of Niagara Falls, hereafter referred to as the subject property (**Figure 1**). The concept plan is provided in **Attachment A**.

The subject property is approximately 8 ha and supports a forested area, which as been identified as a significant woodland in the Niagara Region Official Plan (2022). An EIS is required to characterize the natural features that are present, confirm the boundaries of the significant woodland, and to demonstrate that the proposed development will not negatively impact upon significant natural heritage features or their ecological functions.

Terms of Reference for a scoped EIS were prepared by Beacon (February 2020) for the subject property in 2020, which were approved by the Region. A number of ecological surveys were subsequently undertaken in 2020 for the EIS; however, a development application was not submitted. While several years have passed, Beacon proposes to rely on the relevant field studies that were completed in 2020. The information will be relied upon to evaluate the ecological functions and significance (e.g. Significant Woodland, SWH, etc.) of the subject property. The 2020 EIS study area, which includes the entire property as well as adjacent lands, is illustrated in **Figure 1**.

Background Review

Beacon will review background information sources and policy documents related to the subject property including:

- Provincial Policy Statement (2020);
- City of Niagara Falls Official Plan (2024 Consolidation);
- Niagara Region Official Plan (2022);
- Provincially Tracked Species Layer from Land Information Ontario (LIO);
- Ontario Breeding Bird Atlas;
- Ontario Reptile and Amphibian Atlas;
- Natural Heritage Information Centre (NHIC) Data via the Make-A-Map application;

- Species at risk range maps <https://www.ontario.ca/environment-and-energy/species-risk-ontario-list>;
- High Resolution aerial photography of the property;
- Natural and physical feature layers from LIO—these geospatial layers include wetlands (provincially significant and un-evaluated wetlands), and watercourses with thermal regime; and
- Significant Wildlife Habitat (SWH) Criteria Schedules for Ecoregion 7E (MNRF 2015).

Feature Staking

A site visit was conducted with the Region on September 6, 2023 to stake the dripline of the woodland on the subject property. The staked dripline was surveyed by Upper Canada Consultants and will be used to inform the development limits for the subject property.

Field Investigations (completed in 2020)

A number of ecological surveys were undertaken for the subject property and adjacent lands in 2020. For the current EIS, Beacon proposes to rely on the findings of the previous field studies. For this property, Beacon completed the following surveys in 2020:

- Vegetation community mapping and classification;
- Three season flora surveys;
- Breeding bird surveys;
- Amphibian surveys; and
- Bat Habitat Assessment.

Reporting

The EIS report will characterize the subject property and surrounding area based on the findings of the background review and relevant field investigations undertaken in 2020, assess the function and significance of natural heritage features on the subject property, describe the proposed development, evaluate impacts of the proposed development, recommend mitigation and enhancement opportunities to avoid, minimize, or off-set impacts, and assess conformity with provincial and municipal policies and regulations.

The EIS will be prepared according to the following outline:

Introduction – This section of the report will include introductory remarks regarding the purpose and scope of the study, a general description of the site and the site location, and a brief description of the proposed development.

Policy Context – The report will include a summary of applicable provincial, municipal and conservation authority natural heritage policies and legislation, and their relevance to the property, including the Provincial Policy Statement (2020), the Niagara Region Official Pla (2022), and the City of Niagara Falls Official Plan (2024 Consolidation).

Methodology – This section of the report will include a description of the methods used to characterize the site's natural heritage features and functions. A list of background information sources consulted as well as details of all field work and assessments will be included.

Characterization of Existing Conditions – The report will provide a detailed description of existing conditions based on the results of the background review and field investigations. Existing natural heritage features on the subject property, including topography, soils, surface drainage patterns, wildlife habitat, vegetation communities, flora, and aquatic features will be described.

Summary of Natural Features – The significance of natural heritage features identified on the subject property will be evaluated based on municipal and provincial criteria. Notably, the Niagara Region Official Plan Policy 7.B.1.5 will be used to confirm if the property supports Significant Woodland and the Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E (MNR 2015) will be used to determine if SWH is present.

Natural Heritage Constraints Assessment – This section of the report will provide a summary of the natural heritage constraints identified on the subject property, including identification of key natural heritage features and recommended buffers.

Description of Proposed Development – This section of the report will provide a description and location of the proposed development, including lot layout, roads, grading, and servicing.

Impact Assessment and Mitigation – This section will evaluate potential direct and indirect impacts of the proposed development on the natural heritage features. Where appropriate, mitigation recommendations will be provided to prevent, minimize, or off-set impacts to natural heritage features. Opportunities for enhancements to the natural heritage system will also be identified.

Policy Conformity - The proposed development will be assessed to confirm conformity with applicable provincial, municipal and conservation authority policies and regulations.

Recommendations and Conclusion – The report will conclude with a review of net impacts of the proposed development on the natural heritage system and indicate whether the proposed development complies with applicable plans, policies, and regulations. The EIS will provide a recommendation that the proposal proceed as planned, or proceed subject to conditions (e.g., mitigation measures, additional studies, restoration, and enhancement, and/or monitoring).

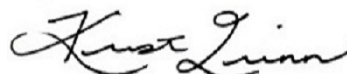
Should have any questions or require clarification, please do not hesitate to contact the undersigned.

Prepared by:
Beacon Environmental Ltd.





Dan Westerhof, B.Sc., M.E.S.
Senior Terrestrial Ecologist,
ISA Certified Arborist (ON-1536A)

Reviewed by:
Beacon Environmental Ltd.



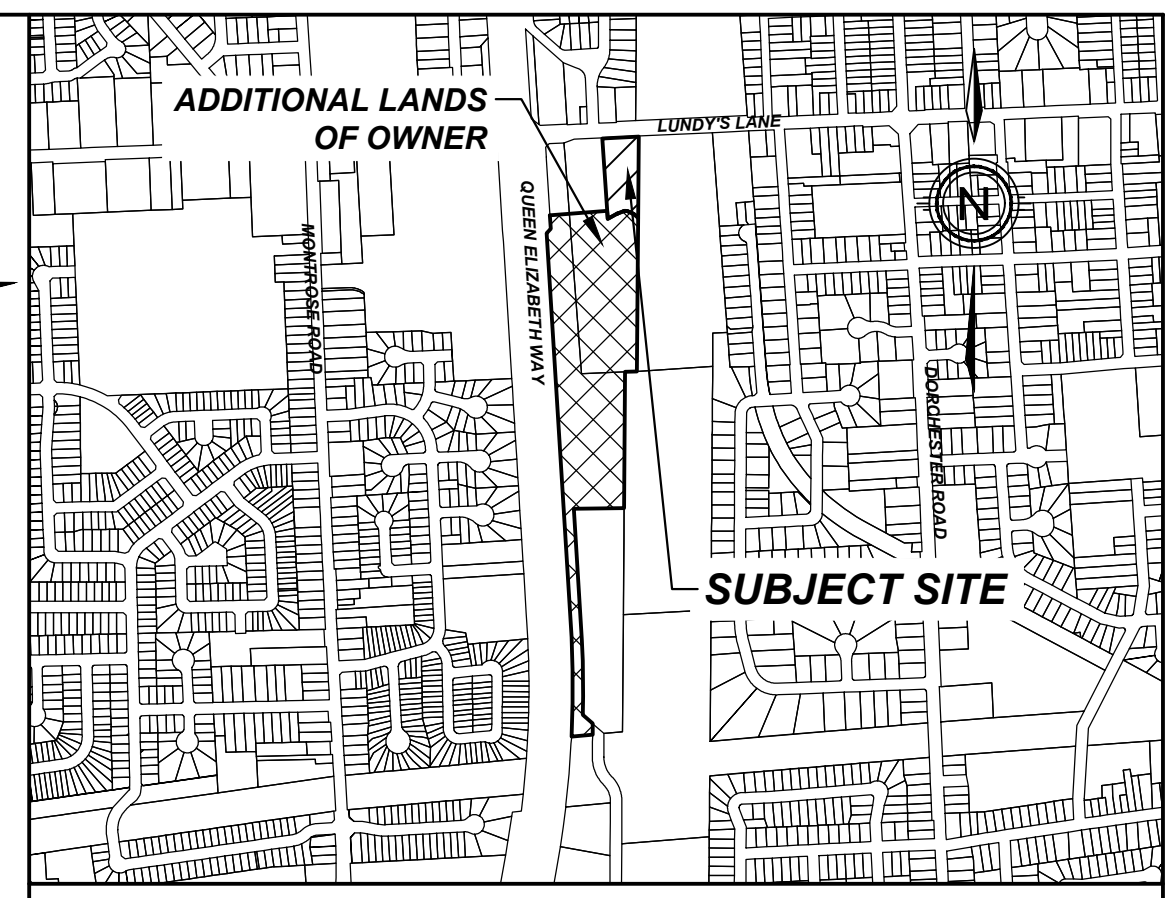
Kristi Quinn, B.E.S., Cert. Env. Assessment
Principal, Senior Environmental Planner



Site Location		Figure 1	
7230 Lundy's Lane EIS			
		Project: 219502 Last Revised: February 2024	
Client: 1992334 Ontario Limited		Prepared by: BD Checked by: DW	
	1:5,300	Inset Map: 1:50,000	
Contains information licensed under the Open Government License—Ontario Orthoimagery Baselayer: 2023 (FBS)			



Attachment A



KEY PLAN
N.T.S.

LEGAL DESCRIPTION

PART OF PART 2, ALL OF PART 3, PLAN 59R-13448
STAMFORD TOWNSHIP LOT 141
CITY OF NIAGARA FALLS
REGIONAL MUNICIPALITY OF NIAGARA

LEGEND

WV8	EX WATER VALVE
HYD	EX HYDRANT
CB	EX CATCHBASIN
MHC	EX MANHOLE
HP	EX HYDRO POLE
SIB	SHORT IRON BAR
LS	EX LIGHT STANDARD
LS	PROPOSED LIGHT STANDARD
□	PROPOSED WALL MOUNTED LIGHT
◀	PROPOSED DOOR
◀	PROPOSED FIRE EXIT
FRS	PROPOSED FIRE ROUTE SIGN
—	6.0m WIDE FIRE ROUTE
ACC	ACCESSIBLE PARKING SIGN
—	EXISTING CHAIN LINK FENCE
—	PROPOSED CHAIN LINK FENCE

ZONING MATRIX

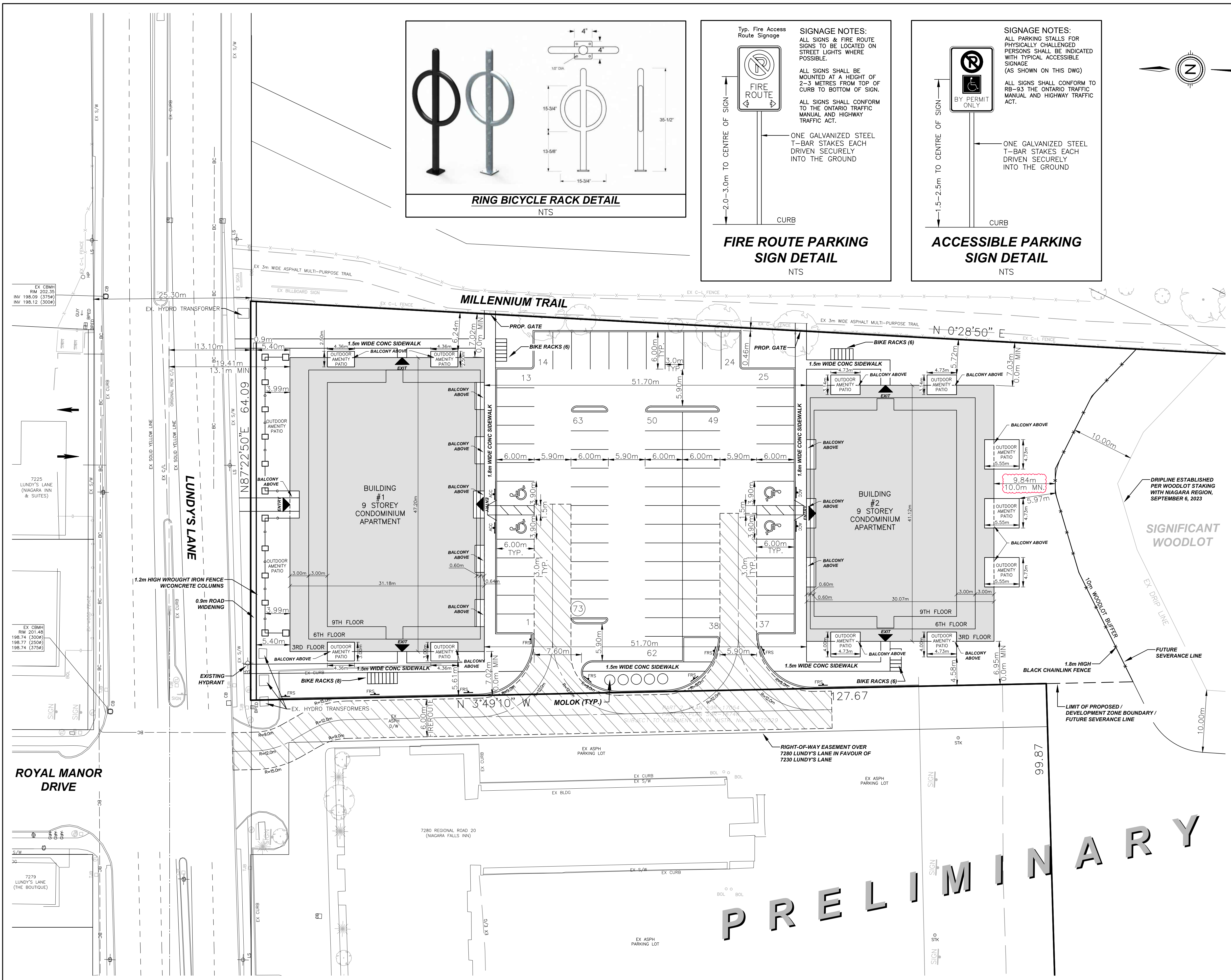
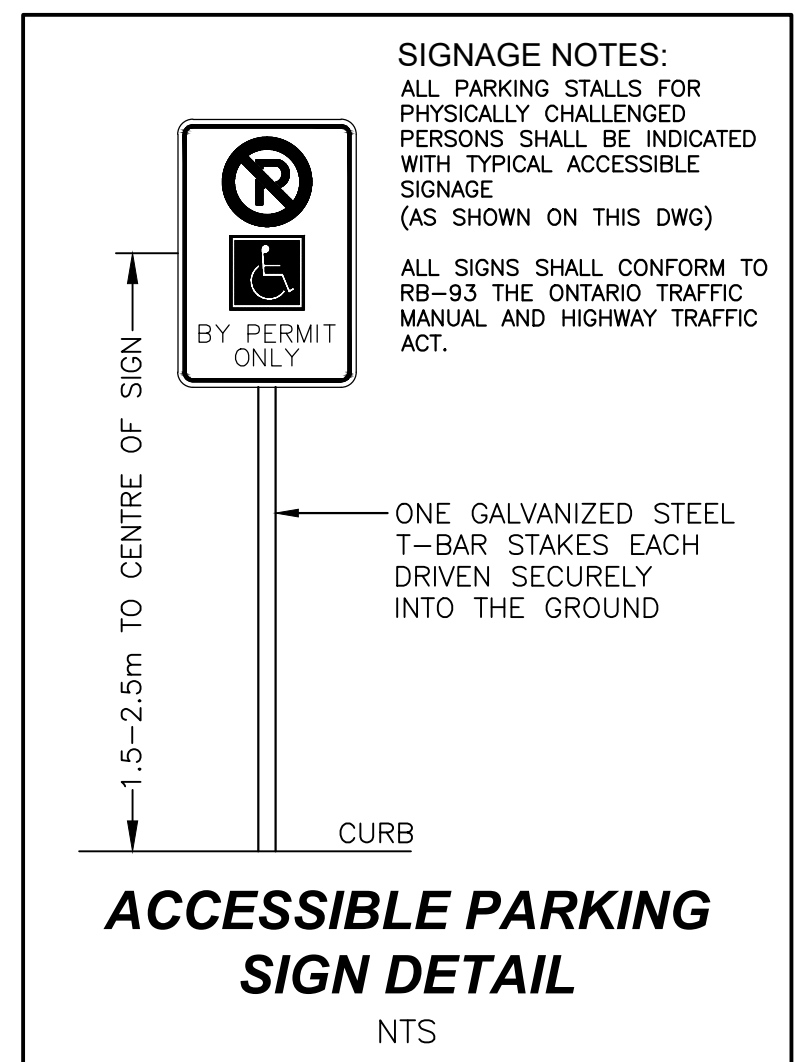
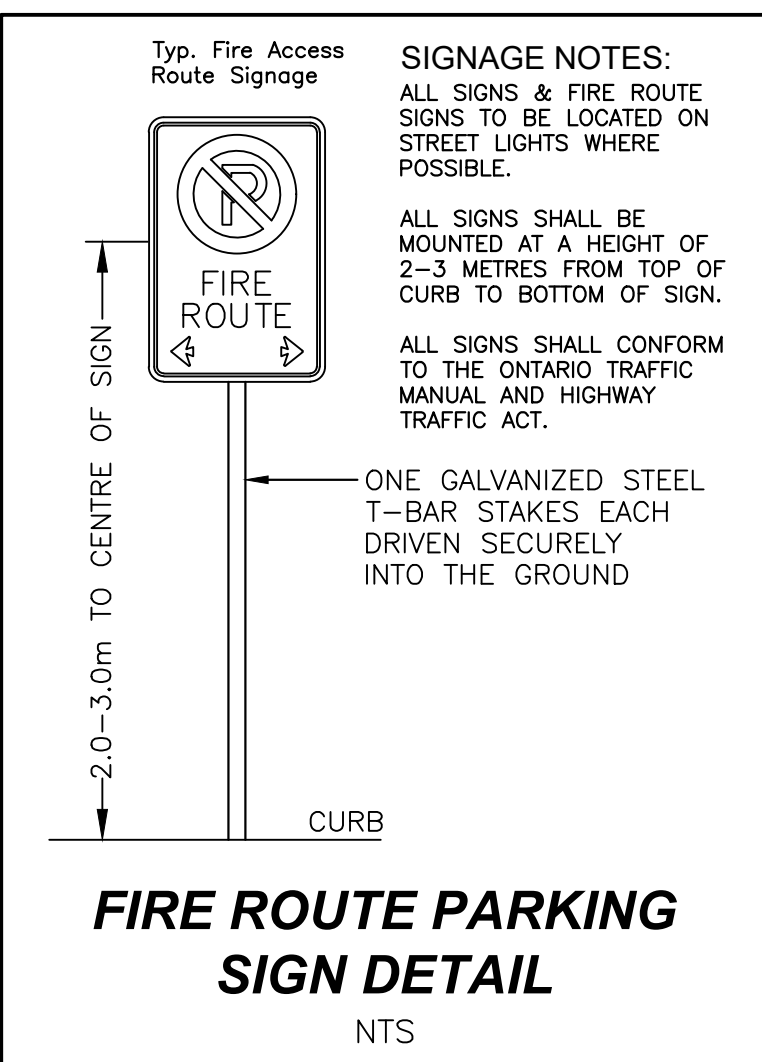
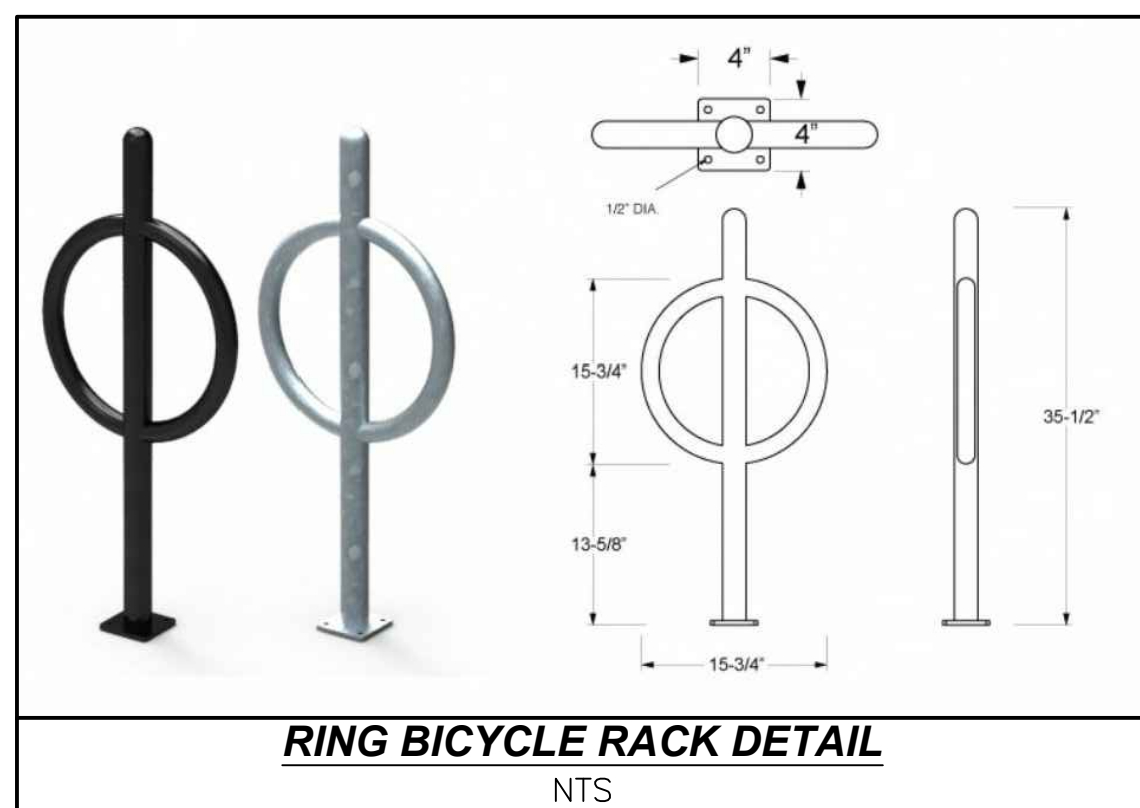
TOURIST COMMERCIAL SITE SPECIFIC - TC-XX

PROVISION	REQUIRED	PROVIDED
MIN LOT FRONTAGE	6.0m	64.09m
MIN FRONT YARD DEPTH	13.1m FROM R.O.W CENTERLINE OF ORIGINAL ROAD ALLOWANCE	13.1m
MIN REAR YARD DEPTH (i) WHERE ANY PART OF THE BUILDING IS USED FOR RESIDENTIAL PURPOSES	10.0m	9.84m
MIN INTERIOR SIDE YARD (ii) WHERE DOES NOT ABUT A RESIDENTIAL, INSTITUTIONAL OR OPEN SPACE ZONE	NON REQUIRED	6.95m
MIN EXTERIOR SIDE YARD	IN ACCORDANCE WITH 4.27.1, WHERE APPLICABLE	N/A
MAX LOT COVERAGE	70%	32.65%
MAX BUILDING HEIGHT	12.0m	29m
PARKING STATISTICS		
1.4 SPACE PER EACH DWELLING UNIT	50 UNITS x 1.4 = 70 70 SPACES REQUIRED	73 SPACES
LOADING AREAS FLOOR AREA OVER 9,300m ² ; 2 SPACES REQUIRED PLUS 1 ADDITIONAL LOADING SPACE FOR EACH 9,300m ² OF FLOOR AREA OVER INITIAL 9,300m ²	TOTAL FLOOR AREA = 10,634.39m ² 2 SPACES REQUIRED	0 SPACES
BARRIER FREE PARKING (13-100 SPACES)	4% OF THE TOTAL NUMBER OF PARKING SPACES (73 x 0.04 = 2.92) 3 SPACES REQUIRED	4 SPACES
BICYCLE PARKING	0.5 SPACES PER DWELLING UNIT (0.5 x 50 = 25) 25 SPACES REQUIRED	26 SPACES

LAND USE SCHEDULE

AREA	ha	% COVERAGE
BUILDING	0.257	(32.65%)
ROADWAY/PARKING	0.246	(31.26%)
LANDSCAPE	0.284	(36.09%)
SUBTOTAL FOR ZONING	0.787	(100%)
ROAD WIDENING	0.006	0.07
ADDITIONAL LANDS OF OWNER	7.654	90.62
TOTAL	8.446	100.00

50 UNITS
DEVELOPABLE AREA = 0.787 ha. (EXCLUDES ROAD WIDENING & ADDITIONAL LANDS)
DEVELOPABLE DENSITY = 63.53u/ha



PRELIMINARY

REVISION	DATE	INIT
0	ISSUED FOR REVIEW	2024-01-25
#	REVISION	DATE

NOTES:

- THE POSITION OF POLE LINES, CONDUITS, WATERMANS, SEWER, AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
- PROPERTY LINES WERE PLOTTED USING REGISTERED PLANS AND BARS LOCATED IN THE FIELD. TO VERIFY THE ACCURACY OF THESE PROPERTY LINES, A LEGAL SURVEY SHOULD BE PERFORMED PRIOR TO CONSTRUCTION.
- ALL CONSTRUCTION MUST COMPLY WITH THE NIAGARA PENINSULA STANDARD CONTRACT DOCUMENT.

DRAFTING	M.K
DESIGN	M.K
CHECKED BY	W.H
APPROVED BY	W.H

UPPER CANADA CONSULTANTS
ENGINEERS / PLANNERS

30 Hanover Drive Unit 3
St. Catharines, Ontario
L2W 1A3
Phone: (905) 688-9400
Fax: (905) 688-5274

OWNER

1992336 ONTARIO LIMITED
5881 DUNN STREET
NIAGARA FALLS, ON
L2G 2N9

7230 LUNDY'S LANE
CITY OF NIAGARA FALLS

SITE PLAN

CONSULTANT FILE No. 2019
DATE 2023-06-06
PRINTED 2024-01-25
SCALE 1:300 m
REF No.
DWG No. **2019-SP**
REV **0**

Appendix B



Appendix B

Vascular Plant Species List

Scientific Name	Common Name	Family	S-Rank	Niagara
<i>Acer nigrum</i>	Black Maple	Aceraceae	S4?	
<i>Acer rubrum</i>	Red Maple	Aceraceae	S5	
<i>Acer saccharum</i>	Sugar Maple	Aceraceae	S5	
<i>Acer x freemanii</i>	(<i>Acer rubrum</i> X <i>Acer saccharinum</i>)	Aceraceae	SNA	
<i>Agrostis gigantea</i>	Redtop	Poaceae	SNA	
<i>Alliaria petiolata</i>	Garlic Mustard	Brassicaceae	SNA	
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit	Araceae	S5	
<i>Athyrium filix-femina</i> var. <i>angustum</i>	Northeastern Lady Fern	Dryopteridaceae	S5	
<i>Barbarea vulgaris</i>	Bitter Wintercress	Brassicaceae	SNA	
<i>Cardamine concatenata</i>	Cut-leaved Toothwort	Brassicaceae	S5	U
<i>Cardamine hirsuta</i>	Hairy Bittercress	Brassicaceae	SNA	
<i>Carex blanda</i>	Woodland Sedge	Cyperaceae	S5	
<i>Carex gracillima</i>	Graceful Sedge	Cyperaceae	S5	
<i>Carex laxiflora</i>	Loose-flowered Sedge	Cyperaceae	S5	
<i>Carex pennsylvanica</i>	Pennsylvania Sedge	Cyperaceae	S5	
<i>Carex rosea</i>	Rosy Sedge	Cyperaceae	S5	
<i>Carex tenera</i>	Tender Sedge	Cyperaceae	S5	
<i>Carya cordiformis</i>	Bitternut Hickory	Juglandaceae	S5	
<i>Carya ovata</i>	Shagbark Hickory	Juglandaceae	S5	
<i>Catalpa speciosa</i>	Northern Catalpa	Bignoniaceae	SNA	
<i>Celastrus scandens</i>	Climbing Bittersweet	Celastraceae	S5	
<i>Chelidonium majus</i>	Greater Celandine	Papaveraceae	SNA	
<i>Circaea canadensis</i>	Broad-leaved Enchanter's Nightshade	Onagraceae	S5	
<i>Cirsium arvense</i>	Canada Thistle	Asteraceae	SNA	
<i>Cirsium vulgare</i>	Bull Thistle	Asteraceae	SNA	
<i>Cornus alternifolia</i>	Alternate-leaved Dogwood	Cornaceae	S5	
<i>Cornus racemosa</i>	Grey Dogwood	Cornaceae	S5	
<i>Cornus sericea</i>	Red-osier Dogwood	Cornaceae	S5	U
<i>Crataegus crus-galli</i>	Cockspur Hawthorn	Rosaceae	S4	
<i>Dactylis glomerata</i>	Orchard Grass	Poaceae	SNA	
<i>Daucus carota</i>	Wild Carrot	Apiaceae	SNA	
<i>Epilobium parviflorum</i>	Small-flowered Hairy Willowherb	Onagraceae	SNA	
<i>Epipactis helleborine</i>	Broad-leaved Helleborine	Orchidaceae	SNA	
<i>Erigeron annuus</i>	Annual Fleabane	Asteraceae	S5	
<i>Erythronium americanum</i>	Yellow Trout-lily	Liliaceae	S5	
<i>Fagus grandifolia</i>	American Beech	Fagaceae	S4	
<i>Fragaria vesca</i> ssp. <i>americana</i>	American Woodland Strawberry	Rosaceae	S5	
<i>Fraxinus americana</i>	White Ash	Oleaceae	S4	

Scientific Name	Common Name	Family	S-Rank	Niagara
<i>Fraxinus pennsylvanica</i>	Red Ash	Oleaceae	S4	
<i>Galium aparine</i>	Common Bedstraw	Rubiaceae	S5	
<i>Geranium maculatum</i>	Spotted Geranium	Geraniaceae	S5	
<i>Geum canadense</i>	Canada Avens	Rosaceae	S5	
<i>Glyceria striata</i>	Fowl Mannagrass	Poaceae	S5	
<i>Hesperis matronalis</i>	Dame's Rocket	Brassicaceae	SNA	
<i>Juglans nigra</i>	Black Walnut	Juglandaceae	S4?	
<i>Lactuca canadensis</i>	Canada Lettuce	Asteraceae	S5	U
<i>Lactuca serriola</i>	Prickly Lettuce	Asteraceae	SNA	
<i>Lapsana communis</i>	Common Nipplewort	Asteraceae	SNA	
<i>Leonurus cardiaca</i>	Common Motherwort	Lamiaceae	SNA	
<i>Leucanthemum vulgare</i>	Oxeye Daisy	Asteraceae	SNA	
<i>Ligustrum vulgare</i>	European Privet	Oleaceae	SNA	
<i>Lindera benzoin</i>	Northern Spicebush	Lauraceae	S4	
<i>Liriodendron tulipifera</i>	Tulip Tree	Magnoliaceae	S4	
<i>Lonicera tatarica</i>	Tatarian Honeysuckle	Caprifoliaceae	SNA	
<i>Maianthemum racemosum</i>	Large False Solomon's Seal	Liliaceae	S5	
<i>Matteuccia struthiopteris</i>	Ostrich Fern	Dryopteridaceae	S5	
<i>Melilotus albus</i>	White Sweet-clover	Fabaceae	SNA	
<i>Oenothera biennis</i>	Common Evening-primrose	Onagraceae	S5	
<i>Onoclea sensibilis</i>	Sensitive Fern	Dryopteridaceae	S5	
<i>Ostrya virginiana</i>	Eastern Hop-hornbeam	Betulaceae	S5	
<i>Oxalis stricta</i>	Upright Yellow Wood-sorrel	Oxalidaceae	S5	
<i>Parthenocissus vitacea</i>	Thicket Creeper	Vitaceae	S5	
<i>Phleum pratense</i>	Common Timothy	Poaceae	SNA	
<i>Phytolacca americana</i>	Common Pokeweed	Phytolaccaceae	S4	
<i>Pinus sylvestris</i>	Scots Pine	Pinaceae	SNA	
<i>Plantago lanceolata</i>	English Plantain	Plantaginaceae	SNA	
<i>Plantago major</i>	Common Plantain	Plantaginaceae	SNA	
<i>Poa compressa</i>	Canada Bluegrass	Poaceae	SNA	
<i>Poa pratensis ssp. pratensis</i>	Kentucky Bluegrass	Poaceae	SNA	
<i>Podophyllum peltatum</i>	May-apple	Berberidaceae	S5	
<i>Polygonatum pubescens</i>	Hairy Solomon's Seal	Liliaceae	S5	
<i>Polystichum acrostichoides</i>	Christmas Fern	Dryopteridaceae	S5	
<i>Populus deltoides ssp. deltoides</i>	Eastern Cottonwood	Salicaceae	S5	
<i>Populus tremuloides</i>	Trembling Aspen	Salicaceae	S5	
<i>Potentilla recta</i>	Sulphur Cinquefoil	Rosaceae	SNA	
<i>Prunus avium</i>	Sweet Cherry	Rosaceae	SNA	
<i>Prunus serotina</i>	Black Cherry	Rosaceae	S5	
<i>Prunus virginiana</i>	Chokecherry	Rosaceae	S5	
<i>Quercus palustris</i>	Swamp Pin Oak	Fagaceae	S4	
<i>Quercus rubra</i>	Northern Red Oak	Fagaceae	S5	
<i>Ranunculus recurvatus</i>	Hooked Buttercup	Ranunculaceae	S5	
<i>Reynoutria japonica</i>	Japanese Knotweed	Polygonaceae	SNA	
<i>Rhamnus cathartica</i>	European Buckthorn	Rhamnaceae	SNA	
<i>Rhus typhina</i>	Staghorn Sumac	Anacardiaceae	S5	

Scientific Name	Common Name	Family	S-Rank	Niagara
<i>Ribes cynosbati</i>	Eastern Prickly Gooseberry	Grossulariaceae	S5	
<i>Rosa multiflora</i>	Multiflora Rose	Rosaceae	SNA	
<i>Rubus allegheniensis</i>	Allegheny Blackberry	Rosaceae	S5	
<i>Rubus idaeus ssp. strigosus</i>	North American Red Raspberry	Rosaceae	S5	
<i>Rubus occidentalis</i>	Black Raspberry	Rosaceae	S5	
<i>Rumex crispus</i>	Curled Dock	Polygonaceae	SNA	
<i>Salix bebbiana</i>	Bebb's Willow	Salicaceae	S5	
<i>Salix discolor</i>	Pussy Willow	Salicaceae	S5	
<i>Sassafras albidum</i>	Sassafras	Lauraceae	S4	
<i>Solanum dulcamara</i>	Bittersweet Nightshade	Solanaceae	SNA	
<i>Solidago altissima var. altissima</i>	Eastern Tall Goldenrod	Asteraceae	S5	
<i>Solidago rugosa</i>	Rough-stemmed Goldenrod	Asteraceae	S5	
<i>Sonchus arvensis</i>	Field Sow-thistle	Asteraceae	SNA	
<i>Sphenopholis intermedia</i>	Slender Wedgegrass	Poaceae	S4S5	
<i>Symphyotrichum lanceolatum</i>	Panicled Aster	Asteraceae	S5	
<i>Taraxacum officinale</i>	Common Dandelion	Asteraceae	SNA	
<i>Thalictrum dioicum</i>	Early Meadow-rue	Ranunculaceae	S5	
<i>Tiarella cordifolia</i>	Heart-leaved Foamflower	Saxifragaceae	S5	
<i>Tilia americana</i>	Basswood	Tiliaceae	S5	
<i>Toxicodendron radicans var. radicans</i>	Eastern Poison Ivy	Anacardiaceae	S5	
<i>Toxicodendron radicans var. rydbergii</i>	Western Poison Ivy	Anacardiaceae	S5	
<i>Trillium erectum</i>	Red Trillium	Liliaceae	S5	
<i>Trillium grandiflorum</i>	White Trillium	Liliaceae	S5	
<i>Typha latifolia</i>	Broad-leaved Cattail	Typhaceae	S5	
<i>Ulmus americana</i>	White Elm	Ulmaceae	S5	
<i>Viburnum opulus ssp. trilobum</i>	Highbush Cranberry	Caprifoliaceae	S5	
<i>Viburnum recognitum</i>	Smooth Arrowwood	Caprifoliaceae	S4	
<i>Vitis riparia</i>	Riverbank Grape	Vitaceae	S5	

Appendix C



Appendix C

Breeding Birds Species List

Common Name	Scientific Name	COSEWIC ¹	COSARO ²	S-Rank ³	Number of Pairs/Territories
Mallard	<i>Anas platyrhynchos</i>			S5	1
Red-tailed Hawk	<i>Buteo jamaicensis</i>			S5	1
Killdeer	<i>Charadrius vociferus</i>			S5	1
Rock Pigeon	<i>Columba livia</i>			SNA	2
Mourning Dove	<i>Zenaida macroura</i>			S5	1
Eastern Wood-Pewee	<i>Contopus virens</i>	SC	SC	S4	1
Willow Flycatcher	<i>Empidonax traillii</i>			S5	1
Great Crested Flycatcher	<i>Myiarchus crinitus</i>			S4	1
Blue Jay	<i>Cyanocitta cristata</i>			S5	2
House Wren	<i>Troglodytes aedon</i>			S5	1
American Robin	<i>Turdus migratorius</i>			S5	4
Gray Catbird	<i>Dumetella carolinensis</i>			S4	3
Cedar Waxwing	<i>Bombycilla cedrorum</i>			S5	1
Warbling Vireo	<i>Vireo gilvus</i>			S5	1
Red-eyed Vireo	<i>Vireo olivaceus</i>			S5	1
Common Yellowthroat	<i>Geothlypis trichas</i>			S5	1
Northern Cardinal	<i>Cardinalis cardinalis</i>			S5	3
Indigo Bunting	<i>Passerina cyanea</i>			S4	2
Song Sparrow	<i>Melospiza melodia</i>			S5	3
Red-winged Blackbird	<i>Agelaius phoeniceus</i>			S4	1
Common Grackle	<i>Quiscalus quiscula</i>			S5	1
Brown-headed Cowbird	<i>Molothrus ater</i>			S4	1
Baltimore Oriole	<i>Icterus galbula</i>			S4	1
American Goldfinch	<i>Spinus tristis</i>			S5	2
House Sparrow	<i>Passer domesticus</i>			SNA	2

¹Committee on the Status of Endangered Wildlife in Canada – SC=Special Concern

²Committee on the Status of Species at Risk in Ontario – SC=Special Concern

³Provincial Status – S4=Apparently Secure, S5=Secure, SNA=Not applicable (typically non-native)

Appendix D



**Assessment of Habitat for Threatened
and Endangered Species**

Appendix D


Assessment of Habitat for Threatened and Endangered Species

Taxonomy	Species	ESA Status	Preferred Habitat ^{1, 2}	Known Species Range ^{1, 2}	
Birds	Acadian Flycatcher <i>Empidonax vireescens</i>	END	In Ontario, the Acadian Flycatcher primarily lives in the warmer climate of southern Ontario's Carolinian forests. It needs large, undisturbed forests, often more than 40 hectares in size. It is typically found in mature, shady forests with ravines, or in forested swamps with lots of maple and beech trees. The nest is placed near the tip of a lower limb on a tree, and is loosely woven, with strands of plant material hanging down.	In Canada, the Acadian Flycatcher nests only in southwestern Ontario, mostly in large forests and forested ravines near the shore of Lake Erie. It has also been known to nest at a few sites in the Greater Toronto Area but this is unusual. The Acadian Flycatcher population in Ontario is very small, with 25 to 75 breeding pairs recorded in 2010.	Potentially suitable habitat. Not recorded during breeding bird surveys
Birds	Bank Swallow <i>Riparia riparia</i>	THR	Bank Swallows nest in burrows in natural and human-made settings where there are vertical faces in silt and sand deposits. Many nests are on banks of rivers and lakes, but they are also found in active sand and gravel pits or former ones where the banks remain suitable. The birds breed in colonies ranging from several to a few thousand pairs.	The Bank Swallow is found all across southern Ontario, with sparser populations scattered across northern Ontario. The largest populations are found along the Lake Erie and Lake Ontario shorelines, and the Saugeen River (which flows into Lake Huron).	No suitable habitat
Birds	Barn Owl <i>Tyto alba</i>	END	In southern Ontario, this adaptable owl nests and roosts in barns and abandoned buildings. It may also use natural cavities in trees or holes in cliff faces, as it did before the arrival of Europeans in North America. It lives year-round at its nest site and hunts for rodents over orchards, and grasslands such as farmlands, fallow fields and meadows.	In Canada, Barn Owl breeds only in extreme southern Ontario and British Columbia. The Barn Owl cannot tolerate severe winter temperatures, and southern Ontario is the northern limit of its range. Breeding sites in Ontario seem to be restricted to areas with the moderating effects of the Great Lakes (within 50 kilometres of the lakes). The Barn Owl is extirpated (no longer found) in Michigan and has declined in other parts of the northeastern and midwestern parts of the United States. Today, there are fewer than five pairs of Barn Owls in Ontario.	No suitable habitat
Birds	Barn Swallow <i>Hirundo rustica</i>	THR	Barn Swallows often live in close association with humans, building their cup-shaped mud nests almost exclusively on human-made structures such as open barns, under bridges and in culverts. The species is attracted to open structures that include ledges where they can build their nests, which are often re-used from year to year. They prefer unpainted, rough-cut wood, since the mud does not adhere as well to smooth surfaces.	The Barn Swallow may be found throughout southern Ontario and can range as far north as Hudson Bay, wherever suitable locations for nests exist.	No suitable habitat
Birds	Bobolink <i>Dolichonyx oryzivorus</i>	THR	Historically, Bobolinks lived in North American tallgrass prairie and other open meadows. With the clearing of native prairies, Bobolinks moved to living in hayfields. Bobolinks often build their small nests on the ground in dense grasses. Both parents usually tend to their young, sometimes with a third Bobolink helping.	The Bobolink breeds across North America. In Ontario, it is widely distributed throughout most of the province south of the boreal forest, although it may be found in the north where suitable habitat exists.	No suitable habitat
Birds	Cerulean Warbler <i>Dendroica cerulea</i>	THR	Cerulean Warblers spend their summers (breeding seasons) in mature, deciduous forests with large, tall trees and an open under storey. In late summer, they begin their long migration to wintering grounds in the Andes Mountains in South America.	In Canada the Cerulean Warbler's breeding range extends from extreme southwestern Quebec to southern Ontario. In southern Ontario, populations appear to be separated into two distinct bands: one from southern Lake Huron to western Lake Ontario, and further north, the other from the Bruce Peninsula and Georgian Bay area to the Ottawa River.	Potentially suitable habitat. Not recorded during breeding bird surveys
Birds	Chimney Swift <i>Chaetura pelagica</i>	THR	Before European settlement Chimney Swifts mainly nested on cave walls and in hollow trees or tree cavities in old growth forests. Today, they are more likely to be found in and around urban settlements where they nest and roost (rest or sleep) in chimneys and other manmade structures. They also tend to stay close to water as this is where the flying insects eat and congregate.	The Chimney Swift breeds in eastern North America, possibly as far north as southern Newfoundland. In Ontario, it is most widely distributed in the Carolinian zone in the south and southwest of the province but has been detected throughout most of the province south of the 49th parallel. It winters in northwestern South America.	No suitable habitat
Birds	Eastern Meadowlark <i>Sturnella magna</i>	THR	Eastern Meadowlarks breed primarily in moderately tall grasslands, such as pastures and hayfields, but are also found in alfalfa fields, weedy borders of croplands, roadsides, orchards, airports, shrubby overgrown fields, or other open areas. Small trees, shrubs or fence posts are used as elevated song perches.	In Ontario, the Eastern Meadowlark is primarily found south of the Canadian Shield but it also inhabits the Lake Nipissing, Timiskaming and Lake of the Woods areas.	No suitable habitat
Birds	Eastern Whip-poor-will	THR	The Eastern Whip-poor-will is usually found in areas with a mix of open and forested areas, such as savannahs, open woodlands or openings in more mature, deciduous, coniferous and mixed forests. It forages in these open areas and uses	The Eastern Whip-poor-will's breeding range includes two widely separate areas. It breeds throughout much of eastern North America, reaching as far north as southern Canada and also from the southwest United States to Honduras. In	No suitable habitat

Taxonomy	Species	ESA Status	Preferred Habitat ^{1, 2}	Known Species Range ^{1, 2}	
	<i>Caprimulgus vociferus</i>		forested areas for roosting (resting and sleeping) and nesting. It lays its eggs directly on the forest floor, where its colouring means it will easily remain undetected by visual predators.	Canada, the Whip-poor-will can be found from east-central Saskatchewan to central Nova Scotia and in Ontario they breed as far north as the shore of Lake Superior.	
Birds	Henslow's Sparrow <i>Ammodramus henslowii</i>	END	In Ontario, the Henslow's Sparrow lives in open fields with tall grasses, flowering plants, and a few scattered shrubs. It has also been found in abandoned farm fields, pastures, and wet meadows. It tends to avoid fields that have been grazed or are crowded with trees and shrubs. It prefers extensive, dense, tall grasslands where it can more easily conceal its small ground nest.	The Henslow's Sparrow breeds in the northeastern and east-central United States and reaches its northeastern limit in Ontario. It was once fairly common in scattered areas of suitable habitat south of the Canadian Shield. However, steep declines since the 1960s have all but wiped this bird out as a breeding species in Ontario. A few are still seen each spring at migration hotspots such as Point Pelee National Park, and a few may breed at selected locations.	No suitable habitat
Birds	Least Bittern <i>Ixobrychus exilis</i>	THR	In Ontario, the Least Bittern is found in a variety of wetland habitats, but strongly prefers cattail marshes with a mix of open pools and channels. This bird builds its nest above the marsh water in stands of dense vegetation, hidden among the cattails. The nests are almost always built near open water, which is needed for foraging. This species eats mostly frogs, small fish, and aquatic insects.	In Ontario, the Least Bittern is mostly found south of the Canadian Shield, especially in the central and eastern part of the province. Small numbers also breed occasionally in northwest Ontario. This species has disappeared from much of its former range, especially in southwestern Ontario, where wetland loss has been most severe. In winter, Least Bitterns migrate to the southern United States, Mexico and Central America.	No suitable habitat
Birds	Yellow-breasted Chat <i>Icteria virens</i>	END	The Yellow-breasted Chat lives in thickets and scrub, especially locations where clearings have become overgrown. These birds spend their winters in coastal marshes.	In Canada, it lives in southern British Columbia, the Prairies, and southwestern Ontario, where it is concentrated in Point Pelee National Park and Pelee Island in Lake Erie.	No suitable habitat
Mammals	Eastern Small-footed Myotis (Bat) <i>Myotis leibii</i>	END	In the spring and summer, eastern small-footed bats will roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. These bats often change their roosting locations every day. At night, they hunt for insects to eat, including beetles, mosquitos, moths, and flies. In the winter, these bats hibernate, most often in caves and abandoned mines. They seem to choose colder and drier sites than similar bats and will return to the same spot each year.	The Eastern Small-footed bat has been found from south of Georgian Bay to Lake Erie and east to the Pembroke area. There are also records from the Bruce Peninsula, the Espanola area, and Lake Superior Provincial Park. Most documented sightings are of bats in their winter hibernation sites.	Potentially suitable habitat. To be confirmed through future study.
Mammals	Little Brown Myotis (Bat) <i>Myotis lucifugus</i>	END	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. Bats can squeeze through very tiny spaces (as small as six millimetres across) and this is how they access many roosting areas. Little brown bats hibernate from October or November to March or April, most often in caves or abandoned mines that are humid and remain above freezing. This species can typically be associated with any community where suitable roosting (i.e. cavity trees, houses, abandoned buildings, barns, etc.) habitat is available.	The Little Brown Myotis is widespread in southern Ontario and found as far north as Moose Factory and Favourable Lake. Outside Ontario, this bat is found across Canada (except in Nunavut) and most of the United States.	Potentially suitable habitat. To be confirmed through future study.
Mammals	Northern Myotis (Bat) <i>Myotis septentrionalis</i>	END	Northern Myotis bats are associated with boreal forests, choosing to roost under loose bark and in the cavities of trees. These bats hibernate from October or November to March or April, most often in caves or abandoned mines.	The Northern Myotis is found throughout forested areas in southern Ontario, to the north shore of Lake Superior and occasionally as far north as Moosonee, and west to Lake Nipigon.	Potentially suitable habitat. To be confirmed through future study.
Mammals	Tricoloured Bat <i>Perimyotis subflavus</i>	END	Tricoloured Bat inhabits a variety of forested communities and will roost older forests and barns (or other structures). Foraging habitats include areas over water and streams. They hibernate in cave where they typically roost independently rather than in groups.	Tricoloured Bat is found in southern Ontario, where its northern limit is in proximity to Sudbury. Due to its rarity, their distribution is scattered.	Potentially suitable habitat. To be confirmed through future study.
Plants	American Columbo <i>Frasera carolinensis</i>	END	American Columbo grows primarily in open deciduous forests, and to a lesser extent along open forest edges and dense shrub thickets in Ontario. It is most commonly found in dry upland woods, but in parts of its range it has been found in grasslands, moist woods and swampy habitats.	American Columbo is widely distributed in eastern North America, ranging from southern Ontario west to Illinois and south to eastern Oklahoma, northern Mississippi, and western South Carolina. In Canada, American Columbo is only found in the Carolinian forest region of southern Ontario.	Potentially suitable habitat. Not recorded during vegetation surveys
Plants	American Ginseng <i>Panax quinquefolius</i>	END	In Ontario, American Ginseng typically grows in rich, moist, but well-drained, and relatively mature, deciduous woods dominated by Sugar Maple (<i>Acer saccharum</i>), White Ash (<i>Fraxinus americana</i>) and American Basswood (<i>Tilia americana</i>). It usually grows in deep, nutrient rich soil over limestone or marble bedrock.	American Ginseng ranges from Louisiana and Georgia north to New England and Minnesota. In Canada, it is found in southwestern Quebec and southern Ontario.	Potentially suitable habitat. Not recorded during vegetation surveys
Plants	Butternut <i>Juglans cinerea</i>	END	In Ontario, Butternut usually grows alone or in small groups in deciduous forests. It prefers moist, well-drained soil and is often found along streams. It is also found on	Butternut can be found throughout central and eastern North America. In Canada, Butternut occurs in Ontario, Quebec and New Brunswick. In Ontario, this species	Not recorded during vegetation surveys

Taxonomy	Species	ESA Status	Preferred Habitat ^{1, 2}	Known Species Range ^{1, 2}	
			well-drained gravel sites and rarely on dry rocky soil. This species does not do well in the shade, and often grows in sunny openings and near forest edges.	is found throughout the southwest, north to the Bruce Peninsula, and south of the Canadian Shield.	
Plants	Cherry Birch <i>Betula lenta</i>	END	The Cherry Birch is a medium-sized deciduous tree that grows up to 20 metres tall. The leaves are oval shaped with a finely toothed edge and a slender tip. In Ontario, the Cherry Birch is found on moist, well-drained clay loam soil over limestone bedrock with White Oak, Red Oak, Eastern Hemlock, Sugar Maple and other deciduous trees.	The single population of Cherry Birch in Canada is isolated at two sites on the Niagara peninsula in southern Ontario. A survey of the two sites in 2010, found only 17 trees out of the 50 trees that were originally identified in 1967.	Potentially suitable habitat. Not recorded during vegetation surveys
Plants	Cucumber Tree <i>Magnolia acuminata</i>	END		The cucumber tree is rare in Ontario, confined to only a few locations in Norfolk County and the Niagara Region. It is the only species of magnolia native to Canada.	Potentially suitable habitat. Not recorded during vegetation surveys
Plants	Eastern Flowering Dogwood <i>Cornus florida</i>	END	Eastern Flowering Dogwood grows under taller trees in mid-age to mature deciduous or mixed forests. It most commonly grows on floodplains, slopes, bluffs and in ravines, and is also sometimes found along roadsides and fencerows.	In Canada, it can only be found in southern Ontario in the Carolinian Zone (the small area of Ontario southwest of Toronto to Sarnia down to the shores of Lake Erie).	Potentially suitable habitat. Not recorded during vegetation surveys
Plants	Red Mulberry <i>Morus rubra</i>	END	In Ontario, Red Mulberry grows in moist, forested habitats and on both sandy and limestone-based loamy soils. It is often found in areas where the forest canopy is quite open and allows lots of sunlight to reach the forest floor, but it will tolerate some shade.	Red Mulberry occurs in eastern North American forests. In Canada, it is only found in the Carolinian Zone (the small area of Ontario southwest of Toronto to Sarnia down to the shores of Lake Erie) near rivers, the shores of Lake Erie, and the slopes of the Niagara Escarpment.	Not recorded during vegetation surveys
Plants	Round-leaved Greenbrier <i>Smilax rotundifolia</i>	THR	In Ontario, Round-leaved greenbrier is found mainly in the warmer climate of the Carolinian Forest. It prefers open moist to wet woodlands, often growing on sandy soil.	In Ontario, Round-leaved greenbrier is found mainly in the warmer climate of the Carolinian Forest. It prefers open moist to wet woodlands, often growing on sandy soil.	Potentially suitable habitat. Not recorded during vegetation surveys
Plants	White Wood Aster <i>Eurybia divaricata</i>	THR	White wood aster is a perennial plant that usually grows 30 to 90 centimetres tall. Its leaves are deeply and irregularly serrated: the lower leaves are heart-shaped while the upper leaves are elongated. White wood aster grows in open, dry deciduous forests that are dominated by Sugar maple and American beech trees. It is often found mixed in with other asters. The plant does best in well-drained soils and it may prefer a low level of disturbance, as it has been found to grow along trails. It does well in partial to full shade.	In Canada, it is restricted to a relatively small number of sites in the Niagara region and a few woodlots in southwestern Quebec.	Potentially suitable habitat. Not recorded during vegetation surveys
Reptiles	Blanding's Turtle <i>Emydoidea blandingii</i>	THR	Blanding's Turtles live in shallow water, usually in large wetlands and shallow lakes with lots of water plants. It is not unusual, though, to find them hundreds of metres from the nearest water body, especially while they are searching for a mate or traveling to a nesting site. Blanding's Turtles hibernate in the mud at the bottom of permanent water bodies from late October until the end of April.	The Blanding's Turtle is found in and around the Great Lakes Basin, with isolated populations elsewhere in the United States and Canada. In Canada, the Blanding's Turtle is separated into the Great Lakes-St. Lawrence population and the Nova Scotia population. Blanding's Turtles can be found throughout southern, central and eastern Ontario.	No suitable habitat.

Appendix E



Significant Wildlife Habitat Assessment

Appendix E

Table E1. Significant Wildlife Habitat (SWH) Assessment

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
Seasonal Concentration Areas			
Waterfowl Stopover and Staging Areas (Terrestrial) American Black Duck Northern Pintail Gadwall Blue-winged Teal Green-winged Teal American Wigeon Northern Shoveler Tundra Swan	CUM1 CUT1 Plus evidence of annual spring flooding from melt water or run-off within these Ecosites.	Suitable Habitat <ul style="list-style-type: none"> Fields with sheet water during Spring (mid-March to May) Suggested Criteria <ul style="list-style-type: none"> Studies carried out and verified presence of an annual concentration of any listed species 	No suitable habitat or associated species present on the subject property.
Waterfowl Stopover and Staging Areas (Aquatic) Canada Goose Cackling Goose Snow Goose American Black Duck Northern Pintail Northern Shoveler American Wigeon Gadwall Green-winged Teal Blue-winged Teal Hooded Merganser Common Merganser Lesser Scaup Greater Scaup Long-tailed duck Surf Scoter White-winged Scoter Black Scoter Ring-necked duck Common Goldeneye Bufflehead Redhead Ruddy Duck Red-breasted Merganser Brant Canvasback	MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7	Suitable Habitat <ul style="list-style-type: none"> Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration Sewage treatment ponds and storm water ponds do not qualify as SWH, however a reservoir managed as a large wetland or pond/lake does qualify These habitats have an abundant food supply (mostly aquatic invertebrates and vegetation in shallow water) Suggested Criteria <p>Studies carried out and verified presence of:</p> <ul style="list-style-type: none"> Aggregations of 100 or more of listed species for 7 days, results in > 700 waterfowl use days Areas with annual staging of ruddy ducks, canvasbacks, and redheads are SWH Wetland area and shorelines associated with sites identified within the Significant Wildlife Habitat Technical Guide (SWHTG) (MNRF 2000) Appendix K are SWH 	No suitable habitat or associated species present on the subject property.
Shorebird Migratory Stopover Area Hudsonian Godwit Black-bellied Plover American Golden-Plover	BBO1 BBO2 BBS1 BBS2 BBT1 BBT2	Suitable Habitat <ul style="list-style-type: none"> Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats 	No suitable habitat or associated species present on the subject property.

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
<p>Semipalmated Plover Solitary Sandpiper Spotted Sandpiper Semipalmated Sandpiper Pectoral Sandpiper White-rumped Sandpiper Baird's Sandpiper Least Sandpiper Purple Sandpiper Stilt Sandpiper Short-billed Dowitcher Red-necked Phalarope Whimbrel Ruddy Turnstone Sanderling Dunlin</p>	<p>SDO1 SDS2 SDT1 MAM1 MAM2 MAM3 MAM4 MAM5</p>	<ul style="list-style-type: none"> Great Lakes coastal shorelines, including groynes and other forms of armour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and early July to October. Sewage treatment ponds and storm water ponds do not qualify as a SWH <p>Suggested Criteria</p> <ul style="list-style-type: none"> Presence of 3 or more of listed species and > 1000¹ shorebird use days during spring or fall migration period. (shorebird use days are the accumulated number of shorebirds counted per day over the course of the fall or spring migration period) Whimbrel stop briefly (<24hrs) during spring migration, any site with >100 Whimbrel used for 3 years or more is significant The area of significant shorebird habitat includes the mapped ELC shoreline ecosites plus a 100 m radius area 	
<p>Raptor Wintering Area Rough-legged Hawk Red-tailed Hawk Northern Harrier American Kestrel Snowy Owl Short-eared Owl Bald Eagle</p>	<p>Hawks/Owls: Combination of ELC Community Series; need to have present one Community Series from each land class; Forest: FOD, FOM, FOC. Upland: CUM; CUT; CUS; CUW. Bald Eagle: Forest community Series: FOD, FOM, FOC, SWD, SWM or SWC on shoreline areas adjacent to large rivers or adjacent to lakes with open water (hunting area)</p>	<p>Suitable Habitat</p> <ul style="list-style-type: none"> The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors Raptor wintering (hawk/owl) sites need to be > 20 ha with a combination of forest and upland <p>Suggested Criteria</p> <p>Studies confirm the use of these habitats by:</p> <ul style="list-style-type: none"> One or more Short-eared Owls or; One or more Bald Eagles or at least 10 individuals and two listed hawk/owl species To be significant a site must be used regularly (3 in 5 years) for a minimum of 20 days by the above number of birds The habitat area for an Eagle winter site is the shoreline forest ecosites directly adjacent to the prime hunting area 	<p>Site contains a mix of woodland and meadow; however, the area does not meet the size threshold. A single pair of Red-tailed Hawk was recorded on the site; however, this does not meet the criteria for SWH. .</p>
<p>Bat Hibernacula Big Brown Bat Tri-colored Bat</p>	<p>Bat Hibernacula may be found in these ecosites: CCR1 CCR2 CCA1 CCA2 (Note: buildings are not considered to be SWH)</p>	<p>Suitable Habitat</p> <ul style="list-style-type: none"> Hibernacula may be found in caves, mine shafts, underground foundations and Karsts. <p>Suggested Criteria</p> <ul style="list-style-type: none"> All sites with confirmed hibernating bats are SWH The area includes 200m radius around the entrance of the hibernaculum for most development types and for wind farms 	<p>No suitable habitat or associated species present on the subject property.</p>
<p>Bat Maternity Colonies Big Brown Bat Silver-haired Bat</p>	<p>Maternity colonies considered SWH are found in forested Ecosites. All ELC Ecosites in ELC Community Series: FOD FOM SWD</p>	<p>Suitable Habitat</p> <ul style="list-style-type: none"> Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH) Maternity colonies located in mature deciduous or mixed forest stands with >10/ha large diameter (>25cm dbh) wildlife trees Female bats prefer wildlife tree (snags) in early stages of decay, class 1-3 or class 1 or 2 	<p>Potentially suitable habitat associated with ELC units 1a and 1b.</p>

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
	SWM	<ul style="list-style-type: none"> Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred <p>Suggested Criteria</p> <ul style="list-style-type: none"> Maternity colonies with confirmed use by; <ul style="list-style-type: none"> >10 Big Brown Bats >5 Adult Female Silver-haired Bats The area of the habitat includes the entire woodland or the forest stand ELC Ecosite or an Ecoelement containing the maternity colonies 	
<p>Turtle Wintering Areas Midland Painted Turtle Northern Map Turtle Snapping Turtle</p>	Snapping and Midland Painted Turtles; ELC Community Classes; SW, MA, OA and SA, ELC Community Series; FEO and BOO Northern Map Turtle; Open Water areas such as deeper rivers or streams and lakes with current can also be used as over-wintering	<p>Suitable Habitat</p> <ul style="list-style-type: none"> For most turtles, wintering areas are in the same general area as their core habitat. Water has to be deep enough not to freeze and have soft mud substrates Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH <p>Suggested Criteria</p> <ul style="list-style-type: none"> Presence of 5 over-wintering Midland Painted Turtles is significant One or more Northern Map Turtle or Snapping Turtle over-wintering within a wetland is significant The mapped ELC ecosite area with the over wintering turtles is the SWH. If the hibernation site is within a stream or river, the deep-water pool where the turtles are over wintering is the SWH 	No suitable habitat or associated species present on the subject property.
<p>Reptile Hibernaculum Eastern Gartersnake Northern Watersnake Northern Red-bellied Snake Northern Brownsnake Smooth Green Snake Northern Ring-necked Snake Milksnake Eastern Ribbonsnake</p>	For all snakes, habitat may be found in any ecosite other than very wet ones. Talus, Rock Barren, Crevice, Cave, and Alvar sites may be directly related to these habitats. Observations or congregations of snakes on sunny warm days in the spring or fall is a good indicator.	<p>Suitable Habitat</p> <ul style="list-style-type: none"> For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural locations The existence of features that go below frost line; such as rock piles or slopes, old stone fences, and abandoned crumbling foundations assist in identifying Candidate SWH Areas of broken and fissured rock are particularly valuable since they provide access to subterranean sites below the frost Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover <p>Suggested Criteria</p> <p>Studies confirming</p> <ul style="list-style-type: none"> Presence of snake hibernacula used by a minimum of five individuals of a snake sp. <u>or</u>; individuals of two or more snake spp. Congregations of a minimum of five individuals of a snake sp. <u>or</u>; individuals of two or more snake spp. near potential hibernacula (e.g. foundation or rocky slope) on sunny warm days in spring 	This type of habitat can be very difficult to identify and confirm. Potentially suitable habitat (e.g. burrows, dislodged trees stumps) may exist within the forest features (ELC units 1a and 1b). No congregations of snakes suggesting the presence of a hibernaculum were noted during field investigations.
<p>Colonially-Nesting Bird Breeding Habitat (Bank and Cliff) Cliff Swallow Northern Rough-winged Swallow (this species is not colonial)</p>	sandy hills, borrow pits, steep slopes, and sand piles Cliff faces, bridge abutments, silos, barns. Habitat found in the following ecosites: CUM1	<p>Suitable Habitat</p> <ul style="list-style-type: none"> Any site or areas with exposed soil banks, undisturbed or naturally eroding that is not a licensed/permitted aggregate area Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such as berms, embankments, soil or aggregate stockpiles Does not include a licensed/permitted Mineral Aggregate Operation 	No suitable habitat or associated species present on the subject property.

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
but can be found in Cliff Swallow colonies)	CUT1 CUS1 BLO1 BLS1 BLT1 CLO1 CLS1 CLT1	Suggested Criteria Studies confirming: <ul style="list-style-type: none"> • Presence of 1 or more nesting sites with 8 or more cliff swallow pairs or 50 bank swallow and/or rough-winged swallow pairs during the breeding season • A colony identified as SWH will include a 50m radius habitat area from the peripheral nests 	
Colonially-Nesting Bird Breeding Habitat (Tree/Shrubs) Great Blue Heron Black-crowned Night-Heron Great Egret Green Heron	SWM2 SWM3 SWM5 SWM6 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7 FET1	Suitable Habitat <ul style="list-style-type: none"> • Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used • Most nests in trees are 11 to 15 m from ground, near the top of the tree Suggested Criteria Studies confirming: <ul style="list-style-type: none"> • Presence of 2 or more active nests of Great Blue Heron or other listed species • The habitat extends from the edge of the colony and a minimum 300m radius or extent of the forest ecosite containing the colony or any island <15.0 ha with a colony is the SWH 	No suitable habitat or associated species present on the subject property.
Colonially-Nesting Bird Breeding Habitat (Ground) Herring Gull Great Black-backed Gull Little Gull Common Tern Caspian Tern Brewer's Blackbird	Any rocky island or peninsula (natural or artificial) within a lake or large river (two-lined on a 1:50,000 NTS map). Close proximity to watercourses in open fields or pastures with scattered trees or shrubs (Brewer's Blackbird) MAM1 – 6; MAS1 – 3; CUM CUT CUS	Suitable Habitat <ul style="list-style-type: none"> • Nesting colonies of gulls and terns are on islands or peninsulas associated with open water or in marshy areas • Brewers Blackbird colonies are found loosely on the ground in or in low bushes in close proximity to streams and irrigation ditches within farmlands Suggested Criteria Studies confirming: <ul style="list-style-type: none"> • Presence of >25 active nests for Herring Gulls or Ring-billed Gulls, >5 active nests for Common Tern or >2 active nests for Caspian Tern • Any active nesting colony of one or more Little Gull, and Great Black-backed Gull is significant • Presence of 5 or more pairs for Brewer's Blackbird • The edge of the colony and a minimum 150m area of habitat, or the extent of the ELC ecosites containing the colony or any island <3.0ha with a colony is the SWH 	No suitable habitat or associated species present on the subject property.
Migratory Butterfly Stopover Areas Painted Lady Red Admiral Monarch	Combination of ELC Community Series; need to have present one Community Series from each landclass: Field: CUM CUT CUS Forest: FOC FOD FOM CUP Anecdotally, a candidate site for butterfly stopover will have	Suitable Habitat <ul style="list-style-type: none"> • A butterfly stopover area will be a minimum of 10 ha in size with a combination of field and forest habitat present, and will be located within 5 km of Lake Ontario or Lake Erie • The habitat is typically a combination of field and forest, and provides the butterflies with a location to rest prior to their long migration south • The habitat should not be disturbed, fields/meadows with an abundance of preferred nectar plants and woodland edge providing shelter are requirements for this habitat • Staging areas usually provide protection from the elements and are often spits of land or areas with the shortest Suggested Criteria Studies confirm:	No suitable habitat present on the subject property.

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
	a history of butterflies being observed.	<ul style="list-style-type: none"> The presence of Monarch Use Days (MUD) during fall migration (Aug/Oct). MUD is based on the number of days a site is used by Monarchs, multiplied by the number of individuals using the site. Numbers of butterflies can range from 100-500/day - significant variation can occur between years and multiple years of sampling should occur MUD of >5000 or >3000 with the presence of Painted Ladies or Red Admirals is to be considered significant 	
Landbird Migratory Stopover Areas All migratory songbirds	All Ecosites associated with these ELC Community Series; FOC FOM FOD SWC SWM SWD	Suitable Habitat <ul style="list-style-type: none"> Woodlots >5 ha in size and within 5 km of Lake Ontario and Lake Erie If woodlands are rare in an area of shoreline, woodland fragments 2 ha to 5ha can be considered for this habitat If multiple woodlands are located along the shoreline those Woodlands <2 km from Lake Erie or Ontario are more significant Sites have a variety of habitats; forest, grassland and wetland complexes The largest sites are more significant Woodlots and forest fragments are important habitats to migrating birds, these features located along the shore and located within 5km of Lake Ontario are Candidate SWH Suggested Criteria Studies confirm: <ul style="list-style-type: none"> Use of the woodlot by >200 birds/day and with >35 species with at least 10 bird spp. recorded on at least 5 different survey dates This abundance and diversity of migrant bird species is considered above average and significant 	No suitable habitat present on the subject property.
Deer Winter Congregation Areas White-tailed Deer	All Forested Ecosites with these ELC Community Series; FOC FOM FOD SWC SWM SWD Conifer plantations much smaller than 50 ha may also be used.	Suitable Habitat <ul style="list-style-type: none"> Woodlots >100 ha in size or if large woodlots are rare in a planning area woodlots >50 ha Deer movement during winter in Ecoregion 7E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands Large woodlots > 100 ha and up to 1500 ha are known to be used annually by densities of deer that range from 0.1-1.5 deer/ha Woodlots with high densities of deer due to artificial feeding are not significant Suggested Criteria Studies confirm: <ul style="list-style-type: none"> Deer management is an MNR responsibility, deer winter congregation areas considered significant will be mapped by MNRF Use of the woodlot by white-tailed deer will be determined by MNR, all woodlots exceeding the area criteria are significant, unless determined not to be significant by MNRF 	No suitable habitat present on the subject property.
Cliffs and Talus Slopes	Any ELC Ecosite within Community Series: TAO CLO TAS CLS TAT CLT	<ul style="list-style-type: none"> A Cliff is vertical to near vertical bedrock >3m in height A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris Most cliff and talus slopes occur along the Niagara Escarpment Suggested Criteria <ul style="list-style-type: none"> ELC Communities: TAO, TAS, TAT, CLO, CLS or CLT 	No suitable habitat present on the subject property.

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
Sand Barren	ELC Ecosites: SBO1 SBS1 SBT1 Vegetation cover varies from patchy and barren to continuous meadow, (SBO1), thicket-like (SBS1), or more closed and treed (SBT1). Tree cover always < 60%.	<ul style="list-style-type: none"> Sand Barrens typically are exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion Usually located within other types of natural habitat such as forest or savannah Vegetation can vary from patchy and barren to tree covered but less than 60% Suggested Criteria <ul style="list-style-type: none"> A sand barren area >0.5 ha in size ELC Communities: SBO1, SBS1, SBT1 Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics) 	No suitable habitat present on the subject property.
Alvar	ALO1 ALS1 ALT1 FOC1 FOC2 CUM2 CUS2 CUT2-1 CUW2 Five Alvar Indicator Species: 1) Carex crawei 2) Panicum philadelphicum 3) Eleocharis compressa 4) Scutellaria parvula 5) Trichostema brachiatum These indicator species are very specific to Alvars within Ecoregion 7E	<ul style="list-style-type: none"> An alvar is typically a level, mostly unfractured calcareous bedrock feature with a mosaic of rock pavements and bedrock overlain by a thin veneer of soil The hydrology of alvars is complex, with alternating periods of inundation and drought Vegetation cover varies from sparse lichen-moss associations to grasslands and shrublands and comprising a number of characteristic or indicator plant Undisturbed alvars can be phyto- and zoogeographically diverse, supporting many uncommon or are relict plant and animal species. Vegetation cover varies from patchy to barren with a less than 60% tree cover Suggested Criteria <ul style="list-style-type: none"> An Alvar site > 0.5 ha in size Alvar is particularly rare in ecoregion 7E where the only known sites are found in the western islands of Lake Erie Five indicator species specific to alvars within Ecoregion 7E: 1) Carex crawei 2) Panicum philadelphicum 3) Eleocharis compressa 4) Scutellaria parvula 5) Trichostema brachiatum Field studies identify four of the five Alvar indicator species within ELC communities: ALO1, ALS1, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2 Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics) The Alvar must be in excellent condition and fit in with surrounding landscape with few conflicting land uses 	No suitable habitat present on the subject property.
Old Growth Forest	Community Series: FOD FOC FOM SWD SWC SWM	<ul style="list-style-type: none"> Old-growth forests are characterized by heavy mortality or turnover of over-storey trees resulting in a mosaic of gaps that encourage development of a multi-layered canopy and an abundance of snags and downed woody debris. Suggested Criteria <ul style="list-style-type: none"> Woodland area is >0.5 ha If dominant trees species of the ecosite are >140 years old, then stand is SWH The forested area containing the old growth characteristics will have experienced no recognizable forestry activities (cut stumps will not be present) The area of forest ecosites combined or an eco-element within an ecosite that contain the old growth characteristics is the SWH 	Based on historical air photos, ELC units 1a and 1b may contain some trees over 140 years old; however, the site appears to have a history of anthropogenic disturbance/forest management.
Savannah	TPS1 TPS2 TPW1 TPW2 CUS2	<ul style="list-style-type: none"> A Savannah is a tallgrass prairie habitat that has tree cover between 25 – 60% In ecoregion 7E, known Tallgrass Prairie and savannah remnants are scattered between Lake Huron and Lake Erie, near Lake St. Clair, north of and along the Lake Erie shoreline, in Brantford and in the Toronto area (north of Lake Ontario) Suggested Criteria	Not present on the subject property.

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
		<ul style="list-style-type: none"> No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH Field studies confirm one or more of the Prairie indicator species listed in Appendix N should be present. Note: Prairie plant spp. list from Ecoregion 7E should be used Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics) 	
Tallgrass Prairie	TPO1 TPO2	<ul style="list-style-type: none"> A Tallgrass Prairie has ground cover dominated by prairie grasses. An open Tallgrass Prairie habitat has < 25% tree cover In ecoregion 7E, known Tallgrass Prairie and savannah remnants are scattered between Lake Huron and Lake Erie, near Lake St. Clair, north of and along the Lake Erie shoreline, in Brantford and in the Toronto area (north of Lake Ontario) <p>Suggested Criteria</p> <ul style="list-style-type: none"> No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH ELC communities TPO1, TPO2 Field studies confirm one or more of the Prairie indicator species listed in Appendix N in SWHTG (MNR 2000) should be present Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics) 	Not present on the subject property
Other Rare Vegetation Communities	Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG. Any ELC Ecosite Code that has a possible ELC Vegetation Type that is Provincially Rare is Candidate SWH.	<ul style="list-style-type: none"> Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG (MNR 2000) Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps ELC Ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in SWHTG (MNR 2000) Appendix M The MNR/NHIC will have up to date listing for rare vegetation communities 	Not present on the subject property
Specialized Habitat for Species			
Waterfowl Nesting Area American Black Duck Northern Pintail Northern Shoveler Gadwall Blue-winged Teal Green-winged Teal Wood Duck Hooded Merganser Mallard	All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 SWT1 SWT2 SWD1 SWD2 SWD3 SWD4	<p>Suitable Habitat</p> <ul style="list-style-type: none"> A waterfowl nesting area extends 120 m from a wetland (> 0.5 ha) or a wetland (>0.5 ha) with small wetlands (<0.5ha) within 120m or a cluster of 3 or more small (<0.5 ha) wetlands within 120 m of each individual wetland where waterfowl nesting is known to occur Upland areas should be at least 120m wide so that predators such as racoons, skunks, and foxes have difficulty finding nests <p>Suggested Criteria</p> <p>Studies confirmed:</p> <ul style="list-style-type: none"> Presence of 3 or more nesting pairs for listed species excluding Mallards, or presence of 10 or more nesting pairs for listed species including Mallards Any active nesting site of an American Black Duck is considered significant Wood Ducks and Hooded Mergansers utilize large diameter trees (>40 cm dbh) in woodlands for cavity nest sites 	No suitable habitat or associated species present on the subject property.

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
<p>Bald Eagle and Osprey Nesting, Foraging and Perching Habitat</p>	<p>ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM and SWC directly adjacent to riparian areas – rivers, lakes, ponds and wetlands</p>	<p>Suitable Habitat</p> <ul style="list-style-type: none"> Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water Osprey nests are usually at the top a tree whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree’s canopy Nests located on man-made objects are not to be included as SWH (e.g. telephone poles and constructed nesting platforms) <p>Suggested Criteria Studies confirm the use of these nests by:</p> <ul style="list-style-type: none"> One or more active Osprey or Bald Eagle nests in an area Some species have more than one nest in a given area and priority is given to the primary nest with alternate nests included within the area of the SWH For an Osprey, the active nest and a 300 m radius around the nest or the contiguous woodland stand is the SWH ^{ccvii}, maintaining undisturbed shorelines with large trees within this area is important For a Bald Eagle the active nest and a 400-800 m radius around the nest is the SWH. Area of the habitat from 400-800m is dependent on site lines from the nest to the development and inclusion of perching and foraging habitat To be significant a site must be used annually. When found inactive, the site must be known to be inactive for >3 years or suspected of not being used for >5 years before being considered not significant 	<p>No suitable habitat or associated species present on the subject property.</p>
<p>Woodland Raptor Nesting Habitat</p> <p>Northern Goshawk Cooper’s Hawk Sharp-shinned Hawk Red-shouldered Hawk Barred Owl Broad-winged Hawk</p>	<p>May be found in all forested ELC Ecosites.</p> <p>May also be found in SWC, SWM, SWD, CUP3</p>	<p>Suitable Habitat</p> <ul style="list-style-type: none"> All natural or conifer plantation woodland/forest stands combined >30ha or with >4 ha of interior habitat. Interior habitat determined with a 200 m buffer Stick nests found in a variety of intermediate-aged to mature conifer, deciduous or mixed forests within tops or crotches of trees. Species such as Coopers hawk nest along forest edges sometimes on peninsulas or small off-shore island In disturbed sites, nests may be used again, or a new nest will be in close proximity to old nest <p>Suggested Criteria</p> <p>Studies confirm:</p> <ul style="list-style-type: none"> Presence of 1 or more active nests from species list is considered significant Red-shouldered Hawk and Northern Goshawk – a 400m radius around the nest or 28 ha of suitable habitat is the SWH. (the 28-ha habitat area would be applied where optimal habitat is irregularly shaped around the nest) Barred Owl – a 200m radius around the nest is the SWH Broad-winged Hawk and Coopers Hawk, – a 100m radius around the nest is the SWH Sharp-Shinned Hawk – a 50m radius around the nest is the SWH 	<p>Forested areas are too small to qualify as SWH. Listed species not recorded on the subject property.</p>
<p>Turtle Nesting Areas</p> <p>Midland Painted Turtle Northern Map Turtle Snapping Turtle</p>	<p>Exposed mineral soil (sand or gravel) areas adjacent (<100m) cxlviii or within the following ELC Ecosites:</p> <p>MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 BOO1 FEO1</p>	<p>Suitable Habitat</p> <ul style="list-style-type: none"> Exposed mineral soil (sand or gravel) areas adjacent (<100 m) to within the following Ecosites: MAS1, MAS2, MAS3, SAS1, SAM1, SAF1, BOO1, FEO1 Best nesting habitat for turtles are close to water and away from roads and sites less prone to loss of eggs by predation from skunks, raccoons or other animals For an area to function as a turtle-nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used 	<p>No suitable habitat or associated species present on the subject property.</p>

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
		<p>Suggested Criteria</p> <p>Studies confirm:</p> <ul style="list-style-type: none"> • Presence of 5 or more nesting Midland Painted Turtles • One or more Northern Map Turtle or Snapping Turtle nesting • The area or collection of sites within an area of exposed mineral soils where the turtles nest, plus a radius of 30-100m around the nesting area dependant on slope, riparian vegetation and adjacent land use is the SWH • Travel routes from wetland to nesting area are to be considered within the SWH 	
<p>Seeps and Springs Wild Turkey Ruffed Grouse Spruce Grouse White-tailed Deer Salamander spp.</p>	<p>Any forested Ecosite within the headwater areas of a stream could have seeps/springs.</p>	<p>Suitable Habitat</p> <ul style="list-style-type: none"> • Any forested area (with <25% meadow/field/pasture) within the headwaters of a stream or river system (could contain a seep or spring - areas where ground water comes to the surface) • Seeps and springs are important feeding and drinking areas especially in the winter will typically support a variety of plant and animal species • The protection of the recharge area considering the slope, vegetation, height of trees and groundwater condition need to be considered in delineation the habitat <p>Suggested Criteria</p> <p>Studies confirm:</p> <ul style="list-style-type: none"> • Presence of a site with 2 or more seeps/springs should be considered SWH • The area of an ELC forest ecosite containing the seeps/springs is the SWH 	<p>No seeps or springs were observed in the subject property.</p>
<p>Amphibian Breeding Habitat (Woodland) Eastern Newt Blue-spotted Salamander Spotted Salamander Gray Treefrog Spring Peeper Western Chorus Frog Wood Frog</p>	<p>All Ecosites associated with these ELC Community Series; FOC FOM FOD SWC SWM SWD</p> <p>Breeding pools within the woodland or the shortest distance from forest habitat are more significant because they are more likely to be used due to reduced risk to migrating amphibians</p>	<p>Suitable Habitat</p> <ul style="list-style-type: none"> • Presence of a wetland, pond, or woodland pool within or adjacent (within 120m) to a woodland (no minimum size) • Some small wetlands may not be mapped and may be important breeding pools for amphibians • Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat <p>Suggested Criteria</p> <p>Studies confirm;</p> <ul style="list-style-type: none"> • Presence of breeding population of 1 or more of the listed salamander species or 2 or more of the listed frog species with at least 20 individuals (adults, juveniles, eggs/larval masses) or 2 or more of the listed frog species with Call Level Codes of 3 	<p>No suitable habitat present on the subject property. Amphibians not recorded calling during surveys.</p>
<p>Amphibian Breeding Habitat (Wetland) Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog</p>	<p>ELC Community Classes SW, MA, FE, BO, OA and SA.</p> <p>Typically these wetland ecosites will be isolated (>120m) from woodland ecosites, however larger wetlands containing predominantly aquatic species (e.g. Bull Frog) may be adjacent to woodlands</p>	<p>Suitable Habitat</p> <ul style="list-style-type: none"> • Wetlands >500 m² (about 25 m diameter) supporting high species diversity are significant • Some small or ephemeral habitats may not be identified on MNRF mapping and could be important amphibian breeding habitats • Presence of shrubs and logs increase significance of pond for some amphibian species because of available structure for calling, foraging, escape and concealment from predators • Bullfrogs require permanent water bodies with abundant emergent vegetation. <p>Suggested Criteria</p> <p>Studies confirm:</p>	<p>No suitable habitat present on the subject property.</p>

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
Mink Frog Bullfrog		<ul style="list-style-type: none"> • Presence of breeding population of 1 or more of the listed newt/salamander species or 2 or more of the listed frog or toad species and with at least 20 individuals (adults, juveniles, eggs/larval masses) or 2 or more of the listed frog species with Call Level Codes of 3 • The ELC ecosite wetland area and the shoreline are the SWH 	
Woodland Area-Sensitive Bird Breeding Habitat Yellow-bellied Sapsucker Red-breasted Nuthatch Veery Blue-headed Vireo Northern Parula Black-throated Green Warbler Blackburnian Warbler Black-throated Blue Warbler Ovenbird Scarlet Tanager Winter Wren Pileated Woodpecker Cerulean Warbler Canada Warbler	All Ecosites associated with these ELC Community Series; FOC FOM FOD SWC SWM SWD	Suitable Habitat <ul style="list-style-type: none"> • Habitats where interior forest breeding birds are breeding • Typically large mature (>60 yrs old) forest stands or woodlots >30 ha • Interior forest habitat is at least 200 m from forest edge habitat Suggested Criteria Studies confirm: <ul style="list-style-type: none"> • Presence of nesting or breeding pairs of 3 or more of the listed wildlife species. • Any site with breeding Cerulean Warblers or Canada Warblers is to be considered SWH 	No suitable habitat or listed species on the subject property.
Habitat for Species of Conservation Concern			
Marsh Bird Breeding Habitat American Bittern Virginia Rail Sora Common Moorhen American Coot Pied-billed Grebe Marsh Wren Sedge Wren Common Loon Green Heron Trumpeter Swan Black Tern Yellow Rail	MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 SAS1 SAM1 SAF1 FEO1 BOO1 For Green Heron: All SW, MA and CUM1 sites.	Suitable Habitat <ul style="list-style-type: none"> • Nesting occurs in wetlands • All wetland habitat is to be considered as long as there is shallow water with emergent aquatic vegetation present • For Green Heron, habitat is at the edge of water such as sluggish streams, ponds and marshes sheltered by shrubs and trees. Less frequently, it may be found in upland shrubs or forest a considerable distance from water Suggested Criteria Studies confirm: <ul style="list-style-type: none"> • Presence of 5 or more nesting pairs of Sedge Wren or Marsh Wren or breeding by any combination of 4 or more of the listed species • Note: any wetland with breeding of 1 or more Trumpeter Swans, Black Terns or Yellow Rail is SWH • Area of the ELC ecosite is the SWH 	No suitable habitat or associated species present on the subject property.
Open Country Bird Breeding Habitat Upland Sandpiper Grasshopper Sparrow Vesper Sparrow Northern Harrier Savannah Sparrow Short-eared Owl	CUM1, CUM2	Suitable Habitat <ul style="list-style-type: none"> • Large grassland areas (includes natural and cultural fields and meadows) >30 ha • Grasslands not Class 1 or 2 agricultural lands, and not being actively used for farming (i.e. no row cropping or intensive hay or livestock pasturing in the last 5 years) • Grassland sites considered significant should have a history of longevity, either abandoned fields, mature hayfields and pasturelands that are at least 5 years or older • The Indicator bird species are area sensitive requiring larger grassland areas than the common grassland species Suggested Criteria Field Studies confirm:	No suitable habitat or associated species present on the subject property.

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
		<ul style="list-style-type: none"> • Presence of nesting or breeding of 2 or more of the listed species • A field with 1 or more breeding Short-eared Owls is to be considered SWH. • The area of SWH is the contiguous ELC ecosite field areas 	
<p>Shrub/Early Successional Bird Breeding Habitat</p> <p><u>Indicator Species:</u> Brown Thrasher Clay-coloured Sparrow</p> <p><u>Common Species:</u> Field Sparrow Black-billed Cuckoo Eastern Towhee Willow Flycatcher</p> <p><u>Special Concern:</u> Yellow-breasted Chat Golden-winged Warbler</p>	<p>CUT1 CUT2 CUS1 CUS2 CUW1 CUW2</p>	<p>Suitable Habitat</p> <ul style="list-style-type: none"> • Large natural field areas succeeding to shrub and thicket habitats >10ha^{CLXIV} in size. Shrub land or early successional fields, not class 1 or 2 agricultural lands, not being actively used for farming (i.e. no row-cropping, haying or live-stock pasturing in the last 5 years) • Shrub thicket habitats (>10 ha) are most likely to support and sustain a diversity of these species • Shrub and thicket habitat sites considered significant should have a history of longevity, either abandoned fields or pasturelands. <p>Suggested Criteria</p> <p>Field Studies confirm:</p> <ul style="list-style-type: none"> • Presence of nesting or breeding of 1 of the indicator species and at least 2 of the common species • A habitat with breeding Yellow-breasted Chat or Golden-winged Warbler is to be considered as Significant Wildlife Habitat • The area of the SWH is the contiguous ELC ecosite field/thicket area 	<p>No suitable habitat or associated species present on the subject property.</p>
<p>Terrestrial Crayfish</p> <p>Chimney or Digger Crayfish (<i>Fallicambarus fodiens</i>) Devil Crawfish or Meadow Crayfish (<i>Cambarus Diogenes</i>)</p>	<p>MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 MAS1 MAS2 MAS3 SWD SWT SWM CUM1 with inclusions of above meadow marsh ecosites can be used by terrestrial crayfish.</p>	<p>Suitable Habitat</p> <ul style="list-style-type: none"> • Wet meadow and edges of shallow marshes (no minimum size) identified should be surveyed for terrestrial crayfish • Constructs burrows in marshes, mudflats, meadows; the ground can't be too moist • Can often be found far from water • Both species are a semi-terrestrial burrower which spends most of its life within burrows consisting of a network of tunnels; usually the soil is not too moist so that the tunnel is well formed <p>Suggested Criteria</p> <p>Studies Confirm:</p> <ul style="list-style-type: none"> • Presence of 1 or more individuals of species listed or their chimneys (burrows) in suitable marsh meadow or terrestrial sites • Area of ELC Ecosite polygon is the SWH 	<p>No suitable habitat present on the subject property.</p>
<p>Special Concern and Rare Wildlife Species</p>		<ul style="list-style-type: none"> • All Special Concern and Provincially Rare (S1-S3, SH) plant and animal species • When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or provincially rare species • Linking candidate habitat on the site needs to be completed to ELC Ecosites <p>Suggested Criteria</p> <p>Studies confirm:</p> <ul style="list-style-type: none"> • Assessment/inventory of the site for the identified special concern or rare species needs to be completed during the time of year when the species is present or easily identifiable • Habitat form and function needs to be assessed from the assessment of ELC vegetation types and an area of significant habitat that protects the rare or special concern species identified 	<p>Eastern Wood-pewee, a species of Special Concern, was documented on the property in ELC unit 1b.</p>

Wildlife Habitat Category and Associated Species*	ELC Communities	Provincial Guidance for Ecoregion 7E*	Application to the Subject Property and Adjacent Lands Candidate SWH
		<ul style="list-style-type: none"> The area of the habitat to the finest ELC scale that protects the habitat form and function is the SWH; this must be delineated through detailed field studies The habitat needs be easily mapped and cover an important life stage component for a species (e.g. specific nesting habitat or foraging habitat) 	
Animal Movement Corridors			
Amphibian Movement Corridors Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Animal movement corridors should only be identified as SWH where a confirmed or Candidate SWH has been identified by MNRF or the planning authority Movement corridors between breeding habitat and summer habitat Movement corridors must be considered when amphibian breeding habitat is confirmed as SWH Field Studies must be conducted at the time of year when species are expected to be migrating or entering breeding sites Corridors should consist of native vegetation, with several layers of vegetation Corridors unbroken by roads, waterways or bodies, and undeveloped areas are most significant Corridors should be at least 15 m of vegetation on both sides of waterway or be up to 200 m wide of woodland habitat and with gaps <20 m Shorter corridors are more significant than longer corridors, however amphibians must be able to get to and from their summer and breeding habitat 	No suitable habitat was identified on the subject property.

* Adapted from the listed species and habitat criteria provided in the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E* (MNRF 2015) but updated to reflect any relevant changes in species status. For example, Tri-coloured Bat (*Perimyotis subflavus*) is now listed as Threatened so needs to be addressed under the *Endangered Species Act* and not under SWH.

Table E2. Application of Significant Wildlife Habitat Technical Guide Criteria for Identifying Species/Habitats of Conservation Concern

Criteria for Identification of Species/Habitats of Conservation Concern	Suggested Guidelines for Evaluation of Habitats of Species of Conservation Concern	Applicability to Subject Property
Degree of rarity of species found at site	<ul style="list-style-type: none"> • Habitats of the rarest species are more significant than those of less rare species. For example, habitats for species ranked S1 and S2 should be considered more significant than habitats for species ranked S3. Species ranked as vulnerable by the OMNR should also be considered significant. • Less rare species and their habitats in the planning area may be deemed species of conservation concern by the municipality based on such factors as the number of known occurrences, total extent of remaining habitat, degree of threat or risk to habitat, and/or local interest in a particular species. • If a species' habitat is to be protected, sufficient area (based on the species' known requirements) should be retained to ensure a viable and sustainable population. 	<ul style="list-style-type: none"> • EAWP is ranked as S4. • N/A EAWP is listed as SC by the province. • The habitat is very small, supporting a single breeding pair, which would not be considered a viable and sustainable population.
Documented significant decline in a species and/or its critical habitat	<ul style="list-style-type: none"> • The habitat for species experiencing the greatest declines is most significant. • The habitat for declining species that has the lowest representation in the planning area is more significant. • Those habitats that provide the best opportunity for the long-term sustainability of the declining species are most significant (e.g., large well-protected sites; sites that best meet the species' habitat requirements; sites with good connections to other similar habitats). 	<ul style="list-style-type: none"> • EAWP is documented as declining, but not to the extent that it warrants listing as Threatened or Endangered. • While forest cover within the urban area of the City of Niagara Falls is very low, there are extensive areas of woodland with the rural parts of the City, including large tracts of forest approximately 2 km to the south of the subject property. • The habitat is very small and isolated within a heavily urbanized area, supporting a single breeding pair.

Criteria for Identification of Species/Habitats of Conservation Concern	Suggested Guidelines for Evaluation of Habitats of Species of Conservation Concern	Applicability to Subject Property
Species whose range is solely or primarily found in Ontario (i.e., provincial responsibility)	<ul style="list-style-type: none"> • Habitat for those species with the poorest representation within the planning area is more significant. • These species and their habitats are significant even if well represented in the planning area, due to high provincial responsibility for their protection. • Those habitats that provide the best opportunities for the long-term sustainability of the target species are most significant (e.g., large well protected sites; sites that best meet the species' habitat requirements; sites with good connections to other similar habitats). 	<ul style="list-style-type: none"> • Based on the OBBA, EAWP is well represented in the City of Niagara Falls with breeding evidence confirmed. While forest cover within the urban area of the City of Niagara Falls is very low, there are extensive areas of woodland with the rural parts of the City, including large tracts of forest approximately 2 km to the south of the subject property. • The range of Eastern Wood Pewee extends throughout Eastern Canada and the United States; therefore protection is not solely a provincial matter. • The habitat is very small and isolated within a heavily urbanized area, supporting a single breeding pair.
Condition of existing habitat at site	<ul style="list-style-type: none"> • Sites that provide habitat that best meets the survival requirements of the target species and that also include a natural buffer zone are most significant (i.e. most likely to sustain species/population over the long term). • Sites that contain the fewest non-native species of potential threat to the target species are significant. • Undisturbed or least-disturbed habitats (e.g., no/few deleterious impacts from roads, human activities) are significant. • Sites capable of producing a large number of individuals of a single species of conservation concern are significant. 	<ul style="list-style-type: none"> • The habitat is very small and isolated within a heavily urbanized area, supporting a single breeding pair, and is unlikely to sustain the species or a population over the long term. • Non-native species have not been identified as a threat to Eastern Wood Pewee. • The site is subject to stressors of the urban environment (noise, light) notably being in close proximity to the QEW.

Criteria for Identification of Species/Habitats of Conservation Concern	Suggested Guidelines for Evaluation of Habitats of Species of Conservation Concern	Applicability to Subject Property
	<ul style="list-style-type: none"> Highly diverse sites that support one or more species of conservation concern are most significant. 	<ul style="list-style-type: none"> The site supports a single breeding pair. No other species of conservation concern were recorded and all species have a provincial rank of S4 (apparently secure) or S5 (secure).
Size of species population at site	<ul style="list-style-type: none"> Habitats supporting large populations of a several species of conservation concern are most significant. Habitat supporting large populations of a single species is significant. 	<ul style="list-style-type: none"> Only one breeding pair of Eastern Wood Pewee was observed. No other species of concern were recorded. Only one nesting pair was found within the tableland; the maximum number of pairs of one species was 4 pairs of American Robin.
Size and location of habitat	<ul style="list-style-type: none"> Large sites supporting large populations of several species of conservation concern are most significant. Large sites are generally more significant than most comparable but smaller sites. Sites large enough to ensure long-term support and viability of species of conservation concern are significant. Sites with large areas of suitable habitat that are also connected to other potentially suitable habitat and/or natural areas are most significant. 	<ul style="list-style-type: none"> The woodlot is relatively small, supporting only one species of conservation concern. The woodlot is relatively small (<2 ha) The habitat is very small, supporting a single breeding pair, which would not be considered a viable and sustainable population. The woodlot is small and relatively isolated within a heavily urbanize area.
Potential for long-term protection of the habitat	<ul style="list-style-type: none"> Habitats that provide the best opportunity for long-term protection are usually more significant than similar habitats with little opportunity for protection or facing an uncertain future due to potential threats (e.g., habitat found in a large natural area vs. an isolated site close to an expanding residential development). 	<ul style="list-style-type: none"> The woodlot is small and relatively isolated within a heavily urbanized area. Generally the suitable or ideal habitat (i.e., larger open woodlands) for EAWP is protected through other policies.

Criteria for Identification of Species/Habitats of Conservation Concern	Suggested Guidelines for Evaluation of Habitats of Species of Conservation Concern	Applicability to Subject Property
	<ul style="list-style-type: none"> • Habitats threatened with degradation or loss are more significant than similar, but currently unthreatened habitats, if they can be protected. • Habitats of species currently experiencing severe population declines in Ontario (e.g., grassland bird species) due to habitat loss are most significant. • Habitats of species currently experiencing significant population declines in the municipality are significant. 	<ul style="list-style-type: none"> • EAWP is documented as declining by COSSARO. However the decline is not consistent between monitoring sources, but it is generally agreed that the decline has moderated within the last 10 years. The decline has not resulted in the species being considered Threatened or Endangered • There is no data to determine the decline of this species within the municipality specifically. However, based on the OBBA, EAWP is well represented in the City of Niagara Falls with breeding evidence confirmed.
Representation of species/habitat within the municipality	<ul style="list-style-type: none"> • Poorly represented habitats for species of conservation concern are significant. • Habitats that could be lost or severely degraded and cannot be replaced by similar habitats in the planning area, are highly significant. 	<ul style="list-style-type: none"> • While forest cover within the urban area of the City of Niagara Falls is very low, there are extensive areas of woodland with the rural parts of the City, including large tracts of potentially suitable forest habitat approximately 2 km to the south of the subject property. • Woodlands, particularly large woodlands, are generally protected within the City and Region. Opportunities to restore woodland habitat exist on the subject property.
Evidence of use of the habitat	<ul style="list-style-type: none"> • Sites with documented traditional use by species are most significant. 	<ul style="list-style-type: none"> • Historical use of this site by EAWP is not known.

Criteria for Identification of Species/Habitats of Conservation Concern	Suggested Guidelines for Evaluation of Habitats of Species of Conservation Concern	Applicability to Subject Property
Species of particular interest to the planning authority (e.g., the CAC may Recommend certain species such as indicator species)	<ul style="list-style-type: none">• Sites providing the best examples of habitat that will ensure the long-term sustainability of the species are significant.	<ul style="list-style-type: none">• The woodlot is too small, isolated, and subject to urban stressors to sustain a viable population over the long term.