# Environmental Impact Study

## 0 Nicholas Street, Alton

### Mt. Nicholas Holdings Inc.

1500-439 University Ave, Toronto, ON M5G 1Y8

Prepared by:

**SLR Consulting (Canada) Ltd.**

16 Robert Boyer Lane, Bracebridge, ON  P1L 1R9

SLR Project No.: 244.V24213.00001

May 14, 2026

Revision: 1

## Revision Record

| Revision | Date | Prepared By | Checked By | Authorized By |
|---|---|---|---|---|
| 0 | February 6, 2024 | Austin Adams | Dirk Janas | Dirk Janas |
| 1 | May 14, 2026 | Austin Adams | Dirk Janas | Dirk Janas |
| | | | | |

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# Acronyms and Abbreviations

| | |
|---|---|
| BHA | Butternut Health Assessment |
| CC | Coefficient of Conservatism |
| COSSARO | Committee on the Status of Species at Risk in Ontario |
| CW | Coefficient of Wetness |
| CVC | Credit Valley Conservation Authority |
| DBH | Diameter at Breast Height |
| EAB | Emerald Ash Borer |
| ELC | Ecological Land Classification |
| EPA | Environmental Policy Area |
| ESA | Endangered Species Act |
| EIS | Environmental Impact Study |
| GTA | Greater Toronto Area |
| ha | hectare |
| HDF | Headwater Drainage Feature |
| MBCA | Migratory Birds Convention Act |
| MBR | Migratory Birds Regulations |
| MECP | Ministry of the Environment, Conservation and Parks |
| MNRF | Ministry of Natural Resources and Forestry |
| MNR | Ministry of Natural Resources |
| MMAH | Ministry of Municipal Affairs and Housing |
| MVPZ | Minimum Vegetation Protection Zone |
| NHF | Natural Heritage Feature |
| NHIC | Natural Heritage Information Centre |
| NHS | Natural Heritage System |
| OMMAH | Ontario Ministry of Municipal Affairs and Housing |
| OP | Official Plan |
| PPS | Provincial Planning Statement |
| SAR | Species at Risk |
| SARO | Species at Risk in Ontario |
| SCA | Species Conservation Act |
| SWH | Significant Wildlife Habitat |
| TOR | Terms of Reference |

# 1.0 Introduction

Palmer (now SLR Consulting Inc.) is pleased to provide this Environmental Impact Study (EIS) related to the proposed development of 0 Nicholas Street, Alton (the Subject Property – **Figure 1**). An Official Plan Amendment (OPA) for a plan of subdivision application under the *Planning Act* is being pursued for this lot of record, of which an EIS is a required document. The lands proposed for development are currently a European Larch (*Larix decidua*) plantation area, which is a non-native species to Ontario. The Subject Property is 5.91 hectares (ha), of which the European Larch Plantation occupies 2.58 ha on the northeast side (the grey-toned trees on **Figure 1**).

As a precursor to this EIS, a *European Larch Plantation Assessment* was completed to evaluate the plantation in terms of its applicability as a natural heritage feature (NHF), specifically a *Significant Woodland*, for which relevant natural heritage policies would apply (Palmer, 2020). Regarding that, the Town of Caledon Official Plan (OP) maps the Subject Property as "Settlement Area", and outside the Town's Natural Heritage System (NHS). The Subject Property is also not mapped within Provincial planning policies, specifically the *Greenbelt Plan* NHS or the *Growth Plan for the Greater Golden Horseshoe* NHS. As the area is not in *Greenbelt* NHS and the Region of Peel has adopted the *Growth Plan* mapping, these two plans would not apply to the Subject Property. While these lands are within Credit Valley Conservation Authority (CVC) jurisdiction, there are no lands regulated by the CVC within the Subject Property and therefore a permit would not be required under O. Reg. 155/06.

The Region of Peel OP maps the Subject Property as Core Area of the Regional NHS. Yet there are provisions in the Regional and Town OPs that may allow a non-naturalized, non-native plantation to be removed from the NHS. As Significant Woodlands are defined in the Region of Peel OP, conformity to that plan would also demonstrate conformity to the *Provincial Planning Statement*.

To that effect, the *European Larch Plantation Assessment* and this EIS should be read together as part of this application. The *European Larch Plantation Assessment* discusses the character of the European Larch Plantation in relation to the definitions of Region of Peel NHF and provides the analysis and rationale for its from the Region of Peel NHS, while the EIS provides the analysis surrounding the development application for this existing lot of record.

The objective of this EIS is to provide a background review, desktop analysis, and document field survey results to assess the natural heritage features and functions of the Subject Property, assess potential impacts from the proposed development, and provide mitigation measures where appropriate. Investigations and impact assessment for the EIS have been scoped to focus primarily on the natural features located in closest proximity to components of the proposed development.


**LEGEND:**

WATERCOURSE *(SHAW'S CREEK)*

SUBJECT SITE




**Notes:**
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SCALE: 1:2,000
PAGE SIZE: 11 x 17
NAD 1983 UTM Zone 17N

THIS MAP IS FOR CONCEPTUAL PURPOSES ONLY
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THE BIGLIERI GROUP
ALTON, ON

0 NICHOLAS STREET, ALTON

**SITE LOCATION**

SLR

FIGURE NO:
**1**

DATE: March 16, 2026

PROJECT NO: 244.V24213.00001

# 2.0 Policy Review

## 2.1 Provincial Planning Statement (2024)

The Provincial Planning Statement (PPS) provides direction to regional and local municipalities regarding planning policies for the protection and management of natural heritage features and resources (Ministry of Municipal Affairs and Housing, 2024). The PPS defines eight types of natural heritage features (NHF) and adjacent areas and provides planning policies for each. Of these NHF, development is not permitted in:

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

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

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

Each of these natural heritage features is afforded varying levels of protection subject to guidelines, and in some cases, regulations. The Subject Property is in Ecoregion 6E (Crins, Gray, Uhlig, & Wester, 2009).

## 2.2 Region of Peel Official Plan

The Region's Official Plan (OP) was adopted by Regional Council on April 28, 2022 (Region of Peel, 2022). This by-law repealed and replaced the former July 11, 1996 Region of Peel Official Plan adopted by By-law 54-96, as amended. It was approved with modification by the Ontario Ministry of Municipal Affairs and Housing (OMMAH) through the Minister's Notice of Decision on the Plan dated November 4, 2022.

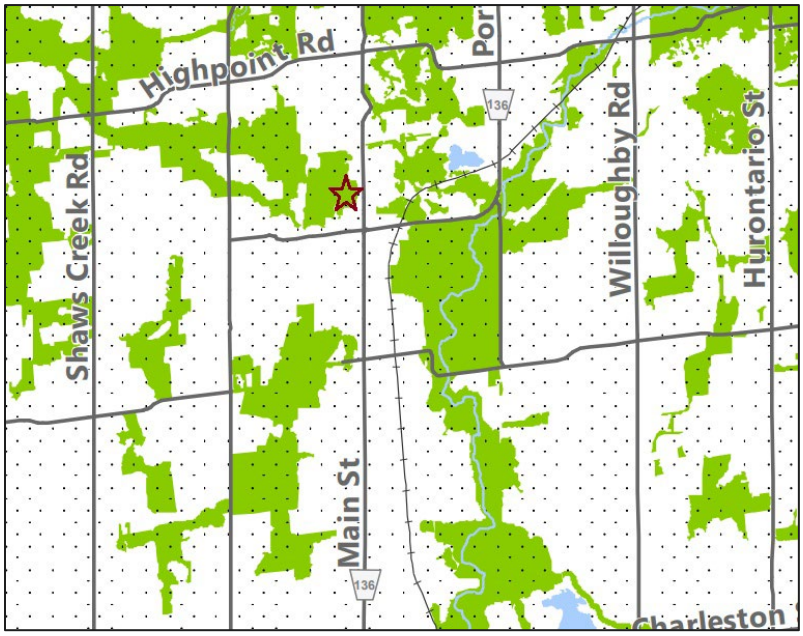
It should be noted that, effective July 1, 2024, under the Planning Act, the Region of Peel was designated an upper-tier municipality without planning responsibilities. As a result, the applicable sections of the Regional Official Plan pertaining to the Town of Caledon are now incorporated into the Town of Caledon Official Plan. Accordingly, the Town of Caledon is the land use planning authority responsible for reviewing the policies of the Regional Official Plan in the context of this development application.

Natural heritage features in Peel Region are protected by its Greenlands System, which consists of Core Areas, Natural Areas and Corridors, and Potential Natural Areas and Corridors. Core Areas are designated on Schedule C-2 (Core Areas of the Greenlands System in Peel) and include provincially and regionally significant features and areas that are deemed to be important to the Region and warrant a high standard of protection (Policy 2.14 introduction). Reference should be made to the local municipal official plans and related documents for a detailed interpretation of the location and extent of the Greenlands System Core Areas, Natural Areas and Corridors and Potential Natural Areas and Corridors, and the key natural heritage features and key hydrologic features protected in the provincial plans (Region of Peel, 2022).

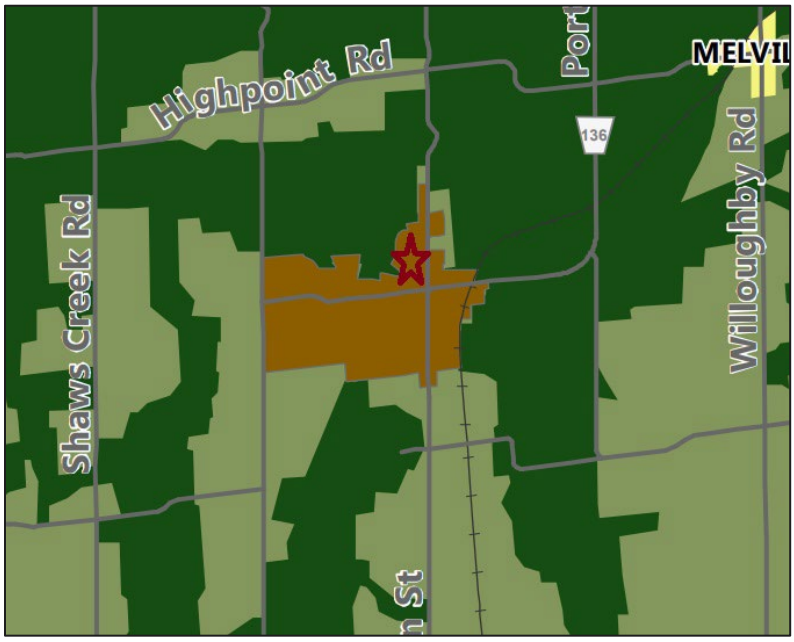
Greenlands Core Areas include significant wetlands, significant coastal wetlands, Core Area Woodlands (criteria provided), Environmentally Sensitive or Significant Areas, Provincial Life Science Areas of Natural and Scientific Interest, Escarpment Natural Areas of the Niagara Escarpment Plan and core valley and stream corridors (criteria provided). Development is generally prohibited within Core Areas. However, there are provisions in the OP that may allow the removal of a non-naturalized, non-native plantation to be removed from the NHS (Policy 2.14.32). As Significant Woodlands are defined in the Region of Peel OP, conformity to that plan would also demonstrate conformity to the *Provincial Planning Statement*.

The Region of Peel OP currently does map the Subject Property as Core Area of the Greenlands System on Schedule C-2 (**Map A**). On Schedule B-5 – Greenbelt Plan Area Land Use Designations, the Region of Peel OP maps the Subject Property as within a “Village” within the “Greenbelt Plan Area” (**Map B**).

**Map A: Schedule C-2 – Core Areas of the Greenlands System in Peel (Green), within Greenbelt area (dots). Approximate Subject Property in Red.**



**Map B: Schedule B-5 – Greenbelt Plan Area Land Use Designations. Approximate Subject Property in Red.**




Section 2.14.28 of the Region of Peel OP states that plantations are to be included as Core Area Woodlands if they are a *naturalized* plantation, for which the OP contains a definition and criteria. In addition, Section 2.14.29 allows for the assessment of woodlands within Region of Peel OP Urban System, via natural heritage studies to evaluate and confirm their quality and functions.

Policy 2.14.32 states that *…additional exclusions may be considered for treed communities which are dominated by invasive non-native tree species such as buckthorn (Rhamnus species), Norway maple (Acer platanoides), or others deemed to be highly invasive, that threaten the ecological functions or biodiversity of native communities. Such exceptions should be supported by site-specific studies that consider 1) the degree of threat posed; 2) any potential positive and/or negative impact on the ecological functions or biodiversity of nearby or adjacent native communities; and 3) the projected natural succession of the community. Communities where native tree species comprise approximately 10 percent or less of the tree crown cover and approximately 100 or fewer stems of native tree species of any size per hectare would be candidates for exclusion*.

Region of Peel OP definitions include:

**Plantation**: a *treed community in which the majority of trees have been planted or the majority of the basal area is in trees that have been planted, often characterized by regularly spaced rows. With time and forest management, natural regeneration can become established and eventually convert the community to natural forest.*

***Plantation, Naturalized****: a plantation or portion of a plantation that is undergoing regeneration to a native woodland community either through natural succession or woodland restoration. An assessment to determine if a plantation is naturalized should include, but not be limited to soil conditions, stand composition, vegetation structure and health, the distribution and ecology of successional species (e.g., the ability of species to convert plantations to native communities) and the distance to and functional relationship with adjacent natural heritage features (e.g. proximity to watercourses, contribution to interior woodland habitat). Naturalized plantations will*

*generally have dense regeneration of native tree seedlings and/or approximately 100 or more stems per hectare of regenerated native trees that have attained a minimum height of 1.37 metres.* ***This assessment shall not preclude the local municipalities from evaluating plantations in the local context and in accordance with the criteria in Table 1 and policies in Section 2.5 of this Plan.***

## 2.3 Town of Caledon Official Plan (2025)

Within the Town of Caledon, the Natural Features and Areas designation in this Plan corresponds to the Core Areas of the Greenlands System as identified and protected in the Region of Peel Official Plan (**Map B**) (Town of Caledon, 2025). In the Town of Caledon OP Section 13.3.3, new development is prohibited within areas designated Natural Features and Areas on the OP Land Use Schedules, with the exception of the specified permitted uses.

The Town of Caledon Official Plan (OP) maps the Subject Property as within a Settlement Area, with most of the Subject Property as Natural Features and Areas (**Map C**). Section 13.9 of the 2025 OP also now defines minimum buffers for Natural Features and Areas from development; whereas previously, buffer distances were guided solely by Regional and Conservation Authority policies (Table 1).

**Map C: Settlement Area (outline); Villages and Hamlets (yellow) and Natural Features and Areas (green). Approximate Subject Property in Blue.**

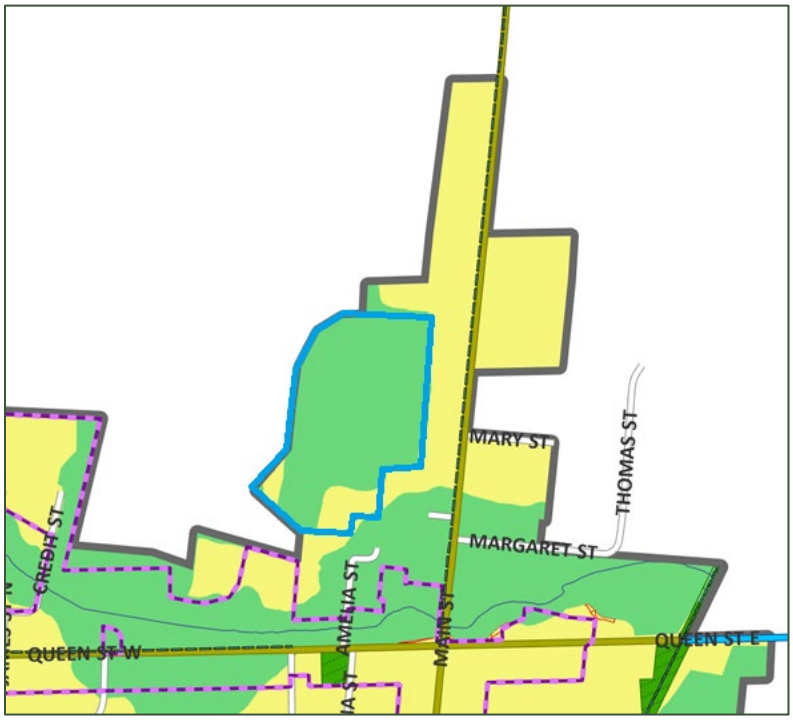


**Table 1: Town of Caledon Minimum Buffers**

| Component of the Natural Environment System | Minimum Buffer |
|---|---|
| *Life Science Areas of Natural and Scientific Interest* | 15 metres |
| Valleyland (*significant*) | 15 metres |
| *Wetland* | 30 metres |
| *Wildlife habitat (significant)* | 15 metres |
| Woodland (*significant*) | 20 metres |
| *Woodlands* meeting one or more of the criteria for a Natural Areas and Corridors woodland in Table 1 of the Region of Peel Official Plan | 15 metres |
| Other *woodlands* | 10 metres |

The Town of Caledon OP also defines Woodlands to include *"woodlots, cultural woodlands, cultural savannahs, plantations and forested areas and may also contain remnants of old growth forests. Woodlands are further defined as any area greater than 0.5 hectares that has:*

*a) A tree crown cover of over 60% of the ground, determinable from aerial photography, or*

*b) A tree crown cover of over 25% of the ground, determinable from aerial photography, together with on-ground stem estimates of at least:*

> *i) 1,000 trees of any size per hectare, or*
>
> *ii) 750 trees measuring over five centimetres in diameter at breast height (1.37 m), per hectare, or iii) 500 trees measuring over 12 centimetres in diameter at breast height (1.37 m), per hectare, or iv) 250 trees measuring over 20 centimetres in diameter at breast height (1.37 m), per hectare (densities based on the Forestry Act of Ontario, 1998) and, which have a minimum average width of 40 metres or more measured to crown edges."*

However, the Town of Caledon also sets out exceptions for plantations that are not to be considered Core Areas or significant woodlands (Section 13.12.4(b) of the Official Plan). These exceptions include areas:

*"a) Managed for production of fruits, nuts, Christmas trees or nursery stock or other similar agroforestry type uses;*

*b) Plantations managed for tree products with an average rotation of less than twenty (20) years (e.g. hybrid willow or poplar); or,*

*c) Plantations established and continuously managed for the sole purpose of complete removal at rotation, as demonstrated with documentation acceptable to the Region or area municipality, without a woodland restoration objective."*

*In addition to the above, woodlands may be excluded as a Core Area woodland or a significant woodland if they are treed communities that are dominated by invasive non-native tree species such as buckthorn (Rhamnus species), Norway Maple (Acer platanoides), or others deemed to be highly invasive (such as Black Locust), that threaten the ecological functions or biodiversity of native communities". Such exceptions are to be supported by site-specific studies that consider the following factors:*

*"1) the degree of threat posed;*

*2) any potential positive and/or negative impact on the ecological functions or biodiversity of nearby or adjacent native communities; and*

***3) the projected natural succession of the community.***

***4) Communities where native tree species comprise approximately 10 percent or less of the tree crown cover and approximately 100 or fewer stems of native tree species of any size per hectare would be candidates for exclusion."***

*Development and site alteration may be considered in woodlands that are not Natural Features and Areas or Supporting Features and Areas.*

Section 13.12.5 also sets out conditions for the potential for removal of woodlands in urban settings. The OP states: "*The ecological functions of some significant woodlands or other woodlands in the Urban System may be substantially compromised as a result of prior land use activity and as a result would be difficult to restore and/or manage as a native woodland in an urban setting. In these circumstances, consideration can be given to reclassifying all or a portion of such a significant woodland or other woodland as a cultural and regenerating woodland. A significant or other woodland can be classified as a cultural and regenerating woodland if all of the following are met:*

a) *the woodland is less than two hectares in size;*
b) *the removal of a portion of woodland will not result in a negative impact to the ecological functions of the remaining portion;*
c) *there are no other important ecological functions that the woodland provides (e.g., critical function zone for wetlands, etc.);*
d) *the woodland is not identified as another component of the natural environmental system (e.g., significant wildlife habitat, linkage, enhancement area, buffer);*
e) *the canopy is dominated by invasive, non-native species including, but not limited to: Norway Maple, Manitoba Maple, Siberian Elm, Scots Pine, European Buckthorn, White Mulberry, Tree-of-heaven, Apple, Black Locust and White Poplar, or any combination thereof;*
f) *the area was not treed approximately 25 years ago as determined through air photo interpretation or other suitable techniques;*
g) *the soil is deemed to preclude the development of a native woodland; for example: soil that is degraded, soil that is compacted, the topsoil has been removed, soil displaying substantial erosion from over-use and/or the woodland is regenerating on fill or spoil that was introduced to the site;*
h) *there is limited ability to maintain or restore self-sustaining ecological functions typical of native woodlands; and,*
i) *the woodland provides limited social values (e.g., does not contain sanctioned trails, nor currently provides organized research or educational opportunities)."*

## 2.4 The Growth Plan for the Greater Golden Horseshoe and The Greenbelt Plan

The Subject Property is outside the Natural Heritage Systems (NHS) of both the *Growth Plan for the Greater Golden Horseshoe* (Ministry of Municipal Affairs and Housing, 2019) and The *Greenbelt Plan* (Ontario Ministry of Municipal Affairs and Housing, 2017).

For the *Growth Plan*, the Subject Property is outside the Region of Peel NHS, being defined as Rural Settlement Area on Region of Peel Official Plan *Schedule E-3 – The Growth Plan Policy Areas in Peel*. As per the Growth Plan policies, as the Region of Peel has adopted the *Growth Plan* mapping, the *Growth Plan* would not apply to the Subject Property.

Similarly, the Subject Property is mapped as Village in *Greenbelt Plan* Area Land Use Designation on Region of Peel Official Plan Schedule B-5 (**Map B**), and Towns and Villages in Town of Caledon Schedule B3a. As such, the Subject Property is not in the *Greenbelt Plan* Protected Countryside or NHS designations, and the NHS policies would not apply.

## 2.5 Species Conservation Act (2025)

On June 5, 2025, the Province of Ontario passed Bill 5: Protect Ontario by Unleashing Our Economy Act, 2025, which involved amendments to the Endangered Species Act (ESA) and enacted the *Species Conservation Act,* 2025 (SCA) (Government of Ontario, 2025).

The SCA came into effect on March 30, 2026; it replaces the *Endangered Species Act* (2007), which was repealed on the same date. This Act is administered by the Ministry of Environment, Conservation and Parks (MECP), as was the previous ESA. The SCA protects Endangered and Threatened Species in Ontario that are listed in the O. Reg. 60/26: Protected Species in Ontario List. This list excludes formerly listed migratory birds and aquatic species (potentially protected through the federal Species at Risk Act) as well as all previously listed Special Concern species that are not protected through the SCA. For most listed species, where impacts to the protected species are anticipated, a registry and Conservation Plan approach is taken whereby mitigation measures are expected to be taken.

Species listed as Special Concern may be afforded protection through policy instruments respecting significant wildlife habitat (e.g., the PPS) as defined by the Province, other relevant authority, or other protections contained in Official Plans.

*Species Protection*

- Undertaking an activity that results in harassment of a species is no longer prohibited under the SCA and therefore does not require you to seek a permit or make use of an exemption.

*Habitat Protection*

- The new definition of ‘habitat’ does not include indirect habitat used exclusively for foraging or for travelling between dwelling places.
- Under the SCA, habitat is defined as:
    - For animals, the dwelling place and immediate surrounding area.
    - For plants, ‘habitat’ is defined as the critical root zone.
    - For all other species (for example, lichens), an area on which any member of the species directly depends to carry out its life processes.

The changes are intended to streamline permit applications and approvals and help projects proceed more quickly while continuing to provide important protections for SAR and their habitat. It remains the proponent's responsibility to ensure conformity with the SCA.

Under the SCA, provincial authorization for migratory birds and aquatic species (fish and mussels) listed on Schedule 1 of the federal Species at Risk Act would not be required.

## 2.6 Species at Risk Act (2002)

The Federal *Species at Risk Act*, 2002 (SARA) is administrated by Environment and Climate Change Canada (ECCC) (Government of Canada, 2002). It provides habitat protection provisions of aquatic and marine species, while habitat protection of most terrestrial species applies primarily to federally owned lands. The Act prohibits the killing, harming, harassing, capturing, or taking SAR, and also prohibits the destruction of critical habitat that has been defined and regulated for a given species.

For aquatic species, the Federal Minister of Fisheries and Oceans Canada (DFO) is responsible for their governance, except for those species located in national parks, national historic sites, or other protected heritage areas; these areas are overseen by the Federal Minister for the Environment (through the Parks Canada Agency). Any projects that have the potential to contravene SARA must be referred to DFO or ECCC for review to ensure compliance with SARA, regardless of land ownership or potential triggers under the Canadian Environmental Assessment Act (CEAA).

Critical habitat is the habitat necessary for the survival or recovery of a listed endangered, threatened, or extirpated species (if a recovery strategy has recommended the reintroduction of that extirpated species). Critical habitat will be identified in the recovery strategy or action plan for each listed species and posted on the SARA Public Registry.

Requirements under the SARA are typically less applicable to projects of this type as habitat protection is generally specific to federally owned lands and is more commonly addressed if a project screening under the CEAA is required, which is not the case for this project.

## 2.7 Migratory Birds Convention Act (1994)

The *Migratory Birds Convention Act, 1994* (MBCA) and Migratory Birds regulations, 2014 (MBR) together with the provincial *Fish and Wildlife Conservation Act*, 1997, (Government of Ontario, 1997) protect most species of migratory birds and their nests and eggs anywhere they are found in Canada. General prohibitions under the MBCA and MBR protect migratory birds, their nests and eggs and prohibit the deposit of harmful substances in waters / areas frequented by them. The MBR includes an additional prohibition against incidental take, which is the inadvertent harming or destruction of birds, nests, or eggs.

Compliance with the MBCA and MBR is best achieved through a due diligence approach, which identifies potential risk, based on a site-specific analysis in consideration of the Avoidance Guidelines and Best Management Practices information on the Government of Canada's website (Government of Canada, 2018).

# 3.0 Methods

## 3.1 European Larch Plantation Assessment Terms of Reference

A TOR for the *European Larch Assessment* was provided to the proponent by the CVC on provided on August 9, 2018 (**Appendix A**). The TOR requirements were specific to the evaluation of the European Larch Planation area, with the expectation of further TOR discussions should the project proceed to the EIS stage. Reflective of Region of Peel OP definitions, the CVC detailed that the characteristics of the European Larch Plantation to be evaluated include:

- Ecological Land Classification (using the 2nd approximation (Lee, et al., 1998)), including soil cores;
- A single-season botanical survey;
- Soil conditions (using cores collected through Ecological Land Classification);
- Stand composition;
- Vegetation structure and health;
- Distribution and ecology of successional species;
- Functional relationship of the cultural plantation to the whole woodland (e.g. interior woodland habitat, contribution to SWH);
- Whether this portion of the Subject Property, or portions of the portion, have dense regeneration of native tree seedlings;
- Whether this portion of the Subject Property, or portions of the portion, have 100+ stems per hectare of regenerated native trees (height 1.37 m+); and
- Incidental wildlife observations.

## 3.2 EIS Terms of Reference and Agency Consultation

Agency consultation with the CVC has been on-going following the presentation of the *European Larch Plantation* Assessment (Palmer, 2020). Current consultation status marks the CVC as objecting to the removal of the European Larch Plantation from the Region of Peel Natural Heritage System, though noting that a (limited) amount of development is possible on the Subject Property, considering that it is an existing lot of record. A Terms of Reference (TOR) for the EIS was not submitted to the CVC, yet this EIS has proceeded using a scope of fieldwork and analysis appropriate to the natural features present and/or potentially present on the Subject Property.

As there is no CVC regulated area on the Subject Property, the natural heritage features on the property are to be evaluated using the relevant provincial and municipal policies and a permit from the CVC is not required. The CVC provides direction on natural heritage to the Region and Town; and in the case of this project provides technical advice and input to the municipality.

## 3.3 Ecological Survey

A three-season ecological survey was completed on March 31, May 26 and 27, and June 30, 2020 by traversing the Subject Property and recording all flora species and ecological characteristics observed. Identified vascular plants were checked for their Provincial status

based on the Species at Risk in Ontario (SARO) (Ministry of Environment, Conservation and Parks, 2020) and the Natural Heritage Information Centre (NHIC) (Ministry of Natural Resources and Forestry, 2020). Local and regional rarity status was cross-referenced with the Credit Valley Conservation Authority flora list (Credit Valley Conservation Authority, 2002) and Vascular Plan Flora of the GTA (Varga, et al., 2000).

Vegetation communities were mapped and described following the Ecological Land Classification (ELC) System for Southern Ontario, 2nd approximation (Lee, et al., 1998). Vegetation community boundaries were delineated on field maps through the interpretation of recent aerial photographs and refined in the field. Information collected during ELC surveys includes dominant species cover, community structure, as well as level of disturbance, presence of indicator species, and other notable features.

As the purpose of the study was the characterization of the European Larch Plantation, additional data were collected. These include a basal area estimate, stem density count and soil characteristics, following standard methods for the ELC System for Southern Ontario (Lee, et al., 1998). Soil plots were completed with a Dutch auger (hand-held soil auger) at all ecological survey plots (**Figure 2**). All plots were dug to a depth of 100 cm or to the point of refusal. Each sample was photographed, textured, assessed for mottles and gleys, and characterized using the *Field Manual for Describing Soils in Ontario* (Denholm, Schut, & Irvine, 1993). Additional notes were also taken to relate to the evaluation characteristics listed in the terms of reference (**Appendix A**).

To ensure an adequate representation of the European Larch Plantation, five (5) ELC plots were established within the polygon. An additional four (4) were established in the adjacent White Pine Plantation areas, and plots were completed in all ELC types within the Subject Property.

## 3.4 Bat Habitat Assessment

As SAR bats were screened as having limited but potential habitat within or adjacent to the Subject Property, a Bat Habitat Assessment was completed including potential habitat tree (snag) identification.

Based on the MNRF *Maternity Roost Surveys (Forests/Woodlands)* guideline, Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*) and Tri-colored Bat (*Perimyotis subflavus*) may establish maternity roosts in any coniferous, deciduous or mixed wooded ecosite that includes trees at least 10 cm diameter-at-breast height (DBH) and should be considered suitable maternity roost habitat (Ministry of Natual Resources and Forestry, 2022). Based on aerial imagery and field investigations, both treed areas and isolated trees within the proposed development limit (plus 6 m) were identified within and directly adjacent to the Subject Property.

A search for potentially suitable maternity roosting trees targeting *Endangered* bat species was conducted during leaf-off period on April 20, 2026. All snags ≥10 cm diameter at DBH identified as potential roost trees were recorded. The tree species, DBH, snag attributes (i.e., cavities, loose bark, cracks), snag location, height class, and decay class were recorded for each tree. This work was completed to identify suitable areas for the deployment of acoustic monitors.

There is no minimum threshold in terms of the number of snags/ha for an Ecological Land Classification (ELC) ecosite to be considered suitable maternity roost habitat for SAR. However, if snag density is calculated to be >10 snags per hectare then an ecosite should be considered high quality.

## 3.5 Breeding Birds

Breeding bird surveys were conducted at the property on May 30 and June 18, 2020 to document the presence of bird species and their breeding in the following habitats on the Subject Property: (i) Pine Plantation, (ii) Cultural Plantation, and (iii) flyovers and adjacent areas. Surveys were carried out between 05:30 and 10:00 h to coincide with the dawn chorus. Surveys were conducted in general accordance with *Breeding Bird Atlas* protocols (Bird Studies Canada, 2001).

## 3.6 Incidental Wildlife and Wildlife Habitat

Incidental observations of wildlife were made during all field investigations. Palmer (now SLR) ecologists traversed the Subject Property, noting any evidence of wildlife or sensitive habitat features (e.g., stick nests, potential amphibian breeding habitat), as well as gaining a general characterization of available habitat. A habitat suitability assessment for Significant Wildlife Habitat (SWH) characteristics was conducted as part of the field information gathering efforts to determine whether SWH is present, potentially present, or absent within the Subject Property (Ontario Ministry of Natural Resources, 2015).

## 3.7 Species at Risk Screening

Prior to field work, existing Species at Risk (SAR) records and species ranges were queried through the NHIC database and other available wildlife atlases and databases. The species noted during this background review and others known through professional experience to have potential to occur in urban environments were considered in the assessment. During field work, the area was screened for potential SAR habitat opportunities and SWH characteristics. Habitat opportunities for SAR in the Study Area were assessed by comparing habitat preferences of species deemed to have potential to occur against current site conditions.

## 3.8 Headwater Drainage Feature Assessment

To assess the presence and/or classification of the potential headwater drainage feature (HDF), a rapid-assessment survey was completed in accordance with the *Evaluation, Classification and Management of Headwater Drainage Features Guideline* (Toronto and Region Conservation Authority and Credit Valley Conservation, 2014). During the assessment, the following parameters were recorded for the observed feature:

- Feature type;
- Riparian conditions;
- Flow conditions;
- Feature vegetation;
- Feature bankfull widths and depths;
- Sediment deposition/Transport;
- Flow measures;
- Longitudinal gradient;
- Site features; and
- Channel connectivity.

# 4.0 Existing Environmental Characteristics

The Subject Property is 5.99 ha, of which the European Larch Plantation occupies 2.58 ha (**Figure 2**). The property is primarily vegetated by plantations of various dominant species, which is reflective of the overall 31.6 ha treed area that contains the Subject Property (**Figure 3**). The northeastern portion of the Subject Property where development is proposed is a tableland "bench" that rises slightly above the residential properties found to the northeast along Main Street. From the tableland. a slope bisects the Subject Property along its middle from northwest to southeast, with the crests of the slope near the southwest limits of the property.

The Subject Property is greater than 200 m from the Credit River Alton Branch to the south (**Figure 1**). As the tableland slope from the plantation extends eastwards into Alton, there appears to be no direct connection between the Subject Property and this waterbody.

## 4.1 Ecological Land Classification

### 4.1.1 European Larch Coniferous Plantation (CUP3-6)

The European Larch Plantation rests on the tableland bench found above the residential properties on Main Street and ends at the toe of slope in the southwest (**Figure 2**). The ground is relatively level, with the most variability found in the north side, where portions are included in the slopes to the southwest.

European Larch comprises almost the entire canopy, providing 60 – 70% cover, and at approximately 25 - 30 m, is approximately twice the height of the subcanopy layer (**Photo** 1). The canopy is of a consistent age and is planted in *regularized rows*. Only sparse Eastern White Pine (*Pinus strobus*) from the adjacent polygon and the occasional Black Cherry (*Prunus serotina*) make minor components of the canopy.

**Photo 1: European Larch Plantation from Cultural Meadow to the south**

The subcanopy is sparse, providing a limited 10 – 15% cover. Species include regeneration of European Larch, with White Ash (*Fraxinus americana*), Black Cherry, Sugar Maple (*Acer saccharum*), and Manitoba Maple (*Acer negundo*). There is an area of Sugar Maple

regeneration (**Figure 2**) that is denser, stemming from a single “wolf tree” (i.e., large open mature tree that is a remnant from previous cover) at that location (**Photo 2**).

**Photo 2: "Wolf" tree in Sugar Maple regeneration area**

The shrub/understory layer includes a sparse cover of saplings of the above subcanopy species. Shrubby species were also observed, including Red Elderberry (*Sambucus racemosa*), Red-osier Dogwood (*Cornus sericea*), with intrusions of the invasive European Buckthorn (*Rhamus cathartica*).

Ground covers varied slightly dependant on topographic position, varying between 40 – 60%, though sparser surrounding the Sugar Maple area. Consistent ground species included Greater Celandine (*Chelidonium majus*), Garlic Mustard (*Alliaria petiolata*), Woodland Forget-me-not (*Myosotis sylvatica*), all of which are exotic species. A large patch of European Lily-of-the-valley (*Convallaria majalis*) was also observed, and is likely a garden escapee. Frequently observed native species included Stinging Nettle (*Urtica dioica*), Wild Lily-of-the-valley (*Maianthemum canadense*), and Wild Cucumber (*Echinocystis lobata*). Spring ephemeral species including Yellow Trout Lily (*Erythronium americanum*) and Jack-in-the-pulpit (*Arisaema triphyllum*) were also occasionally observed.


**LEGEND:**

- SNAG TREE
- ECOLOGICAL SURVEY POINT
- BREEDING BIRD SURVEY POINT
- BUTTERNUT
- EPHEMERAL DRAINAGE
- ECOLOGICAL LAND CLASSIFICATION
- POTENTIAL DEVELOPMENT AREA (3.21 HA)
- SUGAR MAPLE REGENERATION AREA
- SUBJECT SITE (5.91 HA)

**ELC Description:**

CUP3-6: European Larch Coniferous Plantation
CUP3-2: White Pine Coniferous Plantation
CUP3-4: Scotch Pine Coniferous Plantation
CUM1-1: Dry - Moist Old Field Meadow
TAGM5: Fencerow

**Notes:**
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SCALE: 1:1,500
PAGE SIZE 11 x 17
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THE BIGLIERI GROUP
ALTON, ON

0 NICHOLAS STREET, ALTON

# EXISTING ENVIRONMENTAL CONDITIONS

SLR

FIGURE NO:
**2**

DATE: May 11, 2026

PROJECT NO: 244.V24213.00001

### 4.1.2 White Pine Coniferous Plantation (CUP3-2)

To the west/southwest of the European Larch Plantation, an Eastern White Pine Plantation is found on the northeast facing slope (1.86 ha in two polygons). An isolated pocket of this type (0.16 ha) is also found to the east of the larch, also on the tablelands above the existing residential properties. This canopy is also of a consistent age, and is planted in rows.

The Eastern White Pine Plantation areas are similar to the European Larch Plantation, though Eastern White Pine replaces the larch at approximately 60% cover. While pine is dominant, White Ash and Trembling Aspen (*Populus tremuloides*) also a minor component of the canopy. The subcanopy is consistent with the Larch Plantation, with White Ash, Sugar Maple and Black Cherry found in sparse amounts. Red Elderberry is abundant in the shrub layer, with occasional saplings of White Ash, Black Cherry, Sugar Maple, and Manitoba Maple (*Acer negundo*). In the ground cover (50 – 80%), Garlic Mustard, Greater Celandine, and Stinging Nettle dominate, with Common Lady Fern (*Athyrium filix-femina*) appearing frequently as well.

### 4.1.3 Scotch Pine Coniferous Plantation (CUP3-4)

Further up the northeast facing slope, a 0.44 ha Scotch Pine (*Pinus sylvestris*) Plantation is found at the south end of the Subject Property. The canopy is entirely rows of Scotch (Scots) Pine, also at 60% cover, but a bit shorter at approximately 20 - 25 m. The subcanopy of this type was very sparse (<10%) White Ash. In the understorey, Black Cherry and Red Elderberry were common. Similar to the other plantation areas, exotic species are dominant, including Garlic Mustard and Greater Celandine.

### 4.1.4 Fencerow (TAGM5)

Dividing portions of the Eastern White Pine Plantation, a trail can be found leading up the northeast facing slope. The TAGM5 code was selected to note the anthropogenic nature of the clearing and character of the area. A single row of large deciduous trees is found along the trail, and include White Ash, Sugar Maple, and Butternut (*Juglans cinerea*). Most of these trees appeared over mature and many are in decline. The ground cover is pervasive patches of Stinging Nettle and Garlic Mustard with grasses.

### 4.1.5 Dry – Moist Old Field Meadow (CUM1-1)

The southern portion of the mid-level tableland is an open cultural meadow. The area is fringed with trees at the subcanopy height at <10% cover, being mostly White Ash and Black Cherry, though all deciduous species found on the Subject Property are represented. The shrubby layer is also sparse (10% cover), which is predominantly Red Raspberry (*Rubus idaeus*), Tatarian Honeysuckle (*Lonicera tatarica*), and Common Lilac (*Syringa vulgaris*).

With the open ground, the ground cover is quite diverse with 28 species observed. Exotic species dominate, including Garlic Mustard, Woodland Forget-me-not, European Swallowwort/Dog-Strangling Vine (*Vincetoxicum rossicum*), Common Dandelion (*Taraxacum officinale*), and Wild Carrot (*Daucus carota*); among grass species including Quackgrass (*Elymus repens*) and Common Timothy (*Phleum pratense*).

A similar polygon is found at the extreme south corner of the Study Area. This clearing is found at the crest of this ridge and appears cleared for hiking and outdoor excursion purposes. The amount of exotic species is reduced in this area, though still have a noticeable presence.



## 4.2 Flora

There were 78 species of vascular plants recorded within the Subject Property, including 37 (47%) native species, 32 (41%) which are non-native to Ontario, and 10 species were identified to the genus only due to the limited representation of key characteristics (**Appendix B – Table 1**). This high recorded presence of non-native species is indicative of past disturbance in the Subject Property, typical of developed areas in southern Ontario (Morton & Venn, 1984). Oldham et al. (1995) indicate that in southern Ontario plant communities, non-native flora presence averages between 20 and 30%.

Within the European Larch Plantation specifically, conditions reflect the past disturbance character of the overall Subject Property. Within the CUP3-6 plantation, 43 species were observed, including 27 (63%) native species, 14 (33%) which are non-native to Ontario, and two species were identified to the genus only (**Appendix B – Table 2**).

No listed SAR, locally or regionally rare vegetation species were observed (Ministry of Natural Resources and Forestry, 2020; Credit Valley Conservation Authority, 2002; Varga, et al., 2000). All species observed had either an “S4” or “S5” provincial rank or were exotic species, indicating that observed species were either secure in Ontario or introduced (Ministry of Natural Resources and Forestry, 2020). It should be noted that Virginia Creeper (*Parthenocissus quinquefolia*) is listed as locally rare based on literature (Varga, et al., 2000); however, is noted in practice to be pervasive and common. Swamp Red Currant (*Ribes triste*) is listed as locally uncommon. Both these species are common and secure in Ontario, being “S4” and “S5” species, respectively.

The Coefficient of Conservatism (CC) of a floristic species is a measure of its sensitivity to disturbance and the degree of habitat specificity it requires (Catling, 2013; Oldham, Bakowsky, & Sutherland, 1995). Measured on a scale between 0 and 10, a native species that establishes easily and/or in a variety of ecological communities would score low; while a plant that is very sensitive to human disturbances and/or lives only in specific environments (e.g., only marsh wetlands) would score high.

Based on the data collected, the average CC for the Site is **3.5 for both the Subject Property and the European Larch Plantation specifically**, indicating that most of the species in the Subject Property are found in wide variety of plant communities, including disturbed sites or plant communities with minor disturbances. Only one species (Smooth Aster - *Symphyotrichum laeve*) has a CC of 7, indicating a fidelity to communities of advanced successional stage, but perhaps with minor disturbances. However, this species was found in the Cultural Meadow area, where ground cover diversity was highest.

Coefficient of Wetness (CW) reflects a species' affinity for wet soil conditions (Oldham, Bakowsky, & Sutherland, 1995). Scoring for CW ranges between 5 and -5, indicating the degree of fidelity to upland and wetland conditions, respectively. Both the Subject Property and the European Larch Plantation specifically have an **average CW value of 1**, indicating average values for upland areas.

## 4.3 General Soil Conditions

The soil types in the European Larch Plantation area are moderate to fine textured Silty Sands overlying moderate to fine Loamy Sands, typical of toe of slope position tablelands (Palmer, 2020). Soils in other portions of the Subject Property were similar to the European Larch Plantation area. While soil types ranged from moderate Sand to fine Sandy Loams, most of the



Subject Property is a form of Loamy Sand, with a Fresh moisture regime and an average of Moderately Well drained soils.

## 4.4 European Larch CUP3-6 Conditions Summary

A fulsome description of the methods used and a more complete description of the existing conditions of the Larch Plantation are found in the *European Larch Assessment - 0 Nicholas Street, Alton* (Palmer, 2020).

The European Larch Plantation on the Subject Property is larger than 0.5 ha and has a tree crown cover of over 60% of the ground. While this suggests that it should be classified as a Woodland in the Region of Peel and the Town of Caledon, the relevant Official Plans describe conditions whereupon non-naturalized non-native plantations can be excluded from woodlands that fall within relevant NHS policies (Sections 2.2 and 2.3). The following summary details the observed characteristics in relation to these policies.

The European Larch Plantation remains a monoculture canopy, with only the occasional Black Cherry and sparse Eastern White Pine from the adjacent polygon. Trees occupy 20.3 $m^2$/ha of basal area. **European Larch is the dominant species, being 18.7 $m^2$/ha (92%) of the basal area**. Other species include Sugar Maple, White Ash, Manitoba Maple, and Black Cherry. Using stem density, the plantation has an average stem density of 1,368 stems/hectare, dominated by European Larch (49%). European Larch are dominant in all size classes, generally the only species 25 cm DBH or more, and other species are generally limited to <10 cm DBH.

The monoculture presents an exaggerated difference between the canopy and other layers. The larch appear vigorous, with few signs of decay or advanced age. European Larch are present in all DBH categories, showing strong replacement of the larch. Overall, native species regeneration is not dense, generally <10 cm DBH, and has an “over-tall” growth pattern; meaning, observed stems are much thinner than they should be for their height, and consistent “leaning” of these stems. White Ash do make up a noted composition of the regeneration, and EAB may pose issues to natural regeneration in the near future. The ground cover shows noted issues towards naturalization, with non-native and invasive species composing a dominant cover.

Native species regeneration in the plantation is not dense and is generally limited to saplings with an “over-tall” growth pattern. The exception to this is the Sugar Maple Regeneration area (**Figure 2**). Per Region of Peel definitions, a dense regeneration of native tree seedlings is not observed, though the average number of native saplings that have attained a height >1.37 m is 644 stems/ha (692 stems/ha with Manitoba Maple, which is not a typical species in natural woodlands; rather, it is “invasive-like” and has gained prominence in southern Ontario by via anthropogenic disturbance), exceeding the 100 stems/ha definition. However, due to the demonstrated self-replacement of larch, the lack of native species within the canopy or subcanopy, and the visual impressions of the native tree regeneration success and distribution, this may not be the best metric to consider a “regenerated native tree” (read: established). Trees >10 cm DBH is also often used as a metric for an established tree, such as in many Ontario Municipal Tree Protection By-laws. Applying this as a metric, the average regenerated/established trees in the European Larch Plantation are **limited to 36 stems/ha (or 40 stems/ha with Manitoba Maple)**.

## 4.5 Breeding Birds Results

The breeding bird survey documented birds present within two vegetation communities in the Subject Property, as well as flyovers and adjacent areas. A total of 14 bird species were documented on the property, as summarized in **Appendix C**. Most of the birds recorded on the property are considered common. The most frequently observed species found on the property included birds characteristic of woodlands, such as Black-capped Chickadee (*Poecile atricapillus*) and American Crow (*Corvus brachyrhynchos*).

One Species at Risk designated as Special Concern was observed during the second survey. One Eastern Wood-pewee (*Contopus virens*) was heard singing near the southwestern property boundary on June 18, 2020, and not within the European Larch Plantation CUP3-6 area. This species was not observed during the first-round survey.

Possible Breeding status was noted for area-sensitive bird species recorded within the Subject Property. While not SAR, such species can be associated with higher quality habitats and generally require large areas of continuous habitat for breeding and foraging. The specific habitat requirements vary by species. The following three area-sensitive birds were observed throughout the Subject Property during surveys:

- Red-breasted Nuthatch (*Sitta canadensis*);
- White-breasted Nuthatch (*Sitta carolinensis*); and
- Ovenbird (*Seiurus aurocapillus*).

Red-breasted Nuthatch was observed in the European Larch Plantation, White-breasted Nuthatch in the both the European Larch Plantation and the adjacent Eastern White Pine Plantation, and Ovenbird only in the adjacent Eastern White Pine Plantation.

Red-breasted Nuthatch prefer mixed or coniferous woods of at least 1 ha in size (Ontario Ministry of Natural Resources, 1984). White-breasted Nuthatch prefer mature beech maple forests, as well as mixed woods, with at least 2 ha of continuous forest (Ontario Ministry of Natural Resources, 1984). Ovenbird prefer larger forests of >50 ha but are known to inhabit smaller forest fragments (Ministry of Natural Resources, 2011).

No other SAR birds or area-sensitive birds were recorded on the Subject Property.

## 4.6 Bat Habitat Assessment

A Bat Habitat Suitability Assessment was completed using aerial photography of the Subject Property and adjacent lands (plus 6 metres). The forested communities in the Subject Property were identified as potentially suitable roosting habitat (**Figure 2**). Due to the development only being within the CUP3-6 and the southeastern CUP3-2 communities, only trees in these communities and within 6 m were surveyed for bat habitat characteristics.

Due to the lack of suitable habitat for Eastern Small-footed Bat (*Myotis leibii*), such as rock outcrops, under bridges, or in caves and mines, this species is not expected to occur within the Subject Property.

### 4.6.1 Snag Density Calculation

A snag assessment was completed for the CUP3-6 and southeastern CUP3-2 communities or immediately adjacent (6 m) to these communities. Based on the MNRF (2022) protocol, only snags/cavity trees >10 cm DBH should be considered. At the time of the survey, May 7, 2026,

all trees >10 cm DBH were surveyed for suitable maternity roost characteristics, resulting in two potentially suitable maternity roost tree.

The two potentially suitable maternity roost tree had DBHs ranging from 29 of 65 cm (**Table 2, Figure 2**). The snag attributes consisted of cavities and loose bark starting at heights of 3 m height with some cavities being higher. Snags in healthy or early stage of decay (Decay Class 1 - 3) may be preferred by Little Brown Myotis and Northern Myotis (Ministry of Natural Resources and Forestry 2017). No snag trees were observed in this decay class range.

**Table 2: Potential SAR Bat Maternity Roost Tree**

| No. | Scientific Name | Common Name | DBH (cm) | Decay Class* | Height Class** | Snag Attributes | Proposed Outcome |
|---|---|---|---|---|---|---|---|
| 1 | *Pinus strobus* | Eastern White Pine | 29 | 4 | 3 | Loose Bark | Remove |
| 2 | *Pinus strobus* | Eastern White Pine | 38 | 4 | 3 | Loose Bark | Remove |

*Decay Class: 1 – Healthy, live tree; 2 – Declining live tree, part of canopy lost; 3 – Very recently dead, no canopy, bark intact, branches intact; 4 – Recently dead, bark peeling, only large branches intact; 5 – older dead tree, 90% of bark lost, few branch stubs, broken top; 6 – very old dead tree, advanced decay, no branches, parts of stem have rotted away

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

There is no minimum threshold in terms of the number of snags/ha for an ELC ecosite to be considered suitable maternity roost habitat for SAR. However, if snag density is calculated to be >10 snags per hectare then an ecosite should be considered high quality. The snag trees were observed to be within Cultural Plantations (CUP3-6 and CUP3-2) ELC ecosites. At a decay calls 4, both snag trees noted are over a decay class 3 (which is preferred by bat species) and, therefore, they are likely not used. Other potentially suitable maternal bat habitat could be present in the western Cultural Plantation community beyond the proposed development area. For example, a decay class 3 snag tree with cavities was noted further west (White Ash, *Fraxinus americana*) and will be retained as it is outside of the proposed development footprint and immediately adjacent areas (6 m).

## 4.7 Species at Risk

Butternut is an *Endangered* species, protected by the SCA, with exceptions for trees that are dead or in major decline . Two individuals were observed within the fencerow (TAGM5) area (**Figure 2**). The tree nearest the European Larch Plantation is nearly dead and the second also appeared in major decline. Butternut Health Assessment would likely categorize them as “non-retainable”/Class 1 trees; as such, neither is expected to be protected under the SCA.

No other SAR were observed during the breeding bird surveys or incidentally during ecological field surveys within the Subject Property. The European Larch Plantation has been shown to have limited potential for bat maternity habitat (Section 5.3), including SAR bats. Habitat opportunities for SAR on the property were assessed by comparing habitat preferences of species deemed to have potential to occur against current site conditions (**Appendix D**).

## 4.8 Incidental Wildlife Observations

Incidental wildlife observations were generally limited to bird observations, for which formal surveys were conducted (Section 5.5). During general ecology surveys, Northern Cardinal

(*Cardinalis cardinalis*), American Crow (*Corvus brachyrhynchos*), Black-capped Chickadee (*Poecile atricapillus*) and other songbirds were observed. On May 27, 2020, a Wild Turkey (*Meleagris gallopavo*) was heard to the west of the European Larch Plantation. Within the plantation an American Toad (*Anaxyrus americanus*) was also observed during the May visit. In May 2026, Eastern Gray Squirrels (*Sciurus carolinensis*) and Red Squirrels (*Sciurus vulgaris*) were observed throughout Subject Property. A Porcupine (*Erethizon dorsatum)* was observed moving between the CUP3-2 and CUP3-6 communities. Two stick nests were also recorded within the CUP3-6 community; however, these are likely to be attributed to American Crow, as this species was observed near the nests at the time of survey.

## 4.9 Headwater Drainage Feature

There is evidence of an ephemeral drainage extending east through the Subject Property (**Figure 2**). However, no water was seen during any survey in 2020 (March 31, May 26 and 27, and June 30), and it is likely that it only holds water during very high rain events or spring run off during years with high snow cover. No connecting feature was noted on the tablelands above the Subject Property. This drainage extends eastward onto the properties along Main Street, Alton, where there is no evident connection with any watercourse or waterbody. The feature is too small to provide animal corridor functions, and no amphibian habitat opportunities are present.

# 5.0 Assessment of Significance

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

## 5.1 Significant Woodlands and the European Larch Plantation

As part of the Core Areas of the Region of Peel Greenlands System (Section 2.2), treed areas of the Subject Property are primarily naturalized plantations that would qualify as significant woodlands, being an overall treed area greater than 16 ha in the rural system (as per Table 1 of the Regional OP). However, analysis shows that the European Larch Plantation area presents aspects that both match and do not match the criteria for a *naturalized plantation* as set out in the Region of Peel and Town of Caledon Official Plans.

Following the Region of Peel definitions, a dense regeneration of native tree seedlings is not observed as part of the plantation ground cover. Yet as per the criteria, the plantation does contain more than 100 stems/ha of native species that have attained a height of 1.37 m at 644 stems/ha (692 stems/ha with Manitoba Maple). However, the “over-tall” growth pattern and leaning nature of the majority of stems raises questions on their successful establishment. Using a benchmark of >10 cm DBH to mark a regenerated/established tree, this number falls from 644 to 36 stems/ha (40 stems/ha with Manitoba Maple), much lower than 100 stems/ha.

The Region of Peel also sets as a criterion the *need to evaluate plantations in the local context* (Section 2.2) which considers the projected natural succession of a community, plantations with 10 percent or less of the tree crown cover in addition to approximately 100 or fewer stems of native tree species as criteria for exclusion from the NHS (Section 2.3). These criteria are echoed in Policy 13.12.4(b), items 3 and 4, of the Town of Caledon Official Plan (Section 2.3).

The larch are dominant and well established in the European Larch Plantation, and are unlikely to allow native species succession without competition from its own self-replacement/succession. As per the Town of Caledon criteria, the European Larch make up 92% of the basal area of the plantation, and native species comprise far less than 10% of the tree crown cover, making the area a candidate for exclusion from a Core Areas designation. Further, the dominance of non-native and invasive species in the ground cover presents additional challenges to the re-establishment of a native community.

For the above reasons, the European Larch Plantation is not projected to follow a path towards natural succession for the foreseeable future. The nearly complete tree canopy of European Larch limits opportunities for establishment of native tree cover. The non-native nature of the dominant species (European Larch) and potential spread of invasive ground cover (e.g., Garlic Mustard) are also likely to present challenges to the ecological functions or biodiversity of nearby or adjacent native communities. While the area does contain >100 stems/ha of native species, other metrics suggest that establishment of those stems is questionable and demonstrate that natural regeneration is unlikely to be successful without significant management or change.

**For these reasons, it is recommended that the European Larch Plantation should not be considered a Naturalized Plantation, with the exception of the Sugar Maple Regeneration Area (Figure 2). Therefore, it can be considered for removal from the Region of Peel and Town of Caledon Core Areas mapping and the Natural Heritage System**. As such, it would not be considered a Core Woodland (Significant Woodland) under Region of Peel or Town of Caledon policy; significant woodlands on the Subject Property would include the remainder of the treed areas, which are dominated by native species.

## 5.2 Species at Risk

There are two Butternut located on the Subject Property; however, due to location and poor condition of the trees, assessment is likely to class these as “non-retainable”/Class 1 trees under the SCA (**Figure 2**). Therefore, it is unlikely that the area proposed for development would affect required/protected habitats for this species.

There are limited observed habitat opportunities for SAR bats in the Subject Property, and are considered of lower habitat value (Section 4.6). Due to these characteristics and overall stand composition, there is a marginal potential for SAR bat habitat. No other SAR suitable habitat has been identified.

## 5.3 Significant Wildlife Habitat

The Subject Property was evaluated for potential Significant Wildlife Habitat (SWH) as defined by the MNRF in the Significant Wildlife Habitat Technical Guide (Ontario Ministry of Natural Resources, 2000), which includes the following broad categories:

- seasonal concentration areas;
- rare vegetation communities or specialised habitats for wildlife;
- habitats of species of conservation concern, excluding the habitats of endangered and threatened species; and
- animal movement corridors.

Criteria for the identification of these features within our area of interest are provided in the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (Ontario Ministry of Natural

Resources and Forestry, 2015). These criteria were used to screen wildlife habitat within the Study Area for potential SWH (**Appendix E**).

The Subject Property is part of an overall treed area of 31.6 ha (**Figure 3**); the European Larch Plantation area being a contiguous but fringe portion of this. Woodlands do continue beyond the western corner of the overall treed area. However, this overall treed area was chosen as a distinct unit, as this it is composed of plantations of various species (primarily conifers), presenting a distinction from the deciduous woodlands to the west. The connection between the conifer and deciduous units is small, and partially severed by Credit Street. This overall treed area used is distinct in the calculation of potential SWH interior habitats due to this limited connection.

For the Subject Property, based on its character or potential interior habitats, the overall treed area of which the Subject Property is a part of has the potential for/was screened for the following SWH types:

*SWH Screening Determined Potential For:*

- **Woodland Area-Sensitive Bird Breeding Habitat:** The overall treed area contains a limited amount (0.7 ha) of interior habitat using the criteria 200 m buffer (**Figure 3**). Although breeding bird surveys (Section 4.5) show that three species of area-sensitive birds possibly breeding in the overall treed area, from a habitat form and function perspective, the European Larch Plantation does not represent a naturalized woodland to the extent that it would be considered high quality habitat for most area-sensitive species. While area-sensitive species may casually use the overall area, at 0.7 ha it is unlikely that the overall woodland provides an adequate interior habitat range for this type.

*SWH Screening Removed Potential For:*

- **Raptor Wintering Area:** The Subject Property is part of an overall treed area >20 ha, with >15 ha of open meadow to north; however, plantations are not a class considered as SWH. While not SWH, this combination of trees and meadows could provide alternative roosting, foraging and resting habitats for wintering raptors. The removal of the European Larch Plantation would not remove this amount of area from the overall treed area or the general landscape.
- **Bat Maternity Colonies:** The treed areas of the Subject Property are not deciduous or mixed forests with large leaves (e.g., Oak) used as a criterion for this SWH type (Ontario Ministry of Natural Resources, 2015). Specifically, larch have deciduous *needles*, thus the proposed development area is more akin to a pure coniferous forest. In addition, decay signs that would indicate potential roosts are generally absent in the plantation. The bat habitat assessment demonstrates that the SWH criteria of >10 snags/ha is not met. Therefore, loss of the European Larch Plantation area would not affect potential SWH bat maternity colonies in the area.
- **Woodland Raptor Nesting Habitat:** While coniferous plantations may be SWH for this type, the overall treed area does not contain >10 ha interior habitat using the criteria 200 m buffer.
- **Habitat of Species of Special Concern:** While Eastern Wood-pewee was observed during surveys, it was not observed in the proposed development area, and only during one survey. Thus, the proposed development area is not considered breeding habitat for this species.

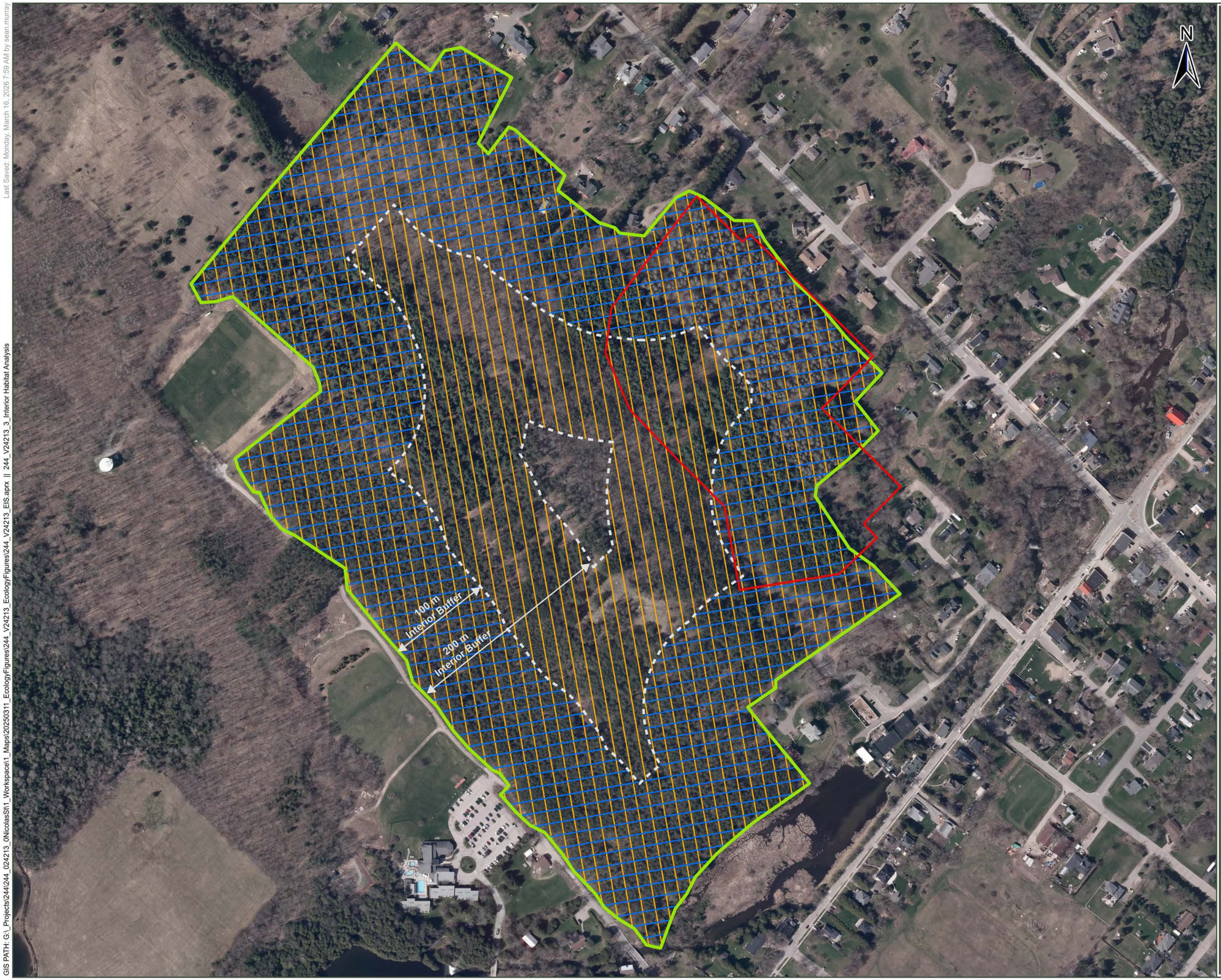
## 5.4 Headwater Drainage Feature

The HDF management recommendations are screened below per the *Evaluation, Classification and Management of Headwater Drainage Features Guidelines* (Toronto and Region Conservation Authority and Credit Valley Conservation, 2014) (**Table 3**). The feature is considered to have contributing hydrological functions, as it is likely to provide ephemeral flow or water storage functions during and (for a short time) after spring freshet and following large rain events only. It is considered to have important riparian functions, as adjacent areas on either side are dominated by forest communities. It is not considered to have fish habitat character, providing only allochthonous transport. Terrestrial habitat is considered Limited, as there are no associated wetlands or amphibian habitat, and the HDF does not connect two features (e.g. two wetlands/forests). While there is terrestrial/riparian habitat present on either side, it does not connect other features, thus does not present a wildlife movement corridor between two features.

The feature classifies as a “Mitigation” management recommendation, for which constructed mitigations are possible.

**Table 3: HDF Summary of Functional Classification and Management**

| Drainage Feature | Step 1 | | Step 2 Riparian | Step 3 Fish Habitat | Step 4 Terrestrial Habitat | Step 5 Management Recommendation |
|---|---|---|---|---|---|---|
| | Hydrology | Modifiers | | | | |
| HDF | Contributing Functions (Ephemeral) | No | Important Functions | None (Contributing) | Limited Functions | Mitigation |




**LEGEND:**

- WOODLAND (31.56 HA)
- 200 M INTERIOR HABITAT BUFFER
- 100 M INTERIOR HABITAT BUFFER
- SUBJECT SITE

DRAFT

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0 25 50 75 100 m

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THE BIGLIERI GROUP
ALTON, ON

0 NICHOLAS STREET, ALTON

# INTERIOR HABITAT ANALYSIS

SLR

FIGURE NO:
**3**

DATE: March 16, 2026

PROJECT NO: 244.V24213.00001

Last Saved: Monday, March 16, 2026 7:59 AM by sean.murray

GIS PATH: G:_Projects\244\244_024213_0NicolasSt\1_Workspace\1_Maps\20250311_EcologyFigures\244_V24213_EcologyFigures\244_V24213_EIS aprx || 244_V24213_3_Interior Habitat Analysis

# 6.0 Proposed Development

The proposed development is plan of subdivision, creating 15 single-detached residential lots (**Figure 4**). In general, the lots range from 0.14 ha to 0.2 ha, with 21 to 40 metres of frontage. Lot 7 will contain the retained Natural Features and Areas as per Town of Caledon standards. This lot will be 3.2 ha, with approximately 0.23 ha of usable residential area and 2.87 ha of NHS, which will be placed in a stewardship covenant. Similarly, while the retained NHS is outside of Lots 8 – 15, the proposed buffer to the NHS is found within the lots, and a stewardship covenant will also be required. The covenant will require that these areas of the properties be left in their natural state and be maintained as such.

The lots will be accessed by a 20 m Right of Way, termed Amelia Street, which will be extended to existing and planned roads/easements. Amelia Street will connect with the current extent of Spring Street. The subdivision is proposed to have municipally serviced watermains, to be built within the Amelia Street Right of Way (Valdor, 2022). Wastewater will be serviced via individual lot septic fields. Storm conveyance and site water balances are also discussed in the *Functional Servicing Report* (Valdor, 2022).


**LEGEND:**

- BUTTERNUT
- ECOLOGICAL LAND CLASSIFICATION
- SUGAR MAPLE REGENERATION AREA
- DEVELOPMENT PLAN
- SUBJECT SITE

**POTENTIAL CONSTRAINTS**

- POTENTIAL HEADWATER DRAINAGE FEATURE
- 10M WOODLAND MINIMUM VEGETATION PROTECTION ZONE (CVC)
- 25 M POTENTIAL HABITAT BUFFER

**ELC Description:**

CUP3-6: European Larch Coniferous Plantation
CUP3-2: White Pine Coniferous Plantation
CUP3-4: Scotch Pine Coniferous Plantation
CUM1-1: Dry - Moist Old Field Meadow
TAGM5: Fencerow



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0 NICHOLAS STREET, ALTON

**PROPOSED DEVELOPMENT**

SLR

FIGURE NO:
**4**

DATE: March 16, 2026

PROJECT NO: 244.V24213.00001

# 7.0 Impact Assessment and Mitigation

## 7.1 Woodlands

### 7.1.1 Potential Impacts

Construction of the proposed development will require disturbances within the European Larch Plantation area, with the exception of the Sugar Maple regeneration area, and buffers associated with the CUP3-2 White Pine Coniferous Plantation and the Sugar Maple regeneration area. This represents disturbances or loss of up to 2.57 ha of a 31.6 ha overall treed area (8%). At 28.95 ha, the overall treed area will remain larger than 16 ha, and the functions of the overall woodland are predicted to continue as a Significant Woodland.

Considering the European Larch Plantation as a non-naturalized plantation (Section 5.1), it can be removed as designated Core Area/Significant Woodland within the Region of Peel and Town of Caledon Official Plans (**Figure 4**). However, the adjacent areas of the Subject Property to the southwest would remain Significant Woodland/Core Area, including the adjacent Eastern White Pine Plantation (CUP3-2), as the dominant species is native and more closely matches the criteria. The retained area is also recommended to include the Sugar Maple regeneration area within the European Larch Plantation due to the differences in species and densities of native regeneration (Section 5.1).

Note that the small, isolated Eastern White Pine Plantation area east of the European Larch Plantation has not been considered a constraint to development. Assuming the removal of the European Larch Plantation, it is functionally separated from the overall woodland area, and at 0.18 ha, it is not off sufficient size to be considered a Core Woodland/Significant Woodland under the Region of Peel and Town of Caledon Official Plans.

The removal of the European Larch Plantation Area would also create approximately 406 m of new edge habitat. Without management, impacts of newly created forest edges that may be considered include (but are not limited entirely to):

- Increase in sunlight penetration into forest interior and changes in microclimate (increased temperature, drier conditions) – can have adverse impacts on established shade-adapted species.
- Risk of environmental exposure on tree species with thinner bark (i.e., Beech) such as sunscald and frost cracking, thus increasing exposure risk to pathogens.
- Risk of non-native plant invasion (such species commonly establish along forest edges).
- Newly exposed trees may have an increased risk of windthrow, thus posing safety and property damage risks.

### 7.1.2 Buffers and Setbacks

The Town of Caledon Official Plan defines a 20 m buffer to Significant Woodlands, such as the CUP 3-2 White Pine Plantation area (Town of Caledon, 2025). While this distance cannot be met, the CVC 10 m buffer recommendation has been applied, following their Development Plan Review Criteria in Section 6.2 (Lot Creation) of the *Watershed Planning and Regulation Policies* (Credit Valley Conservation Authority, 2010). An analysis of buffer distances and functions are provided below in Section 8.3.1.

This proposed buffer is demonstrated on **Figure 4**. It is noted that a small portion of the main CUP3-2 Eastern White Pine Plantation area and 10 m buffer falls within the limits of Lots 8 to

15. In order to preserve these buffers, a conservation easement/stewardship covenant is to be placed on these areas buffer. The development envelopes for these lots will not be allowed to encroach on these limits, and while put into private ownership, the requirements of the covenant will be to maintain these areas in “as is” (treed) conditions, managing any tree replacement requirements with native species.

The Planning Rationale Report (Section 3.1) for the Project States:

> A conservation easement is proposed for most of Lot 7, and the rear portions of Lots 8 to 15, to preserve the White Pine plantation and establish a 10 m buffer. To enforce this easement, appropriate clauses shall first be included in the Subdivision Agreement stating that the Owner must include the following [clause] in any agreement of purchase and sale or lease agreements entered into with respect to any lot within the Plan, and that the obligations will remain after registration of the Plan. This clause and its effect shall read as follows:
>
> *“A portion of this lot is subject to an environmental management program. The portion of this lot that is subject to this program is also subject to Natural Area restrictions in the applicable Zoning By-law and to a restrictive easement. The restrictions in the Zoning By-law and under the easement require that the environmental management portion of this lot be kept in a natural state, and prohibit any disturbance of that natural state, including the removal of any trees, shrubs or other vegetation and the alteration of any grades or any intensive maintenance practices. The Owner hereby undertakes to erect and/or maintain temporary protective fencing to the satisfaction of the Town of Caledon around the environmental management portions of this lot until all construction and grading activity on this lot is completed to the satisfaction of the Town of Caledon.”*
>
> This/these clause(s) serve to ensure that the lots of the Plan of Subdivision will maintain the natural state of the lands within the environmental management portion of the respective lot, and provide for temporary protective measures for construction and grading activities, until completed to the satisfaction of the Municipality (Biglieri Group Ltd., 2026).

### 7.1.3 Timing Windows

To minimize potential impacts to wildlife and avoid conflicts with the SCA and the MBCA (refer to policy Sections 2.5 and 2.6 above), all vegetation removal should be completed outside of the breeding bird timing window, and outside of the bat maternity roost timing window. Should the required construction timing window for tree removal overlap with the timing window restrictions, the area should be screened for potential nesting birds or roosting bats. The results of these surveys may still result in restrictions to removals and so it is highly recommended that trees be removed within the recommended timing window.

Therefore, the *recommended time for any vegetation removal (woody and/or herbaceous) is between November 1 and March 31*.

### 7.1.4 Edge Management

With the removal of the European Larch Plantation, a new forest edge will be created nearer the Eastern White Pine Plantation area that is part of a larger woodland feature that extends well off-site, is considered as qualifying as Significant Woodland, and as such impacts to it should be mitigated. Lot clearing for the proposed development will result in an approximate length of 406 m of newly created woodland edge.

Within the 10 m buffer, management measures are recommended to be adopted to help mitigate impacts as listed above to the adjacent Significant Woodland habitat. Due to it's applicability to mitigation approaches, the *Forest Edge Management Plan Guidelines* document prepared by the Toronto and Region Conservation Authority (Toronto and Region Conservation Authority and Credit Valley Conservation, 2014) was referenced. In general accordance with these guidelines, appropriate measures to minimize impacts to the woodland may include the following:

- During construction, installation of tree protection fencing along the retained forest edge. Activities that should be prohibited within the limits of the fencing include: operation/storage of equipment or machinery, stockpiling of soil, changes to existing grades, etc. Allowed activities should be limited to management and restoration measures described as follows.
- Where possible, existing herb and shrub layers along the new edge should remain intact.
- Grinding of stumps within five metres from the new edge is recommended to promote groundcover regeneration from the existing undisturbed seedbank.
- Enhance the protective buffering function of the new edge through emulating, as best as possible, natural edge conditions. This can be achieved through a couple of methods:
    - Selective harvesting (or thinning) of the canopy to promote establishment of all layers (i.e., understory, subcanopy, groundcover).
    - Planting of trees and shrubs along the disturbed edge with species that are native to the local landscape and representative of existing forest conditions. Plantings should be fast-growing, adapted to "harsher" edge conditions, and planted in sufficient density (i.e., trees 3 m on-centre) with smaller species towards the front. It is recommended that monitoring efforts should be undertaken for the first two years following plant installation. Such efforts should consist of the documentation and inspection of plantings in the first year, followed by an assessment of survivorship in the fall season of the second year. Note, some tree and shrub mortality is expected, and therefore additional specimens should be planted if tree density and survival documented in the second year warrants it. In general, a survival rate less than 90% by the fall season of the second year will require the installation of supplemental plantings.

### 7.1.5 Invasive Species Control

Non-native species and highly invasive species are not abundant within the Subject Property, and their introduction should be avoided. To reduce the potential for invasive species establishment in construction-disturbed areas, these areas should be seeded as soon as possible using seed/sod or the seed mixed recommended. Certified weed-free topsoil and materials should be used to make up any shortfall in fill materials.

#### 7.1.5.1 Construction Equipment

To prevent the spread of invasive species, construction equipment should arrive at the site clean and leave the site clean.

- Before arriving on site, construction equipment should be pressured washed with high-pressure steam-cleaning methods.

- Equipment cleaning stations should be established to ensure that invasive species seeds and other viable plant parts cannot escape in runoff or through other means.
- During construction, equipment used in areas with an abundance of invasive species should be cleaned prior to moving to another portion of the site.
- A high-pressure steam-cleaning should also be completed on vehicles prior to leaving the site.

#### 7.1.5.2 Equipment Cleaning Stations

Equipment should be cleaned in an area where contamination and seed spread are not possible (or limited) (Ontario Invasive Plant Council, 2013). The site should be:

- Ideally, mud free, gravel covered or a hard surface. If this option is not available, choose a well maintained (i.e., regularly mowed) grassy area.
- Gently sloping to assist in draining water and material away from the vehicle or equipment. Care should be taken to ensure that localized erosion will not be created, and that water runs back into the area where contamination occurred.
- A means of collecting equipment washings and adding them to soils destined for landfills should be integrated into standard construction practices.
- Cleaning stations should be at least 30 m away from any watercourse, water body and natural vegetation.
- Cleaning stations should be large enough to allow for adequate movement of larger vehicles and equipment.

## 7.2 Species at Risk

### 7.2.1 Butternut

**Figure 4** demonstrates that the proposed development will avoid the two identified Butternut and their 25 m habitat buffers. As the tree nearest the European Larch Plantation is nearly dead and the second also appeared in major decline, they are likely to be classed as “non-retainable”/Class 1 trees under the SCA.

To ensure overall safety for the new community, development may wish to consider removal of these trees. To ensure conformity to the SCA, a Butternut Health Assessment and Activity Registry should be conducted prior to any removal of these individuals.

### 7.2.2 SAR Bats

The proposed development area is not a deciduous or mixed forests with larger Oak or Maple used as a criterion for bat maternity colonies SWH (Ontario Ministry of Natural Resources, 2015). Specifically, larch have deciduous needles, the proposed development area is more akin to a pure coniferous forest. Larch also do not typically develop cavities that provide suitable conditions for roosting. Signs of decay that would indicate potential roosts are generally absent in the plantation, and the SWH criteria of >10 snags/ha is not met. Therefore, loss of the European Larch Plantation area would not greatly affect potential bat maternity colonies in the area, including for SAR bats.

If a proposed activity will *avoid impairing or eliminating the function of habitat for supporting bat life processes (e.g. remove, stub, etc. a proportionally small number of potential maternity or*



*day roost trees in treed habitats which would not result in fragmentation/barriers) then there is no need to conduct species at risk bat surveys of treed habitats* (Ministry of Natual Resources and Forestry, 2022).

Only two low quality snag trees are to be removed, and is unlikely to impair the function of habitat for supporting bat life processes (Section 4.6). As a conservative measure, timing of vegetation removals will help avoid any potential conflicts with SAR bats. To re-iterate the combined bird/bat timing window in Section 7.1.3, the recommended time for any vegetation removal (woody and/or herbaceous) is between November 1 and March 31. Due to the density of treed areas immediately adjacent, the creation of temporary habitat (e.g., bat boxes) is not considered necessary.

## 7.3 Significant Wildlife Habitat

While the removal of the plantation would remove approximately 0.7 ha of potential Woodland Area-Sensitive Bird Breeding Habitat, breeding bird surveys could not confirm breeding status to confirm the SWH type. While area-sensitive species may casually use the overall area, at 0.7 ha it is unlikely that the overall woodland provides an adequate interior habitat range for this type even under existing conditions. From a habitat form and function perspective, the plantation does not represent a naturalized woodland to the extent that it would be considered high quality habitat for most area-sensitive species (i.e., lack of vegetative structure such as layer of shrub cover and subcanopy, which are important components for some species).

## 7.4 Headwater Drainage Feature

“Mitigation”-level considerations are recommended for the HDF feature that is found within the proposed development area (**Figure 3**). Management recommendations include the following (Toronto and Region Conservation Authority and Credit Valley Conservation, 2014):

- Replicate or enhance functions through enhancement lot level conveyance measures, such as well-vegetated swales;
- Replicate on-site flow and outlet flows at the top end of the system to maintain feature functions with vegetated swales, bioswales, etc.;
- Replicate functions by lot level conveyance measure (e.g., vegetated swales) connected to the natural heritage system, as feasible and/or Low Impact Development (LID) stormwater options.

The implementation of these recommendations is to be implemented at detailed design, following the *Evaluation, Classification and Management of Headwater Drainage Features Guidelines*. It is recommended that vegetated swales be constructed at the lot limits to maintain/enhance conveyance. The detailed design of Amelia Street must also consider conveyance of ephemeral waters, and an appropriately sized open box culvert is recommended at this location. It should include a naturalized design that would allow for passage of small mammals.

## 7.5 Breeding Birds

The proposed development will require tree removal within the European Larch Plantation area and may disrupt habitat for breeding birds. As a conservative measure, to avoid potential interaction with nesting birds and bats, a combined tree-clearing timing window has been recommended to avoid both breeding birds (as per the MBCA) and roosting bats. To avoid impacts to breeding birds, tree clearing within the C2 nesting calendar period should be

avoided, which is primarily April 15 to the end of August (Government of Canada, 2019). In order to avoid potential impacts to bat species, all tree removals should be completed outside the bat maternity roost and activity season of April 1 to October 31 (Ministry of Natural Resources, 1984; Ontario Ministry of Natural Resources, 2011; Ministry of Environment, Conservation and Parks, May 13, 2021).

# 8.0 Policy Conformity

## 8.1 Provincial Planning Statement

### 8.1.1 Natural Heritage Features

According to the Provincial Planning Statement, development is generally prohibited within significant natural heritage features (NHF) as defined in the policy. The European Larch Plantation area has been evaluated for removal from Core Woodland/Significant Woodland definitions following the Region of Peel and Town of Caledon definitions (Section 5.1). To fully consider the policies of the PPS, a No Negative Impact Test has also been completed (Section 8.1.2). As it can be removed as a natural heritage feature, and passes a No Negative Impact test, the proposed development envelope will be situated outside of defined on-site natural heritage features, and mitigation measures have been recommended (including application of development setbacks and covenants) to ensure protection of these features. Through implementation of the recommendations presented in this Scoped EIS, the development as proposed complies with the PPS.

### 8.1.2 No Negative Impact Test

It is Palmer's (now SLR) opinion that the European Larch Plantation can be removed from consideration as a Significant Woodland (Section 5.1), and holds limited ecological functions (*i.e.,* limited habitat potential for SAR bats and SWH Habitat, and a "Mitigation"-class HDF) (Section 5).

Regardless, the PPS states that *"development and site alteration shall not be permitted in ….b) significant woodlands south and east of the Canadian Shield;…unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions."* This is determined by applying a No Negative Impact Test, as per the Natural Heritage Reference Manual (Ontario Ministry of Natural Resources, 2010), which under Section 13.2 provides guidance on "Determining Negative Impacts".

> *"To determine negative impacts on a significant natural heritage feature or area, the cumulative negative impacts from development or site alteration activities (e.g., impacts that adversely affect the stability of the feature and its ability to continue) must be considered against the integrity of the feature. The current and future ecological function of the natural feature or area as they relate to the surrounding natural heritage system (e.g., connectivity) must be considered as well. The PPS definition for "negative impacts" does not state that all impacts are negative, nor does it preclude the use of mitigation to prevent, modify or alleviate the impacts to the significant natural heritage feature or area. For example, demonstration of no negative impacts on a significant woodland through mitigation measures may be contemplated, provided that factors such as the successional status and replaceability of the woodland components and functions within a reasonable time frame (e.g., 20 years) are considered"* (OMNR 2010; emphasis added).

Applying the above to the “no negative impact” test for the proposed removal of the European Larch Plantation area, it can be determined that there will be no cumulative negative impacts because the existing features and functions of the overall treed area will remain intact with the proposed mitigation. The overall Significant Woodland area will continue to be 28.95 ha, in excess of the 16-ha criterion in the Region of Peel definitions (Region of Peel, 2022).

It is our opinion that natural processes will continue, and species populations will be maintained. Integration with the adjacent features, landscape connectivity, and wildlife habitat will be maintained because the European Larch Plantation area proposed to be removed is at the edge of the overall treed area and provides limited or no functional contribution to its features. The hydrological connections of the HDF feature will be maintained via mitigation, and has limited functions beyond ephemeral drainage (*i.e.*, no direct contribution to fish habitat or watercourse inputs).

Based on the foregoing, it is our opinion that the “no negative impact” test for the removal of the European Larch Plantation can be met, ensuring consistency with the *PPS* under Section 2.1.5b).

## 8.2 Region of Peel Official Plan

The evaluation in Section 5.1 shows that considering the European Larch Plantation as a non-naturalized plantation, Table 1 (Criteria and Thresholds for the Identification of Core, Natural Areas and Corridors and Potential Natural Areas and Corridors Woodlands) of the Region of Peel Official Plan would not be applied (Section 2.14.28 of the Official Plan), and can be removed as Core Area and development proposed as it is within Settlement Areas within both the Region of Peel and Town of Caledon Official Plans (**Figure 4**).

This limits the Core/Significant Woodland on the Subject Property to the areas west of the proposed development area. The European Larch Plantation area has also been shown to hold limited opportunities for other Natural Heritage Features (Section 5). With the removal of the European Larch Plantation area from Core Area of the Peel NHS, and the implementation of the proposed mitigation, the proposed development is considered to conform to the Region of Peel Official Plan.

## 8.3 Town of Caledon Official Plan

The Town of Caledon Official Plan maps the Subject Property as “Settlement Area”, with most of the Subject Property as Natural Features and Areas (**Map C**). However, the European Larch Plantation not considered to be a Significant Woodland (Sections 5.1 and 8.1), following the criteria of Policy 13.12.4(b) of the Town of Caledon Official Plan, specifically items 3 and 4 (Town of Caledon, 2025). Similar to the Regional OP, considering the European Larch Plantation as a non-naturalized plantation, criteria of Table 1 of the Region of Peel Official Plan would not be applied, and Significance not considered following that definition. Section 7.0 demonstrates that impacts to other Natural Heritage Features and Functions are avoided or mitigated for.

The Town of Caledon Official Plan states that development and site alteration may be considered in woodlands that are not Natural Features and Areas or Supporting Features and Areas. Policy 13.12.5 also sets out conditions for the potential for removal of woodlands in urban settings (Table 3). The OP states that a significant or other woodland can be classified as a cultural and regenerating woodland if all of the criteria are met.

It is acknowledged that not all of the criteria on Table 4 can be met. The European Larch area is >2 ha, is dominated by non-native but non-invasive species (European Larch), it was treed 25 years ago, and contains uncompacted/undisturbed soils.

However, for the purposes of OPA, it is submitted that the site conditions near these criteria in many aspects. While closer to 3 ha, the area to be removed is small in relation to the overall woodland, is at its margins, and adjacent to the developed area of Alton. While not invasive, the nearly complete tree canopy of non-native European Larch limits opportunities for establishment of native tree cover. The non-native nature of the dominant European Larch and potential spread of invasive ground cover (e.g., Garlic Mustard) are also likely to present challenges to the ecological functions or biodiversity of nearby or adjacent native communities. While Google Earth imagery from 2004 shows a developed canopy, imagery from 1954 shows that the entire area, not just the European Larch area was devoid of trees 70 years ago (Google Earth, 2026; University of Toronto, 2025). Evidence of being managed as a plantation at some point since 1954 are still apparent in the planted rows and character of both the European Larch and Eastern White Pine portions of the area. While general soil conditions would not preclude the development of native woodland, the European Larch seed stock and invasive ground cover (e.g., Garlic Mustard) may present challenges to that development.

Following the above, Policy 13.12.6 requires that woodland removal be accompanied by a woodland enhancement plan that demonstrates an enhancement in woodland area is achieved, either on the same property or in a reasonable proximity. The Proponent is open to discussing an appropriate enhancement plan with the Town and/or CVC, to be determined as part of detailed design.

**Table 4: Woodland Removal Analysis under Town of Caledon OP**

| Criteria | Discussion | Meet Criteria? |
|---|---|---|
| Woodland (or portion) less than two hectares | European Larch area is 2.58 ha and isolated White Pine area is 0.18 ha. | No |
| Removal of a portion of woodland will not result in a negative impact to the ecological functions of the remaining portion | With the implementation of the mitigations outlined in Section 7, it has been demonstrated that the removal will not result in a negative impact to the ecological functions of the remaining portion. | Yes |
| There are no other important ecological functions that the woodland provides | Section 5 demonstrates that there is a limited potential for the development area to hold other ecological functions. Mitigations outlined in Section 7 will provide mitigation. | Yes |
| The woodland is not identified as another component of the natural environmental system | Section 5 demonstrates that there is a limited potential for the development area to hold other ecological functions. | Yes |

| Criteria | Discussion | Meet Criteria? |
|---|---|---|
| The canopy is dominated by invasive, non-native species including, but not limited to: Norway Maple, Manitoba Maple, Siberian Elm, Scots Pine, European Buckthorn, White Mulberry, Tree-of-heaven, Apple, Black Locust and White Poplar, or any combination thereof | While perhaps not invasive, the nearly complete tree canopy of non-native European Larch limits opportunities for establishment of native tree cover. The non-native nature of the dominant species (European Larch) and potential spread of invasive ground cover (e.g., Garlic Mustard) are also likely to present challenges to the ecological functions or biodiversity of nearby or adjacent native communities. | Yes |
| The area was not treed approximately 25 years ago as determined through air photo interpretation or other suitable techniques | Google Earth imagery from 2004 shows a developed canopy (Google Earth, 2026). The 1954 Air Photo of Alton does show the entire area devoid of trees (University of Toronto, 2025) | No |
| The soil is deemed to preclude the development of a native woodland | Section 4.3 describes the general soil conditions. While they would not preclude the development of native woodland, the European Larch seed stock and invasive ground cover (e.g., Garlic Mustard) may present challenges to that development. | No |
| There is limited ability to maintain or restore self-sustaining ecological functions typical of native woodlands | The European Larch Plantation is not projected to follow a path towards natural succession for the foreseeable future. The nearly complete tree canopy of European Larch limits opportunities for establishment of native tree cover. The non-native nature of the dominant species (European Larch) and potential spread of invasive ground cover (e.g., Garlic Mustard) are also likely to present challenges to the ecological functions or biodiversity of nearby or adjacent native communities. While the area does contain >100 stems/ha of native species, other metrics suggest that establishment of those stems is questionable and demonstrate that natural regeneration is unlikely to be successful without significant management or change. | Yes |
| The woodland provides limited social values | As private lands, there are no identified social values associated with the Subject Property. | Yes |

### 8.3.1 Woodland Buffer

While the project cannot achieve a 20 m buffer from Significant Woodlands, a 10 m buffer has been proposed, that is consistent with CVC buffers for woodlands and the Town of Caledon buffer for *Other Woodlands* (Credit Valley Conservation Authority, 2010; Town of Caledon, 2025). This buffer distance is deemed to be sufficient in this context, and takes into consideration the natural heritage features and functions to be protected and required buffer functions, as well as mitigation proposed for the buffer. To ensure the buffer distances are appropriate, they were compared to the *Ecological Buffer Guideline Review* completed for southern Ontario (Beacon, 2012).



The proposed 10 m woodland buffer falls within ranges evaluated to provide adequate buffering for screening for human disturbance and changes in land use, and core habitat protection (Beacon, 2012). Of the potential impacts relevant to this project, the *Ecological Buffer Guideline Review* found that in general:

- Edge effects from human disturbances ranged from 4 to >50 m.
- For direct disturbances from human presence, appropriate buffers may be in the range of 10 m to 20 m, with potential additional buffers for wildlife protection. The most severe encroachments generally occur within first 10 m.
- Buffers to guard woodland from edge effects (e.g., temperature, light, microclimatic differences) ranges from 8 m to >50 m.
- While herbicides not permitted in Ontario for landscaping, effects are generally limited from 4 to 10 m.
- For invasive species encroachments, effects found to be limited to 3 to 10 m, but could potentially extend further.

Generally, impacts to the woodland are expected to be limited for the proposed development, given the limited amount of lots at the limits of the Alton Settlement Area. Direct human impacts will be low, as buffer or setbacks are placed at the rear lots of the homes, limiting regular human intrusions. Impacts such as road noise would be generally at greater distances than the buffers, and being at the limits of the Alton Settlement Area, at levels that would cause impacts not on a notable scale (e.g., 10,000 vehicles per day) (Beacon, 2012). Through the conservation easement/stewardship covenant to be placed on buffer, the existing woodland vegetation and structure will remain within it. The *Ecological Buffer Guideline Review* states that *"It is expected that a large enough vegetated buffer, and particularly one containing some trees and large shrubs, would have the ability to reduce or potentially even eliminate the intrusion by many of the stressors identified."* (Beacon, 2012). The edge management mitigations proposed in Section 7.1.4 would look to ensure that the buffer would remain functional post construction.

As such, the proposed 10 m buffer is felt to provide for *a reasonable balance between achieving natural heritage protection and efficient land use planning objectives* (Beacon, 2012). These limits may also provide buffers for the *Habitat of Endangered and Threatened Species* and *Wildlife Habitat*; as potential SAR bat habitat is considered marginal in the Study Area, and no wider VPZ were recommended for the SWH identified in Study Area, per the *Significant Wildlife Habitat Criteria Schedules For Ecoregion 6E* (Government of Ontario, 2007; Ontario Ministry of Natural Resources, 2015).

## 8.4 Species Conservation Act

The two on-site Butternut and associated 25 m habitat buffer are outside the proposed development limit. Should development consider the removal of the two Butternut, a Butternut Health Assessment will be completed to confirm them as "non-retainable"/Class 1 trees under the SCA. The BHA will then be registered with the MECP to ensure conformity to the SCA.

Based on the results of our field surveys and habitat screening, there is the potential for negligible impacts to SAR bat habitat due to tree removals. The timing window mitigation outlined in Section 7.2 avoids potential contravention of the Act in the unlikely event SAR bats are present. Therefore, the proposed development conforms with the requirements of the SCA. The activity and mitigations are proposed to be registered under the SCA at detailed design.



## 8.5 Migratory Birds Convention Act

Works with potential *Migratory Birds Convention Act* (MBCA) implications may occur during the construction phase of the project when the Subject Property is cleared and grubbed of vegetation. Compliance with the MBCA may be achieved using the following due diligence approach, including:

- Proponent awareness of the MBCA and the potential for bird nesting in the area and for inadvertent impacts to migratory birds, nests, and eggs.
- Avoiding tree/vegetation removal within the “regional nesting period” for this area (generally mid April to late August).
- However, it is recommended that this timing window be extended to include the bat maternity roost season and activity period of April 1 to September 30.

# 9.0 Conclusions and Closure

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

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

If you have any questions or comments on this submission, please contact Austin Adams (647-461-2372) or austin.adams@slrconsulting.com.

Regards,

**SLR Consulting (Canada) Ltd.**

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

**Dirk Janas, B.Sc.**
Senior Ecologist, Technical Director – Terrestrial Ecology

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# Appendix A Correspondence

## Environmental Impact Study

0 Nicholas Street, Alton

**Mt. Nicholas Holdings Inc.**

SLR Project No.: 244.V24213.00001

May 14, 2026

Gmail **Austin Adams <austin.adams@pecg.ca>**

# Fwd: Alton Village - Preliminary Field Studies

11 messages

**Mark Jacobs** <mjacobs@thebiglierigroup.com> Wed, Jan 8, 2020 at 11:05 AM
To: Austin Adams <austin@pecg.ca>
Cc: Dirk Janas <dirk@pecg.ca>, Brayden Libawski <blibawski@thebiglierigroup.com>

Hi Austin,

The TofR were sent via email. I'm forwarding the email below from CVC amending Dillon's initial work program.

As the email notes, we met with Caledon, Peel and CVC staff and agreed that the assessment of the European Larch plantation was required. Support for a non-Core Area designation would be considered if it was determined that it has not naturalized.

Our primary objective is confirming that it has not naturalized, followed by additional environmental constraints.

**Mark Jacobs, MCIP RPP**
Planner

THE BIGLIERI GROUP LTD.
Planning | Development | Project Management | Urban Design

20 Leslie Street, Suite 121
Toronto, Ontario M4M 3L4

126 Catharine Street North
Hamilton, Ontario L8R 1J4

Phone: 416-693-9155
Cell: 416-333-9734
Fax: 416-693-9133
Website: thebiglierigroup.com



---------- Forwarded message ---------
From: **Hosale, Lisa** <Lisa.Hosale@cvc.ca>
Date: Thu, Aug 9, 2018 at 3:01 PM
Subject: RE: Alton Village - Preliminary Field Studies
To: Bourassa, Daniel <dbourassa@dillon.ca>, Wilson, Christine <Christine.Wilson@cvc.ca>
Cc: Anthony Biglieri <abiglieri@thebiglierigroup.com>, Mark Jacobs <mjacobs@thebiglierigroup.com>, Brayden Libawski

<blibawski@thebiglierigroup.com>, Katherine Bibby <Katherine.Bibby@caledon.ca>, Rob Hughes <Rob.Hughes@caledon.ca>, Simms, Joy <joy.simms@peelregion.ca>

Hi Dan,

Thank you for the productive discussions on Tuesday, and for your patience as we discussed your email with senior ecology staff at CVC. We have made some edits (in blue) to your email for clarity, with the goal of being very specific on the scope of the preliminary field studies.

Please do let me know if this works for you and your team as a plan to move forward.

The preliminary field studies will include the following:

• Determine whether the European Larch plantation is a *naturalized plantation* (undergoing regeneration to a native woodland community) per Region of Peel Official Plan, Glossary, p.225 by assessing and describing:

- Soil conditions
- Stand composition
- Vegetation structure and health
- Distribution and ecology of successional species
- Functional relationship to the whole woodland (e.g. interior woodland habitat, contribution to SWH, etc.)
- Whether this portion, or portions of the portion, have dense regeneration of native tree seedlings
- Whether this portion, or portions of the portion, have 100+ stems per hectare of regenerated native trees (height 1.37m+).

• Ecological Land Classification of the subject lands (using 2nd approximation) including soil cores.

• Single season (i.e. summer) botanical survey performed as part of the ELC.

• Constraints Figure (including all ecological features/functions, for example hibernacula, snags, seeps, watercourse, springs, steep slopes, trees of note, ELC, etc.).

• Incidental Wildlife Observations.

• Deliverable: Memo & Figure summarizing preliminary field study results.

At this time, we also want to recommend that if the preliminary field studies (and Region/Town/CVC review) lead to an outcome that the Core area may be amended/removed, the Woodland would still meet the definition of 'Other Woodlands' under Town policies, and development would need to meet the requirements of Town policy 3.2.5.3.2 (demonstrating no degradation of ecosystem integrity), among others. In the event that we reach that phase, CVC would like to be involved in scoping the EIS TOR.

I have cc'd colleagues at the Town and Region so that they are in the loop on our discussions so far. Please do let me know if you have any questions. We look forward to working with you on this.

Best wishes,

Lisa

**Lisa Hosale**

Planner, Planning and Development Services | Credit Valley Conservation

905-670-1615 ext 268 | 1-800-668-5557

lisa.hosale@cvc.ca | cvc.ca

**From:** Bourassa, Daniel [mailto:dbourassa@dillon.ca]
**Sent:** August 7, 2018 5:36 PM
**To:** Hosale, Lisa; Wilson, Christine
**Cc:** Anthony Biglieri; Mark Jacobs; Brayden Libawski
**Subject:** Alton Village - Preliminary Field Studies

Hi Lisa and Christine,

The purpose of this email is to document the preliminary field studies Dillon will be completing on behalf of the Proponent for the Alton Site, as confirmed at our meeting this morning.

The preliminary field studies will include the following:

- Stem counts to determine whether the European Larch plantation meets the definition of woodland as per Regional policy (i.e. 100 or more stems per ha of native trees ≥ 1.37 m in height).
- Ecological Land Classification of the subject lands (using 2nd approximation).
- Single season (i.e. summer) botanical survey.
- Constraints Figure.
- Incidental Wildlife Observations.
- Deliverable: Memo summarizing preliminary field study results.

Should you have any questions, please do not hesitate to contact me.

Regards,

DILLON CONSULTING

**Daniel Bourassa**
*Office Manager, Associate*
**Dillon Consulting Limited**
1155 North Service Road West Unit 14
Oakville, Ontario, L6M 3E3
T - 905.901.2912 ext. 3417
F - 905.901.2918
M - 289.981.9136
DBourassa@dillon.ca
www.dillon.ca

# Appendix B Flora Lists

## Environmental Impact Study

0 Nicholas Street, Alton

**Mt. Nicholas Holdings Inc.**

SLR Project No.: 244.V24213.00001

May 14, 2026

# Table B1: Flora List – Subject Property

| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Aceraceae | *Acer negundo* | Manitoba Maple | | | | G5 | S5 | | | 0 | 0 |
| Aceraceae | *Acer saccharum* | Sugar Maple | | | | G5 | S5 | | | 4 | 3 |
| Hippocastanaceae | *Aesculus hippocastanum* | Horse Chestnut | | | | GNR | SNA | SE2 | | | 5 |
| Rosaceae | *Agrimonia gryposepala* | Hooked Agrimony | | | | G5 | S5 | | | 2 | 3 |
| Brassicaceae | *Alliaria petiolata* | Garlic Mustard | | | | GNR | SNA | SE5 | | | 0 |
| Ranunculaceae | *Anemonastrum canadense* | Canada Anemone | | | | G5 | S5 | | | 3 | -3 |
| Asteraceae | *Arctium minus* | Common Burdock | | | | GNR | SNA | SE5 | | | 3 |
| Araceae | *Arisaema triphyllum* | Jack-in-the-pulpit | | | | G5 | S5 | | | 5 | -3 |
| Apocynaceae | *Asclepias syriaca* | Common Milkweed | | | | G5 | S5 | | | 0 | 5 |
| Dryopteridaceae | *Athyrium filix-femina* | Common Lady Fern | | | | G5 | S5 | | | 4 | 0 |
| Poaceae | *Bromus inermis* | Smooth Brome | | | | G5 | SNA | SE5 | | | 5 |
| Asteraceae | *Carduus nutans* | Nodding Thistle | | | | GNR | SNA | SE5 | | | 3 |
| Cyperaceae | *Carex sp.* | Sedge Species | | | | | | | | | |
| Caryophyllaceae | *Cerastium fontanum* | Common Mouse-ear Chickweed | | | | GNR | SNA | SE5 | | | 3 |
| Papaveraceae | *Chelidonium majus* | Greater Celandine | | | | GNR | SNA | SE5 | | | 5 |
| Onagraceae | *Circaea canadensis* | Broad-leaved Enchanter's Nightshade | | | | G5 | S5 | | | 2 | 3 |

| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Liliaceae | *Convallaria majalis* | European Lily-of-the-valley | | | | G5 | SNA | SE5 | | | 5 |
| Cornaceae | *Cornus sericea* | Red-osier Dogwood | | | | G5 | S5 | | | 2 | -3 |
| Apiaceae | *Daucus carota* | Wild Carrot | | | | GNR | SNA | SE5 | | | 5 |
| Dryopteridaceae | *Dryopteris sp.* | Wood Fern Species | | | | | | | | | |
| Cucurbitaceae | *Echinocystis lobata* | Wild Cucumber | | | | G5 | S5 | | | 3 | -3 |
| Equisetaceae | *Equisetum arvense* | Field Horsetail | | | | G5 | S5 | | | 0 | 0 |
| Liliaceae | *Erythronium americanum* | Yellow Trout-lily | | | | G5 | S5 | | | 5 | 5 |
| Fagaceae | *Fagus grandifolia* | American Beech | | | | G5 | S4 | | | 6 | 3 |
| Rosaceae | *Fragaria vesca* | Woodland Strawberry | | | | G5 | S5 | | | 4 | 3 |
| Oleaceae | *Fraxinus americana* | White Ash | | | | G5 | S4 | | | 4 | 3 |
| Lamiaceae | *Galeopsis tetrahit* | Common Hemp-nettle | | | | GNR | SNA | SE5 | | | 3 |
| Rubiaceae | *Galium triflorum* | Three-flowered Bedstraw | | | | G5 | S5 | | | 4 | 3 |
| Geraniaceae | *Geranium robertianum* | Herb-Robert | | | | G5 | S5 | | | 2 | 3 |
| | *Grass sp.* | Grass Species | | | | | | | | | |
| | *Gymnocarpium sp.* | Oak Fern Sepcies | | | | | | | | | |
| Brassicaceae | *Hesperis matronalis* | Dame's Rocket | | | | G4G5 | SNA | SE5 | | | 3 |
| Asteraceae | *Hieracium vulgatum* | Common Hawkweed | | | | G5 | SNA | SE2? | | | 5 |
| Hydrophyllaceae | *Hydrophyllum virginianum* | Virginia Waterleaf | | | | G5 | S5 | | | 6 | 0 |
| Juglandaceae | *Juglans cinerea* | Butternut | END | END | END | G3 | S2? | | | 6 | 3 |

| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Asteraceae | *Lactuca serriola* | Prickly Lettuce | | | | GNR | SNA | SE5 | | | 3 |
| Pinaceae | *Larix decidua* | European Larch | | | | G5 | SNA | SE2 | | | 5 |
| Caprifoliaceae | *Lonicera tatarica* | Tatarian Honeysuckle | | | | GNR | SNA | SE5 | | | 3 |
| Liliaceae | *Maianthemum canadense* | Wild Lily-of-the-valley | | | | G5 | S5 | | | 5 | 3 |
| Liliaceae | *Maianthemum stellatum* | Star-flowered False Solomon's Seal | | | | G5 | S5 | | | 6 | 0 |
| Rosaceae | *Malus sp.* | Apple Species | | | | | | | | | |
| Malvaceae | *Malva alcea* | Vervain Mallow | | | | GNR | SNA | SE1 | | | 5 |
| Dryopteridaceae | *Matteuccia struthiopteris* | Ostrich Fern | | | | G5 | S5 | | | 5 | 0 |
| | *Mertensia sp.* | Bluebells Species | | | | | | | | | |
| Boraginaceae | *Myosotis sylvatica* | Woodland Forget-me-not | | | | G5 | SNA | SE4 | | | 5 |
| Vitaceae | *Parthenocissus quinquefolia* | Virginia Creeper | | | | G5 | S4? | | | 6 | 3 |
| Poaceae | *Phleum pratense* | Common Timothy | | | | GNR | SNA | SE5 | | | 3 |
| Pinaceae | *Pinus strobus* | Eastern White Pine | | | | G5 | S5 | | | 4 | 3 |
| Pinaceae | *Pinus sylvestris* | Scots Pine | | | | GNR | SNA | SE5 | | | 3 |
| Poaceae | *Poa pratensis* | Kentucky Bluegrass | | | | G5 | S5 | | | 0 | 3 |
| Salicaceae | *Populus tremuloides* | Trembling Aspen | | | | G5 | S5 | | | 2 | 0 |
| Rosaceae | *Prunus pensylvanica* | Pin Cherry | | | | G5 | S5 | | | 3 | 3 |
| Rosaceae | *Prunus serotina* | Black Cherry | | | | G5 | S5 | | | 3 | 3 |



| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Ranunculaceae | *Ranunculus abortivus* | Kidney-leaved Buttercup | | | | G5 | S5 | | | 2 | 0 |
| Ranunculaceae | *Ranunculus acris* | Common Buttercup | | | | G5 | SNA | SE5 | | | 0 |
| Rhamnaceae | *Rhamnus cathartica* | European Buckthorn | | | | GNR | SNA | SE5 | | | 0 |
| Grossulariaceae | *Ribes rubrum* | European Red Currant | | | | G4G5 | SNA | SE5 | | | 5 |
| Grossulariaceae | *Ribes triste* | Swamp Red Currant | | | | G5 | S5 | | | 6 | -5 |
| Rosaceae | *Rubus idaeus* | Red Raspberry | | | | G5 | S5 | | | 2 | 3 |
| Caprifoliaceae | *Sambucus racemosa* | Red Elderberry | | | | G5 | S5 | | | 5 | 3 |
| Solanaceae | *Solanum dulcamara* | Bittersweet Nightshade | | | | GNR | SNA | SE5 | | | 0 |
| Asteraceae | *Solidago sp.* | Goldenrod Species | | | | | | | | | |
| Rosaceae | *Sorbus sp.* | Mountain-ash Species | | | | | | | | | |
| Asteraceae | *Symphyotrichum laeve* | Smooth Aster | | | | G5 | S5 | | | 7 | 3 |
| Oleaceae | *Syringa vulgaris* | Common Lilac | | | | GNR | SNA | SE5 | | | 5 |
| Asteraceae | *Taraxacum officinale* | Common Dandelion | | | | G5 | SNA | SE5 | | | 3 |
| Apiaceae | *Torilis japonica* | Erect Hedge-parsley | | | | GNR | SNA | SE4 | | | 3 |
| Anacardiaceae | *Toxicodendron radicans* | Poison Ivy | | | | G5 | S5 | | | 2 | 0 |
| Asteraceae | *Tragopogon dubius* | Yellow Goatsbeard | | | | GNR | SNA | SE5 | | | 5 |
| Fabaceae | *Trifolium hybridum* | Alsike Clover | | | | GNR | SNA | SE5 | | | 3 |



| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Liliaceae | *Trillium sp.* | Trillium Species | | | | | | | | | |
| Urticaceae | *Urtica dioica* | Stinging Nettle | | | | G5 | S5 | | | 2 | 0 |
| Scrophulariaceae | *Verbascum thapsus* | Common Mullein | | | | GNR | SNA | SE5 | | | 5 |
| Caprifoliaceae | *Viburnum opulus* | Cranberry Viburnum | | | | G5 | S5 | | | 5 | -3 |
| Fabaceae | *Vicia cracca* | Tufted Vetch | | | | GNR | SNA | SE5 | | | 5 |
| Apocynaceae | *Vinca minor* | Lesser Periwinkle | | | | GNR | SNA | SE5 | | | 5 |
| Apocynaceae | *Vincetoxicum rossicum* | European Swallowwort | | | | GNR | SNA | SE5 | | | 5 |
| Violaceae | *Viola pubescens* | Yellow Violet | | | | G5 | S5 | | | 5 | 3 |
| Vitaceae | *Vitis riparia* | Riverbank Grape | | | | G5 | S5 | | | 0 | 0 |
| Liliaceae | *Maianthemum canadense* | Wild Lily-of-the-valley | | | | G5 | S5 | | | 5 | 3 |
| Liliaceae | *Maianthemum stellatum* | Star-flowered False Solomon's Seal | | | | G5 | S5 | | | 6 | 0 |
| Rosaceae | *Malus sp.* | Apple Species | | | | | | | | | |
| Malvaceae | *Malva alcea* | Vervain Mallow | | | | GNR | SNA | SE1 | | | 5 |
| Dryopteridaceae | *Matteuccia struthiopteris* | Ostrich Fern | | | | G5 | S5 | | | 5 | 0 |
| | *Mertensia sp.* | Bluebells Species | | | | | | | | | |
| Boraginaceae | *Myosotis sylvatica* | Woodland Forget-me-not | | | | G5 | SNA | SE4 | | | 5 |
| Vitaceae | *Parthenocissus quinquefolia* | Virginia Creeper | | | | G5 | S4? | | | 6 | 3 |
| Poaceae | *Phleum pratense* | Common Timothy | | | | GNR | SNA | SE5 | | | 3 |



| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Pinaceae | *Pinus strobus* | Eastern White Pine | | | | G5 | S5 | | | 4 | 3 |
| Pinaceae | *Pinus sylvestris* | Scots Pine | | | | GNR | SNA | SE5 | | | 3 |
| Poaceae | *Poa pratensis* | Kentucky Bluegrass | | | | G5 | S5 | | | 0 | 3 |
| Salicaceae | *Populus tremuloides* | Trembling Aspen | | | | G5 | S5 | | | 2 | 0 |
| Rosaceae | *Prunus pensylvanica* | Pin Cherry | | | | G5 | S5 | | | 3 | 3 |
| Rosaceae | *Prunus serotina* | Black Cherry | | | | G5 | S5 | | | 3 | 3 |
| Ranunculaceae | *Ranunculus abortivus* | Kidney-leaved Buttercup | | | | G5 | S5 | | | 2 | 0 |
| Ranunculaceae | *Ranunculus acris* | Common Buttercup | | | | G5 | SNA | SE5 | | | 0 |
| Rhamnaceae | *Rhamnus cathartica* | European Buckthorn | | | | GNR | SNA | SE5 | | | 0 |
| Grossulariaceae | *Ribes rubrum* | European Red Currant | | | | G4G5 | SNA | SE5 | | | 5 |
| Grossulariaceae | *Ribes triste* | Swamp Red Currant | | | | G5 | S5 | | | 6 | -5 |
| Rosaceae | *Rubus idaeus* | Red Raspberry | | | | G5 | S5 | | | 2 | 3 |
| Caprifoliaceae | *Sambucus racemosa* | Red Elderberry | | | | G5 | S5 | | | 5 | 3 |
| Solanaceae | *Solanum dulcamara* | Bittersweet Nightshade | | | | GNR | SNA | SE5 | | | 0 |
| Asteraceae | *Solidago sp.* | Goldenrod Species | | | | | | | | | |
| Rosaceae | *Sorbus sp.* | Mountain-ash Species | | | | | | | | | |
| Asteraceae | *Symphyotrichum laeve* | Smooth Aster | | | | G5 | S5 | | | 7 | 3 |
| Oleaceae | *Syringa vulgaris* | Common Lilac | | | | GNR | SNA | SE5 | | | 5 |

| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Asteraceae | *Taraxacum officinale* | Common Dandelion | | | | G5 | SNA | SE5 | | | 3 |
| Apiaceae | *Torilis japonica* | Erect Hedge-parsley | | | | GNR | SNA | SE4 | | | 3 |
| Boraginaceae | *Myosotis sylvatica* | Woodland Forget-me-not | | | | G5 | SNA | SE4 | | | 5 |
| Vitaceae | *Parthenocissus quinquefolia* | Virginia Creeper | | | | G5 | S4? | | | 6 | 3 |
| Poaceae | *Phleum pratense* | Common Timothy | | | | GNR | SNA | SE5 | | | 3 |
| Pinaceae | *Pinus strobus* | Eastern White Pine | | | | G5 | S5 | | | 4 | 3 |
| Pinaceae | *Pinus sylvestris* | Scots Pine | | | | GNR | SNA | SE5 | | | 3 |
| Poaceae | *Poa pratensis* | Kentucky Bluegrass | | | | G5 | S5 | | | 0 | 3 |
| Salicaceae | *Populus tremuloides* | Trembling Aspen | | | | G5 | S5 | | | 2 | 0 |
| Rosaceae | *Prunus pensylvanica* | Pin Cherry | | | | G5 | S5 | | | 3 | 3 |
| Rosaceae | *Prunus serotina* | Black Cherry | | | | G5 | S5 | | | 3 | 3 |
| Ranunculaceae | *Ranunculus abortivus* | Kidney-leaved Buttercup | | | | G5 | S5 | | | 2 | 0 |
| Ranunculaceae | *Ranunculus acris* | Common Buttercup | | | | G5 | SNA | SE5 | | | 0 |
| Rhamnaceae | *Rhamnus cathartica* | European Buckthorn | | | | GNR | SNA | SE5 | | | 0 |
| Grossulariaceae | *Ribes rubrum* | European Red Currant | | | | G4G5 | SNA | SE5 | | | 5 |
| Grossulariaceae | *Ribes triste* | Swamp Red Currant | | | | G5 | S5 | | | 6 | -5 |
| Rosaceae | *Rubus idaeus* | Red Raspberry | | | | G5 | S5 | | | 2 | 3 |
| Caprifoliaceae | *Sambucus racemosa* | Red Elderberry | | | | G5 | S5 | | | 5 | 3 |

| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Solanaceae | *Solanum dulcamara* | Bittersweet Nightshade | | | | GNR | SNA | SE5 | | | 0 |
| Asteraceae | *Solidago sp.* | Goldenrod Species | | | | | | | | | |
| Rosaceae | *Sorbus sp.* | Mountain-ash Species | | | | | | | | | |
| Asteraceae | *Symphyotrichum laeve* | Smooth Aster | | | | G5 | S5 | | | 7 | 3 |
| Oleaceae | *Syringa vulgaris* | Common Lilac | | | | GNR | SNA | SE5 | | | 5 |
| Asteraceae | *Taraxacum officinale* | Common Dandelion | | | | G5 | SNA | SE5 | | | 3 |
| Apiaceae | *Torilis japonica* | Erect Hedge-parsley | | | | GNR | SNA | SE4 | | | 3 |
| Anacardiaceae | *Toxicodendron radicans* | Poison Ivy | | | | G5 | S5 | | | 2 | 0 |
| Asteraceae | *Tragopogon dubius* | Yellow Goatsbeard | | | | GNR | SNA | SE5 | | | 5 |
| Fabaceae | *Trifolium hybridum* | Alsike Clover | | | | GNR | SNA | SE5 | | | 3 |
| Liliaceae | *Trillium sp.* | Trillium Species | | | | | | | | | |
| Urticaceae | *Urtica dioica* | Stinging Nettle | | | | G5 | S5 | | | 2 | 0 |
| Scrophulariaceae | *Verbascum thapsus* | Common Mullein | | | | GNR | SNA | SE5 | | | 5 |
| Caprifoliaceae | *Viburnum opulus* | Cranberry Viburnum | | | | G5 | S5 | | | 5 | -3 |
| Fabaceae | *Vicia cracca* | Tufted Vetch | | | | GNR | SNA | SE5 | | | 5 |
| Apocynaceae | *Vinca minor* | Lesser Periwinkle | | | | GNR | SNA | SE5 | | | 5 |
| Apocynaceae | *Vincetoxicum rossicum* | European Swallowwort | | | | GNR | SNA | SE5 | | | 5 |
| Violaceae | *Viola pubescens* | Yellow Violet | | | | G5 | S5 | | | 5 | 3 |

| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Vitaceae | *Vitis riparia* | Riverbank Grape | | | | G5 | S5 | | | 0 | 0 |

**Legend:**
COSEWIC: Committee on the Status of Endangered Wildlife in Canada
SARA: Ontario Species at Risk Act List
SARO: Specie at Risk in Ontario
NHIC: Natural Heritage Information Centre

**Provincial S-rank:**
S4: Apparently Secure (uncommon, but not rare in the nation and/or province)
S5: Secure (common, widespread and abundant in the nation and/or province)
SNA: Not Applicable (species is not a suitable target for conservation activities)
S?: Rank Uncertain
-: No Rank, as specimen was only identified to genus

**CVC Rankd – CVC, 2002**

**Coefficients – Oldham et al., 1995**

# Table B2: Flora List – Eurpoean Larch Plantation

| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Aceraceae | *Acer negundo* | Manitoba Maple | | | | G5 | S5 | | | 0 | 0 |
| Aceraceae | *Acer saccharum* | Sugar Maple | | | | G5 | S5 | | | 4 | 3 |
| Hippocastanaceae | *Aesculus hippocastanum* | Horse Chestnut | | | | GNR | SNA | SE2 | | | 5 |
| Rosaceae | *Agrimonia gryposepala* | Hooked Agrimony | | | | G5 | S5 | | | 2 | 3 |
| Brassicaceae | *Alliaria petiolata* | Garlic Mustard | | | | GNR | SNA | SE5 | | | 0 |
| Ranunculaceae | *Anemonastrum canadense* | Canada Anemone | | | | G5 | S5 | | | 3 | -3 |
| Araceae | *Arisaema triphyllum* | Jack-in-the-pulpit | | | | G5 | S5 | | | 5 | -3 |
| Dryopteridaceae | *Athyrium filix-femina* | Common Lady Fern | | | | G5 | S5 | | | 4 | 0 |
| Papaveraceae | *Chelidonium majus* | Greater Celandine | | | | GNR | SNA | SE5 | | | 5 |
| Onagraceae | *Circaea canadensis* | Broad-leaved Enchanter's Nightshade | | | | G5 | S5 | | | 2 | 3 |
| Liliaceae | *Convallaria majalis* | European Lily-of-the-valley | | | | G5 | SNA | SE5 | | | 5 |
| Cornaceae | *Cornus sericea* | Red-osier Dogwood | | | | G5 | S5 | | | 2 | -3 |
| Cucurbitaceae | *Echinocystis lobata* | Wild Cucumber | | | | G5 | S5 | | | 3 | -3 |
| Equisetaceae | *Equisetum arvense* | Field Horsetail | | | | G5 | S5 | | | 0 | 0 |
| Liliaceae | *Erythronium americanum* | Yellow Trout-lily | | | | G5 | S5 | | | 5 | 5 |
| Oleaceae | *Fraxinus americana* | White Ash | | | | G5 | S4 | | | 4 | 3 |

| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Lamiaceae | *Galeopsis tetrahit* | Common Hemp-nettle | | | | GNR | SNA | SE5 | | | 3 |
| Rubiaceae | *Galium triflorum* | Three-flowered Bedstraw | | | | G5 | S5 | | | 4 | 3 |
| Geraniaceae | *Geranium robertianum* | Herb-Robert | | | | G5 | S5 | | | 2 | 3 |
| Brassicaceae | *Hesperis matronalis* | Dame's Rocket | | | | G4G5 | SNA | SE5 | | | 3 |
| Hydrophyllaceae | *Hydrophyllum virginianum* | Virginia Waterleaf | | | | G5 | S5 | | | 6 | 0 |
| Pinaceae | *Larix decidua* | European Larch | | | | G5 | SNA | SE2 | | | 5 |
| Liliaceae | *Maianthemum canadense* | Wild Lily-of-the-valley | | | | G5 | S5 | | | 5 | 3 |
| Liliaceae | *Maianthemum stellatum* | Star-flowered False Solomon's Seal | | | | G5 | S5 | | | 6 | 0 |
| Boraginaceae | *Myosotis sylvatica* | Woodland Forget-me-not | | | | G5 | SNA | SE4 | | | 5 |
| Vitaceae | *Parthenocissus quinquefolia* | Virginia Creeper | | | | G5 | S4? | | | 6 | 3 |
| Pinaceae | *Pinus strobus* | Eastern White Pine | | | | G5 | S5 | | | 4 | 3 |
| Salicaceae | *Populus tremuloides* | Trembling Aspen | | | | G5 | S5 | | | 2 | 0 |
| Rosaceae | *Prunus serotina* | Black Cherry | | | | G5 | S5 | | | 3 | 3 |
| Ranunculaceae | *Ranunculus acris* | Common Buttercup | | | | G5 | SNA | SE5 | | | 0 |
| Rhamnaceae | *Rhamnus cathartica* | European Buckthorn | | | | GNR | SNA | SE5 | | | 0 |
| Grossulariaceae | *Ribes rubrum* | European Red Currant | | | | G4G5 | SNA | SE5 | | | 5 |

| Family | Scientific Name | Common Name | COSEWIC | SARA | SARO | NHIC Ranks | | | CVC Rank | Coefficient of Conservatism | Coefficient of Wetness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Global | Provincial | Exotic | | | |
| Grossulariaceae | *Ribes triste* | Swamp Red Currant | | | | G5 | S5 | | | 6 | -5 |
| Caprifoliaceae | *Sambucus racemosa* | Red Elderberry | | | | G5 | S5 | | | 5 | 3 |
| Rosaceae | *Sorbus sp.* | Mountain-ash Species | | | | | | | | | |
| Asteraceae | *Taraxacum officinale* | Common Dandelion | | | | G5 | SNA | SE5 | | | 3 |
| Liliaceae | *Trillium sp.* | Trillium Species | | | | | | | | | |
| Urticaceae | *Urtica dioica* | Stinging Nettle | | | | G5 | S5 | | | 2 | 0 |
| Caprifoliaceae | *Viburnum opulus* | Cranberry Viburnum | | | | G5 | S5 | | | 5 | -3 |
| Apocynaceae | *Vinca minor* | Lesser Periwinkle | | | | GNR | SNA | SE5 | | | 5 |
| Apocynaceae | *Vincetoxicum rossicum* | European Swallowwort | | | | GNR | SNA | SE5 | | | 5 |
| Violaceae | *Viola pubescens* | Yellow Violet | | | | G5 | S5 | | | 5 | 3 |
| Vitaceae | *Vitis riparia* | Riverbank Grape | | | | G5 | S5 | | | 0 | 0 |

**Legend:**
COSEWIC: Committee on the Status of Endangered Wildlife in Canada
SARA: Ontario Species at Risk Act List
SARO: Specie at Risk in Ontario
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**Provincial S-rank:**
S4: Apparently Secure (uncommon, but not rare in the nation and/or province)
S5: Secure (common, widespread and abundant in the nation and/or province)
SNA: Not Applicable (species is not a suitable target for conservation activities)
S?: Rank Uncertain
-: No Rank, as specimen was only identified to genus

**CVC Rankd – CVC, 2002**

**Coefficients – Oldham et al., 1995**

# Appendix C Breeding Bird Survey Result

## Environmental Impact Study

0 Nicholas Street, Alton

**Mt. Nicholas Holdings Inc.**

SLR Project No.: 244.V24213.00001

May 14, 2026

## Breeding Birds of 0 Nicholas Street - 2020

| Common Name | Scientific Name | Status | | | | | | Locations | | | Observed on site visit | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | National Species at Risk COSEWIC [a] | Species at Risk in Ontario Listing [a] | Provincial breeding season SRANK [b] | Regional Status | Area-sensitive (OMNR)c | Breeding Evidence | Pine Plantation | CUP | Flyovers and adjacent areas | May 30, 2020 | June 18, 2020 |
| Northern Flicker | *Colaptes auratus* | | | S4 | | | T | | x | | 2 | 1 |
| Eastern Wood-Pewee | *Contopus virens* | SC | SC | S4 | | | S | x | | | | 1 |
| Blue Jay | *Cyanocitta cristata* | | | S5 | | | H | x | x | | 2 | 1 |
| American Crow | *Corvus brachyrhynchos* | | | S5 | | | T | x | x | | 8 | 1 |
| Black-capped Chickadee | *Poecile atricapillus* | | | S5 | | | T | x | x | x | 2 | 4 |
| Red-breasted Nuthatch | *Sitta canadensis* | | | S5 | | A | S | | x | | 1 | |
| White-breasted Nuthatch | *Sitta carolinensis* | | | S5 | | A | S | x | x | | | 2 |
| House Wren | *Troglodytes aedon* | | | S5 | | | T | | x | x | 1 | 2 |
| American Robin | *Turdus migratorius* | | | S5 | | | S | | x | | 1 | |
| Red-eyed Vireo | *Vireo olivaceus* | | | S5 | | | T | x | x | | 2 | 2 |
| Yellow Warbler | *Setophaga petechia* | | | S5 | | | S | x | | | 1 | |
| Ovenbird | *Seiurus aurocapillus* | | | S4 | | A | S | x | | | | 1 |
| Northern Cardinal | *Cardinalis cardinalis* | | | S5 | | | S | x | x | x | 1 | 2 |
| American Goldfinch | *Cardeulis tristis* | | | S5 | | | T | x | x | | 2 | 2 |

| Field Work Conducted On: | Date | Temp (°C) | Wind Speed (km/h) | Cloud Cover (%) | Start Time | End Time | Level of effort (h:min) | Number of species observed |
|---|---|---|---|---|---|---|---|---|
| Site visit 1 | 30-May-20 | 13 | 11 | 80 | 9:00 | 10:00 | 1:00 | 11 |
| Site visit 2 | 18-Jun-20 | 14 | 2 | 0 | 6:28 | 7:30 | 1:02 | 11 |

**Location 1 - Pine Plantation**
**Location 2 - Cultural Plantation**
**Location 3 - Flyovers and adjacent areas**

Number of Species: 14
Number of (provincial and national) Species at Risk: 1
Number of S1 to S3 (provincially rare) Species: 0
Number of Regionally Rare Species: 0
Number of Area-sensitive Species: 3

**Location 1**
Number of Species: 10
Number of (provincial and national) Species at Risk: 1
Number of S1 to S3 (provincially rare) Species: 0
Number of Regionally Rare Species: 0
Number of Area-sensitive Species: 2

**Location 2** 11
Number of Species: 0
Number of (provincial and national) Species at Risk: 0
Number of S1 to S3 (provincially rare) Species: 0
Number of Regionally Rare Species: 0
Number of Area-sensitive Species: 2

**Location 3**
Number of Species: 3
Number of (provincial and national) Species at Risk: 0
Number of S1 to S3 (provincially rare) Species: 0
Number of Regionally Rare Species: 0
Number of Area-sensitive Species: 0

KEY
a COSEWIC = Committee on the Status of Endangered Wildlife in Canada
a Species at Risk in Ontario List (as applies to ESA) as designated by COSSARO (Committee on the Status of Species at Risk in Ontario)
END = Endangered, THR = Threatened, SC = Special Concern

[b] SRANK (from Natural Heritage Information Centre) for breeding status if:
S1 (Critically Imperiled), S2 (Imperiled),S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure)
SZB (breeding migrants or vagrants) and SR (reported as breeding, but no persuasive documentation) .
SE (exotic, i.e. non-native)

c Ontario Ministry of Natural Resources (OMNR). 2000. Significant Wildlife Habitat Technical Guide (Appendix G). 151 p plus appendices.

d Toronto and Region Conservation Authority L rank:
L1 to L3 Regional species of concern from highest to lowest; L4 Urban concern; L5 Secure through region

# Appendix D Species At Risk Screening

## Environmental Impact Study

0 Nicholas Street, Alton

**Mt. Nicholas Holdings Inc.**

SLR Project No.: 244.V24213.00001

May 14, 2026

**Appendix D: Species at Risk Screening**

| NAME | SARA STATUS | SARO | COSEWIC | SCHEDULE | S-RANK | HABITAT REQUIREMENTS | SOURCE OF RECORD | POTENTIAL HABITAT PRESENT (Y/N) | RATIONALE | POTENTIAL IMPACTS AND MITIGATION |
|---|---|---|---|---|---|---|---|---|---|---|
| **AVIFAUNA** | | | | | | | | | | |
| Bank Swallow (*Riparia riparia* ) | THR | THR | THR | 1 | S4B | The bank swallow is threatened by loss of breeding and foraging habitat, destruction of nesting habitat and widespread pesticide use. Bank swallows are small songbirds with brown upperparts, white underparts and a distinctive dark breast band. It averages 12 cm long and weighs between 10 and 18 grams. The swallow can be distinguished in flight from other swallows by its quick, erratic wing beats and its almost constant buzzy, chattering vocalizations. They nest in burrows in natural and human-made settings where there are vertical faces in silt and sand deposit, including banks of rivers and lakes, active sand and gravel pits or former ones where the banks remain suitable. The birds breed in colonies ranging from several to a few thousand pairs (Ministry of Natural Resources and Forestry, 2014). | OBBA | N | Lack of banks or other vertical faces required for nesting. | Threatened species and their general habitat are automatically protected. |
| Barn Swallow (*Hirundo rustica* ) | THR | THR | THR | 1 | S4B | The barn swallow is a threatened species, is found throughout southern Ontario, and can range into the north as long as suitable nesting locations can be found. These birds prefer to nest within human made structures such as barns, bridges, and culverts. Barn swallow nests are cup-shaped and made of mud; they are typically attached to horizontal beams or vertical walls underneath an overhang. A significant decline in populations of this species has been documented since the mid-1980s, which is thought to be related to a decline in prey. Since the barn swallow is an aerial insectivore, this species relies on the presence of flying insects at specific times during the year. Changes in building practices and materials may also be having an impact on this species (Ministry of Natural Resources and Forestry, 2015). | OBBA | N | Lack of anthropogenic structures often used for nesting. | General Habitat protection applies. General habitat description on MNR website. |
| Bobolink (*Dolichonyx oryzivorus* ) | THR | THR | THR | 1 | S4B | The bobolink is found in grasslands and hayfields, and feeds and nests on the ground. This species is widely distributed across most of Ontario; however, are designated at risk because of rapid population decline over the last 50 years (Ministry of Natural Resources and Forestry, 2014). The historical habitat of the bobolink was tallgrass prairie and other natural open meadow communities; however, as a result of the clearing of native prairies and the post-colonial increase in agriculture, bobolinks are now widely found in hayfields. Due to their reproductive cycle, nesting habits, and use of agricultural areas, bobolink nests and young are particularly vulnerable to loss as a result of common agricultural practices (i.e. first cut hay). | NHIC / OBBA | N | Lack of open grassland habitat on Site. | General Habitat protection applies. General habitat description on MNR website. |
| Canada Warbler (*Cardellina canadensis* ) | THR | SC | THR | 1 | S4B | The Canada warbler is found in a variety of forest types, but is most abundant in moist, mixed forests with a well-developed, dense shrub layer. This species can also be locally abundant in regenerating forests following natural or anthropogenic disturbances. Nests are usually located on or near the ground on mossy logs, and along stream banks. In Canada, habitat loss due to conversion of swamp forests, agricultural activities and road development have contributed to the species' significant long-term decline, and its special concern designation. A reduction in forests with a well-developed shrub-layer has also likely impacted Canada warblers throughout their breeding range in Ontario (Committee on the Status of Endangered Wildlife in Canada, 2008). | OBBA | N | Lack of Specific Habitat, none observed during surveys. | Habitat protection does not apply to Special Concern Species. |
| Chimney Swift (*Chaetura pelagica* ) | THR | THR | THR | 1 | S4B,S4N | The chimney swift is a threatened species which breeds in Ontario and winters in northwestern South America. It is found mostly near urban areas where the presence of chimneys or other manmade structures provide nesting and roosting habitat. Prior to settlement, the chimney swift would mainly nest in cave walls and hollow tress. The chimney swift initially benefitted from human settlement; however, recent declines in flying insects and the modernization of chimneys are factors attributed to their current population declines. As a threatened species, the chimney swift receives protection for both species and habitat under the ESA (Ministry of Natural Resources and Forestry, 2014). | OBBA | N | Lack of large cavity trees and / or chimneys required for nesting. | General Habitat protection applies. General habitat description on MNR website. |

| NAME | SARA STATUS | SARO | COSEWIC | SCHEDULE | S-RANK | HABITAT REQUIREMENTS | SOURCE OF RECORD | POTENTIAL HABITAT PRESENT (Y/N) | RATIONALE | POTENTIAL IMPACTS AND MITIGATION |
|---|---|---|---|---|---|---|---|---|---|---|
| Eastern Meadowlark (*Sturnella magna* ) | THR | THR | THR | 1 | S4B | The eastern meadowlark is a bird that prefers pastures and hayfields, but is also found to breed in orchards, shrubby fields and human use areas such as airports and roadsides. Eastern meadowlarks can nest from early May to mid-August, in nests that are built on the ground and well-camouflaged with a roof woven from grasses. The decline in population of these species is thought to be at least partially related to habitat destruction and agricultural practices (Ministry of Natural Resources and Forestry, 2014). | NHIC / OBBA | N | Lack of open grassland habitat on Site. | General Habitat protection applies. General habitat description on MNR website. |
| Eastern Wood-Pewee (*Contopus virens* ) | SC | SC | SC | 1 | S4B | The eastern wood-pewee is classified as a species of special concern by COSSARO. Their population has been gradually declining since the mid-1960's (The Cornell Lab of Ornithology, 2015). The eastern wood-pewee is a "flycatcher", a bird that eats flying insects, that lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It prefers intermediate-age forest stands with little understory vegetation. Threats to the population are largely unknown; however, causes may include loss of habitat due to urban development and decreases in the availability of flying insect prey (Ministry of Natural Resources and Forestry, 2014). | OBBA | Y | Forests on Site provide potential suitable nesting habitat. | Habitat protection does not apply to Special Concern Species. |
| Grasshopper Sparrow (*Ammodramus savannarum* ) | No Statu | No Statu | SC | X | S4B | Grasshopper Sparrow are specialized to open relatively short grassland habitat, preferably grasslands with relatively sparse cover such as those in areas of poor soils, including alvars, moraines, and sand plains and generally does not favour tall grass moist meadows. It will also breed in manmade hayfields and occasionally in cereals such as Rye (*Secale cereale* ). | OBBA | N | Lack of open grassland habitat on Site. | Habitat protection does not apply to Special Concern Species. |
| Wood Thrush (*Hylocichla mustelina* ) | THR | SC | THR | 1 | S4B | The wood thrush is a species of Special Concern because of habitat degradation or destruction by anthropogenic development. The wood thrush is a medium-sized songbird, generally rusty-brown on the upper parts with white under parts and large blackish spots on the breast and sides, and about 20 cm long. The wood thrush forages for food in leaf litter or on semi-bare ground, including larval and adult insects as well as plant material. They seek moist stands of trees with well-developed undergrowth in large mature deciduous and mixed (conifer-deciduous) forests. The wood thrush flies south to Mexico and Central America for the winter (Ministry of Natural Resources and Forestry, 2014). | OBBA | Y | Forests on Site provide potential suitable nesting habitat. | Habitat protection does not apply to Special Concern Species. |
| **HERPTILES** | | | | | | | | | | |
| Snapping Turtle (*Chelydra serpentina* ) | SC | SC | SC | 1 | S3 | The snapping turtle is a species of special concern in Ontario due to the potential for the species to become threatened or endangered as a result of biological factors or other identified threats. While not presently protected by law, the snapping turtle has been recognized as a species of special concern by COSSARO. Snapping turtles spend the majority of their lives in water and travel slightly upland to gravel or sandy embankments or beaches to lay their eggs (Ontario Ministry of Natural Resources and Forestry, 2014). | ORAA | N | Lack of suitable aquatic habitat required for breeding. | Habitat protection does not apply to Special Concern Species. |
| **VASCULAR PLANTS** | | | | | | | | | | |
| Butternut (*Juglans cinerea* ) | END | END | END | 1 | S2? | The butternut is designated as endangered by COSSARO and is tracked by the NHIC as a species at risk. The tree is federally regulated by the Species at Risk Act (2002). Butternut belongs to the walnut family and produces edible nuts which are a preferred food source for wildlife. The range of butternut trees is south of the Canadian Shield on soils derived from calcium rich limestone bedrock. Butternut trees, which at one time were much more common to the south extending to the northern aspect of zone 6E, have been declining due to factors including forest loss and disease. Butternut trees suffer from a highly transmissible fungal disease called butternut canker. Butternut canker is causing very rapid decline in this tree species across its native range. The fungal disease is easily transmitted by wind and is very difficult to prevent. Trees often die within a few years of infection by butternut canker (Ministry of Natural Resource and Forestry, 2014). | Professional Experience | Y | Forest edges and openings present on Site provide potential suitable habitat for Butternut. Two individuals were observed in an adjacent hedgerow during field investigations. | General Habitat Protection as of June 30, 2013. |

| NAME | SARA STATUS | SARO | COSEWIC | SCHEDULE | S-RANK | HABITAT REQUIREMENTS | SOURCE OF RECORD | POTENTIAL HABITAT PRESENT (Y/N) | RATIONALE | POTENTIAL IMPACTS AND MITIGATION |
|---|---|---|---|---|---|---|---|---|---|---|
| **MAMMALS** | | | | | | | | | | |
| Tri-colored Bat (Eastern Pipistrelle) (*Perimyotis subflavus* ) | END | END | END | 1 | S3? | The eastern pipistrelle is a small bat that is widely distributed in eastern North America and whose range extends north to southern Ontario. The eastern pipistrelle is rare in this region of Ontario which is at the northernmost limit of the natural range for the species. These bats prefer to nest in foliage, tree cavities and woodpecker holes, and are occasionally found in buildings; though this is not their preferred habitat. Winter hibernation takes place in caves, mines and deep crevices. Eastern pipistrelles feed primarily on small insects and prefer an open forest habitat type in proximity to water (University of Michigan Museum of Zoology, 2004). | Professional Experience | P | Large forests on Site provide potential suitable cavity trees for roosting. | General Habitat Protection for Endangered species. |
| Eastern Small-footed Myotis (*Myotis leibii* ) | No Statu | END | No Statu | o Schedu | S2S3 | The eastern small-footed myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Eastern small-footed bat's fur has black roots and shiny light brown tips, giving it a yellowish-brown appearance. Its face mask, ears and wings are black, and its underside is grayish-brown, about 8 cm long in size and weighs 4-5 grams. In the spring and summer, eastern small-footed bats will roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. They change their roosting locations daily and hunt at night for insects to eat, including beetles, mosquitos, moths, and flies. They hibernate in winter, often in caves and abandoned mines. They can be found from south of Georgian Bay to Lake Erie and east to the Pembroke area, and choose colder and drier sites (Ministry of Natural Resources and Forestry, 2014). | Professional Experience | P | Large forests on Site provide potential suitable cavity trees for roosting. | General Habitat protection applies. General habitat description on MNR website. |
| Little Brown Myotis (*Myotis lucifugus* ) | END | END | END | 1 | S4 | Little brown myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Little brown bats have glossy brown fur and usually weigh between four and 11 grams. Bats are nocturnal. During the day they roost in trees and buildings. They often select attics, abandoned buildings and barns for summer colonies where they can raise their young. Little brown bats hibernate from October or November to March or April, most often in caves or abandoned mines that are humid and remain above freezing – an ideal environment for the fungus to grow and flourish. The syndrome affects bats by disrupting their hibernation cycle, so that they use up body fat supplies before the spring when they can once again find food sources (Ministry of Natural Resources and Forestry, 2014). | Professional Experience | N | Lack of abandoned anthropogenic structures often used for roosting. | General Habitat Protection as of January 24, 2013. |
| Northern Myotis (*Myotis septentrionalis* ) | END | END | END | 1 | S3 | The northern long-eared myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Northern long-eared bats have dull yellow-brown fur with pale grey bellies. They are approximately eight cm long, with a wingspan of about 25 cm, and usually weigh six to nine grams. Northern long-eared bats can be found in boreal forests, roosting under loose bark and in the cavities of trees. These bats hibernate from October or November to March or April, most often in caves or abandoned mines (Ministry of Natural Resources and Forestry, 2014). | Professional Experience | P | Large forests on Site provide potential suitable cavity trees for roosting. | General Habitat Protection as of January 24, 2013. |

Notes:
SC - Special Concern
THR - Threatened
END - Endangered
S1 - Extremely rare in Ontario
S2 - Very rare in Ontario
S3 - Rare to uncommon in Ontario
S4 - Considered to be common in Ontario
S5 - Species is widespread in Ontario
SH - Possibly extirpated
S#S# - Indicates insufficient information exists to assign a single rank.
S#? - Indicates some uncertainty with the classification due to insufficient data.
S#N - Nonbreeding
S#B - Breeding

# Appendix E Significant Wildlife Habitat Screening

## Environmental Impact Study

0 Nicholas Street, Alton

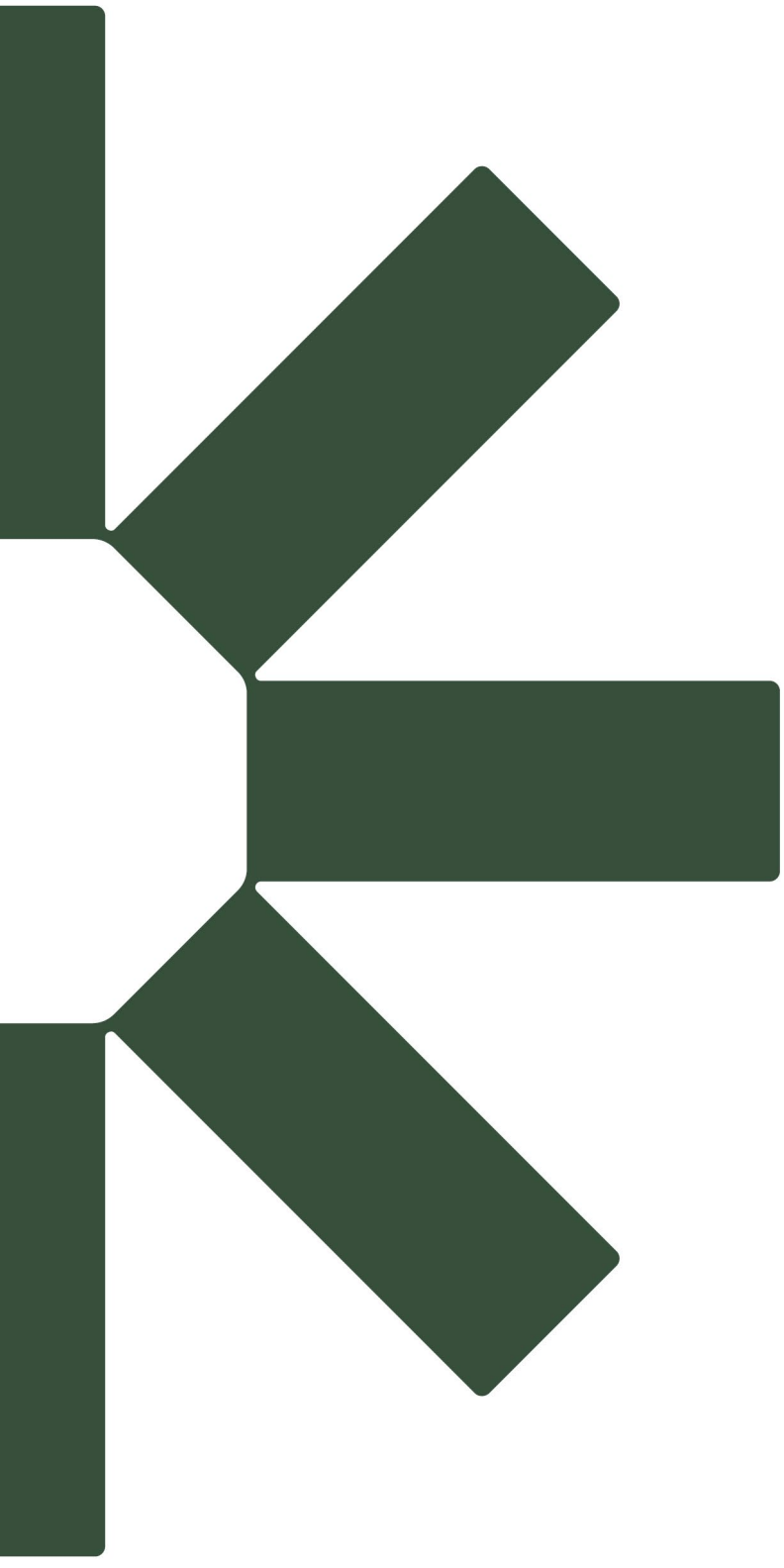
**Mt. Nicholas Holdings Inc.**

SLR Project No.: 244.V24213.00001

May 14, 2026

| SWH Type | Associated Species | Associated ELC Ecosites | Habitat Criteria | Presence (Y/P/N) | Rationale |
|---|---|---|---|---|---|
| **Seasonal Concentration Areas of Animals** | | | | | |
| Waterfowl Stopover and Staging Areas (Terrestrial) | Ducks | CUM + CUT ecosites | Fields with sheet-water flooding mid-March to May | N | Not present in Study Area. |
| Waterfowl Stopover and Staging Area (Aquatic) | Ducks, Geese | Ponds, Lakes, Inlets, Marshes, Swamps, Shallow Water Ecosites | Sewage & SWM ponds **not** SWH. Reservoir managed as a large wetland or pond/lake qualifies. | N | Not present in Study Area. |
| Shorebird Migratory Stopover Area | Shorebirds | Beaches, Dunes, Meadow Marshes | Shorelines. Sewage treatment ponds and storm water ponds **not** SWH. | N | Not present in Study Area. |
| Raptor Wintering Area | Eagles, Hawks, Owls | **Hawks/Owls:** Combination of both Forest and Cultural Ecosites **Bald Eagle:** Forest or swamp near open water (hunting ground) | **Raptors:** >20ha, with a combo of forest and upland. Meadow (>15ha) with adjacent woodlands. **Eagles:** open water, large trees & snags for roosting. | N | Study Area is not FOD/FOM/FOC. Is part of a Plantation (>30 ha), adjacent to a large meadow area (>15 ha). |
| Bat Hibernacula | Big Brown Bat, Tri-coloured Bat | Caves, Crevices, mines, karsts | Buildings and active mine sites **not** SWH. | N | Not present in Study Area. |
| Bat Maternity Colonies | Big Brown Bat, Silver-haired Bat | Decidious or mixed forests and swamps. | Mature deciduous and mixed forests with >10/ha cavity trees >25 cm DBH. | N | Study Area is not a deciduous or mixed forest with large leaves. With deciduous needles, the area is more akin to a pure coniferous forest. |
| Turtle Wintering Area | **Turtles** (Midland, N. Map, Snapping) | SW, MA, OA, SA, FEO, BOO (requires open waters) | **Free water beneath ice.** Soft mud substrate. Permanent water bodies, large wetlands, bogs, fens with adequate DO. | N | Not present in Study Area. |
| Reptile Hibernaculum | Snakes | **Snakes:** Any ecosite (esp. w/ rocky areas), other than very wet ones. **Five-lined Skink:** FOD and FOM, FOC1, FOC3 - with rock outcrops | **Access below frost line:** burrows; **rock** crevices, piles or slopes, **stone** fences or foundations. Conifer/shrubby swamps/swales, poor fens, depressions in bedrock w/ accumulations of sphagnum moss or sedge hummock ground cover. | N | Not present in Study Area. |
| Colonially-nesting Bird Breeding Habitat (Bank and Cliff) | Cliff Swallow, N. Rough-winged Swallow | Banks, sandy hills/piles, pits, slopes, cliff faces, bridge abutments, silos, barns. | Exposed soil banks, **not** a licensed/permitted aggregate area or new man-made features (2 yrs). | N | Not present in Study Area. |
| Colonially-nesting Bird Breeding Habitat (Tree/Shrubs) | Great Blue Heron, Black-crowned NightHeron, Great Egret, Green Heron | SWM2, SWM3, SWM5, SWM6, SWD1 to SWD7, FET1 | Nests in live or dead standing trees in wetlands, lakes, islands and peninsulas. Shrubs and emergents may be used. Nests in trees are 11 - 15 m from ground, near tree tops. | N | Not present in Study Area. |
| Colonially-nesting Bird Breeding Habitat (Ground) | Herring Gull, Great Black-backed Gull, Little Gull, Ring-billed Gull, Common Tern, Caspian Tern, Brewer's Blackbird | **Gulls/Terns:** Rocky island or peninsula in lake or river. **Brewer's Blackbird:** close to watercourses in open fields or pastures with scattered trees or shrubs. | **Gulls/Terns:** islands or peninsulas with open water or marshy areas. **Brewers Blackbird colonies:** on the ground in low bushes close to streams and irrigation ditches. | N | Not present in Study Area. |
| Migratory Butterfly Stopover Area | Painted Lady, Red Admiral, **Special Concern:** Monarch | Combination of open (CU) and forested (FO) ecosites (need one from each). | ≥10 ha, located within 5 km of Lake Ontario. Undisturbed sites, with preferred nectar species. | N | Not within 5 km of Lake Ontario. |
| Landbird Migratory Stopover Areas | All migratory songbirds. All migrant raptor species. | Forest (FO) and Swamp (SW) ecosites | Woodlots >10 ha within 5 km of Lake Ontario. If multiple woodlands are along the shoreline, those <2 km from L. Ontario are more significant. | N | Not within 5 km of Lake Ontario. |
| Deer Yarding Areas | White-tailed Deer | Mixed or Conifer ecosites | Determined by MNRF - no studies | N | MNRF does not map this within the Subject Property. |
| Deer Winter Congregation Areas | White-tailed Deer | Mixed or Conifer ecosites | Determined by MNRF - no studies | N | MNRF does not map this within the Subject Property. |
| **Rare Vegetation Communities** | | | | | |
| Cliffs and Talus Slopes | | TAO, TAS, CLO, CLS, TAT, CLT e.g., Niagara Escarpment (contact NEC) | **Cliff:** near vertical bedrock >3m **Talus Slope:** coarse rock rubble at the base of a cliff | N | Not present in study area. |
| Sand Barren | | SBO1, SBS1, SBT1 | Sand Barrens >0.5 ha. Vegetation can vary from patchy and barren to tree covered, but <60%. <50% vegetation cover are exotic species. | N | Not present in study area. |
| Alvar | *Carex crawei, Panicum philadelphicum, Eleocharis compressa, Scutellaria parvula, Trichostema brachiatum,* Loggerhead Shrike | ALO1, ALS1, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2 | Alvar >0.5 ha. **Need 4 of the 5 Alvar Inidcator Spp**. <50% vegetation cover are exotic species. | N | Not present in study area. |

| SWH Type | Associated Species | Associated ELC Ecosites | Habitat Criteria | Presence (Y/P/N) | Rationale |
|---|---|---|---|---|---|
| Old Growth Forest | Trees >140 yrs; heavy mortaily = gaps. Multi-layer canopy, lots of snags and downed logs | FOD, FOC, FOM, SWD, SWC, SWM | Woodland areas ≥30 ha with a≥10 ha interior habitat, assuming a 100 m buffer at edge of forest. | N | Woodland habitat not of sufficient size or character. |
| Savannah | Prairie Grasses w/ trees | TPS1, TPS2, TPW1, TPW2, CUS2 | A Savannah is a tallgrass prairie habitat that has tree cover of 25 – 60%. <50% cover of exotic species. | N | Not present in study area. |
| Tallgrass Prairie | Prairies Grasses dominate | TPO1, TPO2 | An open Tallgrass Prairie habitat has < 25% tree cover. Less than 50% cover of exotic species. | N | Not present in study area. |
| Other Rare Vegetation Communities | | Provincially Rare S1 - S3 veg. comm. are listed in Appendix M of SWHTG. | Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps. | N | Not present in study area. |
| **Specialized Habitat for Wildlife** | | | | | |
| Waterfowl Nesting Area | Ducks | Upland habitats adjacent to: MAS1 to MAS3, SAS1, SAM1, SAF1, MAM1 to MAM6, SWT1, SWT2, SWD1 to SWD4 (>0.5 ha open water wetlands, alone or collectively). | Extends 120 m from a wetland or wetland complex. Upland areas should be at least 120 m wide. Wood Ducks and Hooded Mergansers use cavity trees (>40 cm dbh). | N | Not present in Study Area. |
| Bald Eagle & Osprey Nesting, Foraging and Perching Habitat | Osprey, Bald Eagle | FOD, FOM, FOC, SWD, SWM, SWC directly adjacent to riparian areas | Nesting areas are associated with waterbodies along forested shorelines, islands, or on structures over water. | N | Area is not associated with a waterbody. |
| Woodland Raptor Nesting Habitat | Barred Owl. **Hawks:** N. Goshawk, Cooper's, Sharp-shinned, Red-shouldered, Broad-winged. | Forests (FO), swamps (SW), and conifer plantations | >30 ha with > 10 ha interior habitat. | N | Area does not contain >10 ha interior habitat using the criteria 200 m buffer. |
| Turtle Nesting Areas | Midland Painted Turtle **Special Concern:** Snapping Turtle, Northern Map Turtle | Exposed mineral soil (sand or gravel) areas adjacent (<100m) or within: MAS1 to MAS3, SAS1, SAM1, SAF1, BOO1 | Nest sites within open sunny areas with soil suitable for digging. Sand and gravel beaches. | N | Nesting opportunities not present in Study Area. |
| Seeps and Springs | Wild Turkey, Ruffed Grouse, Spruce Grouse, White-tailed Deer, Salamander spp. | Seeps/Springs are areas where ground water comes to the surface. | Any forested area within the headwaters of a stream/river system. **(2 or more confirms SWH type).** | N | Seeps and springs not present in Study Area. |
| Amphibian Breeding Habitat (Woodland) | Woodland Frogs and Salamanders | FOC, FOM, FOD, SWC, SWM, SWD | Open water wetlands, pond or woodland pool of >500 $m^2$ within or adjacent to wooded areas. Permanent ponds or holding water until mid-July preferred. | N | Open waters/ponds/vernal pools not present in Study Area. |
| Amphibian Breeding Habitat (Wetlands) | Toads, Frogs, and Salamanders | SW, MA, FE, BO, OA and SA. Typically isolated (>120m) from woodland ecosites, however larger wetlands may be adjacent to woodlands. | Open water wetland ecosites >500$m^2$ isolated from woodland ecosites with high species diversity. Permanent water with abundant vegetation for bullfrogs. | N | Open waters/ponds not present in Study Area. |
| Woodland Area-Sensitive Bird Breeding Habitat | Birds (area-sensitive species) | FOC, FOM, FOD, SWC, SWM, SWD | Large mature (>60 years) forest stands/woodlots >30 ha. Interior forest habitat >200m from forest edge. | P | Area contains limited interior habitat using the criteria 200 m buffer. |
| **Habitat of Species of Conservation Concern** | | | | | |
| Marsh Bird Breeding Habitat | Wetland Birds | MAM1 to MAM6, SAS1, SAM1, SAF1, FEO1, BOO1 **Green Heron**: SW, MA and CUM1 | Wetlands with shallow water and emergent vegetation. Gr. Heron @ edges of these types w/ woody cover. | N | Not present in study area. |
| Open Country Bird Breeding Habitat | Upland Sandpiper, Grasshopper Sparrow, Vesper Sparrow, N. Harrier, Savannah Sparrow, **Short-eared Owl (SC)** | CUM1, CUM2 | Grassland/meadow >30 ha. Not being actively used for farming. Habitat established for 5 years or more. | N | Not present in study area. |
| Shrub/Early Successional Bird Breeding Habitat | **Brown Thrasher + Clay-coloured Sparrow (indicators),** Field Sparrow, Black-billed Cuckoo, E. Towhee, Willow Flycatcher, Yellow-breasted Chat, Golden-winged Warbler | CUT1, CUT2, CUS1, CUS2, CUW1, CUW2 | Large field areas succeeding to shrub and thicket habitats > 10 ha. Areas not actively used for farming in the last 5 years. | N | Not present in study area. |
| Terrestrial Crayfish | Chimney or Digger Crayfish; Devil Crayfish or Meadow Crayfish | MAM1 to MAM6, MAS1 to MAS3, SWD, SWT, SWM. CUM1 sites with inclusions of the aforementioned. | Wet meadow and edges of shallow marshes (no minimum size) should be surveyed for terrestrial crayfish (typc. protected by wetland setbacks). | N | Not present in study area. |
| Special Concern and Rare Wildlife Species | Any species of concern or rare wildlife species | Any ELC code. | Presence of species of concern or rare wildlife species. | N | Not present in study area. |
| **Animal Movement Corridors** | | | | | |
| Amphibians | Amphibians | all ecosites assoc. w/ water | When Breeding Habitat - wetland confirmed | N | No viable breeding habitat in Study Area. |
| Deer Movement | White-tailed Deer | all forested ecosites | When Deer Wintering Habitat confirmed | N | Not present in study area. |
| **Exceptions for Ecoregion 6E** | | | | | |
| Mast Producing: 6E-14 | Black Bear | Forested Ecosites | >30 ha w/ mast producing species: Cherry (berries), Oak, Beech (nuts). | N | Not in Ecoregion 6E-14. |
| Leks: 6E-17 | Sharp-tailed Grouse | CUM, CUS, CUT | Grassland/meadow >15 ha adjacent to shrublands, >30 ha adjacent to woodlands. Low agricultural intensity. | N | Not in Ecoregion 6E-7. |



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