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# TECHNICAL MEMORANDUM

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**Subject:** 50 Saunders Street Preliminary Tree Inventory and Preservation Plan

**File No.:** Birks NHC 03-014-2019

**To:** Al Allendorf, Lotco II Limited

**From:** Stephanie Brady, HBES, Ecologist, Birks Natural Heritage Consultants, Inc.

**Date:** March 20, 2020

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Dear Mr. Allendorf:

Birks Natural Heritage Consultants, Inc. (Birks NHC) was retained to undertake a Preliminary Tree Inventory and Preservation Plan for the property described above and illustrated in the attached Figure 1. Birks NHC prepared an Environmental Impact Study (EIS; December 2019) for the proposed development of a residential subdivision. The EIS was requested by the Nottawasaga Valley Conservation Authority (NVCA) due to the presence of lands regulated under Ontario Regulation 172/06 associated with wetland habitat.

It is our understanding that the Town of Collingwood has requested further information related to the mature trees within the property. The purpose of this analysis is to provide a preliminary characterization of the mature trees and potential tree preservation opportunities.

## **STUDY APPROACH**

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Through the completion of the EIS, vegetation communities were assessed using Ecological Land Classification (ELC) as a first step in identifying and assessing for potential natural heritage features within the study area. The ELC system for Southern Ontario (Lee *et al.* 1998) was used for the study area. The ecological community boundaries were determined through a review of aerial photography and then further refined during the site visits.



Vegetation communities and their respective locations within the property limits are illustrated on Figure 1. A total of four (4) vegetation communities were identified on the property. Naturalized portions contain both upland and wetland conditions. The vegetation communities that occur within the property are as follows:

1. WODM5-3: Fresh-Moist Manitoba Maple Woodland
2. FODM3-1: Dry-Fresh Poplar Deciduous Forest
3. CUM: Cultural Meadow
4. SWTM2-1: Red-osier Dogwood Mineral Deciduous Thicket Swamp

Subsequent to the field work completed for the EIS, Birks NHC Ecologists completed a follow-up site visit on March 11, 2020, to collect data on mature tree species found within two (2) separate Ecological Land Classification (ELC) communities:

1. WODM5-3: Dry-Fresh Manitoba Maple Deciduous Woodland
2. FODM3-1: Dry-Fresh Poplar Deciduous Forest

Information collected for each community included species composition, average Diameter Breast Height (DBH) and the overall health of the mature trees within the community.

## SITE DESCRIPTION

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The property measures approximately 4.1 hectares and is generally naturalized containing woodland, thicket, and wetland habitats. Naturalized portions are young (*i.e.*, ±30 years) with historic imagery indicating agricultural past use. Naturalized portions are not contiguous within adjacent lands. A remnant woodland is also present along the length of Saunders Street within the eastern portion of the property.

## TREE ASSESSMENT

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### WODM5-3

This community is dominated by Manitoba Maple trees with DBH sizes ranging from 47 cm to 16 cm, with an average DBH of 41 cm. These trees are characteristic of growing in open habitat conditions with large canopies and large limbs. Other tree species documented within this vegetation community include Black Walnut (average DBH 9 cm), Green Ash (average DBH 21 cm), and Scots Pine (average DBH 18 cm).

Given the growing conditions, many of the mature trees, particularly Manitoba Maple, were noted to exhibit declining characteristics including broken/cracked limbs and multiple leaders. As a result, many of these trees would be considered hazard trees. Manitoba Maple is a fast growing, short-lived tree species and is known to have weak wood which requires regular pruning to maintain good form. Although Manitoba Maple is known to be a native species to Ontario (with origins in the Prairies), the typical preferred habitat for this species is within floodplains and/or on stream banks. The species will, however, adapt to dry disturbed sites.



Scots Pine is a non-native and invasive tree species in Ontario which will often grow in a wrapped and haphazard manner with irregular shaped crowns. The aggressive and early growth of Scots Pine gives it a competitive advantage against native tree species including Black Cherry, Red Maple, Sugar Maple, and American Beech. The Best Management Practices for Scots Pine developed by Environment and Climate Change Canada for the Ontario Invasive Plan Council recommends undertaking some form of control in limiting Scots Pine succession (Marinich *et al.* 2017). It is recommended that the removal of Scots Pine trees through mechanical cutting be undertaken early on in order to prevent future seed spread.

Although evidence of Emerald Ash Borer (EAB) impacts were not noted for the documented Green Ash, it can generally be assumed that EAB is present within the property due to the known range of the infestation. Furthermore, EAB is known to be found within the general Town of Collingwood area.

Therefore, given that the mature trees within this community were noted to be in a state of decline and/or an invasive species, tree preservation within this community is not recommended at this time.

### **FODM3-1**

This vegetation community borders the length of the property along Saunders Street. Trembling Aspen is the dominant tree species within this vegetation community with companion species including Balsam Poplar, Manitoba Maple, Green Ash, American Elm, and Scotch Pine. The average DBH for Trembling Aspen is 19 cm with specimens ranging between 31 cm and 2 cm DBH. Other tree species documented within this vegetation community include Balsam Poplar (average DBH 25 cm), Manitoba Maple (average DBH 15 cm), Green Ash (average DBH 17.5 cm), Scots Pine (average DBH 23 cm), and American Elm (average DBH 25 cm).

Overall health of this vegetation community was noted as being generally good, with few standing dead trees and trees with hazardous conditions such as broken and leaning limbs. Other than the few noted Scots Pine and Manitoba Maple, this community is composed of native tree species. Trembling aspen is known to be a remarkable species for quick growth and establishment on poor, disturbed or burnt areas. It is not recommended for many residential situations due to a large suckering root system and weak wood. Due to the grading and infilling requirements known at this time, as well as the requirements to have the dwellings front on to Saunders Street, it is our understanding that future preservation of mature trees will not be possible. Should it be determined that tree preservation can occur at future stages of the planning and design process, a tree inventory and preservation plan may be required.

It would be recommended to remove all Scots Pine and Manitoba Maple specimens found within this community as discussed in the section above.



## CLOSURE

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The vegetation communities found within the property are not considered to be rare in Ontario. Furthermore, the majority of the property is composed of fast growing and short lives tree species, with non-native species found throughout. No rare (S1-S3), Special Concern, Threatened, or Endangered plant species were identified during the course of the EIS and site visits. Furthermore, the EIS concluded that the mature woodland portion of the property is not considered to be Significant Woodland in accordance with the Town of Collingwood Official Plan (neither Category 1 or Category 2 woodland) and as per the criteria defined by the Natural Heritage Reference Manual (OMNR 2010). Therefore, the loss of the WODM-5-3 and FODM3-1 communities will not result in loss of ecological function.

It is our understanding of the minimum engineered development standards that opportunities for tree preservation are extremely limited due to the required servicing, grading, infilling, and drainage works. However, we understand that the Town of Collingwood may require a detailed tree inventory and tree preservation plan. Upon draft plan approval and confirmation of the engineering and servicing requirements, a tree inventory and preservation plan can be prepared. Tree preservation plans are typically required as a condition of draft plan approval, to be completed once the limits of disturbance are fully known. In addition, a tree cutting permit is required under provisions of the Town of Collingwood Tree By-Law.

We trust the information provided will be sufficient to meet submission requirements for the proposed residential development. If you have any questions or require further information, please do not hesitate to contact the undersigned.

Yours truly,

Birks Natural Heritage Consultants Inc.

Stephanie Brady, HBES  
Ecologist



## REFERENCES

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Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and Its Application.

Marinich, Allison and Powell, Kate. 2017. Scots pine (*Pinus sylvestris* L.) Best Management Practices in Ontario. Ontario Invasive Plant Council, Peterborough, ON.

Ontario Ministry of Natural Resources. 2010. Natural Heritage Reference Manual.

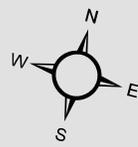


50 Saunders Street  
 Birks NHC 03-014-2019

Figure 1. Existing Conditions

LEGEND

- Property Boundary
- Watercourse (LIO)
- Vegetation Communities**
- 1) WODM5-3 - Fresh-Moist Manitoba Maple Deciduous Woodland Type
- 2) FODM3-1 - Dry-Fresh Poplar Deciduous Forest Type
- 3) CUM - Cultural Meadow
- 4) SWTM2-1 - Red-osier Dogwood Mineral Deciduous Thicket Swamp Type
- SWTM2-1 Limit GPS August 22, 2019



MAP DRAWING INFORMATION:  
 DATA PROVIDED BY SIMCOE COUNTY 2016  
 MAP CREATED BY SB  
 MAP CHECKED BY MF  
 MAP PROJECTION NAD 1983 UTM ZONE 17N  
 STATUS DRAFT  
 DATE 10/21/2019

