



GUIDING SOLUTIONS IN THE
NATURAL ENVIRONMENT

Natural Heritage Evaluation for Proposed Residential Development at Old Church Road, Caledon East

Prepared For:

Stylux Group Inc.

Prepared By:

Beacon Environmental Limited

Date: *Project:*

June 2020 219248

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1. Introduction

Beacon Environmental Limited (Beacon) has been retained by Stylux Group Incorporated to undertake a Natural Heritage Evaluation (NHE) for a proposed estate residential plan of subdivision within the community of Caledon East, in the Town of Caledon within the Regional Municipality of Peel.

The subject property is approximately 2.1 hectares in size and is located between Marilyn Street to the east and west and is bordered by Old Church Road to the south and the rear lots of residential lots located along Miles Drive to the north (**Figure 1**). It is located within the Caledon East settlement area, as identified within the within the Oak Ridges Moraine Conservation Plan (ORMCP).

Natural habitats located in the vicinity of the subject property are associated with Boyces Creek, a tributary of Centreville Creek, which is located to the east of the subject property.

This NHE has been prepared to ensure conformity with the applicable natural heritage policies of the ORMCP and the Town of Caledon, as well as the regulations of the Toronto and Region Conservation Authority (TRCA).

2. Policy Context

For the purposes of this review, the following policies have been reviewed with respect to the subject property.

2.1 Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) (MMAH 2020) provides policy direction to municipalities on matters of provincial interest as they relate to land use planning and development. The PPS provides for appropriate land use planning and development while protecting Ontario's natural heritage. Development governed by the *Planning Act* must be consistent with the policy statements issued under the PPS.

Policy 2.0 of the PPS provides direction to regional and local municipalities regarding planning policies specifically for the protection and management of natural heritage features and resources.

Section 2.1.5 of the PPS describes seven natural heritage features and provides planning policies for each. The *Natural Heritage Reference Manual* (OMNR 2010) is a technical document used to help assess the natural heritage features listed below:

- a) Significant wetlands/significant coastal wetlands;
- b) Significant habitat of endangered and threatened species;
- c) Fish habitat;
- d) Significant woodlands;
- e) Significant valleylands;

- f) Significant Areas of Natural and Scientific Interest (ANSIs); and
- g) Significant wildlife habitat.

Each of these features is afforded varying levels of protection subject to guidelines, and in some cases, regulations. Of these features, significant wetlands and woodlands can be designated either by the Ministry of Natural Resources and Forestry (MNR) and/or the municipality. Significant habitat of Endangered or Threatened species is confirmed by the Ministry of the Environment Conservation and Parks (MECP) if such a species is identified on a property through site specific investigation or based on existing information. Fish habitat is governed by Fisheries and Oceans Canada (DFO). The identification and regulation of the remaining PPS features is the responsibility of the municipality.

Part III of the PPS notes that Provincial plans shall be read in conjunction with the PPS and take precedence over policies in the PPS to the extent of any conflict, except where legislation establishing provincial plans provides otherwise. In this case the subject property is within the Oak Ridges Moraine Conservation Plan area.

2.2 Oak Ridges Moraine Conservation Plan

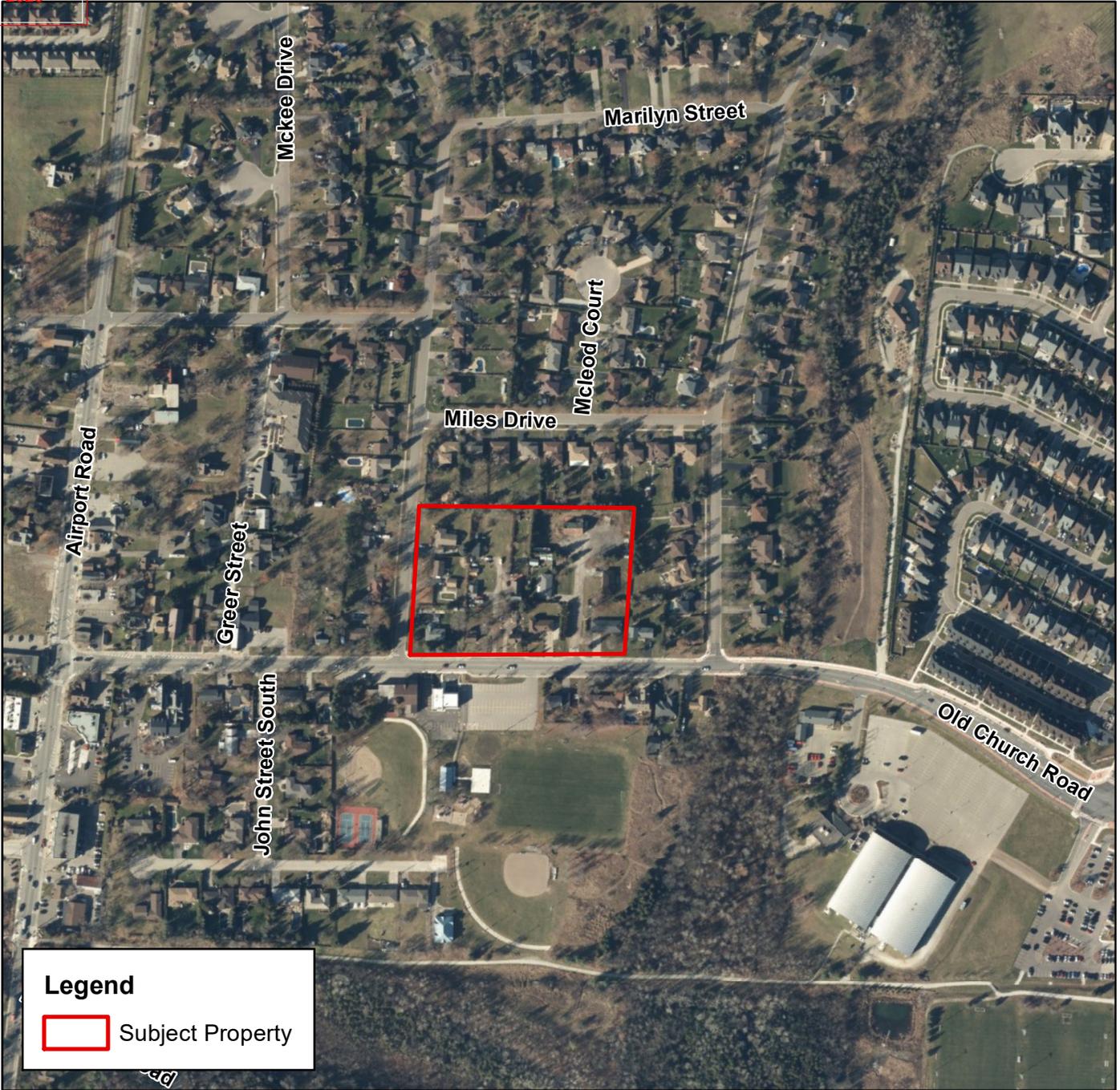
The subject property lies within the settlement area identified as Caledon East. Section 18 of the ORMCP identifies that Settlement Areas are intended to promote and contain urban growth while limiting the encroachment of development to ecologically significant areas within the Plan Area. This is mainly achieved through the redevelopment and intensification of existing urban areas.

Under Section 18 (2) of the ORMCP, Settlement Areas have the objectives of:

- a) *Maintaining, and where possible improving or restoring, the health, diversity, size and connectivity of key natural heritage features, key hydrologic features and the related ecological functions;*
- b) *Accommodating a trail system through the Plan Area and trail connections to it;*
- c) *Promoting strong communities, a strong economy and a healthy environment;*
 - (c.1) Promoting the locating of two or more compatible public services in one building or place that is conveniently situated so as to be accessible to local residents by walking, cycling and, where available, public transit;*
 - (c.2) Ensuring that development takes place in a manner that reduced greenhouse gas emissions;*
 - (c.3) Conserving cultural heritage resources;*
 - (c.4) Ensuring the sustainable use of water resources; and*
- d) *Providing for economic development that is compatible with subsection (1) and clauses (a) to (c.4).*

Under Section 22 (1) Key Natural Heritage Features (KNHF's) are detailed. Section 22 (3) details consideration of development proposals in proximity to KNHF's:

An application for development or site alteration with respect to land within the minimum area of influence that relates to a key natural heritage feature, but outside the key natural heritage feature itself and the related minimum vegetation protection zone, shall be accompanied by a natural heritage evaluation under section 23.



Legend

Subject Property



Site Location		Figure 1
NHE for Proposed Residential Development at Old Church Road, Caledon East		
		Project: 219248 Last Revised: September, 2019
Client: Stylux Group		Prepared by: DU Checked by: SA
	1:5,000	Inset Map: 1:20,000
Contains information licensed under the Open Government License— Ontario Orthoimagery Baselayer: FBS Caledon 2017		

Under Section 23 (1) of the ORMCP, a natural heritage evaluation shall:

- (a) *Demonstrate that the development or site alteration applied for will have no adverse effects on the key natural heritage feature or on the related ecological functions; and*
- (b) *Identify planning, design and construction practices that will maintain and, where possible, improve or restore the health, diversity and size of the key natural heritage feature and its connectivity with other key natural heritage features.*

Under Section 26 (3) of the ORMCP,

An application for development or site alteration with respect to land within the minimum area of influence that relates to a key hydrologic feature, but outside the key hydrologic feature itself and the related minimum vegetation protection zone, shall be accompanied by a hydrological evaluation under subsection (4).

Under Section 26 (4) of the ORMCP, a site that is located within 120m the meander belt of a Key Hydrologic Feature (KHF) a hydrological evaluation shall be required. An evaluation shall be prepared that demonstrates the following:

- (a) *Demonstrate that the development or site alteration will have no adverse effects on the key hydrologic feature or on the related hydrological functions;*
- (b) *Identify planning, design and construction practices that will maintain and, where possible, improve or restore the health, diversity and size of the key hydrologic feature and its connectivity with other key hydrologic features and with key natural heritage features;*
- (c) *Determine whether the minimum vegetation protection zone whose dimensions are specified in the Table to this Part is sufficient, and if it is not sufficient, specify the dimensions of the required minimum vegetation protection zone and provide for the maintenance and, where possible, improvement or restoration of natural self-sustaining vegetation within it, and in the case of an application relating to land in a Natural Core Area; and*
- (d) *Natural Linkage Area or Countryside Area, demonstrate how connectivity within and between key natural heritage features and key hydrologic features will be maintained and, where possible, improved or restored before, during and after construction.*

2.3 Region of Peel Official Plan

A review of the Peel Region Working Office Consolidation (October 2014) online indicates the following with regard to the subject property:

- Schedule D Regional Structure in Peel Region – subject property identified as within a Rural Service Centre Area;
- Schedule D1 ORMCP Land Use Designations– subject property identified as within a Settlement Area (associated with Caledon East); and
- Schedule D4 Growth Plan Policy Areas in Peel Region – subject property identified as within a Built-up Area.

No Greenlands (Schedule A) are depicted on the subject property.

2.4 Town of Caledon Official Plan

The Town of Caledon Official Plan (2018 Office Consolidation) provides direction as to the land use within the Town and in accordance with the ORMCP. Schedule D of the Town OP identifies land use planning with the Caledon East Settlement Area, designating the entirety of the subject property as Low Density Residential with proximity to an Environmental Protection Area (EPA) associated with Boyces Creek. As per Section 5.7.3.7 of the Town's OP proposed new development in proximity to an EPA are required to complete an Environmental Impact Study and conform to the policies outlined in 5.7.3.7.1 – 5.7.3.7.7.

Under Section 3.2.5.16.3 of the Town's OP:

New development within the Minimum Area of Influence associated with a Key Natural Heritage Feature but outside the Key Natural Heritage Feature itself, and the related Minimum Vegetation Protection Zone may be permitted subject to the provisions of the applicable land use designation and the provisions of Section 7.10.

Under Section 7.10.5.1.4 of the Town's OP:

For proposed major development that is within the Minimum Area of Influence associated with a Key Natural Heritage Feature or Hydrologically Sensitive Feature but is outside of the feature itself and the related Minimum Vegetation Protection Zone, an applicant shall prepare an Environmental Impact Study and Management Plan (EIS and MP) in accordance with Section 5.7.3.7. In addition to the requirements of Section 5.7.3.7, an EIS and MP prepared on for lands located within the ORMCPA shall:

With respect to Key Natural Heritage Features:

- i. Demonstrate that the development applied for will have no adverse effects on the key natural heritage feature or on the related ecological functions;*
- ii. Identify planning, design and construction practices that will maintain and, where possible, improve or restore the health, diversity and size of the key natural heritage feature and its connectivity with other key natural heritage features;*
- iii. Identify planning, design and construction practices that will maintain and, where possible, improve or restore the will maintain and, where possible, improve or restore the health, diversity and size of the key natural heritage feature and its connectivity with other key natural heritage features;*
- iv. In the case of an application relating to land in a ORMCP Natural Core Area, Natural Linkage Area or Countryside Area, demonstrate how connectivity within and between key natural heritage features will be maintained and, where possible, improved or restored before, during and after construction;*
- v. If Table 7.5 specifies the dimensions of a Minimum Vegetation Protection Zone, determine whether it is sufficient, and if it is not sufficient, specify the dimensions of the required Minimum Vegetation Protection Zone and provide for the*

- maintenance and, where possible, improvement or restoration of natural self-sustaining vegetation within it;*
- vi. *If Table 7.5 does not specify the dimensions of a Minimum Vegetation Protection Zone, determine whether one is required, and if one is required, specify the dimensions of the required Minimum Vegetation Protection Zone and provide for the maintenance and, where possible, improvement or restoration of natural self-sustaining vegetation within it. This shall include, without limitation, an analysis of land use, soil type, slope class and vegetation type, using criteria established by the Government of Ontario, as amended from time to time; and*
- vii. *In the case of a key natural heritage feature that is fish habitat, ensure compliance with the requirements of the Department of Fisheries and Oceans (Canada).*

2.5 Toronto and Region Conservation Authority Regulations

The TRCA Regulation is made under *Ontario Regulation 166/06: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* and was approved by the Minister of Natural Resources on May 4, 2006. In addition to the policies administered under O.Reg 166/06 the TRCA has developed a set of guidelines and policies within the *Living City Policies* (LCP) document which came into effect on November 28, 2014.

Examination of aerial photography indicates that the adjacent natural area associated with Boyces Creek is regulated by the TRCA, however, no portion of the proposed development area is within this regulated area or Boyces Creek's associated floodplain (as per TRCA's floodplain mapping). The closest wetland to the property is an unevaluated wetland that is located approximately 120m to the south east of the subject property. There are no Provincially Significant Wetlands (PSW) within 120m of the subject property.

3. Methodology

Based on the preceding policy framework and the results of Beacon's background research and field investigations, the following natural heritage assessment of the study area is presented.

3.1 Background Review

Background information pertaining to the natural and physical setting of the subject property was gathered and reviewed at the outset of the project. These information sources included:

- TRCA resource information;
- Town of Caledon Official Plan;
- Regional Municipality of Peel Official Plan;
- The MNRF;
- Natural Heritage Information Centre (NHIC) databases;
- Ontario Breeding Bird Atlas (Cadman *et al.* 2007);

- Ebird;
- iNaturalist; and
- Ontario Reptile and Amphibian Atlas (Ontario Nature 2019).

Other sources of information, such as aerial photography and topographic maps, were also consulted prior to commencing field assessments.

3.2 Field Investigations

Field investigations of the subject property were undertaken by Beacon in the late summer of 2019 and included a vegetation assessment and mapping, and aquatic habitat assessment of the adjacent natural area associated with Boyces Creek. A description of these investigations follows below.

Vegetation Community Mapping

A site visit was conducted on August 13, 2019 to document the vegetation within the subject property and adjacent EPA. Vegetation communities were mapped and described according to the Ecological Land Classification (ELC) system for Southern Ontario (Lee *et al.* 1998). Community polygons were mapped and identified to ELC Vegetation Type or Ecosite or other description (**Figure 2**). Dominant species, level of disturbance, and features of interest were recorded for each vegetation community.

A list of all plant species observed on the property was compiled for each vegetation community (see **Appendix A**).

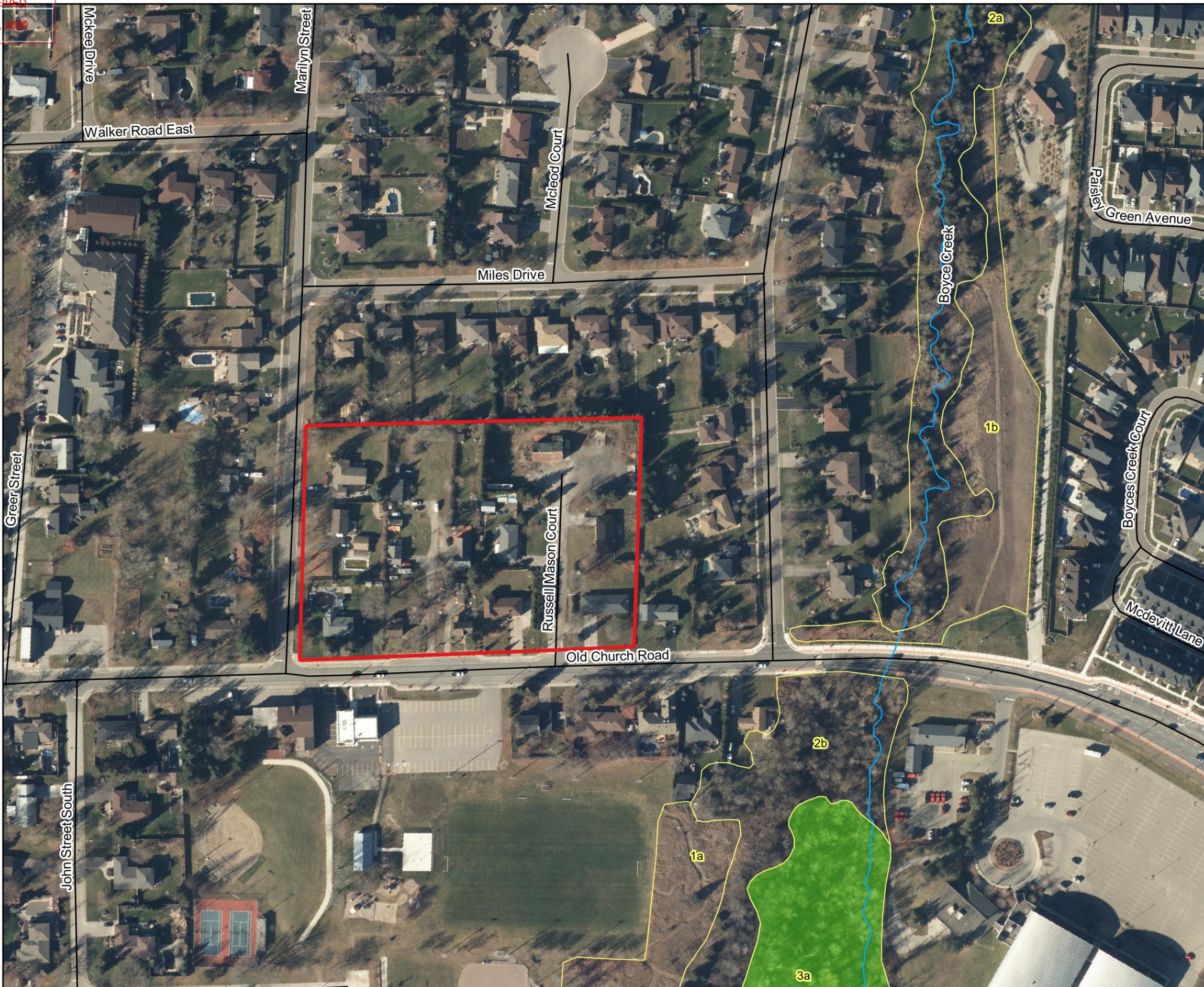
Aquatic Habitat Assessment

A field investigation was conducted by an aquatic ecologist on August 8, 2019 to assess and classify the adjacent watercourse within the EPA.

Aquatic habitat in Boyces Creek was assessed on August 8, 2019 using a modified methodology of the Rapid Assessment Methodology as described in Section 4 Module 4 of the Ontario Stream Assessment Protocol (OSAP) (Stanfield *et al.*, 2010). The field investigation characterized the following:

- Channel wetted dimensions (width and depth);
- Substrate type and distribution;
- Stream morphology;
- Riparian vegetation type and extent;
- Seepage indicators or areas;
- Side channels and roadside drainage; and
- Dams and obstructions to fish passage.

Aquatic community information for Boyces Creek was characterized using background information received from the TRCA.



Existing Conditions		Figure 2
NHE for Proposed Residential Development at Old Church Road, Caledon East		
Legend		
	Subject Property	
	ELC Community	
	Permanent Watercourse (OHN; MNRF)	
Wetlands (LIO; MNRF)		
	Unevaluated Wetland	
Units ELC Communities		
1	CUM1-1: Dry - Moist Old Field Meadow	
2	CUW1: Mineral Cultural Woodland	
3	SWD4: Mineral Deciduous Swamp	
		Project: 219248 Last Revised: September
Client: Stylux Group Inc.		Prepared by: RA Checked by: SA
	1:2000	
Contains information licensed under the Open Government License—Ontario Orthoimagery Baselayer: FBS, 2017 (FBS, 2017)		

4. Existing Conditions

4.1 General Overview

The subject property is currently composed of 10 low residential dwellings with minimal natural cover present onsite in the form of a few mature trees scattered throughout the existing lots. The remaining greenspace exists exclusively as manicured lawns.

4.2 Terrestrial Resources

4.2.1 Vegetation Communities

Natural areas in the vicinity of the subject property are associated with the Boyces Creek tributary. Vegetation communities within this area are described below and shown on **Figure 2**. Representative photographs of these communities are included in **Appendix A**.

ELC Unit 1a-b: Dry-Moist Old Field Meadow (CUM1-1)

This community consist of a variety of non-native old field grass species including Smooth Brome (*Bromus inermis*) and Kentucky Bluegrass (*Poa pratensis*).

ELC Unit 2a: Mineral Cultural Woodland (CUW1)

This is a young to mid-aged woodland with a canopy and sub-canopy that is comprised of a mixture Trembling Aspen (*Populus tremuloides*), Manitoba Maple (*Acer negundo*), Freemans Maple (*Acer freemantii*), Eastern White Cedar (*Thuja occidentalis*) and Black Walnut (*Juglans nigra*). The shrub layer consists of a mixture of Common Buckthorn (*Rhamnus cathartica*), Heart-leaved Willow (*Salix eriocephala*), which is growing along the banks of the watercourse in various areas, and Riverbank Grape (*Vitis riparia*). The ground layer consists of a dense layer of Tall Goldenrod (*Solidago altissima*) and Riverbank Grape.

ELC Unit 2b: Mineral Cultural Woodland (CUW1)

This is a mid-aged woodland with a canopy and sub-canopy that is dominated by Manitoba Maple and Common Buckthorn. The shrub layer consists of a dense layer of Common Buckthorn, Red-Osier Dogwood (*Cornus stolonifera*) and Riverbank Grape. The ground layer consists of a somewhat sparse layer of Common Buckthorn seedlings, Enchanter's-Nightshade (*Circaea lutetiana*), and Thicket Creeper (*Parthenocissus vitacea*).

ELC Unit 3a: Mineral Deciduous Swamp (SWD4)

This is a mature forest community with a canopy and sub-canopy that is comprised of a mixture of Trembling Aspen, Manitoba Maple, Green Ash (*Fraxinus pennsylvanica*) and Balsam Poplar (*Populus balsamifera*). The shrub layer consists of a somewhat sparse layer of Manitoba Maple and Green Ash saplings with some Common Buckthorn. The ground layer consists of a dense layer of Ostrich Fern (*Matteuccia struthiopteris*) and Riverbank Grape.

4.2.2 Flora

A total of 88 vascular plant species were recorded within the natural or naturalized habitats associated with Boyces Creek that were surveyed as part of this study (**Appendix B**). Of these 44 (50%) are considered native to Ontario and 38 (43%) are considered to be non-native.

All native species, with the exception of Butternut (*Juglans cinerea*) which is discussed further in the text below, have been determined by the MNRF to be common or very common in Ontario. The low number of native species is indicative of the quality of the habitats present in this area.

Three Butternut, which is a species that is listed as endangered under the provincial *Endangered Species Act* (ESA) 2007, were documented within ELC Unit 3a. These trees are located more than 100m to the south east of the subject property.

4.2.3 Incidental Wildlife Observations

A total of seven species of wildlife were recorded as incidental wildlife observations during the site visits. They include Song Sparrow (*Melospiza melodia*), American Robin (*Turdus migratorius*), Northern Cardinal (*Cardinalis cardinalis*), Eastern Chipmunk (*Tamias striatus*), Black-capped Chickadee (*Poecile atricapillus*), White-breasted Nuthatch (*Sitta carolinensis*) and American Goldfinch (*Spinus tristis*).

4.2.4 Endangered and Threatened Species

To determine what endangered or threatened species had previously been recorded in the vicinity of the subject property, records from the resources identified in Section 3.1 were reviewed. Through this review 14 species that are identified as endangered or threatened under the provincial ESA were identified as having previously been recorded in the vicinity of the subject property.

Following the characterization of existing conditions within the study area an assessment of the presence for potentially suitable habitat for these species was completed (**Appendix C**). Through this assessment, suitable habitat for Butternut was confirmed within ELC Unit 3a (Mineral Deciduous Swamp – SWD4) and potentially suitable habitat for Eastern Small-footed Myotis (*Myotis leibii*); Northern Myotis (*Myotis septentrionalis*); and Tri-colored Bat (*Perimyotis subflavus*).

All of these species of bats are identified as endangered under the provincial ESA. Potentially suitable roosting habitat for these species, as per the guidance provided within the *Survey Protocol for Species at Risk Bats within Treed Habitats: Little Brown Myotis, Northern Myotis & Tri-Colored Bat* (MNRF 2017), is present within ELC Unit 3a: Mineral Deciduous Swamp (SWD4).

4.3 Aquatic Resources

Boyces Creek is a tributary of Centreville Creek that flows to the east of the subject property. It originates approximately 3km to the northwest of the subject property gathering the majority of its baseflow from wetlands that form the Provincially Significant Caledon East Wetland Complex. The confluence of Boyces Creek and Centreville Creek is located approximately 500m downstream of Old Church Road.

The portion of Boyces Creek that flows to the east of the subject property is classified as a coldwater, permanent watercourse. This classification is common of higher order streams in the area due to contributions from groundwater sources associated with the Oak Ridges Aquifer Complex (TRCA 2008). Due to this temperature regime, the adjacent reaches of Centreville Creek and Boyces Creek are considered potential habitat for Brook Trout (*Salvelinus fontinalis*).

Habitat within Boyces Creek in the vicinity of the subject property generally consists of a mixture of riffle-run habitat. Instream cover within this area consists predominantly of cobble material. Additional cover is provided by some larger boulders present at the downstream end of the surveyed reach and woody debris present upstream of Old Church Road. Stream substrate compositions vary across the surveyed reach with gravel being dominant in the downstream portions of the channel and silts and sands being dominant in the upstream portions, particularly north of Old Church Road. Throughout the surveyed reach no aquatic vegetation was observed within the active channel, although observations of Watercress (*Nasturtium officinale*) were recorded along the east bank of the watercourse just south of Old Church Road. Other physical characteristics are as follows:

- The average wetted width was approximately 2.6m throughout the surveyed reach;
- The average wetted depth was approximately 0.12m throughout the surveyed reach;
- Canopy cover was high throughout the surveyed reach with 60-90% coverage south of Old Church Road and 100% coverage on the north side;
- Riparian vegetation cover was high on both the left and right banks and is composed of a mix of mature trees, shrubs and ferns; and
- Evidence of erosion along the surveyed reach was minimal with the exception of some undercut banks observed along the right bank approximately 40m downstream of Old Church Road. The average depth of the undercut banks was approximately 0.3m.

Man-made structures were observed within the watercourse during the site visit. At the downstream end of the surveyed reach a storm drainage outlet was observed along the east bank. This outlet gathers parking lot drainage from the adjacent fire hall / emergency services building located to the east of the channel. In the same location a retaining wall, which was only a few metres in length, was present along the west bank. At the Old Church Road culvert crossing, another road drainage outlet was observed and was actively draining. No barriers to fish passage were observed during the site visit, however, an abundance of woody debris upstream of Old Church Road could present a potential obstruction to fish passage during periods of low flow during the summer months.

The TRCA Regulation Mapping (TRCA 2019) shows that the subject property is located within 120 m of the meander belt for Boyces Creek east of the subject property. A site specific meander belt study was not included in the Terms of Reference for this NHE as the subject property is located greater than 120 m from Boyces Creek and there is an existing residential area separating the subject property from the creek.

Representative photographs of the habitat within Boyces Creek are included within **Appendix A**.

5. Assessment of Significant Natural Heritage Features

The findings of this study have been used to confirm whether the subject property or study area support any natural heritage components recognized under the PPS, Region of Peel Official Plan or Town of Caledon Official Plan (**Table 1**).

Table 1. Assessment of Significant Natural Heritage Features

Natural Heritage Feature	Assessment	Present on property?
Significant Woodland	None identified on or within 120 m of the subject property.	No
Significant Wetland	None identified on or within 120 m of the subject property.	No
Significant Wildlife Habitat	<p>There are not types of Significant Wildlife Habitat on the subject property.</p> <p>Two types of candidate SWH were identified through the NHE to the southeast of the subject property using the criteria provided by the MNRF and Region of Peel:</p> <ul style="list-style-type: none"> • Bat Maternity Colonies; and • Habitat for Species of Special Concern (Eastern Wood-Pewee). <p>Both of which could occur within ELC Unit 3a: Mineral Deciduous Swamp (SWD4).</p>	No
Significant Habitat for Endangered and Threatened Species	<p>None identified on the subject property.</p> <p>Butternut was confirmed within ELC Unit 3a: Mineral Deciduous Swamp (SWD4). This ELC community could also potentially provide habitat for endangered bat species.</p>	No
Significant Area of Natural and Scientific Interest	None identified on or within 120 m of the subject property.	No
Significant Valleylands	None identified on or within 120 m of the subject property.	No
Fish habitat	None identified on the subject property.	No

6. Proposed Development

As shown on the conceptual development plan prepared by KLM Planning (**Figure 3**) the subject property is to be re-developed into a higher density residential use. This will include twelve single detached residential dwellings, four townhouse dwellings containing 25 units and the supporting roadway and underground infrastructure.

7. Impact Assessment

As detailed in **Section 5**, all natural or naturalized heritage features identified through this study are located to the east of the subject property, in proximity to Boyces Creek. These features are separated from the subject property by an existing residential area. No negative impacts to these features as a result of the proposed development are anticipated provided the mitigation measures identified in **Section 8** are implemented.

No adverse effects on the hydrological form or function of Boyces Creek are anticipated as a result of the proposed re-development of the subject property. This is in part due to the small size of the subject property (1.78 ha) relative to the catchment for Boyces Creek (311.2 ha). It is also due to the implementation of stormwater quantity and control measures discussed in the Functional Servicing Report (FSR) (SCS 2002) which have been developed to ensure stormwater conditions on the subject property post-development are similar to pre-development conditions.

As Boyces Creek and the natural heritage features that are associated with it are not located on, or within 120 m of the subject property no planning, design or construction practices, other than those discussed in the FSR (SCS 2020) and Section 8 of this report are required at this time in order to address the policies of Section 26 (4) of the ORMCP related to improvements to natural heritage features, minimum vegetation protection zones or connectivity.

8. Mitigation Measures

As there are no natural features that are regulated by the policies discussed in Section 2 on the subject property the measures discussed within this section have been suggested to ensure compliance with other applicable environmental policy and legislation.

The federal *Migratory Bird 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. For the subject property we recommend that during the peak period of bird nesting, no clearing or disturbance to mature trees (i.e. 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, we suggest that mature tree clearing could occur, but only after an ecologist with appropriate avian knowledge has surveyed the area to confirm lack of nesting. 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).

Integrating the Best Management Practices (BMP's) as described in the Functional Servicing Report (FSR) (SCS 2020) will help mitigate potential downstream effects to Boyces Creek during and post-development. This includes lot level controls, conveyance controls and end-of-pipe controls. These measures have been designed to maintain the water balance for the site so that pre and post re-development conditions are similar and have been prepared using the *Town of Caledon Design Criteria* (2009) and the *MECP Stormwater Management Planning and Design Manual* (2003). Water from the 5 mm rainfall event will be retained on the subject property over impervious spaces. Through implementation the Low Impact Development (LID) measures, a volume of 31.9 m³ will be retained for groundwater recharge purposes within the proposed development area. The full range of recommended and proposed LID measures that are included as part of the proposed re-development are provided in Table 2.2 of the FSR (SCS 2020).

Quality control of out-flowing storm drainage will be treated through a treatment-train process of additional topsoil on all grassed areas, passive landscaping, roof overflow to grassed areas and an end-of-pipe manufactured treatment device (MTD).

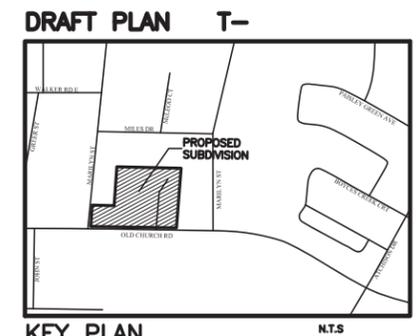
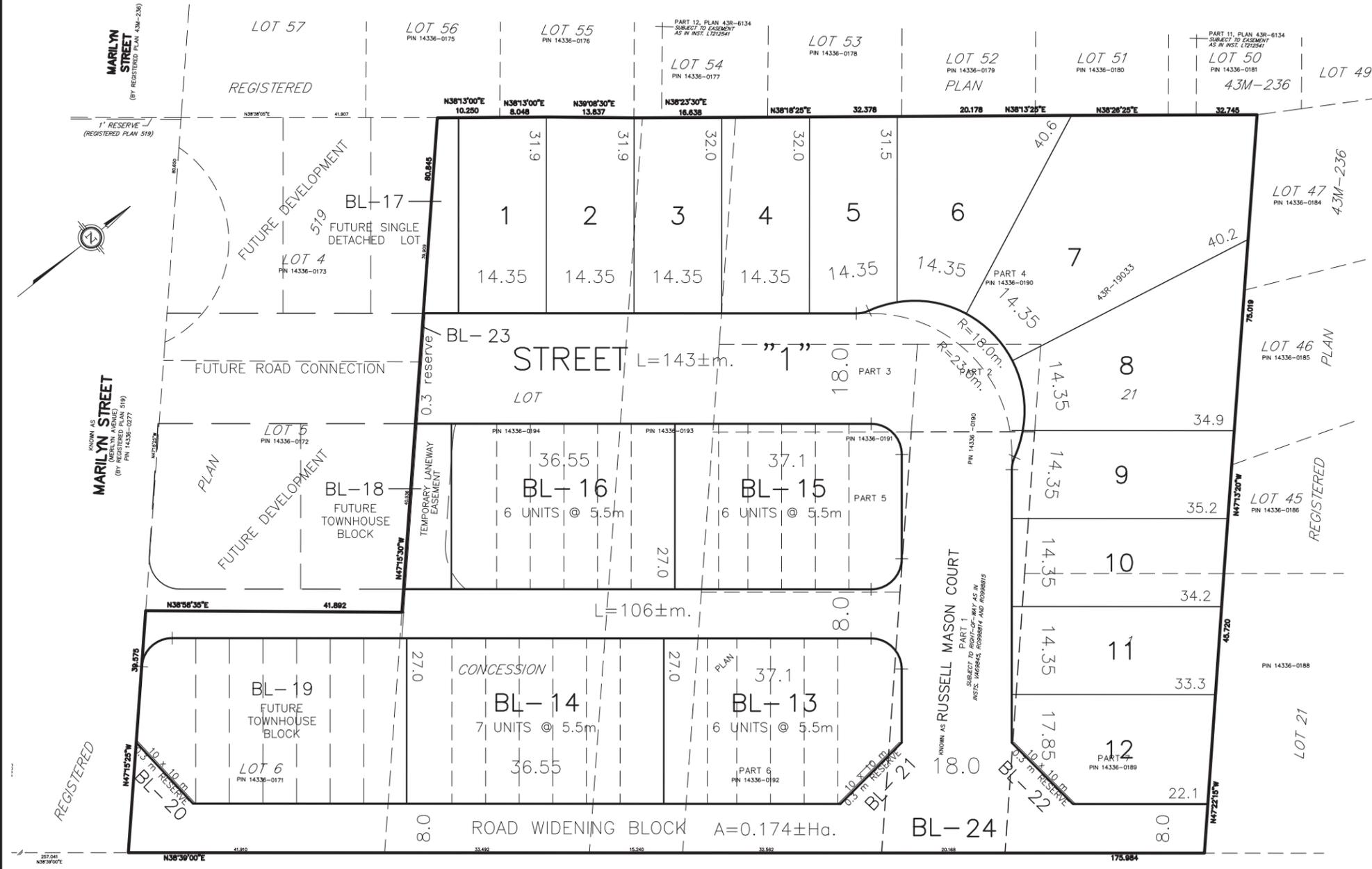
The MTD is sized for a minimum of 80% Total Suspended Sediments (TSS) removal. In order to achieve this 50% of TSS will be managed by an Oil-grit separator unit and 30% managed by the LID's.

In order to maintain water quality of runoff during construction a comprehensive Erosion and Sediment Control (ESC) Plan is to be implemented and is detailed within Section 7.0 of the associated FSR (SCS 2020). Water quality during construction will also be maintained by minimizing cut/fill differentials as specified in the FSR grading plan in Section 5.2.

9. Policy Conformity

A summary of federal, provincial and municipal environmental protection and planning policies and regulations applicable to the subject property were discussed in **Section 2**. An evaluation of how the proposed re-development complies with the applicable environmental policies and legislation is summarized below in **Table 2**.

DRAFT PLAN OF SUBDIVISION LOT 6, REGISTERED PLAN 519 AND PART OF LOT 21, CONCESSION 1 (GEOGRAPHIC TOWNSHIP OF ALBION) TOWN OF CALEDON REGIONAL MUNICIPALITY OF PEEL



**SECTION 51, PLANNING ACT,
 ADDITIONAL INFORMATION**

A. AS SHOWN ON DRAFT PLAN
 B. AS SHOWN ON DRAFT PLAN
 C. AS SHOWN ON DRAFT PLAN
 D. SEE SCHEDULE OF LAND USE
 E. AS SHOWN ON DRAFT PLAN
 F. AS SHOWN ON DRAFT PLAN
 G. AS SHOWN ON DRAFT PLAN
 H. MUNICIPAL PIPED WATER AVAILABLE AT TIME OF DEVELOPMENT
 I. CLAY-LOAM
 J. AS SHOWN ON DRAFT PLAN
 K. SANITARY AND STORM SEWERS, GARBAGE COLLECTION, FIRE PROTECTION
 L. AS SHOWN ON DRAFT PLAN

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LAND TO BE SUBDIVIDED AS SHOWN ON THIS PLAN, AND THEIR RELATIONSHIP TO THE ADJACENT LAND ARE ACCURATELY AND CORRECTLY SHOWN.

HOLDING JONES VANDERVEEN INC.
 DATE _____, 2019
 GARY B. VANDERVEEN
 ONTARIO LAND SURVEYOR

OWNER'S CERTIFICATE

I AUTHORIZE KLM PLANNING PARTNERS INC. TO PREPARE AND SUBMIT THIS DRAFT PLAN OF SUBDIVISION TO THE TOWN OF CALEDON FOR APPROVAL.

OWNER
 STYLUX CALEDON INC.
 40 VOGELL ROAD
 UNIT 51
 RICHMOND HILL, ONT
 L4B 3N6
 MUHAMMAD USMAN A.S.O.

SCHEDULE OF LAND USE

TOTAL AREA OF LAND TO BE SUBDIVIDED = 1.775±Ha. (4.386±Acres)

	BLOCKS	LOTS	UNITS	±Ha.	±Ac.
DETACHED DWELLINGS					
LOTS 1-12 <small>MIN. LOT FRONTAGE=14.35m. MIN. LOT AREA=143.36sq.m.</small>		12	12	0.688	1.700
TOWNHOUSE DWELLINGS					
LOTS 13-16 <small>MIN. FRONTAGE 6.0m.</small>	4		25	0.410	1.013
SUBTOTAL	4	12	37	1.098	2.713
BLOCKS 17-19 - FUTURE DEVELOPMENT	3			0.145	0.358
BLOCKS 20-23 - 0.3m. RESERVE	4			0.003	0.008
BLOCK 24 - ROAD WIDENING	1			0.174	0.430
STREET AND LANEWAY				0.355	0.877
<small>18.0m. WIDE TOTAL LENGTH= 151.6m. AREA= 0.270Ha. 8.0m. WIDE TOTAL LENGTH= 106.6m. AREA= 0.085Ha. TOTAL LENGTH= 257.9m. AREA= 0.352Ha.</small>					
TOTAL	12	12	37	1.775	4.386

NOTE - ELEVATIONS RELATED TO CANADIAN GEODETIC DATUM

PROJECT No. P-2967
 SCALE 1:500 JAN 8, 2020
 (2967DES8) X-REF: (2967MAS1 & 2967TOPO)
KLM DWG. No. - 20:2
 PLANNING PARTNERS INC. 64 JARDIN DRIVE - UNIT 1B, CONCORD ONTARIO L4K 3P3
 TEL: (905)668-4555 FAX: (905)668-2097 design@klmplan.com
 Planning • Design • Development

Figure 3. Proposed Development

KNOWN AS OLD CHURCH ROAD
 ROAD ALLOWANCE BETWEEN LOTS 20 AND 21, CONCESSION 1
 PIN 14336-0405

Table 2. Policy Compliance Assessment

Applicable Policy / Legislation	Relevant NHE Findings and Recommendations	Policy Compliance
Federal Fisheries Act (1985)	Fish habitat associated with Boyces Creek will not be impacted by the proposed development.	Yes
Endangered Species Act (2007)	Confirmed habitat for Butternut, and Endangered Species, and potential habitat for three species of endangered bat is present within ELC Unit 3a: Mineral Deciduous Swamp (SWD4). No impacts to these species or their habitat are anticipated as a result of the proposed development.	Yes
Provincial Policy Statement (2014) Section 2.1 – Natural Heritage		
1. Habitat for Threatened and Endangered Species	See above.	Yes
2. Significant Valleylands	None identified on or within 120 m of the subject property.	Yes
3. Significant Wetlands	None identified on or within 120 m of the subject property.	Yes
4. Significant Woodlands	None identified on or within 120 m of the subject property.	Yes
5. Significant Wildlife Habitat	Using the criteria provided by the MNR and Region of Peel Candidate maternity bat roost habitat and habitat for species of special concern (Eastern Wood-Pewee) was identified within ELC Unit 3a: Mineral Deciduous Swamp (SWD4). No impacts to these habitat types are anticipated as a result of the proposed development.	Yes
6. Significant Areas of Natural and Scientific Interest	None identified on or within 120 m of the subject property.	Yes
7. Fish Habitat	Fish habitat associated with Boyces Creek will not be impacted by the proposed development.	Yes
Provincial Policy Statement (2014) Section 2.2 – Water	No impacts to sensitive water features are anticipated.	Yes
Provincial Policy Statement (2014) Section 2.3 – Natural Hazards	None identified on the subject property.	Yes
ORMCP Sections 22 (1) & 23 (1)	The subject property exists within an area of influence of an KHN as identified by the ORMCP. This NHE document satisfies the requirements of Sections 22 (1) and 23 (1) of the ORMCP. This NHE should be read in conjunction with the FSR-2185 as prepared by SCS Consulting which details stormwater management, site grading and erosion and sediment controls for the development of the subject property.	Yes
ORMCP Sections 26 (3) & 26 (4)	The subject property is located within an area of influence of a KHF as identified by the ORMCP. This NHE document, when read in	Yes

Applicable Policy / Legislation	Relevant NHE Findings and Recommendations	Policy Compliance
	in conjunction with FSR-2185, satisfies the requirements of Sections 26 (3) and 26 (4) of the ORMCP.	
Region of Peel OP	No portion of the Regional Greenlands system is identified on or within 120 m of the subject property.	Yes
Town of Caledon Official Plan	The Town of Caledon OP identified an EPA that is associated with Boyces Creek and the natural and naturalized habitats that are associated. No impacts to these features are anticipated as a result of the proposed re-development of the subject property.	Yes
TRCA Regulations and Policies		
Ontario Regulation 166/06 Living City Policies (TRCA, 2014)	There are no features regulated by the TRCA on the subject property.	Yes

10. Conclusion

This NHE was completed according to the NHE Guidelines included in Section 23 and Section 26 of the ORMCP and associated ORMCP Technical Paper 8. Based on information collected through a review of relevant background information and field investigations conducted in 2019, the NHE characterizes existing biophysical conditions, evaluates significant ecological features, assesses the impacts of the proposed development, and recommends mitigation to prevent or lessen impacts.

Through the NHE it was determined that there are no natural heritage features on the subject property. Based on this information re-development of the site will not adversely impact significant natural heritage features or ecological functions of natural features that are associated with Boyces Creek. Development of the site is consistent with the applicable provincial and municipal policies.

Prepared by:
Beacon Environmental



Joel Davey, B.B.R.M., CISEC
Aquatic Ecologist, Environmental Inspector

Prepared by:
Beacon Environmental



Sarah Aitken, B.Sc., Dipl. Env. Tech.
Aquatic Ecologist, Surface Water Specialist

Prepared by:
Beacon Environmental



Rob Aitken, B.Sc.
Ecologist, GIS Analyst

Reviewed by:
Beacon Environmental



Jo-Anne Lane, B.Sc., M.Sc.
Principal, Senior Aquatic Ecologist

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TOWN OF CALEDON
PLANNING
RECEIVED
Jul 21, 2020



Appendix A

Photo Log



Photo 1.
ELC Unit 1: Dry – Moist Old Field Meadow (CUM1-1)



Photo 2.
ELC Unit 2a: Mineral Cultural Woodland (CUW1)



Photo 3.
ELC Unit 2b: Mineral Cultural Woodland (CUW1)



Photo 4.
ELC Unit 3: Mineral Deciduous Swamp (SWD4)



Photo 5.
Downstream extent of surveyed reach of Boyce's
Creek



Photo 6.
Watercress along watercourse bank south of Old
Church Road



Photo 7.
Upstream extent of surveyed reach of Boyce's
Creek

TOWN OF CALEDON
PLANNING
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Jul 21, 2020



Appendix B

Plant List

Appendix B

Plant List

Scientific Name	Common Name	ELC Unit 1: CUM1-1	ELC Unit 2a: CUW1	ELC Unit 2b: CUW1	ELC Unit 3: SWD4
<i>Acer negundo</i>	Manitoba Maple	R	D	A	A
<i>Acer platanoides</i>	Norway Maple		R	R	R
<i>Rhus hirta</i>	Staghorn Sumac		O		O
<i>Daucus carota</i>	Queen Anne's Lace	O	O		
<i>Apocynum androsaemifolium</i> ssp. <i>androsaemifolium</i>	Spreading Dogbane		O		O
<i>Arisaema triphyllum</i> ssp. <i>triphyllum</i>	Jack-in-the-pulpit		R	R	
<i>Asclepias syriaca</i>	Common Milkweed	R			
<i>Cynanchum rossicum</i>	European Swallow-wort				O
<i>Ambrosia artemisiifolia</i>	Annual Ragweed	R	O		R
<i>Arctium lappa</i>	Greater Burdock		A	O	O
<i>Bidens frondosa</i>	Devil's Beggar's Ticks				R
<i>Cichorium intybus</i>	Chicory		O		R
<i>Cirsium arvense</i>	Creeping Thistle		O		O
<i>Cirsium vulgare</i>	Bull Thistle	R			
<i>Erigeron annuus</i>	White-top Fleabane		O		
<i>Eutrochium maculatum</i> var. <i>maculatum</i>	Spotted Joe-pye Weed		O		
<i>Solidago altissima</i> var. <i>altissima</i>	Tall Goldenrod	R	O	O	A
<i>Sonchus arvensis</i> ssp. <i>arvensis</i>	Field Sowthistle		O		R
<i>Symphyotrichum lanceolatum</i> var. <i>hesperium</i>	Panicked Aster		R	O	R
<i>Symphyotrichum puniceum</i> var. <i>puniceum</i>	Purple-stemmed Aster		R	R	R
<i>Taraxacum officinale</i>	Common Dandelion	R	O	R	O
<i>Tussilago farfara</i>	Colt's Foot		R	R	R
<i>Impatiens capensis</i>	Spotted Jewel-weed		R	R	R
<i>Echium vulgare</i>	Common Viper's-bugloss	O			
<i>Hackelia virginiana</i>	Virginia Stickseed		O	R	O
<i>Alliaria petiolata</i>	Garlic Mustard		O	O	O
<i>Berteroa incana</i>	Hoary False-alyssum	R			

Scientific Name	Common Name	ELC Unit 1: CUM1-1	ELC Unit 2a: CUW1	ELC Unit 2b: CUW1	ELC Unit 3: SWD4
<i>Hesperis matronalis</i>	Dame's Rocket		O	O	O
<i>Lepidium ramosissimum</i> var. <i>bourgeauanum</i>	Pepper-grass		O		
<i>Lonicera tatarica</i>	Tartarian Honeysuckle			R	
<i>Sambucus racemosa</i> var. <i>racemosa</i>	Red-berried Elder				R
<i>Hypericum perforatum</i>	St. John's-wort	R			
<i>Convolvulus arvensis</i>	Field Bindweed		O		
<i>Cornus sericea</i> ssp. <i>sericea</i>	Red-osier Dogwood		O	O	O
<i>Echinocystis lobata</i>	Wild Mock-cucumber		O	O	O
<i>Thuja occidentalis</i>	Northern White Cedar	R			O
<i>Matteuccia struthiopteris</i> var. <i>pensylvanica</i>	Ostrich Fern		O	D	
<i>Elaeagnus angustifolia</i>	Russian Olive		O		O
<i>Equisetum arvense</i>	Field Horsetail		R	R	
<i>Lotus corniculatus</i>	Bird's-foot Trefoil		O		
<i>Medicago lupulina</i>	Black Medic	R	O		
<i>Medicago sativa</i> ssp. <i>sativa</i>	Alfalfa	R			
<i>Vicia cracca</i>	Tufted Vetch	R			
<i>Quercus rubra</i>	Northern Red Oak	R			
<i>Quercus x jackiana</i>	Jack's Oak		D		
<i>Geranium robertianum</i>	Herb-robert				O
<i>Ribes americanum</i>	Wild Black Currant			R	
<i>Ribes cynosbati</i>	Prickly Gooseberry			R	
<i>Hydrophyllum virginianum</i>	Virginia Waterleaf		O	R	
<i>Juglans cinerea</i>	Butternut			R	
<i>Juglans nigra</i>	Black Walnut	R	R		A
<i>Leonurus cardiaca</i> ssp. <i>cardiaca</i>	Common Motherwort		O	R	O
<i>Lilium michiganense</i>	Michigan Lily				O
<i>Lythrum salicaria</i>	Slender-spike Loosestrife		R	R	R
<i>Fraxinus americana</i>	White Ash	R	R		R
<i>Fraxinus pennsylvanica</i>	Green Ash			A	A
<i>Circaea lutetiana</i> ssp. <i>canadensis</i>	Enchanter's Nightshade		O		R
<i>Picea glauca</i>	White Spruce				R
<i>Pinus strobus</i>	Eastern White Pine				R
<i>Plantago major</i>	Nipple-seed Plantain				O

Scientific Name	Common Name	ELC Unit 1: CUM1-1	ELC Unit 2a: CUW1	ELC Unit 2b: CUW1	ELC Unit 3: SWD4
<i>Bromus inermis</i> ssp. <i>inermis</i>	Smooth Brome	D	O		R
<i>Phalaris arundinacea</i>	Reed Canary Grass		O	R	O
<i>Phleum pratense</i>	Timothy	O			
<i>Poa pratensis</i> ssp. <i>pratensis</i>	Kentucky Bluegrass	O	O		R
<i>Rumex crispus</i>	Curly Dock	R	O	R	R
<i>Actaea pachypoda</i>	White Baneberry		R	R	
<i>Anemone canadensis</i>	Canada Anemone		R	R	O
<i>Rhamnus cathartica</i>	Buckthorn		D	A	A
<i>Aruncus dioicus</i>	Goatsbeard	O			
<i>Geum urbanum</i>	Clover-root		O	O	O
<i>Malus pumila</i>	Common Apple				R
<i>Prunus serotina</i>	Wild Black Cherry		O	O	R
<i>Prunus virginiana</i> var. <i>virginiana</i>	Choke Cherry		O	O	
<i>Rubus idaeus</i> ssp. <i>idaeus</i>	Red Raspberry		O	O	O
<i>Populus balsamifera</i> ssp. <i>balsamifera</i>	Balsam Poplar			A	R
<i>Populus deltoides</i> ssp. <i>deltoides</i>	Eastern Cottonwood		R	O	
<i>Populus tremuloides</i>	Quaking Aspen	R		D	A
<i>Salix exigua</i>	Sandbar Willow				O
<i>Linaria vulgaris</i>	Butter-and-eggs	R			
<i>Verbascum thapsus</i>	Common Mullein	R			
<i>Solanum dulcamara</i>	Climbing Nightshade		O	O	
<i>Tilia americana</i>	American Basswood		R	O	O
<i>Ulmus americana</i>	American Elm	R	R	O	O
<i>Ulmus pumila</i>	Siberian Elm		O		O
<i>Urtica dioica</i> ssp. <i>dioica</i>	Stinging Nettle		O		O
<i>Viola</i> sp.	Violet Species				O
<i>Parthenocissus vitacea</i>	Thicket Creeper	R	A	A	A
<i>Vitis riparia</i>	Riverbank Grape	O	A	A	A

Community Abundance Codes:

- D – Dominant
- A – Abundant
- O – Occasional
- R – Rare

Appendix C

Endangered and Threatened Species Assessment

Appendix C. Endangered and Threatened Species Assessment
Proposed Residential Development at Old Church Road, Caledon East, Ontario

Taxonomy	Species	ESA Status	SARA Status	COSEWIC Status	Preferred Habitat ^{1,2}	Known Species Range ^{1,2}	Potentially Suitable Habitat Present within the Study Area	Likelihood of Presence
Fish	American Eel <i>Anguilla rostrata</i>	END	No Status	THR	Over the course of its life, the American Eel can be found in both salt and fresh water. In fact, some scientists consider the American Eel to have the broadest diversity of habitats of any fish species in the world.	The American Eel starts life in the Sargasso Sea in the North Atlantic Ocean and migrates along the east coast of North America. In Canada, it is found in fresh water and salt water areas that are accessible from the Atlantic Ocean. This area extends from Niagara Falls in the Great Lakes up to the mid-Labrador coast. In Ontario, American Eels can be found as far inland as Algonquin Park. Once the eels mature (10-25 years) they return to the Sargasso Sea to spawn.	No Potentially suitable habitat is not present within the study area.	-
Plants	Butternut <i>Juglans cinerea</i>	END	END Schedule 1	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 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.	Butternut can be found throughout central and eastern North America. In Canada, Butternut occurs in Ontario, Quebec and New Brunswick. In Ontario, this species is found throughout the southwest, north to the Bruce Peninsula, and south of the Canadian Shield.	Yes Confirmed habitat for this species was documented within the study area.	Confirmed
Mammals	Eastern Small-footed Myotis (Bat) <i>Myotis leibii</i>	END	No Status	No Status	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.	Yes Potentially suitable habitat is present within the forested habitat within the study area.	Low
Mammals	Northern Myotis (Bat) <i>Myotis septentrionalis</i>	END	END Schedule 1	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.	Yes Potentially suitable habitat is present within the forested habitat within the study area.	Low
Birds	Prothonotary Warbler <i>Protonotaria citrea</i>	END	END Schedule 1	END	In Ontario, the Prothonotary Warbler is found in the warmer climate of the Carolinian deciduous forests. It nests in small, shallow holes, found low in the trunks of dead or dying trees standing in or near flooded woodlands or swamps. They will also readily use properly placed artificial nest boxes. Silver maple, ash, and yellow birch are common trees in these habitats. The Prothonotary is the only warbler in eastern North America that nests in tree cavities, where it typically lays four to six eggs on a cushion of moss, leaves and plant fibres.	In Canada, the Prothonotary Warbler is only known to nest in southwestern Ontario, primarily along the north shore of Lake Erie. Over half of the small and declining population is found in Rondeau Provincial Park. In 2005, it was estimated that there were only between 28-34 individuals in Ontario.	No Potentially suitable habitat is not present within the study area.	-
Mammals	Tricoloured Bat <i>Perimyotis subflavus</i>	END	END Schedule 1	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.	Yes Potentially suitable habitat is present within the forested habitat within the study area.	Low
Birds	Bank Swallow <i>Riparia riparia</i>	THR	THR Schedule 1	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 Potentially suitable habitat is not present within the study area.	-
Birds	Barn Swallow <i>Hirundo rustica</i>	THR	THR Schedule 1	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 Potentially suitable habitat is not present within the study area.	-

Taxonomy	Species	ESA Status	SARA Status	COSEWIC Status	Preferred Habitat ^{1,2}	Known Species Range ^{1,2}	Potentially Suitable Habitat Present within the Study Area	Likelihood of Presence
Birds	Bobolink <i>Dolichonyx oryzivorus</i>	THR	THR Schedule 1	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 Potentially suitable habitat is not present within the study area.	-
Birds	Chimney Swift <i>Chaetura pelagica</i>	THR	THR Schedule 1	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 they eat 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 Potentially suitable habitat is not present within the study area.	-
Birds	Eastern Meadowlark <i>Sturnella magna</i>	THR	THR Schedule 1	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 Potentially suitable habitat is not present within the study area.	-
Birds	Eastern Whip-poor-will <i>Caprimulgus vociferus</i>	THR	THR Schedule 1	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 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.	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 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.	No Potentially suitable habitat is not present within the study area.	-
Birds	Least Bittern <i>Ixobrychus exilis</i>	THR	THR Schedule 1	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 Potentially suitable habitat is not present within the study area.	-
Birds	Louisiana Waterthrush <i>Parlesia motacilla</i>	THR	SC Schedule 1	THR	The Louisiana Waterthrush is usually found in steep, forested ravines with fast-flowing streams. Although it prefers running water, especially clear, coldwater streams, it also less frequently inhabits heavily wooded, deciduous swamps having large pools of open water. It nests among the roots of fallen trees, in niches of stream banks, and in or under mossy logs.	In Canada, the Louisiana Waterthrush breeds only in southern Ontario, along the Niagara Escarpment, in woodlands along Lake Erie and scattered locations elsewhere. It probably nests sporadically in southwestern Quebec, but breeding there has never been confirmed.	No Potentially suitable habitat is not present within the study area.	-

Glossary

- EXP ESA - Extirpated - a species that no longer exists in the wild in Ontario but still occurs elsewhere.
- SARA - Extirpated - a wildlife species that no longer exists in the wild in Canada, but exists elsewhere in the wild.
- END ESA - Endangered - a species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's Endangered Species Act.
- SARA - Endangered - a wildlife species that is facing imminent extirpation or extinction.
- THR ESA - Threatened - a species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
- SARA - Threatened - a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.

Appendix C. Endangered and Threatened Species Assessment
Proposed Residential Development at Old Church Road, Caledon East, Ontario



Taxonomy	Species	ESA Status	SARA Status	COSEWIC Status	Preferred Habitat ^{1,2}	Known Species Range ^{1,2}	Potentially Suitable Habitat Present within the Study Area	Likelihood of Presence
	SC	ESA - Special Concern (formerly Vulnerable) - a species with characteristics that make it sensitive to human activities or natural events.						
		SARA - Special Concern - a wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.						
	MNRF	Ontario Ministry of Natural Resources and Forestry						
	ESA	Endangered Species Act						
	SARA	Species at Risk Act (Federal)						
	Schedule 1	The official list of species that are classified as extirpated, endangered, threatened, and of special concern.						
	Schedule 2	Species listed in Schedule 2 are species that had been designated as endangered or threatened, and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1.						
	Schedule 3	Species listed in Schedule 3 are species that had been designated as special concern, and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1.						
	COSEWIC	Committee on the Status of Endangered Wildlife in Canada - a committee of experts that assesses and designates which wild species are in some danger of disappearing from Canada.						
	References							
	1	- Species at Risk . Ontario Ministry of Natural Resources and Forestry. http://www.mnr.gov.on.ca/en/Business/Species/index.html . © Queens Printer For Ontario, 2013.						
	2	- Species at Risk Status Reports. Committed on the Status of Endangered Wildlife in Canada. Ottawa. http://www.sararegistry.gc.ca/search/advSearchResults_e.cfm?sttype=doc&docID=18 .						