



Hamilton

## COMMITTEE OF ADJUSTMENT

City Hall, 5<sup>th</sup> floor, 71 Main Street West, Hamilton, ON L8P 4Y5  
Telephone (905) 546-2424, ext. 4221, 3935 Fax (905) 546-4202

E-mail: [cofa@hamilton.ca](mailto:cofa@hamilton.ca)

# **NOTICE OF PUBLIC HEARING** **Minor Variance**

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**You are receiving this notice because you are either:**

- Assessed owner of a property located within 60 metres of the subject property
  - Applicant/agent on file, or
  - Person likely to be interested in this application
- 

**APPLICATION NO.:** FL/A-20:04

**APPLICANTS:** Agent A.J. Clarke & Associates c/o Miles Weekes  
Owner 330113 Ontario Inc.

**SUBJECT PROPERTY:** Municipal address **177 Hwy #8, Flamborough**

**ZONING BY-LAW:** Zoning By-law 90-145-Z and Schedule C, Special Exceptions;  
and 05-200, as Amended 94-67-Z for R2-24(H); 15-173 for  
S1, Exception 75

**ZONING:** "S1, Exception 75 and P6" (Settlement Residential with  
Special Exceptions and Conservation/Hazard) district

**PROPOSAL:** To permit the construction of a single detached dwelling on each  
newly created lot identified as Parts 1 and 2, in conjunction with  
Consent Application FL/B-20:01, notwithstanding that:

Lot to be Severed:

1. The minimum lot frontage for the proposed lot to be severed, shown as Part 2 on the submitted survey shall be 28.7m instead of the minimum required 30m.

Lot to be Retained:

2. The minimum lot frontage for the proposed lot to be retained, shown as Part 1 on the submitted survey shall be 24.0m instead of the minimum required 30m.

NOTES:

1. The variances noted are required to facilitate the concurrent severance of the property through Consent Application FL/B-20:01 for the creation of Parts 1 and 2.
2. The variances provided in this Notice were determined based on the definition for Lot Frontage in Zoning By-law 90-145-Z, noted as follows:

Lot Frontage shall mean the horizontal distance between the side lot lines, measured at right angles along the front lot line. Where the front lot line is not a straight line, or where the side lot lines are not parallel, the lot frontage shall be measured by a line 7.5 metres back from and parallel to the chord of the lot frontage. For the purpose of this By-law, the chord of the lot frontage is a straight line joining the two points where the side lot lines intersect the front lot line.

3. The frontage for the lands to be severed (Part 2) was determined to be 28.7 metres based on the lot frontage being measured 7.5 metres back and parallel to the chord,

.../2

instead of 20.0 metres as provided in the earlier Notice. Therefore, Variance #1, shown above has been updated to reflect this change.

4. Variance #2 was identified as a new variance. As the Zoning By-law defines the front lot line to mean the shorter lot line in the case of a through lot, a variance for the proposed parcel to be retained (Part 1) is required because it would be created as a through lot in which the lesser frontage would be provided along Oak Avenue. This frontage, also based on the above-noted definition for lot frontage would not be in compliance with the minimum 30m lot frontage requirement.

5. The parcel to be retained, "Part 1" is zoned Settlement Residential "R2-24(H)" Holding Zone and Conservation Management (CM) Zone in Zoning By-law 90-145-Z

6. The parcel to be severed, "Part 2" is zoned Settlement Residential "R2-24(H)" Holding Zone and Conservation Management (CM) Zone in Zoning By-law 90-145-Z and Settlement Residential (S1) Exception 75 and Conservation/ Hazard Land Rural (P6) Zone in Zoning By-law 05-200. The majority of the lands which are within the P6 Zone are under the Niagara Escarpment Commission's Development Control Area, whereby the City's zoning is not in effect. Residential development is only permitted in the portion of the property that is zoned R2-24(H).

7. The frontage of the parcel to be severed, "Part 2" is zoned S1, Exception 75 in Zoning By-law 05-200 and "R2-24(H)" Holding Zone in Zoning By-law 90-145-Z. In cases, where there is dual zoning, the stricter zoning applies which was determined to be Zoning By-law 90-145-Z for which Variance #1 is provided.

8. The creation of lot frontage for Part 2 will require that it be merged with the portion shown as Block 9, which is under the same ownership, as the Part 2 lands, but subject to an easement in favour of the City.

9. In addition to Note #6 above, the Zoning By-law requires that no building or structure be erected within 15m of the CM Zone boundary without written permission from the Conservation Authority having jurisdiction.

10. In addition to Note #6 above, the development of new single detached dwellings is not permitted under Zoning By-law 05-200 for the portion of lands located in the P6 Zone.

11. The Holding Provision "H", applicable to the R2-24(H) Holding Zone is required to be removed prior to the construction of any building or structure. The mechanism for the removal of the Holding provision "H" is not specified in the Zoning By-law, but it appears that it would be tied to Site Plan Control.

This application will be heard by the Committee as shown below:

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<b>DATE:</b>	<b>Thursday, October 21st, 2021</b>
<b>TIME:</b>	<b>1:20 p.m.</b>
<b>PLACE:</b>	<b>Via video link or call in (see attached sheet for details)</b>
	<b>To be streamed at</b>
	<b><a href="http://www.hamilton.ca/committeeofadjustment">www.hamilton.ca/committeeofadjustment</a></b>
	<b>for viewing purposes only</b>

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## **PUBLIC INPUT**

**Written:** If you would like to submit written comments to the Committee of Adjustment you may do so via email or hardcopy. Please see attached page for complete instructions, including deadlines for submitting to be seen by the Committee.

**Orally:** If you would like to speak to this item at the hearing you may do so via video link or by calling in. Please see attached page for complete instructions, including deadlines for registering to participate.

## MORE INFORMATION

For more information on this matter, including access to drawings illustrating this request:

- Visit [www.hamilton.ca/committeeofadjustment](http://www.hamilton.ca/committeeofadjustment)
- Call 905-546-CITY (2489) or 905-546-2424 extension 4221, 4130, or 3935
- Email Committee of Adjustment staff at [cofa@hamilton.ca](mailto:cofa@hamilton.ca)

DATED: October 5th, 2021.

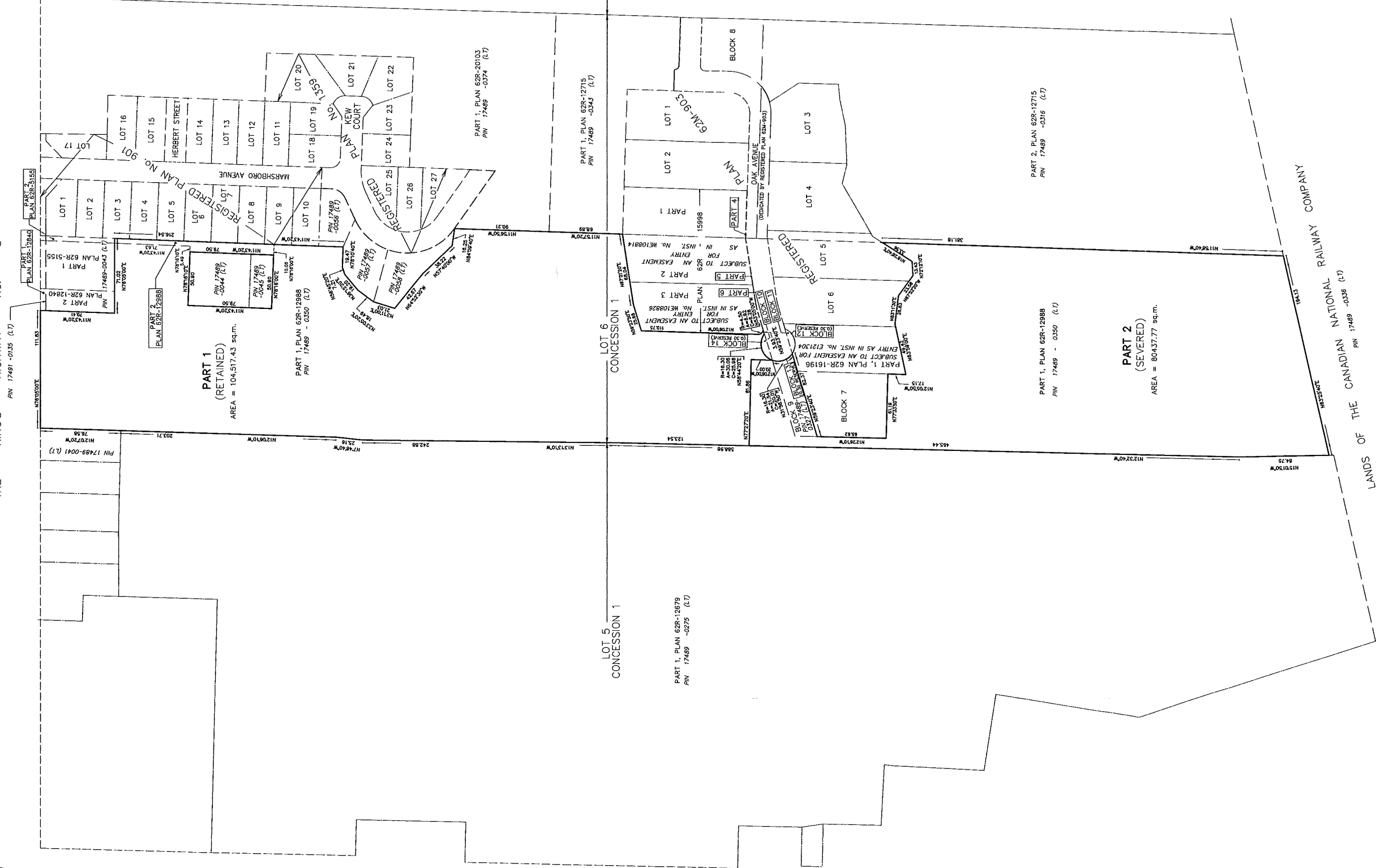
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Jamila Sheffield,  
Secretary-Treasurer  
Committee of Adjustment

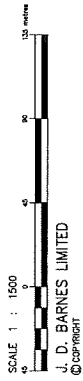
***Information respecting this application is being collected under the authority of the Planning Act, R.S.O., 1990, c. P. 13. All comments and opinions submitted to the City of Hamilton on this matter, including the name, address, and contact information of persons submitting comments and/or opinions, will become part of the public record and will be made available to the Applicant and the general public.***



THE KING'S HIGHWAY No. 8



PLAN SHOWING THE PROPOSED SEVERANCE OF  
PART OF LOT 6, CONCESSION 1  
GEOGRAPHIC TOWNSHIP OF WEST FLAMBOROUGH  
CITY OF HAMILTON



METRIC DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND  
CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

**SURVEYOR'S CERTIFICATE**

I CERTIFY THAT:  
1. THE SURVEY WAS MADE IN ACCORDANCE WITH THE SURVEY ACT,  
THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS  
MADE UNDER THEM.  
2. THE SURVEY WAS COMPLETED ON 201 .

DATE

THOMAS J. SULLIVAN  
ONTING LAND SURVEYOR



**J.D. BARNES** SURVEYING  
LAND INFORMATION SPECIALISTS  
411 WILKINSON WAY, SUITE 101, HAMILTON, ONT. L8N 3K1  
TEL: (905) 575-5555 FAX: (905) 575-5556 www.jdbarnes.com

NAME: J.D. BARNES  
FIRM: J.D. BARNES SURVEYING  
DATE: 2017-07-17  
PROJECT: 17-001-001-001

NOTED: 12/7/2017



Hamilton

Planning and Economic Development Department  
Planning Division

**Committee of Adjustment**

City Hall  
5<sup>th</sup> floor 71 Main Street West  
Hamilton, Ontario L8P 4Y5

Phone (905) 546-2424 ext.4221  
Fax (905) 546-4202

**PLEASE FILL OUT THE FOLLOWING PAGES AND  
RETURN TO THE CITY OF HAMILTON PLANNING  
DEPARTMENT.**

**FOR OFFICE USE ONLY.**

APPLICATION NO. \_\_\_\_\_ DATE APPLICATION RECEIVED Dec 12/19

PAID \_\_\_\_\_ DATE APPLICATION DEEMED COMPLETE \_\_\_\_\_

SECRETARY'S  
SIGNATURE \_\_\_\_\_

**CITY OF HAMILTON  
COMMITTEE OF ADJUSTMENT  
HAMILTON, ONTARIO**

***The Planning Act***

**Application for Minor Variance or for Permission**

The undersigned hereby applies to the Committee of Adjustment for the City of Hamilton under Section 45 of the *Planning Act*, R.S.O. 1990, Chapter P.13 for relief, as described in this application, from the Zoning By-law.

1. Name of Owner 330113 Ontario Incorporated Telephone No. [REDACTED]

3. Name of Agent A.J. Clarke & Associates Ltd.  
c/o Franz Kloibhofer Telephone No. [REDACTED]

**Note: Unless otherwise requested all communications will be sent to the agent, if any.**

5. Names and addresses of any mortgagees, holders of charges or other encumbrances:

\_\_\_\_\_  
Postal Code \_\_\_\_\_

\_\_\_\_\_  
Postal Code \_\_\_\_\_

6. Nature and extent of relief applied for:

Relief from the minimum lot frontage requirement of 30 metres is requested. The applicant proposes a minimum lot frontage of 20 metres.

7. Why it is not possible to comply with the provisions of the By-law?

Please refer to the concurrently submitted covering letter, which provides a detailed description of the subject lands and justification for the proposed minor variance.

8. Legal description of subject lands (registered plan number and lot number or other legal description and where applicable, street and street number):

Part of Lot 6, Concession 1, Geographic Township of West Flamborough, City of Hamilton

9. PREVIOUS USE OF PROPERTY

Residential \_\_\_\_\_ Industrial \_\_\_\_\_ Commercial \_\_\_\_\_

Agricultural \_\_\_\_\_ Vacant   x  

Other \_\_\_\_\_

9.1 If Industrial or Commercial, specify use

  N/A  

9.2 Has the grading of the subject land been changed by adding earth or other material, i.e. has filling occurred?

Yes \_\_\_\_\_ No   x   Unknown \_\_\_\_\_

9.3 Has a gas station been located on the subject land or adjacent lands at any time?

Yes \_\_\_\_\_ No   x   Unknown \_\_\_\_\_

9.4 Has there been petroleum or other fuel stored on the subject land or adjacent lands?

Yes \_\_\_\_\_ No   x   Unknown \_\_\_\_\_

9.5 Are there or have there ever been underground storage tanks or buried waste on the subject land or adjacent lands?

Yes \_\_\_\_\_ No   x   Unknown \_\_\_\_\_

9.6 Have the lands or adjacent lands ever been used as an agricultural operation where cyanide products may have been used as pesticides and/or sewage sludge was applied to the lands?

Yes \_\_\_\_\_ No   x   Unknown \_\_\_\_\_

9.7 Have the lands or adjacent lands ever been used as a weapon firing range?

Yes \_\_\_\_\_ No   x   Unknown \_\_\_\_\_

9.8 Is the nearest boundary line of the application within 500 metres (1,640 feet) of the fill area of an operational/non-operational landfill or dump?

Yes \_\_\_\_\_ No   x   Unknown \_\_\_\_\_

9.9 If there are existing or previously existing buildings, are there any building materials remaining on site which are potentially hazardous to public health (eg. asbestos, PCB's)?

Yes \_\_\_\_\_ No   x   Unknown \_\_\_\_\_

9.10 Is there any reason to believe the subject land may have been contaminated by former uses on the site or adjacent sites?

Yes \_\_\_\_\_ No x Unknown \_\_\_\_\_

9.11 What information did you use to determine the answers to 9.1 to 9.10 above?

Applicant knowledge and historical context of surrounding area.

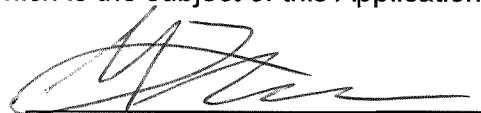
9.12 If previous use of property is industrial or commercial or if YES to any of 9.2 to 9.10, a previous use inventory showing all former uses of the subject land, or if appropriate, the land adjacent to the subject land, is needed.

Is the previous use inventory attached? Yes \_\_\_\_\_ No x

#### ACKNOWLEDGEMENT CLAUSE

I acknowledge that the City of Hamilton is not responsible for the identification and remediation of contamination on the property which is the subject of this Application – by reason of its approval to this Application.

DECEMBER 6, 2019  
Date

  
Signature Property Owner

330113 Ontario Incorporated per Michael Zimmerman  
Print Name of Owner

10. Dimensions of lands affected:

Frontage + - 20 metres along Oak Avenue  
Depth Irregularly shaped parcel - please refer to concurrently submitted Severance Sketch  
Area + - 8.4 ha  
Width of street + - 20 metres

11. Particulars of all buildings and structures on or proposed for the subject lands:  
(Specify ground floor area, gross floor area, number of stories, width, length, height, etc.)

Existing: None

Proposed: None at this time.

12. Location of all buildings and structures on or proposed for the subject lands;  
(Specify distance from side, rear and front lot lines)

Existing: None

Proposed: None at this time.

13. Date of acquisition of subject lands:  
+ - 48 years ago
14. Date of construction of all buildings and structures on subject lands:  
N/A
15. Existing uses of the subject property: Vacant
16. Existing uses of abutting properties: Residential
17. Length of time the existing uses of the subject property have continued:  
Unknown
18. Municipal services available: (check the appropriate space or spaces)  
 Water \_\_\_\_\_ Connected \_\_\_\_\_  
 Sanitary Sewer \_\_\_\_\_ Connected \_\_\_\_\_  
 Storm Sewers x
19. Present Official Plan/Secondary Plan provisions applying to the land:  
Rural Settlement Area (Greensville) and Natural Open Space (Hazard Lands) - Schedule D
20. Present Restricted Area By-law (Zoning By-law) provisions applying to the land:  
"R2-24(H)" Zone & "CM" Zone - Former Town of Flamborough Zoning By-law 90-145-Z  
"P6" Zone - Comprehensive City of Hamilton Zoning By-law 05-200
21. Has the owner previously applied for relief in respect of the subject property?  
 Yes \_\_\_\_\_ No x  
 If the answer is yes, describe briefly.  
N/A
22. Is the subject property the subject of a current application for consent under Section 53 of the *Planning Act*?  
 Yes x An application for consent has been submitted concurrently. No file number has yet been assigned. No
23. The applicant shall attach to each copy of this application a plan showing the dimensions of the subject lands and of all abutting lands and showing the location, size and type of all buildings and structures on the subject and abutting lands, and where required by the Committee of Adjustment such plan shall be signed by an Ontario Land Surveyor.

**NOTE:** It is required that two copies of this application be filed with the secretary-treasurer of the Committee of Adjustment together with the maps referred to in Section 5 and be accompanied by the appropriate fee in cash or by cheque made payable to the City of Hamilton.





*A. J. Clarke and Associates Ltd.*

SURVEYORS • PLANNERS • ENGINEERS

September 1, 2021

The City of Hamilton  
Committee of Adjustment  
Planning and Economic Development Department  
71 Main Street West, 5th Floor  
Hamilton, Ontario  
L8P 4Y5

***Delivered via e-mail***

Attn: Ms. Jamila Sheffield  
Secretary-Treasurer

**Re: Severance Application – Recirculation (FL/B-20:01)  
Minor Variance Application – Recirculation (FL/A-20:04)  
Pt Lot 6, Con 1, Flamborough, City of Hamilton**

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On behalf of our client, 330113 Ontario Incorporated, we are pleased to provide you with the enclosed resubmission package in support of existing applications for consent to sever (FL/B-20:01) and minor variance (FL/A-20:04) for the subject lands. Please find the following enclosed materials:

1. A cheque in the amount of \$275.00 made payable to the City of Hamilton, in payment of the requisite recirculation fee;
2. One (1) digital copy of the Environmental Impact Study, prepared by North-South Environmental, dated May 2021;
3. One (1) digital copy of the Stage 1 Archaeological Assessment, prepared by Mayer Heritage Consultants Inc., dated September 2001;

The purpose of the enclosed recirculation package is to provide additional supporting information, as required per comments from Staff through the original submission. No changes to the plan are proposed as part of the resubmission.

Through the initial review of the subject applications, Staff recommended that the application be tabled in order for the applicant to provide further supporting information. The requested information consisted of an EIS, an Archaeological Assessment, and a Tree Protection Plan.

An EIS and Archaeological Assessment have been included in this resubmission package. We trust these will be to the satisfaction of Staff. However, a Tree Protection Plan has not been prepared at this time as the EIS noted the proposed development will have no significant impact any environmental features. It should also be noted that there are minimal trees/vegetation within the buildable area. If it is ultimately determined that a Tree Protection Plan is required, it is our opinion that this may be completed as a condition of consent approval, as is common for the majority of severance applications.



I trust this is satisfactory for your purposes and thank you for your co-operation in this matter. Should you have any questions or require additional information, please do not hesitate to contact our office.

Yours very truly,

Miles Weekes, MCIP, RPP  
**A. J. Clarke and Associates Ltd.**

Encl.

Copy: 330113 Ontario Incorporated

May, 2021

# Environmental Impact Study

177 Highway 8, Flamborough

Prepared for

A.J. Clarke and Associates Ltd.



north-south  
ENVIRONMENTAL

## **Project Study Team**

North-South Environmental Inc.

Sarah Mainguy – project manager, fieldwork, report author

Grace Pitman – fieldwork and data management

Will Van Hemessen – Tree Inventory and Protection Plan

Kristen Pott – mapping and GIS analysis



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# EIS for Severance at 177 Highway 8, Flamborough, Hamilton

## 1. Introduction

North-South Environmental Inc. (NSE) was retained to undertake an Environmental Impact Statement (EIS) for a proposed lot severance at 177 Highway 8, Flamborough, ON. The client wishes to sever the site area and southern portion of the property shown as Part 2 (shown in Figure 1) and build a single dwelling in an open area near the terminus of Oak Avenue. The site was formerly unoccupied and undeveloped. No new development is proposed on the retained northern part of the property consisting of the portion of Part 2 north of the site area and Part 1. The Part 1 property will not be discussed in the EIS.

The development is proposed in an area that is primarily composed of a cultural meadow on a gentle slope. It is bordered by agricultural fields to the west and residential development to the east. The property encompasses patches of woodland and swamp to the north and a meadow and an extensive area of thicket, late-successional woodland and forest on steeply rolling topography to the south. The proposed severance property is constricted along a narrow pathway just south of the road (as shown in Figure 1) to the west of a storm pond that treats storm flows from the adjacent development. The pond also receives flows from an adjacent cattail shallow marsh wetland to the west.

The development is proposed to encompass the area immediately to the north of the Oak Avenue turning circle, similar to other residential houses to the east (the approximate building footprint is shown in Figure 1). The proposed size of the building envelope area is approximately 0.20 ha of 8.04 ha total property size. The meadow and successional woodland/forest on the southern part of the property are all proposed to remain undeveloped as part of the proposed severance, with an existing path to be maintained connecting the two parts of the property. No development is proposed within the wooded area on the southern part of the property, as it would not be permitted by provincial, municipal and Conservation Authority policies.





Figure 1. Property boundary, proposed severance and building footprint





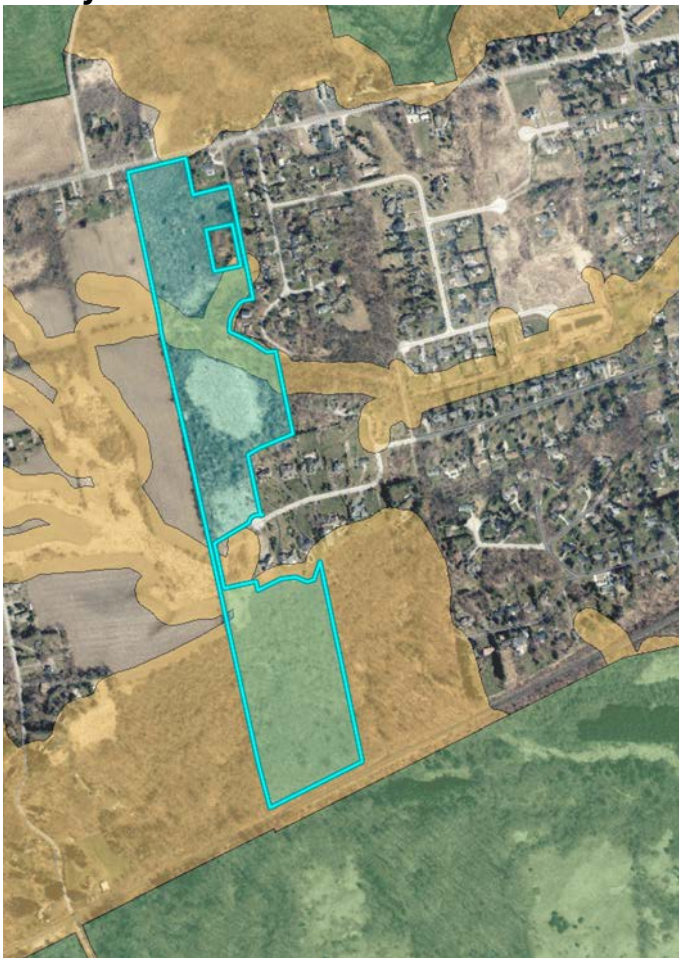


## 1.1. Policy Setting

The subject property is designated partially as Rural Area and Natural Area in the City of Hamilton's Rural Official Plan as illustrated on Schedule A of the 2012 Official Plan. The entire property is located within the Niagara Escarpment Plan Area (NEPA).

The property is located within the Hamilton Conservation Authority (HCA) watershed. Regulation boundaries occur on the southern part property and not in the proposed Part 2 severance site (Figure 2).

**Figure 2. Regulation limits of the Hamilton Conservation Authority (shown in yellow) in the vicinity of the site**



In the City of Hamilton's Rural Official Plan, the southwestern property boundary and the entire southern portion are designated (on Schedule B) as part of the Natural Heritage System (Figure 3), which includes the following features:

- Significant Woodland
- Area of Natural and Scientific Interest (Dundas Valley)
- Environmentally Significant Area (Dundas Valley)

Additionally, linkage areas are shown on the property.

**Figure 3. Hamilton Natural Heritage System, Niagara Escarpment Plan boundary, and Linkages on the property at 177 Highway 8, Hamilton (location of development footprint shown by arrow) (From Schedule B, Hamilton Official Plan)**



#### Natural Heritage Features

- Core Areas
- Linkages
- Greenbelt Protected Countryside
- Greenbelt Natural Heritage System
- Niagara Escarpment Plan Area

The City of Hamilton noted (pre-consultation 20<sup>th</sup> February, 2019, Appendix 1) that the lands potentially contain or are adjacent to additional Key Natural Heritage Features:

- Potential habitat of endangered or threatened species;
- Potential significant wildlife habitat;
- Potential fish habitat; and,
- Floodplain and watercourse areas.

Policies applicable to the site are discussed in more detail, following the description of site findings, in Section 9.

## 2. Consultation

A pre-consultation letter was received on 20 February, 2019 (letter from City of Hamilton, 20 February 2020). The letter is provided in Appendix 1.

Terms of Reference were submitted to the City of Hamilton and Hamilton Conservation on 22 May 2020 and responses were received by letter and by email on 3 June 2021. The Terms of Reference are provided in Appendix 1, and responses are also provided in Appendix 1. All additional comments stemming from agency review of the Terms of Reference were incorporated into the Work Plan, with the exception of a comment regarding the requirement for bat surveys. A conversation with Lesley McDonnell, the ecologist at Hamilton Conservation, determined that since tree removal was not proposed within woodland units, bat surveys would not be required.

### 2.1. Site Setting

The site is situated in a largely rural and rural/residential setting. It is surrounded to the west by agricultural fields, as well as by a large shallow marsh to the southwest. It is bordered by residential neighbourhoods to the east. The southern woodland on-site is connected to a more extensive woodland to the east and west. The property is bounded to the south by CN Rail lands.

## 3. Methods

Methods for site inventories followed accepted provincial protocols as well as guidance from the City of Hamilton EIS guidelines (City of Hamilton 2015), including the following:

- botanical survey in spring (May to early June), summer (July to August), and fall (September to October) using commonly acceptable sampling and recording methods;
- breeding birds (late May to early July), with the first survey between May 24 and June 15, and the second between June 15 and July 10, using Ontario Breeding Bird Atlas protocols;

- amphibians (amphibian breeding from early spring to summer) and later incidental sightings using Ontario Marsh Monitoring Protocol;

### 3.1. Background Review

The following sources were reviewed for information on Species at Risk and provincially significant species:

- Natural Heritage Information Centre (NHIC) – Make a Map
- Ontario Reptile & Amphibian Atlas
- iNaturalist;
- eBird;
- Ontario Butterfly Atlas;
- Mid-Spencer Creek/Greenville Rural Settlement Area Subwatershed Study.

### 3.2. Study Area

All surveys focused primarily on the on-site meadow and adjacent woodlands north of Oak Avenue. Surveys included the woodlands on the southern portion of the property at a less intense level, with surveys in that area focused on searches for Species at Risk, since development is not proposed in that area. Breeding bird surveys included the entire study area, with point counts conducted on the development footprint and adjacent area and area-searches conducted in the woodlands to the south. Flora surveys included the entire study area only during spring visits as the highest biodiversity (and potential for highly significant species such as Ginseng) occurs in spring. Amphibian surveys included only the site and adjacent area, as no standing water was observed on the southern part of the property. Searches for incidental wildlife were conducted throughout the property.

Observations from habitat approximately 120 m adjacent to the site were recorded where possible (for example if additional species are heard off-site during bird or amphibian surveys). Surveys were not conducted on the northern portion of the property that is to be retained, as the land use is not proposed to change.

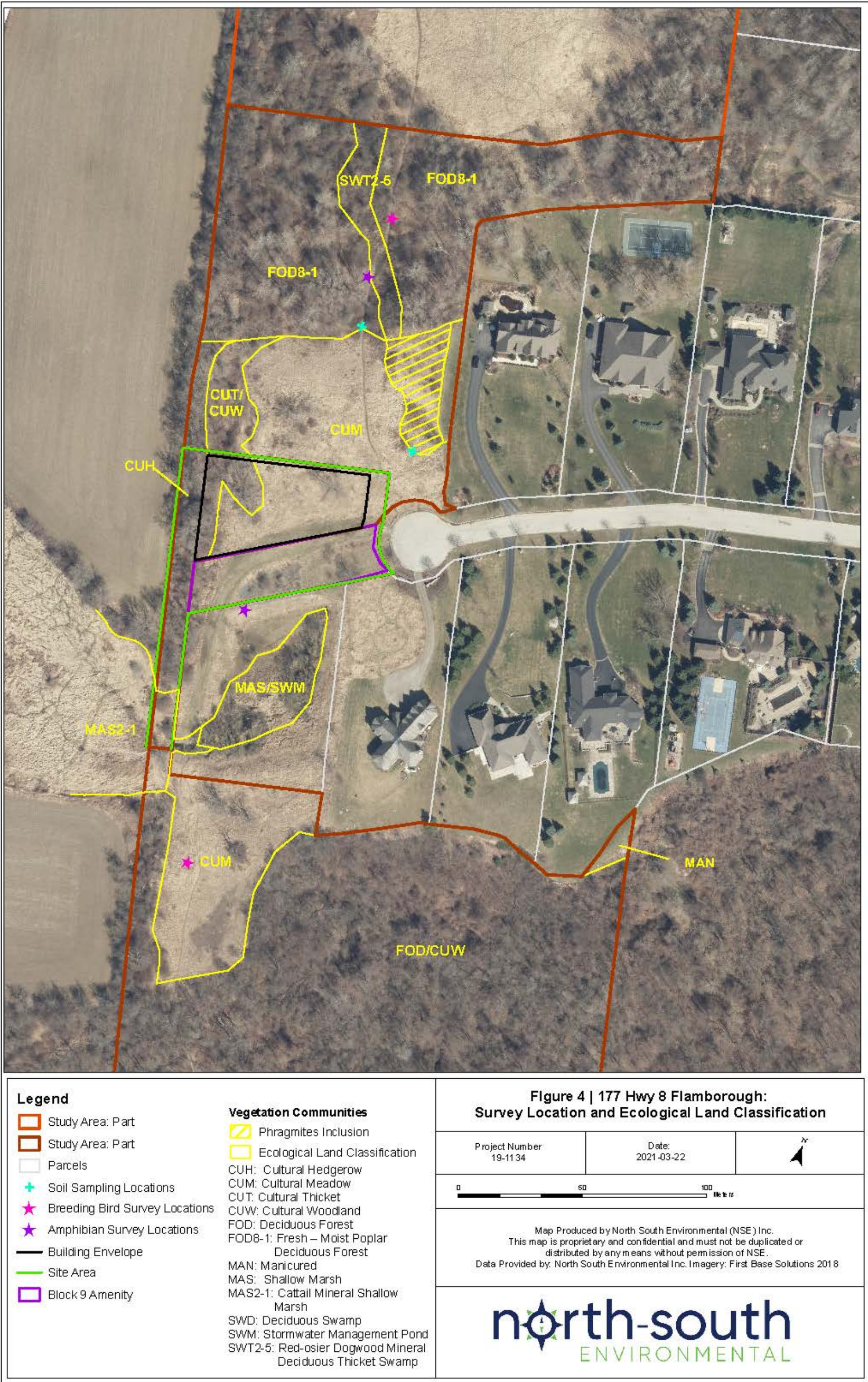
### 3.3. Site Visits

A reconnaissance survey was conducted on April 24th, 2020 to obtain information on potential amphibian habitat, early spring flora, and provide information for the Terms of Reference.

Dates, purpose and weather conditions for site visits (for amphibian surveys and bird surveys, which are affected by weather) are shown in Table 1. Six visits were conducted to the site. Survey locations are shown in Figure 4.



Figure 4. Survey locations and Ecological Land Classification







**Table 1. Site visits to 177 Highway 8, Flamborough**

Date (2020)	Purpose	Weather Conditions (where applicable)
24 April	Reconnaissance, spring flora (entire study area)	
24 April (evening)	Amphibian survey 1 (area adjacent to development footprint only)	Start 2120; T= 7oC, 100% cloud, wind Beaufort Scale 0 <sup>1</sup>
20 May (evening)	Amphibian survey 2 (area adjacent to development footprint only)	Start 2120; T= 14oC, 0% cloud, wind 1-2
26 May	Ecological Land Classification, flora survey (entire study area), breeding bird survey 1 (entire study area) bat habitat snag survey (area adjacent to development footprint only)	Start 0620, 18oC, 50% cloud, wind 0
3 Sept	Tree survey (area adjacent to development footprint only)	
18 June	Amphibian survey 3	Start 2210; 29oC, wind 0
23 June	Flora survey (area adjacent to development footprint only), breeding bird survey 2 (entire study area)	Start 0611, Temperature = 22oC, 100% cloud (clearing), Wind 0
25 September	Flora survey	
20 March 2021	Verification of Bat Habitat survey (leaf-off condition)	

<sup>1</sup> Beaufort Wind Scale

<b>0</b>	Less than 1	Less than 1	Calm	Smoke rises vertically.
<b>1</b>	1 - 5	1 - 3	Light air	Direction of wind shown by smoke drift, but not wind vanes.
<b>2</b>	6 - 11	4 - 6	Light breeze	Wind felt on face. Leaves rustle. Ordinary vane moved by wind.
<b>3</b>	12 - 19	7 - 10	Gentle breeze	Leaves and small twigs in constant motion. Wind extends light flag.
<b>4</b>	20 - 28	11 - 16	Moderate breeze	Raises dust and loose paper. Small branches are moved.

### **3.4. Vegetation Surveys**

Vegetation surveys describe ecological communities identified during the appropriate seasons to the Vegetation Type level as defined by the Ecological Land Classification system for Southern Ontario (ELC) (Lee et al. 1998). Soil samples were obtained within the area north of Oak Avenue that is proposed for development, but were not conducted in the woodlands on the southern part of the property.

### **3.5. Amphibian Surveys**

Surveys were conducted according to Environment Canada's Marsh Monitoring Program guidelines in the locations shown on Figure 4. Timing of the surveys was modified from the timing recommended in the protocols (surveys were conducted approximately 1 week later than those recommended for the latitude of the study area) because of the late spring in 2020.

Amphibian surveys were conducted in areas where standing water was noted at the time of the reconnaissance survey (Figure 4). Only two areas of marginal amphibian breeding habitat were noted on the site and immediately adjacent: an area of shallow water (approximately 2-5 cm at the time of the reconnaissance visit) in the woodland/thicket swamp at the north end of the site, and small areas of pooling in the storm water treatment facility south of the development area. It was also considered possible that there could be amphibian breeding habitat in the shallow marsh west of the stormwater facility (off-site, west of the property), as not all of this marsh could be seen from the property, so the survey point was positioned so that both areas could be surveyed together. There was no amphibian habitat in the wooded area on the southern part of the property, between the storm pond and the railway line, as the topography is too steep for water to pool. A narrow valley with an intermittent storm channel runs northeast to southwest through the western part of this woodland, with moist soils at the base, but there was no water noted pooling during any of the site visits.

### **3.6. Breeding Bird Surveys**

Two surveys were conducted throughout the proposed development area and within the woodlands to the south. Timing corresponded with the timing stated in the City of Hamilton EIS Guidelines: the first was between May 24 and June 14, and the second between June 15 and July 10, using Ontario Breeding Bird Atlas protocols. Bird surveys were conducted between approximately dawn and 10:00 a.m., in fair weather with little wind, as specified by these protocols. Ten-minute point count surveys were conducted on the area proposed for development and area-searches were conducted throughout the remainder of the proposed severance property, including the woodlands to the south, given the potential for bird Species at Risk in larger woodlands. Bird surveys were conducted throughout the woodland areas on the northern part of the proposed severance as well.

The coordinates of all significant species locations were mapped on an aerial photo and/or recorded with a hand-held GPS unit accurate to 5 m or less, 95% of the time. Incidental Wildlife

Incidental wildlife observations, such as snakes and insects, were recorded. Debris was overturned to find snakes and small mammals that have cryptic habits.

### **3.7. Bat Habitat Surveys**

The presence of trees with cavities were documented within the area north of Oak Avenue only. Surveys of trees within the southern part of the property were not conducted, as it can be assumed that bats would likely roost in these woodlands, and no tree removal is proposed in these woodlands.

Preliminary surveys of cavity trees according to guidelines for identification of candidate Significant Wildlife were conducted in leaf-off condition, as suggested by the protocol described in CWS 2011: Bats and Bat Habitats: Guidelines for Wind Power Projects. Trees over 10 cm in diameter at breast height that support cavities were recorded. Sampling was conducted according to the following.

- Three random plots were selected across the represented area of the ELC community.
- Surveys were conducted in the locations selected by measuring a fixed area of 12.6 m radius plots (equates to 0.05 hectares per plot, 0.15 ha in total).
- the number of snags/ cavity trees  $\geq 10$  cm dbh were counted in each plot.
- the formula  $\pi r^2$  was used to determine number of snags per plot, later converted to number per hectare.

### **3.1. Tree Inventory and Protection Plan**

A survey by a qualified arborist was conducted of the trees on the portion of the property to be developed and on those adjacent to the site that could be affected by development (i.e. the entire site was not surveyed). Information was collected on the species, size (Diameter at Breast Height), and health of each tree. The proposed building footprint was used to determine whether the tree will be within the development footprint (removed), well outside the development footprint (retained), or potentially injured (i.e. may need special treatment during construction to protect the root system). This information was used to determine the number of trees that will need to be planted as compensation. Other information gained during site surveys (including input from the client and agencies, as well as information on existing vegetation) was used to determine where trees can be planted.

The trees' locations were recorded on a tablet and each category of tree (retain, remove or potentially injured) is shown on a figure within the report. The report recommends methods for protecting trees, as well as number and species to be planted based on the City's compensation requirements. The report also recommends locations for tree planting.

## 4. Results of Background Review

Existing information lists 43 Species at Risk in the area surrounding the site. All species are listed in Appendix 2:

It should be noted that the list of Species at Risk includes those found in a wide area surrounding the site (for NHIC, up to 5 km, as there were only two records from the square surrounding the site itself). Therefore, the list likely includes species records that would not be likely to be found on the site; it provides guidance on the potential species that might be found in the area. Of the 43 SAR that have been reported in the area, there is potential habitat on the subject property for 18. All but three of these would likely be only found within the wooded natural area at the southern extent of the property.

However, the three species are insects, and are very unlikely to be found. The three provincially significant insect species with generalist habitat needs for forest and meadow were noted in the surrounding area: Gypsy Cuckoo Bumble Bee (*Bombus bohemicus*), with a status (under the Endangered Species Act) of Endangered, Yellow-banded Bumble Bee (*Bombus terricola*) and Nine-spotted Lady Beetle (*Coccinella novemnotata*), both with a status of Special Concern. However, the two bumblebee species have drastically declined in the past 20 years and have only been recently reported from Pinery Provincial Park. Nine-spotted Lady Beetle have not been found in Canada since the 1990s.

## 5. Results of Field Inventory

### 5.1. Vegetation

Vegetation communities are shown in Figure 4, with a summary description of each community shown in Table 2. Five vegetation types were noted within the study area. In general, the vegetation is disturbed, with most communities dominated by trees that have grown up after a major disturbance, likely grazing or other farming. None of the vegetation types is considered rare in Ontario.

**Table 2. Vegetation communities within the study area**

Community Name and Code	Vegetation Description				Habitat Notes
	Canopy	Sub-canopy	Shrub Layer	Ground Layer	
Dry-Fresh Cultural Meadow (CUM1)	Occasional Manitoba Maple ( <i>Acer negundo</i> ) and Trembling Aspen ( <i>Populus tremuloides</i> ); 10-25% canopy cover	Scattered White Poplar ( <i>Populus alba</i> ) (less than 10% canopy cover	Occasional Grey Dogwood ( <i>Cornus racemosa</i> ) and Red-osier Dogwood ( <i>Cornus sericea</i> ); less than 10% canopy cover	Dense layer of Smooth brome ( <i>Bromus inermis</i> ), Canada Goldenrod ( <i>Solidago canadensis</i> ), with an underlying layer of Kentucky Bluegrass ( <i>Poa pratensis</i> ); 100% canopy cover	Some thatch present; Meadow Vole ( <i>Microtus pennsylvanicus</i> ) tunnels noted An area of European Reed on the east side of the meadow is considered an inclusion. It has likely formed due to runoff in the spring from water pooling in the thicket swamp to the north.
Fresh-Moist Poplar Deciduous Forest (FOD8-1)	Abundant Trembling Aspen with occasional Black Cherry ( <i>Prunus serotina</i> ); over 60% canopy cover	Young Trembling Aspen and large Common Buckthorn ( <i>Rhamnus cathartica</i> ); 35-60% canopy cover	Abundant Grey Dogwood and occasional Multiflora Rose ( <i>Rosa multiflora</i> ) and young Manitoba Maple	Dominated heavily by Garlic Mustard ( <i>Alliaria petiolata</i> )	Abundant small woody debris
Red-osier Dogwood Mineral Thicket Swamp (SWT2-5)	Dominated by Trembling Aspen and a few Peach-leaf Willow ( <i>Salix amygdaloides</i> ); less than 10% canopy cover	Young Trembling Aspen, large Common Buckthorn, less than 10% canopy cover	Abundant Red-osier Dogwood; 35-60% canopy cover	Dominated by Jewelweed ( <i>Impatiens capensis</i> ), Forget-me-not ( <i>Myosotis scorpioides</i> ), Riverbank Grape	Water pooling in spring; mainly areas of approximately 3 x 5 m at approximately 5 cm

Community Name and Code	Vegetation Description				Habitat Notes
	Canopy	Sub-canopy	Shrub Layer	Ground Layer	
				(Vitis riparia) and sedges (Carex spp.); small area of Narrow-leaved Cattail (Typha angustifolia) in the centre	
Cultural Hedgerow (CUH) / Cultural Thicket / Cultural Woodland	Dominated by Trembling Aspen, Large-toothed Aspen ( <i>Populus grandidentata</i> ), Black Cherry and occasional stands of Sassafras ( <i>Sassafras albidum</i> ); canopy varies from > 60% to approximately 40%	Large-toothed Aspen, Staghorn Sumac, Manitoba Maple; canopy >60%	Young Large-toothed Aspen and raspberries ( <i>Rubus</i> spp.); canopy	Smooth Brome, Canada Goldenrod; canopy 35-60%	Some large Sassafras; ridge of fill about 1.5 m high and 3 m wide and garbage in this unit along the west edge
Fresh-Moist Ash Lowland Deciduous Forest / Cultural Woodland (FOD7-2 / CUW)	Dominated by White Ash ( <i>Fraxinus americana</i> ) and occasional Black Cherry with	Apple ( <i>Malus pumila</i> ), Black Cherry and large Common Buckthorn; cover > 60%	Common buckthorn, with young White Ash; > 60% cover	Forget-me-not, Garlic Mustard and Dame's Rocket; > 60% cover	Varies from late-successional cultural woodland to forest; forest becomes more mature to south with a stand of White Pine ( <i>Pinus strobus</i> ) present; small to medium-sized standing snags and



Community Name and Code	Vegetation Description				Habitat Notes
	Canopy	Sub-canopy	Shrub Layer	Ground Layer	
	occasional Red Oak ( <i>Quercus rubra</i> ) emerging from the canopy; canopy cover variable from approximately 40% to 70%; some ash are falling due to Emerald Ash Borer but several ash are fairly healthy				woody debris abundant; on rolling to occasionally steep topography; several well-marked trails present; an old fence line probably indicates the area was used in the past for grazing

## 5.2. Wetlands

A small wetland was noted within the forested unit on the north part of Part 2 (Figure 4). Water entered this feature from the north and shallow pooling within the centre of the feature was noted in the early spring (this was the location where amphibian surveys were conducted). The landowner noted this area was created relatively recently by removal of soil during farming. Water from this area exits the woodland and drains as surface drainage on a slope to the road in the area shown as a *Phragmites* inclusion shown in Figure 4, entering a catchment on Oak Avenue.

A larger wetland occurs off-site to the southwest (shown as MAM 2-1 on Figure 4). This wetland drains into the storm pond just south of the proposed development area through a drainage swale cut into the berm that separates the storm pond from the property to the west. Red-osier Dogwood and other species that occupy both wetland and upland habitats were noted in this area, and soils were wet in early spring.

## 5.3. Flora and Floristic quality

A total of 141 species were noted on the site, 44 (31%) of which are non-native in Ontario. No provincially, regionally or locally rare species were noted in the study area. Table 3 provides a Floristic Quality Analysis of the vegetation blocks within the study area. In general, vegetation quality was low, with the highest quality being in the forest/cultural woodland mosaic at the southern end of the site.

**Table 3. Floristic quality analysis of vegetation communities within the subject property**

Ecosite	Number of Native Species	Native FQI	Native Mean C
Cultural Meadow (CUM)	20	9.18	2.05
Poplar Forest/Thicket Swamp / Cultural Communities (FOD/SWT)	46	22.41	3.30
Forest / Cultural Woodland FOD/CUW) (southern part of subject property)	62	30.99	3.94

## 5.4. Amphibians

No calling amphibians were heard at either of the two survey locations. Standing water in the northern location was likely too shallow (approximately 2-5 cm at the time of the field visits) to support breeding amphibians. The only amphibians heard during the site visits were Spring Peeper (*Pseudacris crucifer*), heard faintly, likely more than one hundred metres to the southeast of the residential area. An American Toad was also heard calling, off the property to the east-north-east.

Red-backed Salamander (*Plethodon cinereus*) was found under debris in three locations in the forest/cultural woodland on the southern portion of the property. An American toad was also noted in this woodland.

## 5.5. Reptiles

Reptiles were not noted on the site; however, it is likely that ubiquitous species such as Eastern Gartersnake and Dekay's Brownsnake occur occasionally.

## 5.6. Birds

Forty-five bird species were noted on or in similar habitat immediately adjacent to the subject property, 44 for which there was evidence of breeding. Most birds were species of small patches of forest, meadow and thicket that are common in southern Ontario. However, 18 species are considered significant in Ontario and/or in the Hamilton area: four breeding species are considered provincially rare. These species are listed in Table 4, and their locations are shown in Figure 5. Provincially rare species are discussed further in Section 6.1. One additional provincially rare species with a status of threatened, Barn Swallow, was noted on the property, but it was observed foraging. This species nests in open, usually wooden buildings such as sheds, barns and abandoned houses, but no buildings were observed on the site that could provide breeding sites.

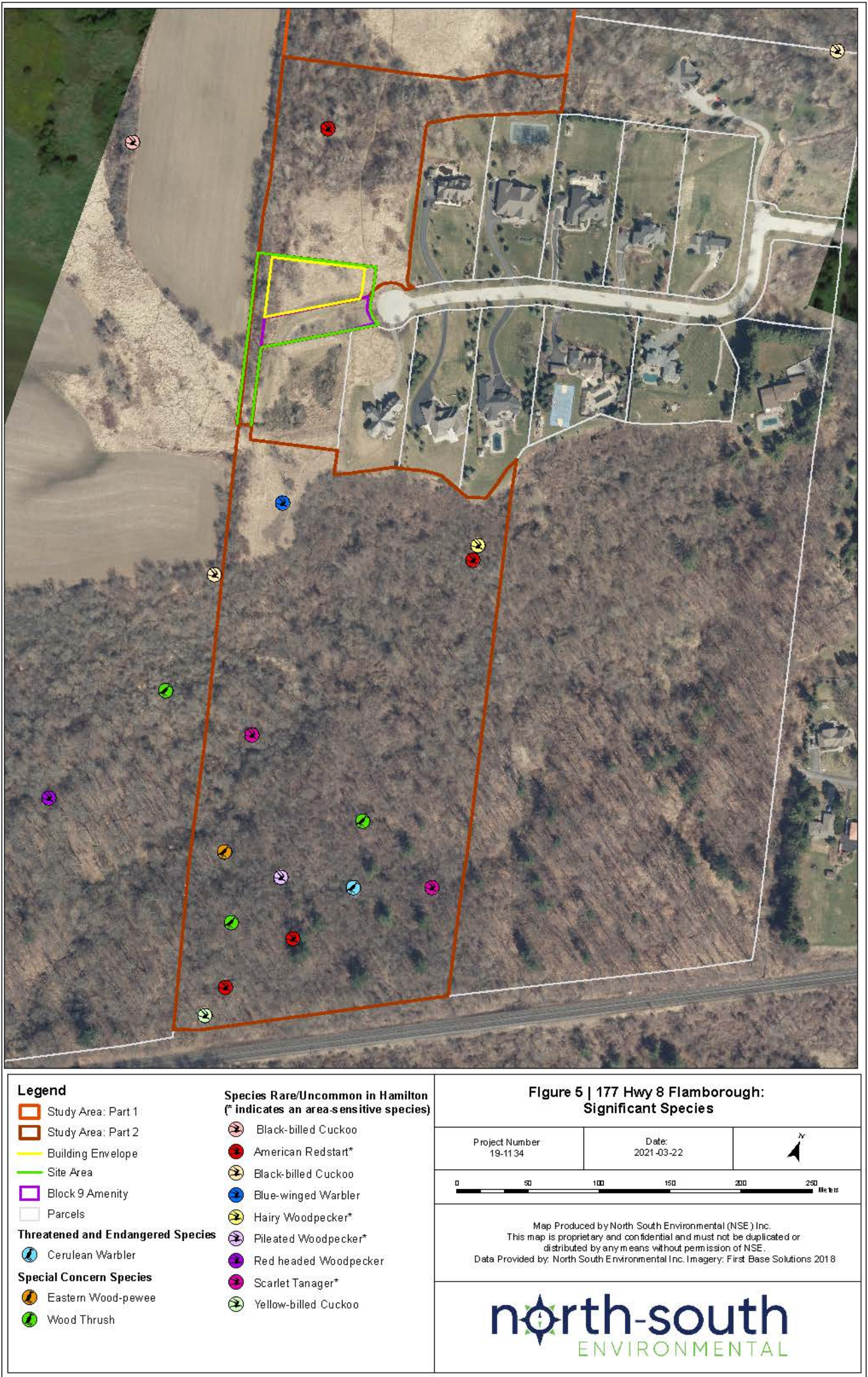
**Table 4. Bird species considered provincially, regionally and locally rare noted on or immediately adjacent to the Subject Property.** \* denotes a species considered an indicator of Significant Wildlife Habitat for Woodland Area-sensitive Breeding Bird Species in Ecoregion 7E by MNRF

Species	Global Status	Provincial Status	SARA Schedule 1 Status	ESA Status	Hamilton Status	Area-sensitive
Black-billed Cuckoo	G5	S5B			HU	No
Yellow-billed Cuckoo	G5	S4B			HR	No
Red-headed Woodpecker (off-site in contiguous woodland)	G5	S4B	THR	SC	HR	No
Red-bellied Woodpecker	G5	S4			HU	No
Hairy Woodpecker	G5	S5				Yes
Pileated Woodpecker	G5	S5			HU	Yes*

Species	Global Status	Provincial Status	SARA Schedule 1 Status	ESA Status	Hamilton Status	Area-sensitive
Eastern Wood-pewee	G5	S4B	SC	SC		No
Willow Flycatcher	G5	S5B			HU	No
Common Raven	G5	S5			HR	No
Barn Swallow (foraging only)	G5	S4B	THR	THR		No
White-breasted Nuthatch	G5	S5				Yes
Wood Thrush	G4	S4B	THR	SC		No
Blue-winged Warbler	G5	S4B			HU	No
Yellow Warbler	G5	S5B				No
Cerulean Warbler	G4	S3B	END	THR		Yes*
American Redstart	G5	S5B				Yes
Scarlet Tanager	G5	S4B				Yes*
Eastern Towhee	G5	S4B			HU	No



Figure 5. Significant species noted on the subject property of 177 Highway 8, Flamborough







## 5.7. Mammals

Mammal species noted on the subject property were generally species that commonly inhabit larger tracts of habitat in urban areas of southern Ontario, such as White-tailed Deer and Coyote.

### 5.7.1. Investigation of Bat Habitat

Investigations of cavity trees showed that only 1 tree within the three 12.6m<sup>2</sup> plots investigated had cavities that met the criteria for bat habitat. The area sampled was 0.15 ha, so this results in a calculation of 7 cavity trees per ha, less than the threshold noted by MNRF Ecoregion Schedules for Significant Wildlife Habitat for bat maternity colonies of 10 trees per ha. Most of the trees within this unit were young Trembling Aspen and a few Black Cherry, which had not reached a size where they would provide Significant Wildlife Habitat for maternity roosting bats.

The woodland investigated did not support leaf clusters (usually associated with oak trees) that would provide habitat for Tricoloured Bat.

## 5.8. Linkages

The Cultural Hedgerow along the western boundary provides linkage of the forest on the northern part of the proposed severance to the wetland and forest to the south. The woodland surrounding the wetland on the northern part of the proposed severance likely provides linkage to the east and west.

## 6. Significant Areas

Significant areas, with buffers mandated by applicable policies, are mapped in Figure 6. Significant areas on the site include Key Natural Heritage Features as defined by the Greenbelt Plan and Niagara Escarpment Plan (wetlands and significant woodlands) and key hydrologic features as defined by these plans (wetlands).





Figure 6. Significant Features on the subject property at 177 Highway 8, Flamborough







## 6.1. Habitat for Provincially Threatened and Endangered Species

Habitat for provincially threatened and endangered species is protected by Ontario's Endangered Species Act, 2007. Two species were noted on the southern part of the site, and habitat is present for three endangered bat species.

### 6.1.1. Cerulean Warbler

Cerulean Warbler was noted on the southernmost part of the subject property. It is designated as Threatened provincially, but was recently re-evaluated as Endangered in Canada by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). This species is area-sensitive, and depends on large tracts of mature forest habitat with large, tall trees and an open understory, so its presence on the site was surprising, as most of the habitat within the southern part of the forest is of intermediate age. However this species has large territories so the subject property may have been within its home range but it may not have harboured the nest site. It was heard only on the later visit to document breeding birds on the property, so was considered a possible breeding species.

### 6.1.2. Red-headed Woodpecker

Red-headed Woodpecker was heard over 100 m to the west of the subject property in the woodland contiguous with the southern woodland on the site. This species has a status of Threatened in Ontario. It relies on tree cavities in open woodland and woodland edges, and is often found in parks, golf courses and cemeteries.

### 6.1.3. Habitat for Endangered Bat Species

Maternity roost habitat for Endangered bat species that corresponds with the Ecosites identified by MNRF is present in the woodlands to the south of the site. A few trees within the woodland on the north part of Part 2 may be suitable for SAR bat roosts, but the woodland does not meet the criteria for high quality maternity roost habitat, as there are fewer than 10 cavity trees per ha. In any case, trees are not proposed to be removed from these areas. The following provides background information on endangered bat species.

#### Little Brown Myotis

Little Brown Myotis (*Myotis lucifugus*) is a provincially endangered species that is declining rapidly (over 95%) because of a fungal infection known as White Nose Syndrome. This species usually forms maternity roosts in buildings, especially older brick houses with attics. Maternity colonies are also known to roost within a variety of southern Ontario woodlands (MNRF, 2015). Suitable habitat is found in the woodlands on the southern part of the site, and limited areas within the proposed development area may also support roosting habitat for this species.

### Northern Myotis

Northern Myotis (*Myotis septentrionalis*) is a provincially endangered species. Maternity colonies are known to roost within a variety of southern Ontario woodlands (MNRF, 2015). The woodlands within the southern part of the site provide suitable habitat for this species, and it is also possible that individual cavity trees within the proposed development area may support roosting habitat for this species.

### Eastern Small-footed Myotis

Eastern Small-footed Myotis (*Myotis leibii*) is a provincially endangered species. This species is mostly known from their hibernation sites; they are rarely found in the summer. The species prefers hilly or mountainous areas in deciduous or coniferous forests, although they are sometimes found in more level terrain. Summer roost sites include buildings, bird nests, bridge expansion joints, spaces under rocks, fissures in tree bark, caves and old mines. Little more is known about the species' habitat preferences (Naughton 2012). It is possible that suitable habitat is present within the forests on the south side of the site.

### Tricoloured Bat

Tricoloured Bat forms maternity roosts in clumps of leaves. It is possible that the site provides suitable habitat for this species in the southern forested area. Leaf clusters were not found in the woodland to the north of the site.

## **6.2. Wetlands**

A small wetland is present north of Oak Avenue (Figure 5): the polygon labelled as a thicket swamp (SWT2-5) in Figure 4. Wetlands are considered Key Natural Heritage Features in the Protected Countryside, with a mandated minimum Vegetation Protection Zone of 30 m. The forest surrounding the wetland contributes significantly to the wetland feature by protecting it from drying winds and ambient light, preserving humidity and shade. A large wetland is situated southwest of the proposed development area. The wetland vegetation extends into the area adjacent to the storm pond, as shown in Figure 5.

## **6.3. Significant Woodlands**

Significant Woodland: means an area which is ecologically important in terms of:

- a) Features such as species composition, age of trees, stand history;
- b) Functionally important due to its contribution to the broader landscape because of its location, size, or due to the amount of forest cover in the planning area; and
- c) Economically important due to site quality, species composition or past management history.

MNR identifies criteria, as amended from time to time for the forgoing (Greenbelt Plan, 2005).

Significant woodlands are mapped on Figure 6. Criteria for Significant Woodlands in the City of Hamilton are provided below. Significant woodlands must be protected by a minimum 30 m Vegetation Protection Zone.

In the City of Hamilton, significant woodlands must meet two or more of the following criteria. The forest / cultural woodland mosaic to the south of the site meets the criteria for Significant Woodland in Rural Hamilton, according to Criteria a, b c, and f. The woodland north of the development area meets only one criterion for Significant Woodland: criterion d. It therefore does not meet the qualifications as a Significant Woodland.

### **City of Hamilton Significant Woodland Criteria and Comparison of Site Statistics**

- a. Size: (by planning unit) Minimum patch size for significance
  - < 5 % 1 ha.
  - 5-10 % 2 ha.
  - 11-15 % 4 ha.
  - 16-20 % 10 ha.
  - 21-30 % 15 ha.
  - The planning unit (West Flamborough Township) supports 26.3% forest cover. The forest at the south end of the site (including contiguous off-site portions) is over 80 ha in size, meeting the criterion for significance according to size. The forest area on the north side of the site is approximately 1.4 ha (including on and off-site portions) so does not meet the size criterion for significance.
- b. Interior Forest: Woodlands that contain interior forest habitat. Interior forest habitat is defined as 100 metres from edge.
  - The woodland mosaic at the south end of the site contains 6.9 ha of forest interior 100 m from the edge.
- c. Proximity/Connectivity: Woodlands that are located within 50 metres of a significant natural area (defined as wetlands 0.5 hectares or greater in size, ESAs, PSWs, and Life Science ANSIs).
  - The woodland mosaic on the southern portion of the subject property is part of the Dundas Valley ANSI and ESA.
- d. Proximity to Water: Woodlands where any portion is within 30 metres of any hydrological feature, including all streams, headwater areas, wetlands, and lakes.
  - Off-site portions of the woodland mosaic on the southern part of the property incorporate water features.
- e. Age: Woodlands with trees of 100 years or more in age. Age will be determined initially using FRI mapping and can be verified during the EIS.
- f. Rare Species: Any woodland containing threatened, endangered, special concern, provincially or locally rare plant or wildlife species.



- The woodland supports endangered, threatened, and special concern bird species, endangered bat species, and locally rare bird species.

Significant Woodlands are considered Key Natural Heritage Features according to the PPS, Greenbelt Plan, Niagara Escarpment Plan and City of Hamilton Rural Official Plan.

## **6.4. Significant Wildlife Habitat**

All types of Significant Wildlife Habitat (SWH) are shown in Table 5, with an analysis of whether this type of habitat occurs on site (for further detail on criteria for SWH, please see Ecoregion Schedules for Ecoregion 7E: MNRF 2015). The site meets the criteria for one SWH type, associated with the Significant Woodland (the deciduous forest on the site): habitat for Species of Conservation Concern (See section 6.2). Further candidate types of SWH (which would potentially be confirmed if additional studies were conducted) include Bat Maternity Roosting Habitat and Habitat for Nesting Raptors.

### **6.4.1. Habitat for Species of Special Concern**

Two species designated as Special Concern by the federal Species at Risk Act (SARA) and the Endangered Species Act (ESA) were noted within the subject property. Habitat for Species of Special Concern is not protected by the ESA, 2007, but is considered a criterion for Significant Wildlife Habitat, which falls within the policies of the Provincial Policy Statement.

#### Eastern Wood-pewee

Eastern Wood-pewee is a federally and provincially significant species with a status of Special Concern. This species nests in the canopy of small and large woodlands throughout southern Ontario. Although this species is common and widespread in Ontario, it is experiencing a significant population decline possibly due to the loss of wintering habitat.

#### Wood Thrush

Wood Thrush is a provincially significant species with a provincial status of Special Concern. Its status in Canada is Threatened. This species prefers deciduous and mixed forests with tall trees and a thick understorey (Cadman et al. 2007), nesting in the mid- to low-understory layer under the forest canopy. It generally sings from tall trees. Three individual Wood Thrushes were heard singing simultaneously from the woodland mosaic at the southern end of the subject property, indicating Probable breeding.

**Table 5. Analysis of SWH on the Sierra Lane site according to MNRF Ecoregion Schedules for Ecoregion 7E (MNRF 2015)**

Type of SWH	Meets Criteria for SWH according to Ecoregion Schedule
<b>Seasonal Concentration Areas</b>	
Waterfowl Stopover and Staging Areas (Terrestrial)	<b>No</b> - no flooded fields noted on or adjacent to subject property
Waterfowl Stopover and Staging Areas (Aquatic)	<b>No</b> - no areas of standing water that meet criteria
Shorebird Migratory Stopover Area	<b>No</b> - no shorebird staging noted, no exposed shoreline present
Raptor Wintering Area	<b>No</b> - meadow habitat does not meet criteria provided in Ecoregion schedule
Bat Hibernacula	<b>No</b> - no caves present where bats could avoid freezing temperatures
Bat Maternity Colonies	<b>Candidate (within woodlands)</b> - habitat within woodlands is suitable to support maternity roosts for Big Brown Bats and Silver-haired. Habitat within the proposed development area does not correspond to the Ecosites noted by MNRF as candidate SWH
Turtle Wintering Areas	<b>No</b> - no areas of permanent standing water present
Reptile Hibernaculum	<b>No</b> - none noted; no unusual concentrations of snakes noted
Colonially -Nesting Bird Breeding Habitat (Bank and Cliff)	<b>No</b> - no banks or cliffs present
Colonially -Nesting Bird Breeding Habitat Breeding Habitat (Tree/Shrubs)	<b>No</b> - no colonial tree/shrub nesting species noted
Colonially -Nesting Bird Breeding Habitat (Ground)	<b>No</b> - no colonial ground-nesting species noted
Migratory Butterfly Stopover Areas	<b>No</b> - Site is not within 5 km of Lake Ontario
Landbird Migratory Stopover Areas	<b>No</b> - Site is not within 5 km of Lake Ontario
Deer Yarding Areas	<b>No</b> - Not mapped by MNRF
Deer Winter Congregation Areas	<b>No</b> - Not mapped by MNRF, no unusual concentrations of deer sign noted
<b>Rare Vegetation Communities or Specialized Habitat for Wildlife</b>	
Rare Vegetation Communities	<b>No</b> - no rare vegetation communities noted
Waterfowl Nesting Area	<b>No</b> - waterfowl not noted within subject property
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	<b>No</b> - no Osprey or Bald Eagle present
Woodland Raptor Nesting Habitat	<b>Candidate</b> -the woodland unit (off-site and on-site portions combined) provides candidate SWH in terms of size and interior area; raptor nests not found within the subject property but

Type of SWH	Meets Criteria for SWH according to Ecoregion Schedule
	they may occur within the contiguous woodland off-site
Turtle Nesting Areas	<b>No</b> - no evidence of turtle nesting was observed, and the site does not provide characteristic nesting areas for turtles (open upland areas with loose soil)
Seeps and Springs	<b>No</b> - Seeps and springs not noted
Amphibian Breeding Habitat (Woodlands)	<b>No</b> - breeding amphibians not noted within the Subject Property
Amphibian Breeding Habitat (Wetlands)	<b>No</b> - no wetlands occur outside the woodlands
Woodland Area-Sensitive Bird Breeding Habitat	<b>No</b> -there are no areas of forest interior > 200 m from edge present, though three indicator species observed (Pileated Woodpecker, Cerulean Warbler and Scarlet Tanager)
<b>Habitat for Species of Conservation Concern (Not including Endangered or Threatened Species)</b>	
Marsh Bird Breeding Habitat	<b>No</b> - habitat not present; indicator species not noted
Open Country Bird Breeding Habitat	<b>No</b> - habitat not present, indicator species not noted
Shrub/Early Successional Bird Breeding Habitat	<b>No</b> - habitat present, but indicator species noted not sufficient to meet criteria
Terrestrial Crayfish	<b>No</b> - no evidence of terrestrial crayfish observed
Special Concern and Rare Wildlife Species	<b>Yes</b> - (Wood Thrush, Eastern Wood-pewee)
<b>Animal Movement Corridors</b>	<b>Candidate</b> - forests on northern and eastern parts of the site are likely part of a significant corridor

## 6.5. Linkages

The woodland north of the proposed development area, with the extension to the south along the western property line, is mapped as a "Linkage" in the City of Hamilton Rural Official Plan.

## 7. Description of Development

The severance for the site assumes that a single residential dwelling with amenities would be built on the site, in the area shown in Figure 6, similar to those in the residential area to the east. Though the proposed development footprint is within a larger property boundary, tree removal is not proposed in any location other than the development footprint. The meadow and forest south of the storm pond will remain undeveloped.

A trail is proposed to be maintained to provide the landowner access to the cultural meadow south of the storm pond. The trail will follow the existing trail to the west of the storm pond created by neighbouring residents. The trail would be accessible on foot only.

Informal trails currently leading from Oak Avenue into the Dundas Valley will remain, but will not be improved.

## **8. Potential Impacts and Recommended Mitigation**

Impacts have been avoided by keeping development outside of significant features and their 30 m vegetation protection zones. The following describes the impacts that could potentially result from development in the areas adjacent to these features.

### **8.1. Impacts on Habitat for Endangered and Threatened Bird Species**

The proposed development boundary is over 120 m from the mosaic of woodlands on the southern part of the subject property, where this habitat is located. No mitigation is proposed. Several woodland trails, used by hikers and dog-walkers, traverse this forested area so it is not expected that the additional residence will change the impact of the trails.

### **8.2. Impacts on Habitat for Endangered Bat Species**

The woodland on the north side of the site will be avoided by the development, and none of the ecosites within the proposed development footprint are noted by MECP to be ecosites of concern for bat habitat, as all are cultural habitats generally consisting of young trees.

However, the proposed development site incorporates some trees. The Ontario Ministry of Environment, Conservation and Parks (MECP) generally notes that removal of trees should occur only outside the timing window for bat nursery occupation (April to September, inclusive).

#### **Recommended Mitigation**

Trees over 10 cm should be removed outside the timing window for bats as noted above.

### **8.3. Impacts on Nesting Migratory Birds**

Vegetation removal may have impacts on nesting migratory birds, if it is removed within the breeding bird window for this region, which is between late March and late August. This would contravene Canada's Migratory Birds Convention Act.

#### **Recommended Mitigation**

Vegetation removal should occur outside the breeding season for birds, from September to early March. If vegetation removal is planned to be conducted during the breeding season, a

qualified biologist should be retained to screen the area for nesting birds. If migratory birds are found to be nesting, the area should be avoided until nesting is complete.

## **8.4. Impacts on Wetlands**

### **8.4.1. Short-Term Impacts from Construction: Erosion and Sedimentation**

Sediment-laden runoff from grading activities could cause siltation of the wetland and forest area north of the development area if not controlled. Uncontrolled construction vehicle traffic, storage of construction materials, or human traffic could also potentially compact soils and cause damage to vegetation adjacent to the construction area.

#### **Recommended Mitigation**

- Clearly demarcate the construction area adjacent to significant or sensitive features.
- An erosion and sediment control plan should be prepared that addresses the appropriate mitigation for construction impacts on the site.
- Construction vehicles and equipment should not enter the area within wetland and surrounding woodland boundaries.
- The limits of fill placement and grading for the road and lots should be fenced with silt fencing, reinforced with paige wire fencing, prior to construction, in order to prevent sediment-laden runoff from migrating south into the forest and wetlands. A fence in this area would ensure that fill was contained and would also ensure that human and vehicle traffic was constrained within that boundary.
- Exposed soils should be covered by an erosion blanket or stabilized by other effective method(s) as soon as construction is completed within the subdivision. The soils should be re-vegetated with native plant material and/or covered with coarse material such as cobble as soon as is feasible after construction.
- Construction materials should be stored in areas where tree roots will not be affected by compaction.
- Construction vehicle refuelling, and turn-around points should be located outside the road alignment to open areas where natural vegetation will not be damaged by these activities.
- Planting of native trees is recommended within the buffer, adjacent to the wetland and woodland to the north.

## **8.5. Impacts from Loss of Trees**

The Arborist's report has determined that if all trees were removed from the development footprint, there would be a loss of 87 trees. The City of Hamilton requires replacement of trees removed at a 1:1 ratio.

Trees would not be removed outside the development footprint.

#### **Recommended Mitigation**



It is recommended that when the final footprint of the development is planned, the number of trees that must be removed be calculated at that time, and compensation be proposed for all trees removed according to the City of Hamilton's replacement policy.

## 8.6. Impacts to Linkage

Impacts to linkage areas between the northern and southern parts of the property will be minor, related to removal of some trees within the construction footprint.

### Recommended Mitigation

It is recommended that when construction is complete, trees and shrubs be planted where feasible along the western property boundary to enhance this linkage. Trees and shrubs should be native species.

## 9. Policy Compliance

Policies associated with the Niagara Escarpment Plan (2017) apply to the site. Most of the proposed severance is within the Escarpment Rural Area. The woodlands on the southern part of the site are within the Escarpment Natural Area.

The Rural Hamilton Official Plan also applies to the proposed severance. Hamilton Conservation Authority regulations apply to the wetland on the northern part of the site as well as the steep slope within the woodland on the southern part of the site.

The relevant provincial, regional, municipal and conservation authority natural heritage policies and regulations are discussed in detail in the following sections. The proposed development plan is assessed with respect to conformity with the relevant natural heritage policies in Table 6. Table 6 also summarizes the mitigation proposed to ensure compliance with these policies.

### 9.1. Endangered Species Act

The Endangered Species Act, Section 13 (1) states that "No person shall

- (a) kill, injure, possess, disturb, take or interfere with or attempt to kill, injure, possess, disturb, take or interfere with an endangered or threatened species or any part or product thereof;
- (b) possess for sale, offer for sale, sell, buy, trade or barter an endangered or threatened species or any part or product thereof;
- (c) destroy, disturb or interfere with or attempt to destroy, disturb or interfere with the specific dwelling place or area occupied or habitually occupied by one or more individuals or populations of an endangered or threatened species, including the nest, nest shelter, hibernaculum or den of an endangered or threatened species...

## 9.2. Migratory Birds Convention Act

Section 5 states that: Except as authorized by the regulations, no person shall, without lawful excuse,

- (a) be in possession of a migratory bird or nest; or
- (b) buy, sell, exchange or give a migratory bird or nest or make it the subject of a commercial transaction.

## 9.3. Provincial Policy Statement (2014)

Provincial policies regarding natural heritage would apply to the Stage 2 area of the site. They are provided here as context for the proposed development.

### 2.1 Natural Heritage

*2.1.1 Natural features and areas shall be protected for the long term.*

*2.1.2 The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.*

*2.1.3 Natural heritage systems shall be identified in Ecoregions 6E & 7E, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.*

*2.1.4 Development and site alteration shall not be permitted in:*

- a) significant wetlands in Ecoregions 5E, 6E and 7E1; and*
- b) significant coastal wetlands.*

*2.1.5 Development and site alteration shall not be permitted in:*

- a) significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E1;*
- b) significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);*
- c) significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);*
- d) significant wildlife habitat;*
- e) significant areas of natural and scientific interest; and*

- f) *coastal wetlands in Ecoregions 5E, 6E and 7E1 that are not subject to policy 2.1.4(b)*

*unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.*

*2.1.6 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.*

*2.1.7 Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.*

*2.1.8 Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.*

*2.1.9 Nothing in policy 2.1 is intended to limit the ability of agricultural uses to continue.*

#### **9.4. Niagara Escarpment Plan**

Section 2.6 notes the following policies for Key Hydrologic Features:

1. the following are key hydrologic features within the meaning of this Plan:  
*permanent and intermittent streams;*  
*lakes (and their littoral zones);*  
*seepage areas and springs; and*  
*wetlands.*
2. Development is not permitted in key hydrologic features with the exception of the following, which may be permitted subject to compliance with all other relevant policies of this Plan:
  - o *accessory facilities to a single dwelling outside of a wetland on an existing lot of record, provided that the disturbance is minimal and where possible temporary;*
  - o *forest, fisheries and wildlife management to maintain or enhance the feature;*
  - o *conservation and flood or erosion control projects, after all alternatives have been considered;*
  - o *the Bruce Trail, and other trails, boardwalks and docks on parks and open space lands that are part of the Niagara Escarpment Parks and Open Space System; or*
  - o *infrastructure, where the project has been deemed necessary to the public interest after all other alternatives have been considered.*

3. If, in the opinion of the *implementing authority*, a proposal for development within 120 metres of a key hydrologic feature has the potential to result in a *negative impact* on the feature and/or its functions, a hydrologic evaluation will be required that:
  - demonstrates that the development, including any alteration of the natural grade or drainage, will protect:
    - i. the key hydrologic feature or the *hydrologic functions* of that feature,
    - ii. the quality and quantity of groundwater and surface water
    - iii. natural *streams* or drainage patterns; and
    - iv. the overall water budget for the watershed, including existing and planned municipal drinking water systems.
  - identifies planning, design and construction practices that will minimize erosion, sedimentation and the introduction of nutrients or pollutants and protect, and where possible, enhance or restore the health, diversity and size of the key hydrologic feature, including:
    - i. natural features should be preserved;
    - ii. temporary vegetation and/or mulching should be used to protect critical areas exposed during development;
    - iii. *topsoil* should not be removed from the site, but rather, should be stored and redistributed as a suitable base for seeding and planting;
4. A *vegetation protection zone* shall:
  - a. be of sufficient width to protect the key hydrologic feature and its functions from the impacts of the proposed change and associated activities that may occur before, during, and after construction, and where possible, restore or enhance the feature and/or its function; and
  - b. be established to achieve, and be maintained as *natural self-sustaining vegetation*.

In the case of *permanent* and *intermittent streams* and *seepage areas and springs*, the determination of the *vegetation protection zone* shall include, without limitation, an analysis of land use, soil type and slope class.

Section 2.7 provides policies for development affecting Natural Heritage:

The objective is to protect and where possible enhance natural heritage features and functions, in order to maintain the diversity and connectivity of the continuous *natural environment*.

1. The following are key natural heritage features within the meaning of this Plan:
  - *Wetlands*
  - *Habitat of endangered species and threatened species*
  - *Fish habitat*
  - *Life Science Areas of Natural and Scientific Interest*

- Earth Science Areas of Natural and Scientific Interest
  - Significant valleylands
  - Significant woodlands
  - Significant wildlife habitat
  - Habitat of special concern species in Escarpment Natural and Escarpment Protection areas
2. Development is not permitted in key natural heritage features with the exception of the following, which may be permitted subject to compliance with all other relevant policies of this Plan:
    - a) development of a *single dwelling* and *accessory facilities* outside a *wetland* on an *existing lot of record*, provided that the disturbance is minimal and where possible temporary;
    - b) *forest, fisheries* and *wildlife management* to maintain or enhance the feature;
    - c) *conservation* and flood or erosion control projects, after all alternatives have been considered;
    - d) the Bruce Trail, and other trails, boardwalks and docks on parks and open space lands that are part of the Parks and Open Space System; and
    - e) *infrastructure*, where the project has been deemed necessary to the public interest and there is no other alternative.
  3. The diversity and connectivity between key natural heritage features and key hydrologic features shall be maintained, and where possible, enhanced for the movement of native plants and animals across the landscape.
  4. Development in other natural features not identified as key natural heritage features or key hydrologic features should be avoided. Such features should be incorporated into the planning and design of the proposed use wherever possible, and the impact of the development on the natural feature and its functions shall be minimized.
  5. Development in other natural features not identified as key natural heritage features or key hydrologic features should be avoided. Such features should be incorporated into the planning and design of the proposed use wherever possible, and the impact of the development on the natural feature and its functions shall be minimized.
  6. Where policies or standards of other *public bodies* or levels of government exceed the policies related to key natural heritage features or key hydrologic features in this Plan, such as may occur with *habitat of endangered species and threatened species* under the *Endangered Species Act, 2007*; with natural hazards where section 28 regulations of the *Conservation Authorities Act* apply; or with fisheries under the *Federal Fisheries Act*, the most restrictive provision or standard applies.
  7. If in the opinion of the *implementing authority*, a proposal for development within 120 metres of a key natural heritage feature has the potential to result in a *negative impact* on the feature and/or its functions, or on the connectivity between key natural heritage features and key hydrologic features, a natural heritage evaluation will be required that demonstrates that the development, including any alteration of the natural grade or drainage, will protect the key natural heritage feature or the related functions of that feature;



- a. identifies planning, design and construction practices that will minimize erosion, sedimentation and the introduction of nutrients or pollutants and protect and, where possible, enhance or restore the health, diversity and size of the key natural heritage feature;
- b. determines the minimum *vegetation protection zone* required to protect and where possible enhance the key natural heritage feature and its functions; and
- c. demonstrates that the connectivity between key natural heritage features and key hydrologic features located within 240 metres of each other will be maintained and where possible enhanced for the movement of native plants and animals across the landscape.

except with respect to a key natural heritage feature that is solely the *habitat of endangered species or threatened species*, which is subject to Part 2.7.8 below.

- 8. For the purposes of 2.7.6, a *vegetation protection zone* shall:
  - be of sufficient width to protect and where possible enhance the key natural heritage feature and its functions from the impacts of the proposed change and associated activities that may occur before, during, and after, construction;
  - be established to achieve, and be maintained as, *natural self-sustaining vegetation*; and
  - in the case of *Areas of Natural and Scientific Interest* (Earth Science and Life Science), include without limitation an analysis of land use, soil type and slope class.

## 9.5. Rural Hamilton Official Plan (April 2014)

The site where development is proposed is within the Protected Countryside outside the Natural Heritage System. Policy 2.4.8 states that beyond the Greenbelt Natural Heritage System within the Protected Countryside new development and site alteration shall not be permitted within or adjacent to key natural heritage features in the Greenbelt Protected Countryside unless it has been evaluated through an Environmental Impact Statement and has been demonstrated that there shall be no negative impacts on the natural features or their ecological functions. The wetland on the northern part of the site and the wetland off-site to the southwest are considered Key Hydrologic Feature within the Rural Hamilton Official Plan.

Section 2.4.11 specifies Vegetation Protection Zones required adjacent to the following features that occur on the site:

- b) Wetlands: 30-metre vegetation protection zone.
- d) Woodlands: 15-metre minimum vegetation protection zone measured from the drip line of trees at the woodlands edge;
- e) Significant Woodlands (south of Oak Avenue only): 30-m vegetation protection zone.

Permitted uses in a vegetation protection zone shall be limited to low impact uses, such as passive recreation, trails, boardwalks, landscaping, vegetation restoration, and resource management and open space.

Woodlands on the adjacent to Oak Avenue site are considered linkages within the Rural Hamilton Official Plan. Section 2.7.1 states that *"Connections between natural areas provide opportunities for plant and animal movement, hydrological and nutrient cycling, and maintain ecological health and integrity of the overall Natural Heritage System. The City recognizes the importance of sustaining linkages between Core Areas shown on Schedule B - Natural Heritage System. It is the intent of this policy that linkages be protected and enhanced to sustain the Natural Heritage System wherever possible."*

### 9.6. Mid-Spencer Creek/Greensville Rural Settlement Area Subwatershed Study

Table 4.7.10 recommends Minimum Vegetation Protection Zone Requirements for Rural Areas. These correspond with those required by the Rural Hamilton Official Plan: 15 m for woodlands and 30 m for wetlands.

### 9.7. Hamilton Conservation Authority

Hamilton Conservation Authority regulation 161/06 regulates all wetlands on the site and off-site to the west. The Authority may grant permission for development in or on the areas [regulated by the authority] if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development.

### 9.8. Summary of policy compliance

Table 6 provides a summary of mitigation proposed to address policies that apply to the site. The proposed development complies with all policies.

**Table 6. Summary of Policy Compliance**

Policy	Proposed Mitigation	Legislation / Policy Conformity
Endangered Species Act	<ul style="list-style-type: none"> <li>Habitat for endangered and threatened bird species will not be removed.</li> <li>The proposed development site does not support ecosites for endangered bat species</li> </ul>	Yes
Migratory Birds Convention Act	<ul style="list-style-type: none"> <li>Habitat for breeding migratory birds will generally not be removed within the breeding bird season. If habitat must be removed within this season, a survey for nesting migratory birds must be completed, and nesting areas avoided until nesting is complete.</li> </ul>	Yes

Policy	Proposed Mitigation	Legislation / Policy Conformity
Provincial Policy Statement Section 2.1: Natural Heritage	<ul style="list-style-type: none"> <li>• All Significant wetlands, Woodlands and Significant Wildlife Habitat are protected; No negative impacts will result from development of adjacent lands.</li> </ul>	Yes
Niagara Escarpment Plan	<ul style="list-style-type: none"> <li>• Development is not proposed in Key Natural Heritage and Key Hydrologic Features</li> <li>• Connectivity between natural heritage features will be maintained</li> <li>• planning, design and construction practices will minimize erosion</li> <li>• A trail is proposed to be maintained within the narrow western linkage to provide access to the southern part of the property, but this trail will not require site alteration.</li> <li>• A 30 m vegetation protection zone, restored with native vegetation, is proposed adjacent to woodlands and wetlands</li> <li>• No negative impacts will result from the development of adjacent lands.</li> </ul>	Yes
Rural Hamilton Official Plan Section 2.4.11	<ul style="list-style-type: none"> <li>• 30 m Vegetation Protection Zones required adjacent to wetlands</li> <li>• 30 m Vegetation Protection Zone adjacent to significant woodlands</li> <li>• 15 m Vegetation Protection Zone required adjacent to woodlands</li> <li>• The access trail is proposed within the narrow connection between the site and the meadow to the south, but the trail will not require site alteration</li> </ul>	Yes
Rural Hamilton Official Plan Section 2.7.1	<ul style="list-style-type: none"> <li>• linkages will be protected and enhanced to sustain the Natural Heritage System wherever possible."</li> </ul>	Yes
Mid Spencer Creek / Greensville Rural Settlement Area Subwatershed Study	<ul style="list-style-type: none"> <li>• 30 m Vegetation Protection Zones required adjacent to wetlands</li> <li>• 30 m Vegetation Protection Zone adjacent to significant woodlands</li> <li>• 15 m Vegetation Protection Zone required adjacent to woodlands</li> <li>• An access trail is proposed within the narrow connection between the site and the meadow to the south but the trail will not require site alteration</li> </ul>	Yes

Policy	Proposed Mitigation	Legislation / Policy Conformity
Hamilton Conservation Authority	<ul style="list-style-type: none"> <li>development will not affect wetlands or, for the most part, their vegetation protection zones. A trail is proposed through the vegetation protection zone of the off-site wetland on the southwest part of the site but the trail will not require site alteration</li> </ul>	Yes

## 10. Conclusions

A single family, rural estate dwelling is proposed within a neighbourhood of similar developments. The development avoids all key natural heritage features, key hydrologic features and linkages.

A trail is proposed to provide access to the southern part of the property, but the trail will not require site alteration. Mitigation is proposed to maintain linkage and the buffer function by tree planting along the west side of the property.





## **APPENDIX 1 | Consultation**



May 22, 2020

# Proposed Terms of Reference for Environmental Impact Statement

177 Highway 8, Flamborough

Prepared for

A. J. Clarke and Associates Ltd.



**north-south**  
ENVIRONMENTAL



**From:** [Jamieson, Nora](#)  
**To:** [Sarah Mainguy](#)  
**Cc:** [Plosz, Catherine](#); [McDonell, Lesley](#)  
**Subject:** RE: 177 Highway No. 8, Greensville - EIS Terms of Reference  
**Date:** May 30, 2020 2:41:41 PM

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Hi Sarah,

HCA staff reviewed the ToR prepared by Noth-South Environmental, dated May 22, 2020 and corresponded with Cathy Plosz. We note that HCA's comments have been incorporated in Cathy's comments provided to you yesterday, with one exception. In conjunction with the amphibian surveys to be completed between April 1-15<sup>th</sup> and between the hours of ½ hour after sunset until midnight when night time temperatures are over 5 degrees Celcius; HCA recommends that bat surveys be conducted during the amphibian surveys, using hand held bat detectors.

---

**From:** Plosz, Catherine <Catherine.Plosz@hamilton.ca>  
**Sent:** Friday, May 29, 2020 2:08 PM  
**To:** [smainguy@nsenvironmental.com](mailto:smainguy@nsenvironmental.com)  
**Cc:** Jamieson, Nora <Nora.Jamieson@conservationhamilton.ca>  
**Subject:** 177 Highway No. 8, Greensville - EIS Terms of Reference

Hi Sarah,

I hope you are doing well.

I have reviewed the draft terms of reference for the EIS and have attached the document with my comments shown as highlighted notes.

Please let me know if you have any questions. Have a great weekend.

Cathy

Catherine Plosz, R.P.P., M.Sc.

Natural Heritage Planner

Development Planning, Heritage and Design (Rural Team)

Planning and Economic Development Department

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## **Project Study Team**

North-South Environmental Inc.

Sarah Mainguy – Project Manager, Report Author, Editor and Fieldwork

Grace Pitman – Report Author, Fieldwork

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## 1. Introduction

North-South Environmental Inc. (NSE) has been retained to undertake an Environmental Impact Statement (EIS) for a proposed lot severance at 177 Highway 8, Flamborough, ON. The client wishes to sever the southern portion of the property shown as Part 2 (shown in Figure 1) and build a single dwelling in an open area near the terminus of Oak Avenue. The site was formerly unoccupied and undeveloped. No new development is proposed on the retained northern part of the property (Part 1), and that portion of the property will not be discussed in the EIS.

The development is proposed in an area that is primarily composed of a cultural meadow on a gentle slope. It is bordered by agricultural fields to the west and residential development to the east. The property encompasses patches of woodland and swamp to the north and a meadow and an extensive area of thicket, late-successional woodland and forest on steeply rolling topography to the south. The proposed severance property is constricted along a narrow pathway just south of the road (as shown in Figure 1) to the west of a storm pond that treats storm flows from the adjacent development. The pond also receives flows from an adjacent cattail shallow marsh wetland to the west.

The development is proposed to encompass only the area immediately to the north of the Oak Avenue turning circle, similar to other residential houses to the east. The proposed size of the building envelope area is approximately 0.20 ha of 8.04 ha total property size. The meadow and successional woodland/forest on the southern part of the property are all proposed to be retained as part of the proposed development, but will remain undeveloped.

The subject property is designated partially as Rural Area and Natural Area in the City of Hamilton's Rural Official Plan as illustrated on Schedule A of the 2012 Official Plan. The entire property is located within the Niagara Escarpment Plan Area (NEPA).

The property is located within the Hamilton Conservation Authority (HCA) watershed. Regulation boundaries occur on the southern part property and not in the proposed development site (Figure 2).

The property is surrounded by residential zoning to the east, environmental and flood hazard to the south, and agricultural to the west (Figure 2).

In the City of Hamilton's Rural Official Plan, the western property boundary and the entire southern portion are designated as a Core Area and a Significant Woodland (Figure 3). Additionally, the lands contain or are adjacent to features identified as Key Features, including:

- Significant woodlands;
- Potential habitat of endangered or threatened species;
- Potential significant wildlife habitat;
- Potential fish habitat; and,

**177 Hwy 8, Flamborough** • Proposed Terms of Reference May 2020



- Floodplain and watercourse areas.

This Terms of Reference set out the proposed work plan and approach to complete each of the studies requested by region. The Table of Contents for the EIS is provided in Appendix 2.

### **1.1. Site Setting**

The site is situated in a largely rural residential setting and is surrounded to west by agricultural fields and by residential neighbourhoods to the east. The southern woodland on-site is connected to a more extensive woodland to the east and west. The property is bounded to the south by CN Rail lands.

**Figure 1. Aerial image of Study Area**

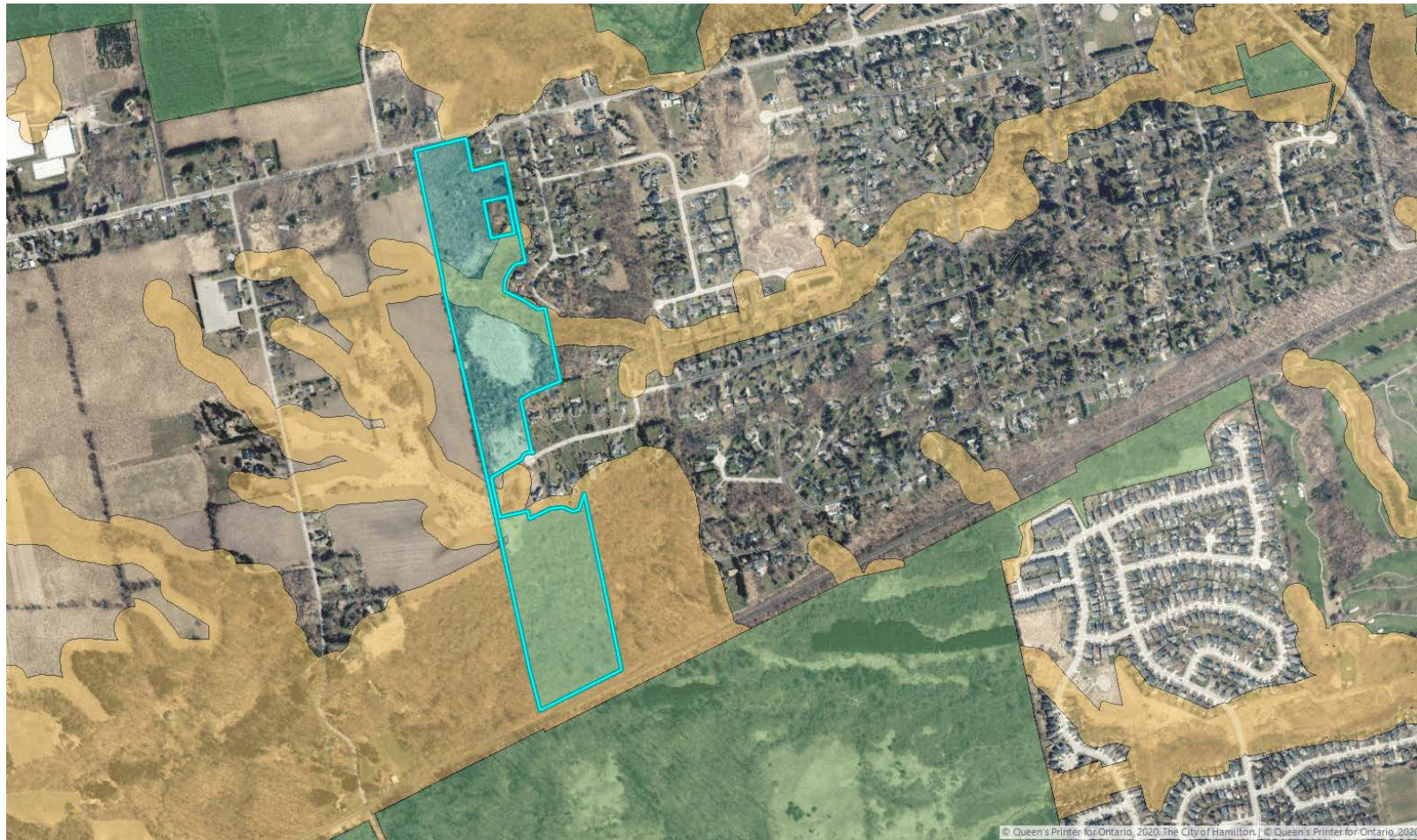


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**Figure 2. Hamilton Conservation Authority Regulation Limit in yellow**

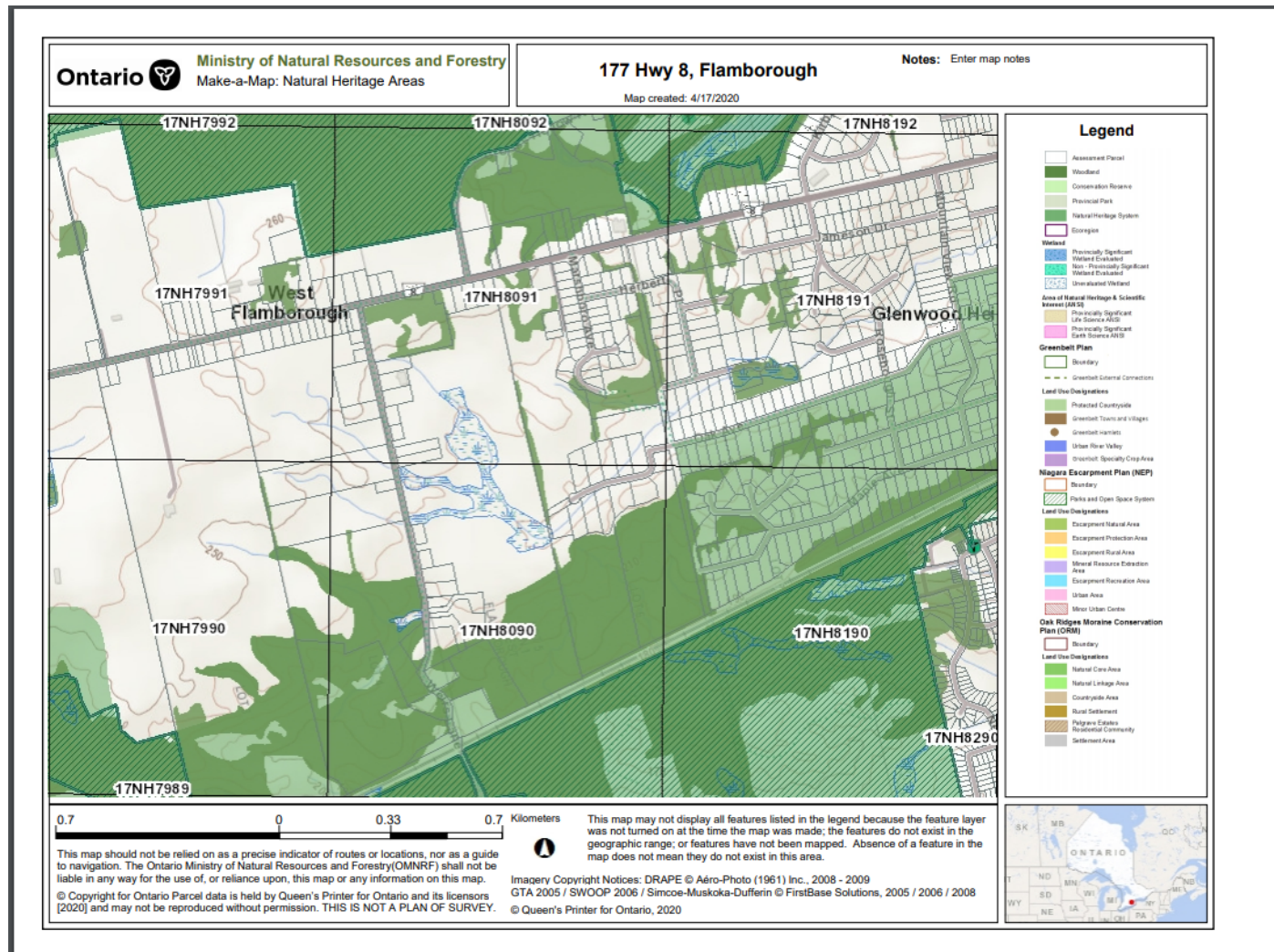


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Figure 3. **Natural Heritage System in light green**, Woodland in dark green, Unevaluated Wetland in blue



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## 2. Preliminary Reconnaissance Site Visit

A reconnaissance survey was conducted on April 24<sup>th</sup>, 2020 to obtain information on potential amphibian habitat, early spring flora, and provide information for the Terms of Reference.

The April site visit indicated that the northern treed section of the property is a mixture of cultural woodland and deciduous swamp with a cultural meadow to the south (north of Oak Avenue). South of Oak Avenue and the storm water management area there is a small cultural meadow which transitions into a mosaic of late-successional woodland and deciduous forest (Figure 4). Narrow trails traverse the slopes on the southern part of the property, likely connecting with the conservation area south of the railway line.

Birds noted were winter residents and early migrants such as American Goldfinch, Red-winged Blackbird, Blue Jay, American Crow, Northern Cardinal, Carolina Wren, Song Sparrow, Common Grackle, Mourning Dove, Turkey Vulture, and Swainson's Thrush.

Amphibian surveys were conducted a half hour after sunset within an area of shallow standing water in the patch of woodland and swamp north of the meadow proposed for development. A second survey was conducted adjacent to the wetland southwest of the property that feeds into the storm water management pond (Figure 4). No amphibians were heard at either location. Standing water in the northern location was likely too shallow (approximately 2-5 cm at the time of the field visit) to support breeding amphibians. Spring Peeper (*Pseudacris crucifer*) was heard over 100 m to the southeast of the residential area, well outside the property. There was no amphibian habitat in the wooded area on the southern part of the property, between the storm pond and the railway line, as the topography is too steep for water to pool. A narrow valley with an intermittent storm channel runs northeast to southwest through the western part of this woodland, with moist soils at the base, but there was no water noted pooling during the site visit.



**Figure 4. Preliminary Ecological Landscape Classification (ELC) Figure**



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### 3. Existing Information

#### 3.1. Significant Species

Existing information lists the following Species at Risk:

- NHIC – Two Species at Risk (SAR) species and Colonial Waterbird Nesting Area recorded within 1 km<sup>2</sup> square that encompasses the property. A restricted species and several other SAR species listed in the adjacent squares, see Table 1.
- Ontario Reptile & Amphibian Atlas - See Table 1.
- iNaturalist – No Species at Risk (SAR) recorded on property or in vicinity.
- eBird – See Table 1.
- Ontario Butterfly Atlas – See Table 1.

It should be noted that the list of Species at Risk includes those found in a wide area surrounding the site (for NHIC, up to 5 km, as there were only two records from the square surrounding the site itself). Therefore, the list likely includes species records that would not be likely to be found on the site; it simply provides guidance on the potential species that might be found in the area. Of the 43 SAR that have been reported in the area, there is habitat on the subject property for 18: most would likely be only found within the wooded natural area at the southern extent of the property.



**Table 1. Pre-screening Species at Risk (SAR) results recorded in property vicinity.**

Common Name	Scientific Name	SARO Status	COSEWIC Status	Data Source	Habitat / Nesting Habitat (Birds)	Habitat Present on Site?
Acadian Flycatcher	<i>Empidonax virens</i>	END	END	NHIC	Mature forests, forested swamps	No
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SC	NAR	eBird	Woodlands and forests adjacent to water	No
Barn Swallow	<i>Hirundo rustica</i>	THR	THR	NHIC	Barns, sheds, bridges, culverts	No
Canada Warbler	<i>Cardellina canadensis</i>	THR	THR	eBird	Mixed conifer and deciduous forest	No
Cerulean Warbler	<i>Setophaga cerulea</i>	THR	END	NHIC	Mature deciduous forests	No
Chimney Swift	<i>Chaetura pelagica</i>	THR	THR	eBird	Chimneys and other manmade structures	No
Eastern Meadowlark	<i>Sturnella magna</i>	THR	THR	NHIC	Grasslands, prairies, pastures, agricultural fields	No
Eastern Wood-Pewee	<i>Contopus virens</i>	SC	SC	eBird	Woods	Yes
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	SC	THR	eBird	Open woodlands and thickets, disturbed areas including field edges, hydro corridors	Yes
Louisiana Waterthrush	<i>Parkesia motacilla</i>	THR	THR	NHIC, eBird	Rivers and streams in mature deciduous or mixed forest	No
Northern Bobwhite	<i>Colinus virginianus</i>	END	END	NHIC	Grasslands, agricultural fields	No
Wood Thrush	<i>Hylocichla ustulata</i>	SC	THR	eBird	Mature mixed and deciduous woodlands	Yes
Yellow-breasted Chat	<i>Icteria virens</i>	END	END	Yellow-breasted Chat	Scrub habitat, forest edges, swamps, edges of streams	No
Gypsy Cuckoo Bumble Bee	<i>Bombus bohemicus</i>	END	END	NHIC	Meadows, woodlands, agricultural, urban	Yes
Nine-spotted Lady Beetle	<i>Coccinella novemnotata</i>	END	END	NHIC	Forests, grasslands, meadows, agricultural, suburban	Yes
Yellow-banded Bumble Bee	<i>Bombus terricola</i>	SC	SC	NHIC	Mixed woodlands, grassland, farmland, urban	Yes
Monarch Butterfly	<i>Danaus plexippus</i>	SC	END	Ontario Butterfly Atlas	Meadows and woodland edges	Yes

Common Name	Scientific Name	SARO Status	COSEWIC Status	Data Source	Habitat / Nesting Habitat (Birds)	Habitat Present on Site?
					where milkweeds ( <i>Asclepias</i> spp.) occur	
Mottled Duskywing	<i>Erynnis martialis</i>	END	NAR	Ontario Butterfly Atlas	Open barrens, sandy patches in woodlands, and alvars where New Jersey tea and prairie redroot occur	No
Blanding's Turtle	<i>Emydoidea blandingii</i>	THR	END	Ontario Reptile & Amphibian Atlas	Wetlands and shallow lakes	No
Eastern Milksnake	<i>Lampropeltis triangulum</i>	NAR	SC	NHIC	Forest, woodland, cropland, grassland; nests in soil, sawdust piles	Yes
Eastern Musk Turtle	<i>Sternotherus odoratus</i>	SC	SC	Ontario Reptile & Amphibian Atlas	Forested wetland, ponds, lakes, marshes and slow-moving rivers; nests in soil, under logs, debris, muskrat houses	No
Eastern Ribbonsnake	<i>Thamnophis sauritus</i>	SC	SC	Ontario Reptile & Amphibian Atlas	Forested wetland, scrub-shrub wetland	No
Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	END	END	NHIC	Forested wetlands and woodlands; eggs attached to sticks and plant stems in ponds with adjacent forest	No
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	NAR	SC	Ontario Reptile & Amphibian Atlas	Water bodies with adjacent marshes; nests in open gravelly or sandy upland banks	No
Northern Map Turtle	<i>Graptemys geographica</i>	SC	SC	Ontario Reptile & Amphibian Atlas	Rivers and lakeshores; nests in soft soil or sand	No
Snapping Turtle	<i>Chelydra serpentina</i>	SC	SC	Ontario Reptile & Amphibian Atlas	Large water bodies with adjacent marshes; nests in upland sandy or gravelly banks	No
Unisexual Ambystoma	<i>Ambystoma</i> hybrid pop. 1	END	END	NHIC	Vernal pools in mature woodland;	No

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Common Name	Scientific Name	SARO Status	COSEWIC Status	Data Source	Habitat / Nesting Habitat (Birds)	Habitat Present on Site?
(Jefferson Salamander dependent population)					egg masses laid on sticks or emergent vegetation at various depths in breeding pond	
Western Chorus Frog (Great Lakes/St. Lawrence - Canadian Shield population)	<i>Pseudacris triseriata</i>	NAR	THR	Ontario Reptile & Amphibian Atlas	Vernal pools adjacent to meadows and thickets; eggs are laid on submerged vegetation	Yes
American Eel	<i>Anguilla rostrata</i>	END	THR	NHIC	Fresh water, estuaries and coastal marine waters	No
Eastern Pondmussel	<i>Ligumia nasuta</i>	END	SC	NHIC	Lakes, slow-moving areas of rivers and canals with sand or mud bottoms	No
Redside Dace	<i>Clinostomus elongatus</i>	END	END	NHIC	Pools and slow-moving areas of small streams and headwaters with a gravel bottom	No
American Chestnut	<i>Castanea dentata</i>	END	END	NHIC	Dry upland deciduous forest	Yes (woods to south only)
Broad Beech Fern	<i>Phegopteris hexagonoptera</i>	SC	SC	NHIC	Deciduous forests with moist soil and full shade	Yes (woods to south only)
Downy Yellow False Foxglove	<i>Aureolaria virginica</i>	NAR	END	NHIC	Oak savannas and open woodlands	No
Eastern Burning Bush	<i>Euonymus atropurpureus</i>	NAR	NAR	NHIC	Open woods, thickets, near streams	Yes (woods to south only)
Eastern Few-fruited Sedge	<i>Carex oligocarpa</i>	NAR	NAR	NHIC	Wooded slopes and ravines	Yes (woods to south only)
Panicled Hawkweed	<i>Hieracium paniculatum</i>	NAR	NAR	NHIC	Woods	Yes (woods to south only)

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Common Name	Scientific Name	SARO Status	COSEWIC Status	Data Source	Habitat / Nesting Habitat (Birds)	Habitat Present on Site?
Perfoliate Bellwort	<i>Uvularia perfoliata</i>	NAR	NAR	NHIC	Deciduous forests	Yes (woods to south only)
Red Mulberry	<i>Morus rubra</i>	END	END	NHIC	Forested valleys and floodplains	Yes (woods to south only)
Scarlet Beebalm	<i>Monarda didyma</i>	NAR	NAR	NHIC	Moist, open woods, meadows stream banks	Yes (woods to south only)
Spotted Wintergreen	<i>Chimaphila maculata</i>	THR	THR	NHIC	Dry oak-pine woodland habitats with sandy soils	No
White-tinged Sedge	<i>Carex albicans</i> var. <i>albicans</i>	NAR	NAR	NHIC	Wooded slopes, woodland clearings	Yes (woods to south only)
Woodland Pinedrops	<i>Pterospora andromedea</i>	NAR	NAR	NHIC	Conifer forests, mixed conifer-hardwood forest	No

### 3.2. Significant Features

Significant features identified by the **Region** (as noted above) potentially include:

- Significant woodlands;
- Potential habitat of endangered or threatened species;
- Potential significant wildlife habitat;
- Potential fish habitat; and,
- Floodplain and watercourse areas.

## 4. Environmental Impact Statement (EIS)

This Terms of Reference (TOR) for the EIS has been developed in accordance with City of Hamilton's Environmental Impact Statement (EIS) Guidelines (2015). The following provides an outline of the sections that will be contained in the EIS and what **each content each** section will discuss.

### 4.1. Policy Review

#### 4.1.1. Provincial Policy Statement (2020)

This section will address the Provincial Policy Statement and how the proposal is consistent with relevant natural heritage policies.

#### 4.1.2. Growth Plan for the Greater Golden Horseshoe (2019)

Growth Plan policies will be addressed in this section, if applicable.

#### 4.1.3. Greenbelt Plan (2017)

This section will address the Greenbelt Plan natural heritage policies and demonstrate how the proposal is consistent with the relevant policies.

#### 4.1.4. Niagara Escarpment Plan (2017)

This section will address the Niagara Escarpment Plan development criteria affecting natural heritage.

#### 4.1.5. Rural Hamilton Official Plan (2012)

This section will address the Natural Heritage System policies in the Rural Hamilton Official Plan and will describe the proposal's compliance with the policies.

#### 4.1.6. Hamilton Conservation Authority (2011)

The site is not within the regulation area of Hamilton Conservation Authority (HCA), and they have indicated that a permit is not needed from HCA for this development.

### 4.2. Physical Setting

This section of the report will describe the study areas (and surrounding areas that could be affected by development) existing physical features and functions. Two levels of investigation will be used to describe different features, including (i) background review (compiling information from existing secondary sources and documents) and (ii) field observations of soils and topography.

This section will describe the historical and existing land **used** of the study area. The zoning and ownership of the subject property will also be identified.



The following physical features of the study area, if relevant, will be briefly described:

- Topography;
- Soil types by texture/grain size (e.g., clay, silt, sand) and drainage characteristics;
- Overburden and bedrock geology; and
- Landforms.

This section will also briefly describe the larger regional ecosystem in the vicinity of the subject property, including, but limited to, components of the Natural Heritage System as defined in the City Official Plan.

### 4.3. Background Information Review and Consultation

A background review will include:

- Background searches for land designations (i.e., provincially significant wetlands (PSW), Areas of Natural and Scientific Interest (ANSIs), etc.), land types and landforms, and Species at Risk (SAR) or locally significant species;
  - Species at Risk (SAR) screening will be based on a review of the Natural Heritage Information Centre (NHIC) as well as the municipal list provided by the Ministry of the Environment, Conservation and Parks (MECP).
  - Hamilton Conservation Authority (HCA) mapping;
- Review of available background studies.

### 4.4. Field Inventories

This section will describe the relevant biological features and functions of the study area and methodology of inventories completed. A spring reconnaissance visit to record early spring flora and an amphibian survey has been completed. A second visit will be planned for later in the spring for later spring flora and the second amphibian survey. ELC data sheets, wildlife and plant species lists and other relevant documents will be appended. Methods for field inventories completed will also be summarized in table format with date and personnel who completed the work. The timing and level of investigation undertaken for different features will be explained and rationale provided.

#### 4.4.1. Study Area

All surveys are proposed primarily to focus on the on-site meadow and adjacent woodlands north of Oak Avenue. Surveys will include the woodlands on the southern portion of the property at a less intense level, with surveys in that area focused on searches for Species at Risk, since development is not proposed in that area. We will also record observations from habitat approximately 120 m adjacent to the site where possible (for example if additional species are heard during bird surveys).

We do not propose surveys on the northern portion of the property that is to be retained, as the land use will remain the same.

#### 4.4.2. Flora Inventories (ELC, species lists)

- Describe ecological communities identified during the appropriate seasons to the Vegetation Type level as defined by the Ecological Land Classification system for Southern Ontario (ELC) (Lee et al. 1998). Soil samples will be obtained within the area north of Oak Avenue that is proposed for development, but will not be conducted in the woodlands on the southern part of the property.
- The flora inventory will focus on surveys in the **spring and summer**. The botanical surveys will be undertaken to document flora and assess the condition of the vegetation community, with reference to the successional state, the degree of disturbance, and the extent of invasive plant species.
- Flora lists will also be based on available background information and field inventories. Lists will include species rarity status (federal, provincial, and local rankings), coefficient of wetness and floristic indices.
- Mapping will identify the occurrence of uncommon, rare, special concern, threatened, or endangered species at the national, provincial, and regional scale as well as their habitat
- Assess the potential for Species at Risk (SAR) to use the subject property based on MECP screening methodology.

#### 4.4.3. Fauna Inventories

- Amphibian surveys: three surveys will be conducted if habitat (standing water) remains. Surveys will be conducted in April (already completed), May and June. Surveys will be conducted according to Environment Canada's Marsh Monitoring Program protocols in the locations shown on Figure 4.
- We will assess the potential for Species at Risk (SAR) previously recorded from the vicinity of the area to use the subject property based on MECP screening methodology, cross-referencing with vegetation types found on the site.
- Breeding bird surveys: two surveys will be conducted throughout the proposed development area and within the woodlands to the south, the first between **24 May and 17 June, the second between 10 June and 10 July**, with at least one week apart, according to Birds Canada and Environment Canada protocols. Bird surveys will be conducted between approximately dawn and 10:00 a.m., in fair weather with little wind, as specified by these protocols. Ten-minute point count surveys will be conducted on the area proposed for development as well as in the woodlands to the south, given the potential for bird Species at Risk in larger woodlands. Bird surveys in woodland areas will be conducted approximately 300 m apart, as suggested by Environment Canada protocols, at points that ensure the entire woodland is included.

- Incidental wildlife observations, such as snakes and insects, will be recorded.

The coordinates of all significant species locations will be recorded with a hand-held GPS unit accurate to 5 m or less, 95% of the time. Significant birds' locations will be mapped.

#### *4.4.3.1. Bat Habitat Surveys*

The presence of trees with cavities will be documented within the area north of Oak Avenue according to MNRF's Guidelines for Assessment of Bat Habitat (associated with Wind Farm projects, but also applicable to other projects). We do not propose surveys of trees within the southern part of the property, as it can be assumed that bats would likely roost in these woodlands.

## **4.5. Biophysical Analysis**

### **4.5.1. Species at Risk**

We will complete a summary table of all Species at Risk (SAR) that have been recorded from the site vicinity, and cross-reference the habitat for each species with the habitat on the site and describe surveys used to detect these species to determine whether the site provides habitat for SAR.

### **4.5.2. Significant Wildlife Habitat Assessment**

#### *4.5.2.1. General Habitat Description*

This section will describe the features from the perspective of wildlife habitat and will characterize their condition and ecological function.

#### *4.5.2.2. Staking of Features*

The edge of the woodland and any wetlands will be staked and confirmed with the City of Hamilton and other agencies as required. All confirmed feature limits will be formally surveyed and surveyed constraint lines illustrated on the maps accompanying the EIS.

#### *4.5.2.3. Significant Wildlife Habitat*

The EIS will identify and map candidate Significant Wildlife Habitat as defined by the Natural Heritage Reference Manual (MNR 2010) and Significant Wildlife Habitat Technical Guide (MNR 2000). Significant Wildlife Habitat screening will also involve a review of the Significant Wildlife Habitat Ecoregional criteria schedules (MNRF 2015): Ecoregion 7E and Significant Wildlife Habitat Mitigation Support Tool.

## **4.6. Tree Inventory and Protection Plan**

A survey by a qualified arborist will be conducted of the trees on the portion of the property to be developed and on those adjacent to the site that could be affected by development (i.e. we will not survey the entire site). We will provide information on the species, size (Diameter at Breast Height),

and health of each tree, and use the proposed building footprint to determine whether the tree will be within the development footprint (removed), well outside the development footprint (retained), or potentially injured (i.e. may need special treatment during construction to protect the root system).

We will use this information to determine the number of trees that will need to be planted as compensation. Other information gained during site surveys (including input from the client and agencies, as well as information on existing vegetation) will be used to determine where trees can be planted.

The trees' locations will be recorded on a tablet and each category of tree (retain, remove or potentially injured) will be shown on a figure within the report. The report will recommend methods for protecting trees, as well as number and species to be planted based on the City's compensation requirements. The report will also recommend locations for tree planting, if required.

#### 4.7. Description of Proposed Development

This section will provide a brief description of the existing and proposed use of the subject property including:

- Historical and existing land use activities on-site
- The proposed land use and activities on-site (concept plan)
- A general location map, showing main roads
- A site map overlying the development proposal on woodland and any confirmed wetland boundaries
- A description of activities associated with the proposal which may have an environmental impact, for example, tree-cutting, removal of vegetation, earthmoving, excavation and other related activities
- A recent air photo map of the subject property identifying the following features:
  - The limits of the adjacent portions of the Core features as defined by the City of Hamilton, as shown by the Official Plan
  - ELC vegetation communities
  - Permanent and intermittent water features such as confirmed wetland boundary, streams, springs, and seeps
  - Drip line of woodland
  - Regulation Limits as defined by Hamilton Conservation Authority (HCA)

The EIS will provide recommendations regarding boundary refinements to the significant woodland on the subject property where necessary.

## 4.8. Identification and Assessment of Impacts

This section will identify and describe the significance of any adverse or positive environmental impacts of the subject property's proposed development. In particular, this section will:

- Identify and assess the potential impacts of the proposal on the environment and the significant features and functions of the woodland
- Refer to other technical reports in order to evaluate potential impacts to adjacent features
- Use the refined woodland boundary, as verified through field investigations and staking exercise with the City, as the basis of the evaluation
- Describe how the proposed development could affect the natural heritage features and functions of the subject property and adjacent natural heritage features and functions and likely duration
- Consider cumulative impacts of previous and current development or land use activities on the environmental features and their functions
- Describe direct, indirect, short-term, and long-term impacts, and secondary effects with consideration of:
  - Sediment transported downstream and changes in volume and water quality of surface runoff
  - Tree/vegetation removal, loss of habitat, edge effect, change in habitat (if any)
  - Occupancy impacts resulting from the use by people, including vegetation trampling, removal, compaction, litter, noise and additional invasive plant species
  - Changes to greenway connections, effects on adjacent natural areas
  - Other supporting technical studies available (geotechnical, and Stormwater Management studies) will be consulted to determine if impacts related to development (such as changes in surface water flows) will affect adjacent natural heritage features.

## 4.9. Description of Mitigation Measures

Avoiding negative impacts is preferred over mitigation. Alternative design options will be considered, and the solutions that will prevent or minimize impacts will be recommended. Where adverse impacts are unavoidable, a range of mitigation measures to reduce or minimize significant impacts will be recommended. The relative effectiveness of implementing these measures will be estimated and the extent of any remaining impacts discussed.

This section will also include the following:

- An analysis of buffers and setbacks that are relevant to any actual/potential impacts of the subject property's proposed use and the features to be protected;
- A description of any proposed compensation for impacts that cannot be mitigated or restoration plans for disturbed areas; and

- A description of other mitigation of compensation measures proposed to eliminate, reduce or off-set impacts.

#### 4.10. EIS Conclusions and Recommendations

This section will be based on the analysis of data and determine how the proposal can maintain or enhance ecological functions of the natural areas. This includes whether the proposal shall proceed as planned, what mitigation measures are required and recommendations for development conditions (i.e., monitoring plan, erosion control plan, storm water management plan, tree protection plan). Recommendations will be as specific as possible, and may include:

- A modification of the concept plan
- A construction requirement or constraint
- A contingency plan and funds should the proposal result in any unexpected impacts to significant features
- A requirement for appropriate buffers/setbacks or other environmental protection measures
- An integral component of detailed designs or site plans, such as:
  - Erosion and sediment control plan
  - rehabilitation/landscape management plan
  - Storm water management plan
  - A wildlife management plan

If appropriate, the EIS will also include recommendations for long-term management, conservation, enhancement, and/or the monitoring of significant environmental features and/or functions within the subject property and/or adjacent lands.

### 5. References

This section will include a bibliography of literature cited including, but not limited to, the following documents that will be reviewed and addressed in the EIS as appropriate:

- Documents cited in section
- Significant Wildlife Habitat Technical Guide (2000)
- Natural Heritage Reference Manual (2010)
- Provincial Policy Statement (2020)
- Green Belt Plan (2017)
- Hamilton Conservation Authority Planning & Regulation Policies and Guidelines (2011)

References used in this Terms of Reference:

eBird Canada. 2020. Accessed Online: <https://ebird.org/home>

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iNaturalist. 2020. Accessed Online: <https://www.inaturalist.org/places/ontario-ca>

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. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

Ministry of Natural Resources and Forestry (MNRF). 2020. Natural Heritage Information Center (NHIC). Accessed Online: <https://www.ontario.ca/page/make-natural-heritage-area-map>

Ontario Butterfly Atlas. 2020. Accessed Online: <http://www.ontarioinsects.org/atlas/>

Ontario Ministry of Natural Resources (OMNR). 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. Second Edition. 248 pp.

Ontario Reptile & Amphibian Atlas. 2020. Accessed Online: <https://www.ontarioinsects.org/herp/index.html>



## APPENDIX 1 | Pre-Consultation Letter

Appendix page

February 20th, 2019

## **CONSOLIDATION REPORT SEVERANCES**

The attached comments have been reviewed with regard to Committee of Adjustment Severance File **FL/B-20:01 (177 Hwy 8, Flamborough)** and the following is submitted:

**Should the Committee grant the severance, an approval should be subject to the following conditions:**

1. The owner shall submit a deposited Ontario Land Surveyor's Reference Plan to the Committee of Adjustment Office, unless exempted by the Land Registrar. The reference plan must be submitted in hard copy and also submitted in CAD format, drawn at true scale and location and tied to the City corporate coordinate system.
2. An Environmental Impact Statement/Linkage Assessment prepared by a qualified ecological consultant according to the City of Hamilton's EIS and Linkage Assessment Guidelines (2010); and,
3. A Tree Protection Plan (TPP prepared according to the City of Hamilton's Tree Protection Guidelines (2010).
4. Site Plan will be required for both lots since they are within 120 metres of Core Areas.
5. That the proponent shall carry out an archaeological assessment of the entire property and mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. No demolition, grading, construction activities, landscaping, staging, stockpiling or other soil disturbances shall take place on the subject property prior to the approval of the Director of Planning confirming that all archaeological resource concerns have met conservation requirements. All archaeological reports shall be submitted to the City of Hamilton concurrent with their submission to the Ministry of Heritage, Sport, Tourism and Culture Industries.

Should deeply buried archaeological materials be found on the property during any of the above development activities the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) should be notified immediately (416.314.7143). In the event that human remains are encountered during construction, the proponent should immediately contact both MHSTCI and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Small Business and Consumer Services (416.326.8392)."

6. The owner shall receive final and binding approval of minor variance application FL/A-20:04.
7. The owner shall submit survey evidence that the lands to be severed have been merged with Block 9 of Registered Plan 62M-903, and conform to the requirements for minimum lot frontage through approved minor variance application FL/A-20:04 and minimum lot area, or alternatively apply for and receive final approval of any variances from the requirements of the Zoning By-Law as determined necessary by the Planning and Economic Development Department (Building Division – Zoning Section).
8. The applicant is required to provide the City with a transfer deed for a 27-foot (8.230m) road widening dedication along Highway 8 from the retained lands.
9. As a result, as a condition of approval to the satisfaction of Director, Hamilton Water, the applicant shall submit a scoped Hydrogeological Report conducted by a qualified professional (P.Eng, P.Geo) that demonstrates that a new private water supply well can sustainably support the proposed use, both from a quantity and quality perspective. This report shall conform to requirements set out in the City's Guidelines for Hydrogeological Studies and Technical Standards for Private Services with respect to water servicing, which can be found here:  
<https://www.hamilton.ca/develop-property/policies-guidelines/guidelines-hydrogeological-studies-and-technical-standards>
10. The owner shall pay any outstanding realty taxes and/or all other charges owing to the City Treasurer.
11. The owner submits to the Committee of Adjustment office an administration fee of \$20.00 payable to the City of Hamilton to cover the costs of setting up a new tax account for the newly created lot.

Note: Based on the application being approved and all the conditions being met, the owner / applicant should be made aware that the lands to be retained will remain as **177 Hwy 8, Hamilton (Flamborough)**, and the lands to be conveyed will be assigned the address of **80 Oak Avenue, Hamilton (Flamborough)**.



**FL/B-20:01 (177 Hwy 8, Flamborough)**

**PLANNING and ECONOMIC DEVELOPMENT DEPARTMENT**

**Development Planning – Rural:**

The purpose of this application is to permit the conveyance of vacant parcel of land for residential purposes (single detached dwelling) and to retain a parcel of land for future residential development.

**Rural Hamilton Official Plan**

The Rural Hamilton Official Plan designates the property as “Greensville Rural Settlement Area” and “Open Space” in Schedule D - Rural Land Use Designations and “Settlement Residential” and “Natural Open Space (Hazard Lands)” in Map 8a: Greensville Rural Settlement Area.

- “3.5.3.6      New *development* shall conform to Section C.2, Natural Heritage System policies in Volume 1 of this Plan.
- 3.5.5.3      The predominant form of residential *development* shall continue to be the single detached dwelling.
- 3.5.5.6      The division of land by consent may be considered when it is clear that a Plan of Subdivision is not necessary. When the severance of land by consent is deemed appropriate, regard shall be had to the other policies of this Rural Settlement Area Plan and Volume 1 of this Plan.
- 3.5.9.1      It is intended that Natural Open Space (Hazard Lands) will be conserved and that land uses or activities which could be affected by prevailing hazardous conditions such as flooding or erosion, will be prohibited in and adjacent to these areas.
- 3.5.9.2      No *development*, including the placing or removal of fill shall be permitted without the written approval of the Hamilton Region Conservation Authority.
- 3.5.9.4      Natural Open Space (Hazard Lands) shall be appropriately identified in the Zoning By-law, All lots which abut a watercourse or its tributaries shall be subject to specific Zoning By-law regulations regarding lot area and setbacks from the watercourse and its tributaries. These requirements may be reduced, by amendment to the Zoning By-law, subject to the requirements of the Hamilton Regional Conservation Authority, the Niagara Escarpment Commission, the Province and the City.

- F.1.14.2.4 Within designated Rural Settlement Areas all proposed severances that create a new lot and proposed lot additional shall:
- a) comply with the policies of this Plan including a rural settlement area plan where one exists;
  - b) be compatible with and not hinder surrounding agricultural operations;
  - c) conform to the Zoning By-law;
  - d) be permitted only when both severed and retained lots have frontage on a public road;
  - e) meet Minimum Distance Separation requirements; and,
  - f) meet the requirements of Section C.5.1, Private Water and Wastewater Services, except as permitted in F.1.14.2.7 d). (OPA 18)

C.5.1.1 No draft conditional, or final approval of development proposals shall be granted by the City for any development in the rural area that could impact existing private services or involves proposed private services until the development proposal has complied with all of the following:

- f) The existing or proposed water supply system shall include a well with sufficient quantity of water to sustain the use. A cistern system that meets current accepted standards, may, to the satisfaction of the City, be an additional component of the water supply system."

In a letter dated December 11, 2019 submitted with the application, the applicant's agent has advised the following:

The proposed development consists of a severance application to sever one parcel of land from the existing property. The proposed severed and retained parcels are identified as Parts 1 and 2. The purpose of the severance is to facilitate the development of the severed lands with a single residential dwelling on the northernmost portion of the severed lands. The retained lands (Part 1), will have a total area of approximately 10 ha and a frontage of 111 metres along Highway 8 and a frontage of 24 metres along Oak Avenue. The retained lands will include the existing frontage along Oak Avenue in order to facilitate a potential future right of way extension from Oak Avenue northwards.

The agent also advises that it is intended to merge the severed lands (Part 2) on title with Block 9 of Registered Plan of Subdivision 62M-903 to the south, which is under the same ownership. Block 9 has a total area of approximately 1,578 square metres, and 20

metres of frontage along Oak Avenue. The severed lands (Part 2) will have a total area of approximately 8 hectares (incl. Block 9). The width of the severed lands will be 38 metres, although only 20 metres will have frontage on Oak Avenue. The portion of the severed lands to be developed for residential use has an area of approximately 4,413 square metres (excl. Block 9).

### **Town of Flamborough Zoning By-law No. 90-145-Z**

The subject lands are zoned Settlement Residential Zone R2-24(H) which permits single detached dwellings. The proposed lot sizes comply with the Zoning By-law, however, a minor variance application is required in order to address the deficiency in lot width. The applicant has submitted a minor variance application FL/A-20:04 in order to address the deficiency.

### **Hamilton Zoning By-law No. 05-200**

The southern portion of the lands are zoned Conservation/Hazard Land Rural (P6) Zone. New Buildings and Structures are not permitted on a vacant lot. Therefore, no dwelling use is permitted on the portion of the lot zoned P6. There are no dwellings proposed on the P6 zoned portion of the subject lands.

### **Cultural Heritage**

The subject property meets four (4) of the ten criteria used by the City of Hamilton and Ministry of Heritage, Sport, Tourism and Culture Industries for determining archaeological potential:

- 1) Within 250 metres of known archaeological sites;
- 2) Within 300 metres of a primary watercourse or permanent waterbody, 200 metres of a secondary watercourse or seasonal waterbody, or 300 metres of a prehistoric watercourse or permanent waterbody;
- 3) In the vicinity of distinctive or unusual landforms; and,
- 4) Along historic transportation routes.

These criteria define the property as having archaeological potential. Accordingly, Section 2 (d) of the Planning Act and Section 2.6.2 of the Provincial Policy Statement apply to the subject application. If this severance is granted, staff require that the Committee of Adjustment attach the following condition to the application: (See below, under Conditions, if approved:)

**“Condition:** That the proponent shall carry out an archaeological assessment of the entire property and mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. No demolition, grading, construction activities, landscaping, staging, stockpiling or other soil disturbances shall take place on the subject property prior to the approval of the Director of Planning confirming that all archaeological resource concerns have met conservation requirements. All archaeological reports shall be submitted to the City of Hamilton concurrent with their submission to the Ministry of Heritage, Sport, Tourism and Culture Industries.

Should deeply buried archaeological materials be found on the property during any of the above development activities the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) should be notified immediately (416.314.7143). In the event that human remains are encountered during construction, the proponent should immediately contact both MHSTCI and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Small Business and Consumer Services (416.326.8392).”

The subject property is *adjacent* to 665 Governor’s Road, a property designated under Part IV of the *Ontario Heritage Act*. The subject property is also *adjacent* to 240 Weirs Lane and Highway 8, two properties listed on the City’s Inventory of Buildings of Architectural and/or

Historical Interest. In addition, the subject property is a part of the Greensville Cultural Heritage Landscape. Accordingly, Section 2.6.3 of the *Provincial Policy Statement* applies as follows:

*Development and site alteration may be permitted on adjacent lands to protected heritage property where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.*

*Mitigative measures and/or alternative development approaches may be required in order to conserve the heritage attributes of the protected heritage property affected by the adjacent development or site alteration.*

Notwithstanding that the subject property is adjacent to the Greensville Cultural Heritage Landscape and 665 Governor’s Road, staff have reviewed the application and are of the opinion that the cultural heritage value of the adjacent property will be conserved. Staff have no further comments on the application as circulated.

### Natural Heritage

Most of the property is within a woodland, which has been identified as a Linkage on Schedule B (Natural Heritage System) of the Rural Hamilton Official Plan (RHOP). After detailed field studies were undertaken as part of the Greensville Subwatershed Study (2016), the woodland was identified as a Core Area (Significant Woodland). The southern part of the property (zoned P6) is within the Greenbelt Plan Natural Heritage System and the remainder of the site is within the Greenbelt Plan Protected Countryside. Also, portions of the site are regulated by the Hamilton Conservation Authority, as the site is adjacent to streams and a wetland.

New development (defined as lot creation) and site alteration are not permitted within or adjacent to Core Areas, unless it can be shown, through an Environmental Impact Statement (EIS), that there will be no negative impacts on the ecological features or functions of the Core Areas.

Therefore, the application should be tabled until the following studies have been submitted and approved by the City of Hamilton:

- An Environmental Impact Statement/Linkage Assessment prepared by a qualified ecological consultant according to the City of Hamilton's EIS and Linkage Assessment Guidelines (2010); and,
- A Tree Protection Plan (TPP prepared according to the City of Hamilton's Tree Protection Guidelines (2010).

These studies will determine whether there will be any negative impacts to the Core Areas. For this reason, it is important to have approved environmental studies before any decision on the proposed consent is made, as it may not be possible to building on either the retained or severed lands.

### **Recommendation:**

Based on the preceding information, Staff recommends that the application be tabled in order for the applicant to submit an EIS/Linkage Assessment, a Tree Protection Plan and an Archaeological Assessment of the entire property. The studies will determine whether there will be any negative impacts to the Core Areas. The studies need to be submitted first and need to sufficiently support the severance into two properties. It is important to have approved environmental studies before any decisions on the proposed consent is made, as it may not be possible to build on either the retained or severed lands.

**CONDITIONS: (If Approved)**

1. An Environmental Impact Statement/Linkage Assessment prepared by a qualified ecological consultant according to the City of Hamilton's EIS and Linkage Assessment Guidelines (2010); and,
2. A Tree Protection Plan (TPP prepared according to the City of Hamilton's Tree Protection Guidelines (2010).
3. Site Plan will be required for both lots since they are within 120 metres of Core Areas.
4. That the owner shall receive final and binding approval of minor variance application FL/A-20:04.
5. That the proponent shall carry out an archaeological assessment of the entire property and mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. No demolition, grading, construction activities, landscaping, staging, stockpiling or other soil disturbances shall take place on the subject property prior to the approval of the Director of Planning confirming that all archaeological resource concerns have met conservation requirements. All archaeological reports shall be submitted to the City of Hamilton concurrent with their submission to the Ministry of Heritage, Sport, Tourism and Culture Industries.

Should deeply buried archaeological materials be found on the property during any of the above development activities the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) should be notified immediately (416.314.7143). In the event that human remains are encountered during construction, the proponent should immediately contact both MHSTCI and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Small Business and Consumer Services (416.326.8392)."

**Building Division:**

1. The parcel to be retained and the parcel to be severed are both currently vacant lands.
2. The lands to be severed shall be merged in title with the lands to which they are to be added (Block 9 of Registered Plan 62M-903).

.../7



3. The applicant should obtain an appropriate municipal address for the proposed parcel to be severed from the Growth Planning Section of the Planning and Economic Development Department prior to the issuance of a building permit.

**CONDITIONS:**

1. The owner shall receive final and binding approval of minor variance application FL/A-20:04.
2. The owner shall submit survey evidence that the lands to be severed have been merged with Block 9 of Registered Plan 62M-903, and conform to the requirements for minimum lot frontage through approved minor variance application FL/A-20:04 and minimum lot area, or alternatively apply for and receive final approval of any variances from the requirements of the Zoning By-Law as determined necessary by the Planning and Economic Development Department (Building Division – Zoning Section).

**Growth Management:**

Note: Based on the application being approved and all the conditions being met, the owner / applicant should be made aware that the lands to be retained will remain as **177 Hwy 8, Hamilton (Flamborough)**, and the lands to be conveyed will be assigned the address of **80 Oak Avenue, Hamilton (Flamborough)**.

**SOURCE WATER PROTECTION:**

Given the proposed lot size is greater than 1 hectare for 1 residential dwelling, Source Water Protection has no concerns on the proposed severance.

As a result, as a condition of approval to the satisfaction of Director, Hamilton Water, the applicant shall submit a scoped Hydrogeological Report conducted by a qualified professional (P.Eng, P.Geo) that demonstrates that a new private water supply well can sustainably support the proposed use, both from a quantity and quality perspective. This report shall conform to requirements set out in the City's Guidelines for Hydrogeological Studies and Technical Standards for Private Services with respect to water servicing, which can be found here: <https://www.hamilton.ca/develop-property/policies-guidelines/guidelines-hydrogeological-studies-and-technical-standards>

The scope of the investigation would include but not limited to:

1. A pumping test and monitoring of nearby wells to ensure a new well can support the proposed use without impacting nearby well owners

2. In order to assess the raw groundwater quality of the proposed new well, through a qualified professional the applicant shall test water quality parameters stated in the Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines (MOECC 2003) including Tables 1, 2 and 4, the Radiological Parameters to be tested shall be only Gross Alpha and Gross Beta. A copy of the Chain of Custody shall be provided with the sampling results. If there are exceedances in the sampling results, the proponent should provide recommendations for water treatment. Source Protection Planning and Public Health can review the recommendations.
3. A revised site plan shall delineate the location of all wells, septic system components, and other relevant features to ensure the development conforms to Ontario Building Code Part 8 minimum clearance distance requirements.
4. A revised site plan shall also delineate the location of a reserve septic bed as per Rural Hamilton Official Plan requirements.

### **Development Engineering:**

#### **Information:**

Per the Rural Hamilton Official Plan, there is a requirement for a 27-foot (8.230m) road widening dedication along Highway 8 from the retained lands.

Development Approvals advises the applicant to consult with the City of Hamilton, Source Water Protection Planning Office in Public Works to determine the necessity for items such as but not necessarily limited to, a water well survey to be conducted, a Permit to Take Water from the Ministry of Environment-Conservation-and-Parks, and Hydrogeological or Geotechnical Investigations to support any proposed development.

The applicant is advised that any future residential development on the R2-24(H) zoned portion of the retained lands (Part 1 on the sketch provided), may necessitate the requirement for an appropriate development agreement along with any associated

detailed technical submission and cost estimate schedules with provisions to build any rural residential development and any municipal infrastructure in accordance with the City's standards and policies as required by the Senior Director of Growth Management.

**Recommendations:**

The applicant is required to provide the City with a transfer deed for a 27-foot (8.230m) road widening dedication along Highway 8 from the retained lands.

**Transportation Planning & Parking Division (Traffic):**

Transportation Planning has no objection to the conveyance and retention of lands relating to this Committee of Adjustment Application provided the following conditions are met: a. Approximately 8.0 metres are to be dedicated to the right-of-way on Highway 8, as per the Council Approved Rural Official Plan: Schedule C-1 - Future Right-of-Way Dedications. Highway 8 (Peters Corners to Woodleys Lane) is to be 36.576 metres. A survey conducted by an Ontario Land Surveyor and at the Applicant's expense will determine the ultimate dimensions for the right-of-way widening(s).

**CORPORATE SERVICES:**

**Budgets, Taxation & Policy (outstanding taxes):**

The owner shall pay any outstanding realty taxes and/or all other charges owing to the City Treasurer.

**See attached for additional comments.**



Hamilton

Public Works Department, Environmental Services Division  
**Forestry and Horticulture Section**  
77 James Street North, Suite 400  
Hamilton, Ontario L8R 2K3  
905-546-1312  
UrbanForest@Hamilton.ca

**Date:** February 12, 2020

**To:** Scott Baldry, Committee of Adjustment Secretary/Treasurer  
Development Planning  
City Hall – 71 Main Street West -5<sup>th</sup> Floor

**From:** Sam Brush, Urban Forest Health Technician

**Subject:** 177 Hwy 8,  
Flamborough,  
File NO. FL/B-20:01

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## PREAMBLE

In response to your Agenda listing for the upcoming meeting on Thursday, February 20, 2020, regarding the above subject area under discussion, the Forestry & Horticulture Section has reviewed the submission associated with the Application for Consent/Land Severance for this site and provides the following opinion:

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## SCOPE

An assessment of the information provided shows that there are potential conflicts with publicly owned trees. Where existing municipal trees are impacted by development work, are within proximity of the development work or access/egress to the development work, a Tree Management Plan must be submitted to the Forestry and Horticulture Section c/o the Urban Forestry Health Technician.

Where ownership of trees in proximity to the boundary between public and private land is un-certain, the subject trees must be surveyed by the applicant to confirm ownership. Ownership is as per By-law 15-125. Ownership must be clearly identified on the Tree Management Plan as either municipal or private.

A **Permit** to injure or remove municipal trees is a requirement of this application. Therefore, a **Tree Management Plan** must be submitted to the Forestry and Horticulture Section c/o the Urban Forestry Health Technician, to address potential conflicts with publicly owned trees.

A **Landscape Plan** is required by to the Forestry and Horticulture Section, depicting the street tree planting scheme for the proposed development. In some cases, the requirement for a Landscape Plan may be waived. Request for waiver must be made to the Urban Forestry Health Technician.

Conditions of the Forestry and Horticulture Section will be cleared only after receipt of all applicable fees and payments.

## **TREE MANAGEMENT**

Tree Protection is a measure of efforts to preserve existing trees during the Planning of New Developments, Infrastructure Enhancements, Utility Upgrades & Residential Improvements.

The Forestry & Horticulture Section requires that a **Tree Management Plan** be prepared by a **Registered Landscape Architect**. All trees within this proposed development area must be surveyed, identified and accurately plotted on the plan to determine ownership, including intensions regarding retention or removal.

It is compulsory that all proposed surface treatment changes within individual tree driplines as well as property lines, building footprints, driveways, utility construction corridors and temporary access roads be accurately depicted on the submission.

The Tree Inventory Analysis Table on the Tree Management Plan shall not be considered complete without the following data and recommended action for each tree.

- ❖ Species by Botanical and common name
- ❖ Diameter at breast height in centimeters or millimeters
- ❖ Ownership {> 50% @ ground level = ownership}
- ❖ Biological health
- ❖ Structural condition
- ❖ Proposed grade changes within individual driplines {compulsory}
- ❖ Proposed utility construction within individual driplines {compulsory}
- ❖ Proposed removals or relocations
- ❖ Proposed trees to be protected

If it is determined and verified that existing trees can remain, a Tree Protection Zone Detail with notes showing Tree Preservation Techniques shall be included on the submission as per the **Public Tree Preservation and Sustainability Policy**.

The determination of ownership of all trees is the responsibility of the applicant and any civil issues which may exist or arise between property owners with respect to trees, must be resolved by the applicant. The ownership of each individual tree inventoried must be clearly stated as municipal or private.

All Healthy trees on municipal property which are found to be in conflict with this proposed development and do not meet our criteria for removal are subject to a replacement fee as outlined in the **Public Tree Preservation and Sustainability Policy** in conjunction with **By-Law 15-125**.

A \$273.26 plus HST permit fee, payable to the City of Hamilton is required prior to the permit issuance.

**A permit will be issued upon approval of the Tree Management Plan and applicable fees.**

## **LANDSCAPE PLAN**

The Forestry & Horticulture Section requires that a detailed Landscape Planting Plan prepared by a **Registered Landscape Architect**, showing the placement of trees on internal/external City property be provided.

The City of Hamilton's Public Tree Preservation and Sustainability Policy in conjunction with the Tree By-Law 15-125 requires new developments to provide payment of \$644.89 plus HST per tree for road allowance street trees. All street tree plantings shall be planted by the City of Hamilton, as approved through the review of a proposed street tree planting scheme. All trees shown on municipal road allowance shall be identified as 'Trees to be planted by City of Hamilton Forestry Section.

Urban Forest Health Technician from the Forestry Section shall be notified post construction, when final grade has been achieved, to facilitate the scheduling of the street tree planting(s). Otherwise, all sites will be monitored annually by Forestry to determine when site is suitable for the following planting season.

The Landscape Plan should specifically outline 50mm caliper size and the species of trees to be planted as well as identify hard surface and soft surface areas on the site. Individually planted trees in new sidewalk installations shall include a detail showing 21 m<sup>3</sup> of soil, and a grouping of 2 or more trees in a soil bed shall include 16m<sup>3</sup> of soil per tree. New sidewalks, paving or asphaltting shall allow 1.5m<sup>2</sup> of breathing space for tree roots.

An option to allow forestry to determine tree species is permitted and plan shall reflect that decision by denoting on plan 'City of Hamilton forestry department to determine species'. Please note; all private trees on plan shall have species denoted.

Tree species selection should take into account cultivars {fruitless etc.} salt and heat tolerance, mature tree size, public visibility and daylight triangles, as well as potential pest concerns. Spacing guidelines for trees are ten (10) metres on centre for larger species and seven (7) metres on centre for smaller species.

Guidelines for species diversity shall ensure no single species shall make up more than 20% of the total street tree population. No coniferous trees will be permitted on City of Hamilton road allowance. Any identified street tree species on plan will be subject to change at time of planting due to but limited to; on site conditions, in stock availability and compatibility with approved species by City of Hamilton. Although utility conflicts may change specific planting locations, every opportunity will be made to keep with the intent of the design. Trees planted on the road allowance will have a minimum approximate caliper of 50 mm.



Forestry's mission to increase urban canopy through new development encourages any opportunity for planting locations.

All efforts to maximize street tree planting must be made. Minimum tree placement is 8 to 10 metres apart.

## **SUMMARY OF FORESTRY CONDITIONS**

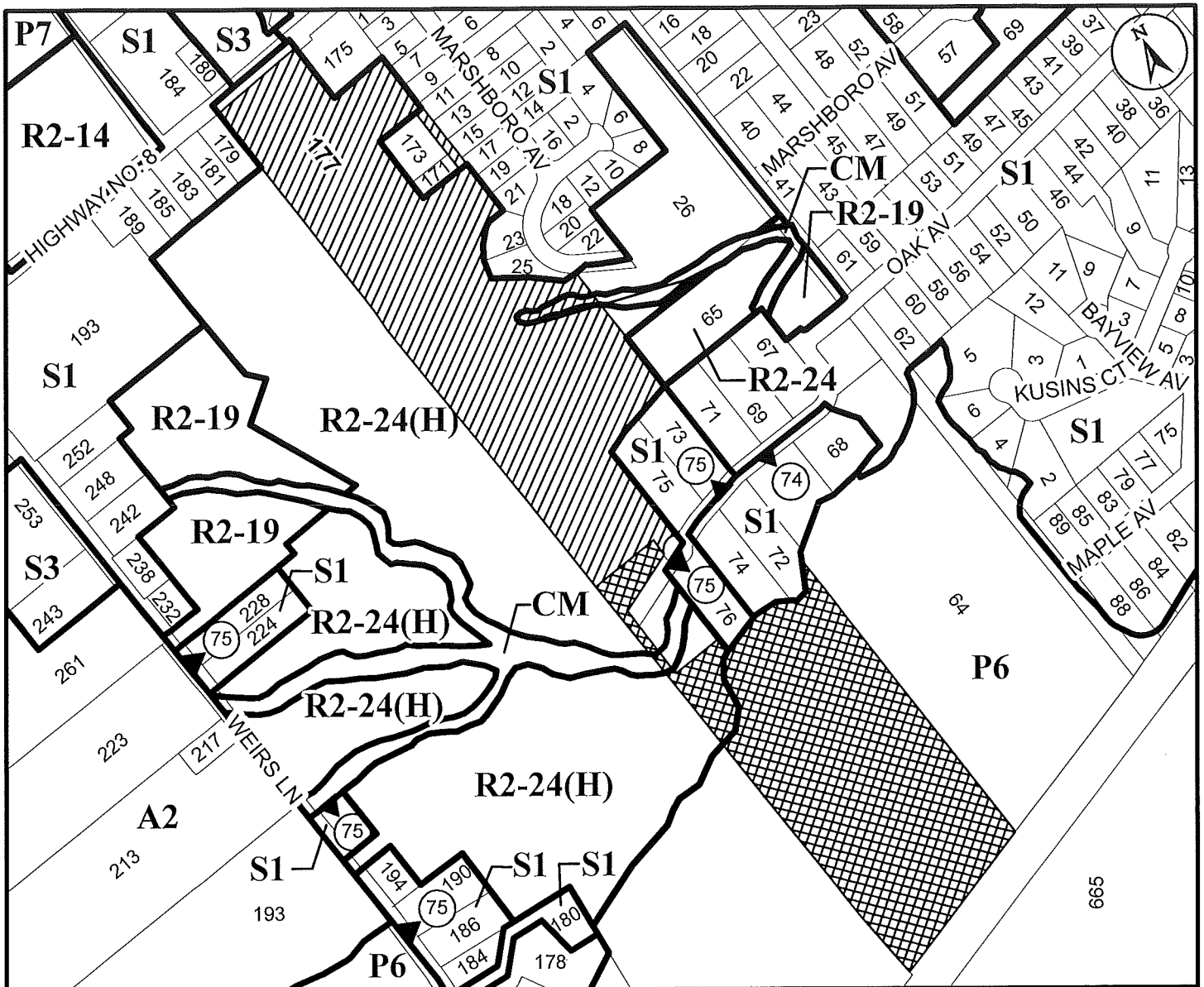
- A **Permit** to injure or remove municipal trees is a requirement of this application. Therefore, a **Tree Management Plan** must be submitted to the Forestry and Horticulture Section c/o the Urban Forestry Health Technician, to address potential conflicts with publicly owned trees.
- A **permit will be issued upon approval of the Tree Management Plan and applicable fees.**
- A Landscape Plan must be submitted to the Forestry and Horticulture Section c/o the Urban Forestry Health Technician, depicting the street tree planting scheme for the proposed development.

If you require clarification or technical assistance, please do not hesitate to contact me at (905) 546-2424 Ext. 7375.

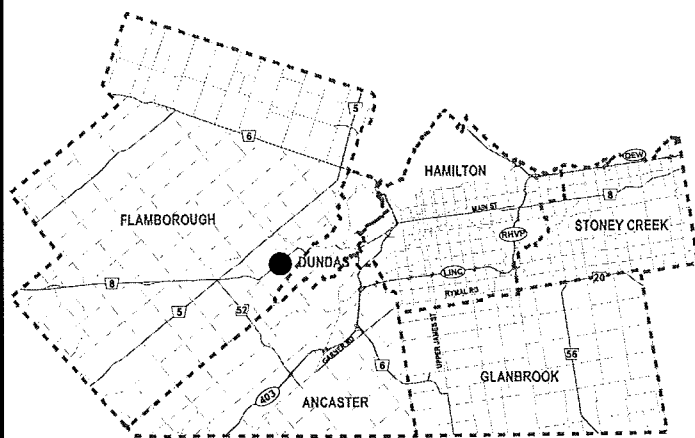
Regards,

A handwritten signature in black ink, appearing to read 'Sam Brush'.

Sam Brush  
Urban Forest Health Technician



● Site Location



**City of Hamilton**

## Committee of Adjustment

### Subject Property

177 Highway No. 8, Flamborough (Ward 13)



Lands to be Retained



Lands to be Severed

File Name/Number:

FL/B-20:01

Date:

February 7, 2020

Technician:

AL

Map Not To Scale

Appendix "A"



**Hamilton**

PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT

February 20th, 2019

## **CONSOLIDATION REPORT VARIANCES**

The attached comments have been reviewed with regard to Committee of Adjustment Variance Application **FL/A-20:04 (177 Hwy 8, Flamborough)** and the following comments are submitted:

**Should the Committee approve the application, an approval should be subject to the following condition:**

1. That the applicant receives final and binding approval of Consent Application FL/B-20:01;
2. An Environmental Impact Statement/Linkage Assessment prepared by a qualified ecological consultant according to the City of Hamilton's EIS and Linkage Assessment Guidelines (2010);
3. A Tree Protection Plan (TPP prepared according to the City of Hamilton's Tree Protection Guidelines (2010);
4. Site Plan will be required for both lots since they are within 120 metres of Core Areas;
5. That the proponent shall carry out an archaeological assessment of the entire property and mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. No demolition, grading, construction activities, landscaping, staging, stockpiling or other soil disturbances shall take place on the subject property prior to the approval of the Director of Planning confirming that all archaeological resource concerns have met conservation requirements. All archaeological reports shall be submitted to the City of Hamilton concurrent with their submission to the Ministry of Heritage, Sport, Tourism and Culture Industries.

Should deeply buried archaeological materials be found on the property during any of the above development activities the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) should be notified immediately (416.314.7143). In the event that human remains are encountered during construction, the proponent should immediately contact both MHSTCI and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Small Business and Consumer Services (416.326.8392).

**FL/A-20:04 (177 Hwy 8, Flamborough)**

**PLANNING and ECONOMIC DEVELOPMENT DEPARTMENT**

**Development Planning – Rural:**

The purpose of this application is to permit the construction of a single detached dwelling on each newly created lot, notwithstanding that the minimum frontage for the proposed lot to be severed, shown as Part 2 on the submitted survey shall be 20m instead of the minimum required 30m.

**Rural Hamilton Official Plan**

The Rural Hamilton Official Plan designates the property as “Greensville Rural Settlement Area” and “Open Space” in Schedule D - Rural Land Use Designations and “Settlement Residential” in Map 8a: Greensville Rural Settlement Area.

“3.5.5.3      The predominant form of residential *development* shall continue to be the single detached dwelling.

3.5.5.6      The division of land by consent may be considered when it is clear that a Plan of Subdivision is not necessary. When the severance of land by consent is deemed appropriate, regard shall be had to the other policies of this Rural Settlement Area Plan and Volume 1 of this Plan.

F.1.14.2.4   Within designated Rural Settlement Areas all proposed severances that create a new lot and proposed lot additional shall:

- a)      comply with the policies of this Plan including a rural settlement area plan where one exists;
- b)      be compatible with and not hinder surrounding agricultural operations;
- c)      conform to the Zoning By-law;
- d)      be permitted only when both severed and retained lots have frontage on a public road;
- e)      meet Minimum Distance Separation requirements; and,
- f)      meet the requirements of Section C.5.1, Private Water and Wastewater Services, except as permitted in F.1.14.2.7 d). (OPA 18)

C.5.1.1      No draft conditional, or final approval of development proposals shall be granted by the City for any development in the rural area that could impact existing private services or involves proposed private services until the development proposal has complied with all of the following:

- g) The existing or proposed water supply system shall include a well with sufficient quantity of water to sustain the use. A cistern system that meets current accepted standards, may, to the satisfaction of the City, be an additional component of the water supply system.”

### **Town of Flamborough Zoning By-law No. 90-145-Z**

The subject lands are zoned R2-24(H). The proposed lot sizes comply with the Zoning By-law, however, a minor variance application is required in order to address the deficiency in lot width. The applicant has submitted a minor variance application FL/A-20:04 in order to address the deficiency.

### **Hamilton Zoning By-law No. 05-200**

The southern portion of the lands are zoned Conservation/Hazard Land Rural (P6) Zone. New Buildings and Structures are not permitted on a vacant lot. Therefore, no dwelling use is permitted on the portion of the lot zoned P6. There are no dwellings proposed on the P6 zoned portion of the subject lands.

#### **Natural Heritage**

Most of the property is within a woodland, which has been identified as a Linkage on Schedule B (Natural Heritage System) of the Rural Hamilton Official Plan (RHOP). After detailed field studies were undertaken as part of the Greensville Subwatershed Study (2016), the woodland was identified as a Core Area (Significant Woodland). The southern part of the property (zoned P6) is within the Greenbelt Plan Natural Heritage System and the remainder of the site is within the Greenbelt Plan Protected Countryside. Also, portions of the site are regulated by the Hamilton Conservation Authority, as the site is adjacent to streams and a wetland.

New development (defined as lot creation) and site alteration are not permitted within or adjacent to Core Areas, unless it can be shown, through an Environmental Impact Statement (EIS), that there will be no negative impacts on the ecological features or functions of the Core Areas.

Therefore, the application should be tabled until the following studies have been submitted and approved by the City of Hamilton:

- An Environmental Impact Statement/Linkage Assessment prepared by a qualified ecological consultant according to the City of Hamilton’s EIS and Linkage Assessment Guidelines (2010); and,

- A Tree Protection Plan (TPP prepared according to the City of Hamilton's Tree Protection Guidelines (2010).

These studies will determine whether there will be any negative impacts to the Core Areas. For this reason, it is important to have approved environmental studies before any decision on the proposed consent is made, as it may not be possible to building on either the retained or severed lands.

### **Variance 1**

The applicant is seeking a variance to permit that the minimum lot frontage for the proposed lot to be severed, shown as Part 2 on the submitted survey shall be 20 m instead of the minimum required 30 m. As staff are recommending tabling the Severance application, staff cannot support the minor variance application at this time as the proposal may change after consideration of the required studies. As such, staff do not support the variance at this time as it is premature.

### **Cultural Heritage**

The subject property meets four (4) of the ten criteria used by the City of Hamilton and Ministry of Heritage, Sport, Tourism and Culture Industries for determining archaeological potential:

- 5) Within 250 metres of known archaeological sites;
- 6) Within 300 metres of a primary watercourse or permanent waterbody, 200 metres of a secondary watercourse or seasonal waterbody, or 300 metres of a prehistoric watercourse or permanent waterbody;
- 7) In the vicinity of distinctive or unusual landforms; and,
- 8) Along historic transportation routes.

These criteria define the property as having archaeological potential. Accordingly, Section 2 (d) of the Planning Act and Section 2.6.2 of the Provincial Policy Statement apply to the subject application. If this severance is granted, staff require that the Committee of Adjustment attach the following condition to the application:

**“Condition:** That the proponent shall carry out an archaeological assessment of the entire property and mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. No demolition, grading, construction activities, landscaping, staging, stockpiling or other soil disturbances shall take place on the subject property prior to the approval of the



Director of Planning confirming that all archaeological resource concerns have met conservation requirements. All archaeological reports shall be submitted to the City of Hamilton concurrent with their submission to the Ministry of Heritage, Sport, Tourism and Culture Industries.

Should deeply buried archaeological materials be found on the property during any of the above development activities the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) should be notified immediately (416.314.7143). In the event that human remains are encountered during construction, the proponent should immediately contact both MHSTCI and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Small Business and Consumer Services (416.326.8392)."

The subject property is *adjacent* to 665 Governor's Road, a property designated under Part IV of the *Ontario Heritage Act*. The subject property is also *adjacent* to 240 Weirs Lane and Highway 8, two properties listed on the City's Inventory of Buildings of Architectural and/or

Historical Interest. In addition, the subject property is a part of the Greensville Cultural Heritage Landscape. Accordingly, Section 2.6.3 of the *Provincial Policy Statement* applies as follows:

*Development and site alteration may be permitted on adjacent lands to protected heritage property where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.*

*Mitigative measures and/or alternative development approaches may be required in order to conserve the heritage attributes of the protected heritage property affected by the adjacent development or site alteration.*

Notwithstanding that the subject property is adjacent to the Greensville Cultural Heritage Landscape and 665 Governor's Road, staff have reviewed the application and are of the opinion that the cultural heritage value of the adjacent property will be conserved. Staff have no further comments on the application as circulated.

### **Recommendation**

Based on the preceding information, Staff recommends that the application be tabled in order for the applicant to submit an EIS/Linkage Assessment, a Tree Protection Plan and an Archaeological Assessment of the entire property. The studies will determine

whether there will be any negative impacts to the Core Areas. It is important to have approved environmental studies before any decisions on the proposed consent is made, as it may not be possible to build on either the retained or severed lands. The studies need to sufficiently support the severance into two properties, and only then will the application for the variance be considered.

**CONDITIONS: (If Approved)**

1. That the applicant receive final and binding approval of Consent Application FL/B-20:01;
2. An Environmental Impact Statement/Linkage Assessment prepared by a qualified ecological consultant according to the City of Hamilton's EIS and Linkage Assessment Guidelines (2010);
3. A Tree Protection Plan (TPP prepared according to the City of Hamilton's Tree Protection Guidelines (2010);
4. Site Plan will be required for both lots since they are within 120 metres of Core Areas;
5. That the proponent shall carry out an archaeological assessment of the entire property and mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. No demolition, grading, construction activities, landscaping, staging, stockpiling or other soil disturbances shall take place on the subject property prior to the approval of the Director of Planning confirming that all archaeological resource concerns have met conservation requirements. All archaeological reports shall be submitted to the City of Hamilton concurrent with their submission to the Ministry of Heritage, Sport, Tourism and Culture Industries.

Should deeply buried archaeological materials be found on the property during any of the above development activities the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) should be notified immediately (416.314.7143). In the event that human remains are encountered during construction, the proponent should immediately contact both MHSTCI and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Small Business and Consumer Services (416.326.8392).

**Building Division:**

1. The variance is intended to facilitate the concurrent severance of the property through Consent Application FL/B-20:01.
2. The parcel to be severed (Part 2), requires the merging with Block 9 of Registered Plan 62M-903 in order to create the 20m of frontage identified for the variance.
3. The parcel to be severed, (Part 2) is zoned Settlement Residential "R2-24(H)" Holding Zone and Conservation Management (CM) Zone in Zoning By-law 90-145-Z and Conservation/ Hazard Land Rural (P6) Zone in Zoning By-law 05-200. Please note that residential development is only permitted in the portion of the property that is zoned R2-24.
4. In addition to Note #2 above, the Zoning By-law requires that no building or structure be erected within 15m of the CM Zone boundary without written permission from the Conservation Authority having jurisdiction.
5. Also, in addition to Note #2 above, the development of new single detached dwellings is not permitted under Zoning By-law 05-200 for the P6 Zone.
6. The Holding Provision "H", applicable to the R2-24 Zone is required to be removed prior to the construction of any building or structure. The mechanism for the removal of the Holding provision "H" is not specified in the Zoning By-law but would be based on the requirement for orderly development.
7. A building permit is required for the construction of a new single detached dwelling on the lands to be retained (Part 1) and the lands to be severed (Part 2).
8. The majority of the parcel to be severed shown as Part 2 that is zoned P6 Zone is within Development Control and controlled by the Niagara Escarpment Planning and Development Act. For further information please contact:  
  
Niagara Escarpment Commission  
232 Guelph Street  
Georgetown, ON  
L7G 4B1  
(905) 877-5191
9. Be advised that a portion of the lands to be retained (Part 1) and most of the lands to be severed (Part 2) are regulated by the Hamilton Conservation Authority. Please contact the Hamilton Conservation Authority at (905)-525-2181 for further information.

10. Based on current GIS mapping by the City of Hamilton, the parcel to be severed, (Part 2) is located within and adjacent to an Environmentally Sensitive Area (ESA) and may be subject to Site Plan Control.

**Development Engineering:**

No Comment



● Site Location



## Committee of Adjustment

### Subject Property



177 Highway No. 8,  
Flamborough (Ward 13)

File Name/Number:  
FL/A-20:04

Date:  
February 5, 2020

Technician:  
AL

Map Not To Scale

Appendix "A"



Hamilton

PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT

City of Hamilton



A Healthy Watershed for Everyone

**BY E-MAIL**

February 20, 2020

File No. FL/B-20:01  
& File No. FL/A-20:04

Ms. Anita Fabic  
Acting Secretary-Treasurer  
Committee of Adjustment  
City of Hamilton  
City Hall  
71 Main Street West, 5<sup>th</sup> Floor  
Hamilton, Ontario L8P 4Y5

Dear Ms. Fabic:

**Re: Application for Consent/Land Severance, File No. FL/B-20:01  
and Application for Minor Variance, File No. FL/A-20:04  
by 330113 Ontario Incorporated  
Part of Lot 6, Concession 1, West Flamborough  
177 Hwy. 8, Hamilton (formerly Town of Flamborough)**

Thank you for providing the Hamilton Conservation Authority (HCA) with the Notice of Public Hearing for the Committee of Adjustment for the above noted land severance application and minor variance application. HCA staff have reviewed the information provided in accordance with HCA's responsibilities under the *Conservation Authorities Act*, the Memorandum of Understanding between the Ontario Ministry of Natural Resources (MNR), the Ontario Ministry of Municipal Affairs and Housing (MMAH) and Conservation Authorities (CA) relating to provincial interests for natural hazards, and the Memorandum of Agreement between the HCA and the City of Hamilton for planning and technical review services.

### **Proposal**

HCA staff understands that the application by 330113 Ontario Incorporated is to create a new 8.0 ha +/- residential lot (identified as Part 2 on the survey plan prepared by J.D. Barnes Limited dated November 28, 2019) for the purpose of erecting a single detached dwelling on the northernmost portion of the severed lot (situated to the north of Block 9) and to retain the remaining 10.4 ha +/- vacant parcel of land to the north (identified as Part 1 on the survey plan prepared by J.D. Barnes Limited dated November 28, 2019) for future residential development. We also understand that the severed Part 2 lands would be merged on title with Block 9 of Registered Plan 62M-903, a vacant 1.6 ha +/- parcel of land situated at the westerly end of Oak Avenue that is part of the Sundusk Estates subdivision, 25T-93011, in order to provide the severed parcel with 20 m +/- of lot frontage and also to allow access from Oak Avenue, while still maintaining the existing easement in favour of the City of Hamilton across Block 9 for continued access from Oak Avenue westerly to the existing stormwater management facility located on Block 7, Registered Plan 62M-903.

1.



According to the Building Envelope Sketch prepared by A.J. Clarke and Associates Ltd., dated December 2019 (submitted to HCA on February 14, 2020), the proposed 20 m lot frontage is situated along the easterly side of the proposed 0.20 ha +/- building envelope, which is located within the northern most portion of the 8.0 ha +/- severed parcel, on the north side of Block 9. Since the proposed building envelope is located within the Settlement Residential "R2-24(H)" Holding Zone in the former Town of Flamborough Zoning By-law 90-145-Z, whereby new single-detached dwellings must be situated on lots having a minimum area of 0.2 ha and a minimum lot frontage of 30 m, the applicant is also requesting a minor variance to allow a reduction from the required minimum 30 m lot frontage to the proposed 20 m lot frontage.

#### **Memorandum of Agreement Hamilton Conservation Authority and City of Hamilton**

The 18.31 ha subject property is located on the south side of Hwy. 8 in Flamborough, with the CN Rail lands forming the southerly boundary of the lot. The entire property is located within the Niagara Escarpment Plan Area, with the northerly portion of the lot (including the retained parcel and the proposed building envelope on the severed parcel) being within the area designated as Escarpment Rural Area and the southerly portion of the retained parcel containing the treed escarpment slope being within the area designated as Escarpment Natural Area. HCA staff note that the Escarpment Natural Area falls within The Niagara Escarpment Commission (NEC) Development Control Area. The treed escarpment slope and valley lands located on the southerly portion of the retained parcel is also identified as a Core Area and a Significant Woodland in the City of Hamilton's Rural Official Plan and contains a portion of the Dundas Valley Environmentally Significant Area (ESA).

HCA staff note that the proposed building envelope, as illustrated on the Building Envelope Sketch prepared by A.J. Clarke and Associates Ltd., dated December 2019, is located outside of the NEC Development Control Area, outside the Core Area, more than 120 m from the Dundas Valley ESA, and more than 15 m from the Conservation Management "CM" Zone.

#### **Ontario Regulation 161/06 under the Conservation Authorities Act**

Both the proposed retained and severed parcels of land are traversed by headwater tributaries of Middle Spencer Creek and contain flood and erosion lands associated with these watercourses, including the steep valley slope of the Niagara Escarpment in the southern most portion of the property. The watercourses and their associated flood and erosion hazard lands are affected by *Ontario Regulation 161/06 (HCA's Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses)* made under the *Conservation Authorities Act, R.S.O. 1990*.

HCA staff note that the proposed building envelope (as illustrated on the Building Envelope Sketch prepared by A.J. Clarke and Associates Ltd., dated December 2019) is located outside HCA's regulated area and as such a HCA Permit is not required for the construction of a new single family dwelling within the proposed building envelope. Please be advised however, that any future development, including the erection of any buildings or structures, the placement or removal of fill material, grading activities and watercourse alterations within HCA's regulated areas on the retained and/or severed parcels will require the prior written approval of HCA (i.e. a HCA Permit or HCA Letter of Permission).

### **MNR/MMAH/CA Memorandum of Understanding – PPS Natural Hazards**

As noted above, several headwater tributaries of Middle Spencer Creek traverse the subject property and both the retained and severed parcels contain flood and erosion hazard lands associated with these watercourses. The proposed building envelope on the retained parcel (as illustrated on the Building Envelope Sketch prepared by A.J. Clarke and Associates Ltd., dated December 2019) is located outside the flood and erosion hazard lands, as are some portions of the retained parcel. Therefore, the severance application is consistent with both HCA and Provincial natural hazard policy.

### **Summary**

Since both the proposed retained and severed parcels contain lands for suitable building envelopes that would be located outside the natural heritage and buffer lands associated with the NEC's Escarpment Natural Area, the Significant Woodland and Dundas Valley ESA, and outside the natural hazard lands associated with the Middle Spencer Creek watercourses and the Escarpment slope; HCA has no objection to the approval of the subject severance application and the subject minor variance application.

Should you have any questions, please do not hesitate to contact the undersigned at ext. 132.

Yours truly,



Nora Jamieson  
Watershed Planner

cc. Jamila Sheffield, City of Hamilton, Committee of Adjustment (by email)  
Melissa Kiddie, City of Hamilton, Natural Heritage Planner (by email)  
Jim Avram, NEC, Senior Planner (by email)  
330113 Ontario Inc., c/o M. Zimmerman, applicant (by email)  
Franz Kloibhofer, A.J. Clarke & Associates Ltd., agent (by email)

## APPENDIX 2 | EIS Table of Contents



The Table of Contents for the Final EIS will be as follows:

- 1.0 Introduction
  - 1.1 Policy Review
    - 1.1.1 Provincial Policy Statement
    - 1.1.2 Greenbelt Plan
    - 1.1.3 Niagara Escarpment Plan
    - 1.1.4 City of Hamilton Official Plan
    - 1.1.5 Hamilton Conservation Authority Policies and Regulations
  - 1.2 Background Information Review
- 2.0 Field Inventories Methodology
  - 2.1 Flora Surveys and ELC
  - 2.2 Breeding Bird Surveys
  - 2.3 Amphibian Surveys
  - 2.5 Feature Staking
- 3.0 Existing Conditions
  - 3.1 Vegetation Surveys
  - 3.2 Wildlife Surveys
    - 3.2.1 Breeding Birds
    - 3.2.2 Amphibian Surveys
    - 3.2.3 Incidental Wildlife
  - 3.7 Species at Risk Screening
  - 3.8 Significant Wildlife Habitat Screening
  - 3.9 Feature Limits
- 4.0 Description of Proposed Development
  - 4.1 Stormwater Management
- 5.0 Identification and Assessment of Impacts
- 6.0 Mitigation Measures
- 7.0 Recommendations

## **APPENDIX 2 | Species at Risk Screening**



Appendix 2. Pre-screening Species at Risk (SAR) results recorded in property vicinity.

Common Name	Scientific Name	SARO Status	COSEWIC Status	Data Source	Habitat / Nesting Habitat (Birds)	Habitat Present on Site?
Acadian Flycatcher	<i>Empidonax virens</i>	END	END	NHIC	Mature forests, forested swamps	No
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SC	NAR	eBird	Woodlands and forests adjacent to water	No
Barn Swallow	<i>Hirundo rustica</i>	THR	THR	NHIC	Barns, sheds, bridges, culverts	No
Canada Warbler	<i>Cardellina canadensis</i>	THR	THR	eBird	Mixed conifer and deciduous forest	No
Cerulean Warbler	<i>Setophaga cerulea</i>	THR	END	NHIC	Mature deciduous forests	Possible in woods adjacent to south part of property
Chimney Swift	<i>Chaetura pelagica</i>	THR	THR	eBird	Chimneys and other manmade structures	No
Eastern Meadowlark	<i>Sturnella magna</i>	THR	THR	NHIC	Grasslands, prairies, pastures, agricultural fields	No
Eastern Wood-Pewee	<i>Contopus virens</i>	SC	SC	eBird	Woods	Yes
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	SC	THR	eBird	Open woodlands and thickets, disturbed areas including field edges, hydro corridors	Yes
Louisiana Waterthrush	<i>Parkesia motacilla</i>	THR	THR	NHIC, eBird	Rivers and streams in mature deciduous or mixed forest	No
Northern Bobwhite	<i>Colinus virginianus</i>	END	END	NHIC	Grasslands, agricultural fields	No
Wood Thrush	<i>Hylocichla mustelina</i>	SC	THR	eBird	Mature mixed and deciduous woodlands	Yes
Yellow-breasted Chat	<i>Icteria virens</i>	END	END	Yellow-breasted Chat	Scrub habitat, forest edges, swamps, edges of streams	No
Gypsy Cuckoo Bumble Bee	<i>Bombus bohemicus</i>	END	END	NHIC	Meadows, woodlands, agricultural, urban	Yes
Nine-spotted Lady Beetle	<i>Coccinella novemnotata</i>	END	END	NHIC	Forests, grasslands, meadows, agricultural, suburban	Yes

Common Name	Scientific Name	SARO Status	COSEWIC Status	Data Source	Habitat / Nesting Habitat (Birds)	Habitat Present on Site?
Yellow-banded Bumble Bee	<i>Bombus terricola</i>	SC	SC	NHIC	Mixed woodlands, grassland, farmland, urban	Yes
Monarch Butterfly	<i>Danaus plexippus</i>	SC	END	Ontario Butterfly Atlas	Meadows and woodland edges where milkweeds ( <i>Asclepias</i> spp.) occur	Yes
Mottled Duskywing	<i>Erynnis martialis</i>	END	NAR	Ontario Butterfly Atlas	Open barrens, sandy patches in woodlands, and alvars where New Jersey tea and prairie redroot occur	No
Blanding's Turtle	<i>Emydoidea blandingii</i>	THR	END	Ontario Reptile & Amphibian Atlas	Wetlands and shallow lakes	No
Eastern Milksnake	<i>Lampropeltis triangulum</i>	NAR	SC	NHIC	Forest, woodland, cropland, grassland; nests in soil, sawdust piles	Yes
Eastern Musk Turtle	<i>Sternotherus odoratus</i>	SC	SC	Ontario Reptile & Amphibian Atlas	Forested wetland, ponds, lakes, marshes and slow-moving rivers; nests in soil, under logs, debris, muskrat houses	No
Eastern Ribbonsnake	<i>Thamnophis sauritus</i>	SC	SC	Ontario Reptile & Amphibian Atlas	Forested wetland, scrub-shrub wetland	No
Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	END	END	NHIC	Forested wetlands and woodlands; eggs attached to sticks and plant stems in ponds with adjacent forest	No
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	NAR	SC	Ontario Reptile & Amphibian Atlas	Water bodies with adjacent marshes; nests in open gravelly or sandy upland banks	No
Northern Map Turtle	<i>Graptemys geographica</i>	SC	SC	Ontario Reptile & Amphibian Atlas	Rivers and lakeshores; nests in soft soil or sand	No
Snapping Turtle	<i>Chelydra serpentina</i>	SC	SC	Ontario Reptile &	Large water bodies with adjacent	No

Common Name	Scientific Name	SARO Status	COSEWIC Status	Data Source	Habitat / Nesting Habitat (Birds)	Habitat Present on Site?
				Amphibian Atlas	marshes; nests in upland sandy or gravelly banks	
Unisexual Ambystoma (Jefferson Salamander dependent population)	<i>Ambystoma</i> hybrid pop. 1	END	END	NHIC	Vernal pools in mature woodland; egg masses laid on sticks or emergent vegetation at various depths in breeding pond	No
Western Chorus Frog (Great Lakes/St. Lawrence - Canadian Shield population)	<i>Pseudacris triseriata</i>	NAR	THR	Ontario Reptile & Amphibian Atlas	Vernal pools adjacent to meadows and thickets; eggs are laid on submerged vegetation	Yes
American Eel	<i>Anguilla rostrata</i>	END	THR	NHIC	Fresh water, estuaries and coastal marine waters	No
Eastern Pondmussel	<i>Ligumia nasuta</i>	END	SC	NHIC	Lakes, slow-moving areas of rivers and canals with sand or mud bottoms	No
Redside Dace	<i>Clinostomus elongatus</i>	END	END	NHIC	Pools and slow-moving areas of small streams and headwaters with a gravel bottom	No
American Chestnut	<i>Castanea dentata</i>	END	END	NHIC	Dry upland deciduous forest	Yes (woods to south only)
Broad Beech Fern	<i>Phegopteris hexagonoptera</i>	SC	SC	NHIC	Deciduous forests with moist soil and full shade	Yes (woods to south only)
Downy Yellow False Foxglove	<i>Aureolaria virginica</i>	NAR	END	NHIC	Oak savannas and open woodlands	No
Eastern Burning Bush	<i>Euonymus atropurpureus</i>	NAR	NAR	NHIC	Open woods, thickets, near streams	Yes (woods to south only)
Eastern Few-fruited Sedge	<i>Carex oligocarpa</i>	NAR	NAR	NHIC	Wooded slopes and ravines	Yes (woods to south only)

Common Name	Scientific Name	SARO Status	COSEWIC Status	Data Source	Habitat / Nesting Habitat (Birds)	Habitat Present on Site?
Panicked Hawkweed	<i>Hieracium paniculatum</i>	NAR	NAR	NHIC	Woods	Yes (woods to south only)
Perfoliate Bellwort	<i>Uvularia perfoliata</i>	NAR	NAR	NHIC	Deciduous forests	Yes (woods to south only)
Red Mulberry	<i>Morus rubra</i>	END	END	NHIC	Forested valleys and floodplains	Yes (woods to south only)
Scarlet Beebalm	<i>Monarda didyma</i>	NAR	NAR	NHIC	Moist, open woods, meadows stream banks	Yes (woods to south only)
Spotted Wintergreen	<i>Chimaphila maculata</i>	THR	THR	NHIC	Dry oak-pine woodland habitats with sandy soils	No
White-tinged Sedge	<i>Carex albicans</i> var. <i>albicans</i>	NAR	NAR	NHIC	Wooded slopes, woodland clearings	Yes (woods to south only)
Woodland Pinedrops	<i>Pterospora andromedea</i>	NAR	NAR	NHIC	Conifer forests, mixed conifer-hardwood forest	No

## **APPENDIX 3 | List of Flora Species**



Appendix 3. List of Flora Species noted on the Subject Property at 177 Highway 8, Flamborough

Family	Scientific Name	Common Name	Global Status	Provincial Status	Federal Status	Hamilton NAI Status	Non-Native?	CUW/SWD	CUM	MAS (SWM)	FOD/CUW	CUH
Equisetaceae	<i>Equisetum arvense</i> L.	Field Horsetail	G5	S5			No	x	x			
Onocleaceae	<i>Onoclea sensibilis</i> L.	Sensitive Fern	G5	S5			No	x				
Dryopteridaceae	<i>Dryopteris carthusiana</i> (Vill.) H.P. Fuchs	Spinulose Wood Fern	G5	S5			No					
Dryopteridaceae	<i>Dryopteris marginalis</i> (L.) A.Gray	Marginal Wood Fern	G5	S5			No					
Lauraceae	<i>Sassafras albidum</i> (Nutt.) Nees	Sassafras	G5	S4			No	x				x
Araceae	<i>Arisaema triphyllum</i> (L.) Schott subsp. <i>triphyllum</i>	Jack-in-the-pulpit	G5T5	S5			No					
Liliaceae	<i>Erythronium americanum</i> Ker Gawl. subsp. <i>americanum</i>	Yellow Trout Lily	G5T5	S5			No					
Asparagaceae	<i>Convallaria majalis</i> L. var <i>majalis</i>	European Lily-of-the-valley	G5T5	SE5		I	Yes					
Asparagaceae	<i>Maianthemum canadense</i> Desf.	Wild Lily-of-the-valley	G5	S5			No					
Asparagaceae	<i>Maianthemum racemosum</i> (L.) Link	Large False Solomon's Seal	G5	S5			No					
Typhaceae	<i>Typha angustifolia</i> L.	Narrow-leaved Cattail	G5	SE5			Yes	x				
Juncaceae	<i>Juncus tenuis</i> Willd.	Path Rush	G5	S5			No					



Family	Scientific Name	Common Name	Global Status	Provincial Status	Federal Status	Hamilton NAI Status	Non-Native?	CUW/SWD	CUM	MAS (SWM)	FOD/CUW	CUH
Juncaceae	<i>Luzula acuminata</i> Raf. subsp. <i>acuminata</i>	Hairy Woodrush	G5T5	S5			No					
Cyperaceae	<i>Carex arctata</i> Boott	Drooping Woodland Sedge	G5	S5			No					
Cyperaceae	<i>Carex hirta</i> L.	Hammer Sedge	GNR	SE2		I	Yes					
Cyperaceae	<i>Carex hirtifolia</i> Mack.	Pubescent Sedge	G5	S4S5			No					
Cyperaceae	<i>Carex laxiculmis</i> Schwein. var. <i>laxiculmis</i>	Spreading Sedge	G5T5	S4			No					
Cyperaceae	<i>Carex radiata</i> (Wahlenb.) Small	Eastern Star Sedge	G5	S5			No					
Cyperaceae	<i>Carex rosea</i> Schkuhr ex Willd.	Rosy Sedge	G5	S5			No	x				x
Cyperaceae	<i>Carex stipata</i> Muhlenb. ex Willd.	Awl-fruited Sedge	G5	S5			No	x				
Poaceae	<i>Agrostis gigantea</i> Roth	Redtop	G4G5	SE5		I	Yes	x	x			
Poaceae	<i>Agrostis stolonifera</i> L.	Creeping Bentgrass	G5	SE5			Yes	x				
Poaceae	<i>Bromus inermis</i> Leyss.	Smooth Brome	G5	SE5		I	Yes	x	x			
Poaceae	<i>Dichanthelium depauperatum</i> (Muhlenb.) Gould	Starved Panicgrass	G5	S4			No	x				
Poaceae	<i>Elymus virginicus</i> L.	Virginia Wildrye	G5	S5			No					
Poaceae	<i>Leersia oryzoides</i> (L.) Sw.	Rice Cutgrass	G5	S5			No	x				

Family	Scientific Name	Common Name	Global Status	Provincial Status	Federal Status	Hamilton NAI Status	Non-Native?	CUW/SWD	CUM	MAS (SWM)	FOD/CUW	CUH
Poaceae	<i>Lolium pratense</i> (Huds.) Darbyshire	Meadow Ryegrass	G5	SE5		I	Yes		x			
Poaceae	<i>Phalaris arundinacea</i> L.	Reed Canarygrass	G5	S5			P	x	x			
Poaceae	<i>Phleum pratense</i> L. subsp. <i>pratense</i>	Common Timothy	GNRTNR	SE5		I	Yes	x				
Poaceae	<i>Phragmites australis</i> (Cav.) Trin. ex Steud.	Common Reed	G5	S4?			P		x			
Poaceae	<i>Poa pratensis</i> L.	Kentucky Bluegrass	G5	S5			P	x	x			
Berberidaceae	<i>Podophyllum peltatum</i> L.	May-apple	G5	S5			No					
Ranunculaceae	<i>Anemone quinquefolia</i> L. var. <i>quinquefolia</i>	Wood Anemone	G5T5	S5			No					
Ranunculaceae	<i>Aquilegia canadensis</i> L.	Red Columbine	G5	S5			No					
Ranunculaceae	<i>Ranunculus abortivus</i> L.	Kidney-leaved Buttercup	G5	S5			No					
Ranunculaceae	<i>Ranunculus acris</i> L.	Tall Buttercup	G5	SE5		I	Yes					
Ranunculaceae	<i>Ranunculus recurvatus</i> Poir. var. <i>recurvatus</i>	Hooked Buttercup	G5T5	S5			No	x				
Grossulariaceae	<i>Ribes americanum</i> Mill.	American Black Currant	G5	S5			No	x				
Grossulariaceae	<i>Ribes cynosbati</i> L.	Eastern Prickly Gooseberry	G5	S5			No					
Grossulariaceae	<i>Ribes rubrum</i> L.	European Red Currant	G4G5	SE5		I	Yes					
Vitaceae	<i>Parthenocissus quinquefolia</i> (L.) Planch. ex DC.	Virginia Creeper	G5	S4?			No	x				

Family	Scientific Name	Common Name	Global Status	Provincial Status	Federal Status	Hamilton NAI Status	Non-Native?	CUW/SWD	CUM	MAS (SWM)	FOD/CUW	CUH
Vitaceae	<i>Vitis riparia Michx.</i>	Riverbank Grape	G5	S5			No	x	x			
Fabaceae	<i>Medicago lupulina L.</i>	Black Medick	GNR	SE5		I	Yes		x			
Fabaceae	<i>Melilotus albus Medik.</i>	White Sweet-clover	G5	SE5		I	Yes		x			
Fabaceae	<i>Trifolium pratense L.</i>	Red Clover	GNR	SE5		I	Yes		x			
Rosaceae	<i>Agrimonia gryposepala Wallr.</i>	Hooked Agrimony	G5	S5			No	x	x			
Rosaceae	<i>Crataegus sp.</i>	Hawthorn	GNR	S?			?	x				
Rosaceae	<i>Fragaria virginiana Mill.</i>	Wild Strawberry	G5	S5			No	x				
Rosaceae	<i>Geum aleppicum Jacq.</i>	Yellow Avens	G5	S5			No					x
Rosaceae	<i>Geum sp.</i>	Geum	GNR	S?			?	x				
Rosaceae	<i>Malus pumila Mill.</i>	Common Apple	G5	SE4		I	Yes	x				x
Rosaceae	<i>Prunus avium (L.) L.</i>	Sweet Cherry	GNR	SE4		I	Yes					
Rosaceae	<i>Prunus serotina Ehrh. var. serotina</i>	Black Cherry	G5T5	S5			No	x				x
Rosaceae	<i>Prunus virginiana L. var. virginiana</i>	Chokecherry	G5T5	S5			No	x				x
Rosaceae	<i>Rosa multiflora Thunb.</i>	Multiflora Rose	GNR	SE5		I	Yes	x	x			x
Rosaceae	<i>Rubus allegheniensis Porter</i>	Allegheny Blackberry	G5	S5			No	x				
Rosaceae	<i>Rubus idaeus L.</i>	Red Raspberry	G5	S5			P	x	x			
Rosaceae	<i>Rubus occidentalis L.</i>	Black Raspberry	G5	S5			No	x	x			
Elaeagnaceae	<i>Elaeagnus angustifolia L.</i>	Russian Olive	GNR	SE3		I	Yes		x			

Family	Scientific Name	Common Name	Global Status	Provincial Status	Federal Status	Hamilton NAI Status	Non-Native?	CUW/SWD	CUM	MAS (SWM)	FOD/CUW	CUH
Elaeagnaceae	<i>Elaeagnus umbellata</i> Thunb.	Autum Olive	GNR	SE3		I	Yes					
Rhamnaceae	<i>Rhamnus cathartica</i> L.	European Buckthorn	GNR	SE5		I	Yes	x	x			x
Ulmaceae	<i>Ulmus americana</i> L.	White Elm	G5	S5			No					
Urticaceae	<i>Urtica dioica</i> L.	Stinging Nettle	G5	S5			P	x				
Fagaceae	<i>Fagus grandifolia</i> Ehrh.	American Beech	G5	S4			No					
Fagaceae	<i>Quercus alba</i> L.	White Oak	G5	S5			No	x				
Fagaceae	<i>Quercus rubra</i> L.	Northern Red Oak	G5	S5			No	x				
Juglandaceae	<i>Juglans nigra</i> L.	Black Walnut	G5	S4?			No		x			
Betulaceae	<i>Betula papyrifera</i> Marshall	Paper Birch	G5	S5			No					
Betulaceae	<i>Ostrya virginiana</i> (Mill.) K.Koch	Eastern Hop-hornbeam	G5	S5			No					
Violaceae	<i>Viola pubescens</i> Aiton	Downy Yellow Violet	G5	S5			No					
Violaceae	<i>Viola sororia</i> Willd.	Woolly Blue Violet	G5	S5			No					
Violaceae	<i>Viola</i> sp.	Violet	GNR	S?			?					
Salicaceae	<i>Populus alba</i> L.	White Poplar	G5	SE5		I	Yes		x			
Salicaceae	<i>Populus balsamifera</i> L.	Balsam Poplar	G5	S5			No	x				
Salicaceae	<i>Populus grandidentata</i> Michx.	Large-tooth Aspen	G5	S5			No	x	x			x
Salicaceae	<i>Populus tremuloides</i> Michx.	Trembling Aspen	G5	S5			No	x	x			
Salicaceae	<i>Salix amygdaloides</i> Andersson	Peach-leaved Willow	G5	S5			No	x				
Salicaceae	<i>Salix petiolaris</i> Sm.	Meadow Willow	G5	S5			No	x				

Family	Scientific Name	Common Name	Global Status	Provincial Status	Federal Status	Hamilton NAI Status	Non-Native?	CUW/SWD	CUM	MAS (SWM)	FOD/CUW	CUH
Euphorbiaceae	<i>Euphorbia maculata</i> L.	Spotted Spurge	G5?	SE5		I	Yes	x				
Geraniaceae	<i>Geranium maculatum</i> L.	Spotted Geranium	G5	S5			No					
Geraniaceae	<i>Geranium robertianum</i> L.	Herb-Robert	G5	S5		I	No	x				
Lythraceae	<i>Lythrum salicaria</i> L.	Purple Loosestrife	G5	SE5		I	Yes	x				
Onagraceae	<i>Circaea canadensis</i> (L.) Hill subsp. <i>canadensis</i>	Canada Enchanter's Nightshade	G5TNR	S5			No	x				
Onagraceae	<i>Epilobium ciliatum</i> Raf.	Northern Willowherb	G5	S5			No	x				
Onagraceae	<i>Epilobium hirsutum</i> L.	Hairy Willowherb	GNR	SE5		I	Yes		x			
Anacardiaceae	<i>Rhus typhina</i> L.	Staghorn Sumac	G5	S5			No	x	x			
Anacardiaceae	<i>Toxicodendron radicans</i> (L.) Kuntze var. <i>radicans</i>	Eastern Poison Ivy	G5T5	S5			No					x
Anacardiaceae	<i>Toxicodendron radicans</i> var. <i>rydbergii</i> (Small ex Rydb.) Erskine	Western Poison Ivy	G5T5	S5			No		x			
Sapindaceae	<i>Acer negundo</i> L.	Manitoba Maple	G5	S5			No	x	x			x
Sapindaceae	<i>Acer saccharinum</i> L.	Silver Maple	G5	S5			No		x			
Sapindaceae	<i>Acer x freemanii</i> E. Murray	Freeman's Maple	GNA	SNA			No					
Brassicaceae	<i>Alliaria petiolata</i> (M.Bieb.) Cavara & Grande	Garlic Mustard	GNR	SE5		I	Yes	x	x			
Brassicaceae	<i>Barbarea vulgaris</i> W.T.Aiton	Bitter Wintercress	GNR	SE5		I	Yes	x				

Family	Scientific Name	Common Name	Global Status	Provincial Status	Federal Status	Hamilton NAI Status	Non-Native?	CUW/SWD	CUM	MAS (SWM)	FOD/CUW	CUH
Brassicaceae	<i>Hesperis matronalis</i> L.	Dame's Rocket	G4G5	SE5		I	Yes	x				x
Polygonaceae	<i>Persicaria virginiana</i> (L.) Gaertner	Virginia Smartweed	G5	S4			No	x				
Polygonaceae	<i>Persicaria maculosa</i> Gray	Spotted Lady's Thumb	G3G5	SE5		I	Yes	x				
Polygonaceae	<i>Rumex crispus</i> L.	Curled Dock	GNR	SE5		I	Yes	x	x			
Cornaceae	<i>Cornus racemosa</i> Lam.	Grey Dogwood	G5	S5			No	x	x			
Cornaceae	<i>Cornus sericea</i> L.	Red-osier Dogwood	G5	S5			No	x	x			
Balsaminaceae	<i>Impatiens capensis</i> Meerb.	Spotted Jewelweed	G5	S5			No	x				
Rubiaceae	<i>Galium aparine</i> L.	Common Bedstraw	G5	S5			No	x				
Rubiaceae	<i>Galium mollugo</i> L.	Smooth Bedstraw	GNR	SE5		I	Yes		x			
Rubiaceae	<i>Galium odoratum</i> (L.) Scop.	Sweet-scented Bedstraw	GNR	SE1			Yes					x
Rubiaceae	<i>Galium</i> sp.	Bedstraw	GNR	S?			?	x				
Rubiaceae	<i>Galium trifidum</i> L.	Three-petalled Bedstraw	G5	S5			No					
Apocynaceae	<i>Asclepias syriaca</i> L.	Common Milkweed	G5	S5			No		x			
Boraginaceae	<i>Hydrophyllum virginianum</i> L. var. <i>virginianum</i>	Virginia Waterleaf	G5T5	S5			No					
Boraginaceae	<i>Myosotis scorpioides</i> L.	True Forget-me-not	G5	SE5		I	Yes	x				
Boraginaceae	<i>Myosotis</i> sp.	Forget-me-not	GNR	S?			?					

Family	Scientific Name	Common Name	Global Status	Provincial Status	Federal Status	Hamilton NAI Status	Non-Native?	CUW/SWD	CUM	MAS (SWM)	FOD/CUW	CUH
Boraginaceae	<i>Myosotis sylvatica Hoffm.</i>	Woodland Forget-me-not	G5	SE4		I	Yes	x				
Oleaceae	<i>Fraxinus americana L.</i>	White Ash	G5	S4			No	x				
Oleaceae	<i>Ligustrum vulgare L.</i>	European Privet	GNR	SE5		I	Yes					x
Plantaginaceae	<i>Plantago major L.</i>	Common Plantain	G5	SE5		I	Yes					
Scrophulariaceae	<i>Verbascum thapsus L. subsp. thapsus</i>	Great Mullein	GNR	SE5		I	Yes		x			
Verbenaceae	<i>Verbena urticifolia L.</i>	White Vervain	G5	S5			No	x				
Lamiaceae	<i>Lycopus uniflorus Michx.</i>	Northern Water-horehound	G5	S5			No	x				
Lamiaceae	<i>Prunella vulgaris L.</i>	Common Self-heal	G5	S5			P	x				
Campanulaceae	<i>Lobelia siphilitica L.</i>	Great Blue Lobelia	G5	S5			No	x				
Asteraceae	<i>Arctium minus (Hill) Bernh.</i>	Common Burdock	GNR	SE5		I	Yes	x				
Asteraceae	<i>Cichorium intybus L.</i>	Wild Chicory	GNR	SE5		I	Yes		x			
Asteraceae	<i>Cirsium arvense (L.) Scop.</i>	Canada Thistle	GNR	SE5		I	Yes		x			
Asteraceae	<i>Erigeron annuus (L.) Pers.</i>	Annual Fleabane	G5	S5			No	x				
Asteraceae	<i>Erigeron pulchellus Michx. var. pulchellus</i>	Robin's-plantain Fleabane	G5T5	S5			No					
Asteraceae	<i>Euthamia graminifolia (L.) Nutt.</i>	Grass-leaved Goldenrod	G5	S5			No	x	x			



Family	Scientific Name	Common Name	Global Status	Provincial Status	Federal Status	Hamilton NAI Status	Non-Native?	CUW/SWD	CUM	MAS (SWM)	FOD/CUW	CUH
Asteraceae	<i>Lapsana communis</i> L.	Common Nipplewort	GNR	SE5		I	Yes					
Asteraceae	<i>Solidago canadensis</i> L.	Canada Goldenrod	G5	S5			No	x	x			
Asteraceae	<i>Solidago</i> sp.	Goldenrod	GNR	S?			?	x				
Asteraceae	<i>Symphyotrichum cordifolium</i> (L.) G.L.Nesom	Heart-leaved Aster	G5	S5			No	x				
Asteraceae	<i>Symphyotrichum lanceolatum</i> (Willd.) G.L.Nesom	White Panicked Aster	G5	S5			No	x	x			
Asteraceae	<i>Symphyotrichum lateriflorum</i> (L.) Á.Löve & D.Löve	Calico Aster	G5	S5			No	x	x			x
Asteraceae	<i>Symphyotrichum novae-angliae</i> (L.) G.L.Nesom	New England Aster	G5	S5			No	x	x			
Asteraceae	<i>Symphyotrichum pilosum</i> (Willd.) G.L.Nesom	Old Field Aster	G5	S5			No		x			
Asteraceae	<i>Symphyotrichum urophyllum</i> (Lindl. ex DC.) G.L.Nesom	Arrow-leaved Aster	G4G5	S4			No					
Asteraceae	<i>Taraxacum officinale</i> F.H.Wigg.	Common Dandelion	G5	SE5			Yes		x			
Adoxaceae	<i>Viburnum opulus</i> L.	Cranberry Viburnum	G5	S5			P	x				
Caprifoliaceae	<i>Dipsacus fullonum</i> L.	Common Teasel	GNR	SE5		I	Yes		x			
Caprifoliaceae	<i>Lonicera tatarica</i> L.	Tartarian Honeysuckle	GNR	SE5		I	Yes					
Araliaceae	<i>Aralia racemosa</i> L.	American Spikenard	G5	S5			No					
Apiaceae	<i>Daucus carota</i> L.	Wild Carrot	GNR	SE5		I	Yes		x			

Family	Scientific Name	Common Name	Global Status	Provincial Status	Federal Status	Hamilton NAI Status	Non-Native?	CUW/SWD	CUM	MAS (SWM)	FOD/CUW	CUH
Apiaceae	<i>Torilis japonica</i> (Houtt.) DC.	Erect Hedge-parsley	GNR	SE4		I	Yes					

## **APPENDIX 3 | List of Fauna Species**



Appendix 4. Wildlife species list for subject property at 177 Highway 8, Hamilton

Type	Scientific Name	Common Name	Introduced	G Rank	S Rank	COSEWIC	ESA	Hamilton NAI	Area Sensitive	OWES Region 7	CUW/SWD	CUM	MAS/SWM	FOD/CUM	CUH	Off-site
Bird	<i>Meleagris gallopavo</i>	Wild Turkey	FALSE	G5	S5			HU	FALSE	FALSE	x					
Bird	<i>Charadrius vociferus</i>	Killdeer	FALSE	G5	S5B,S5N				FALSE	FALSE			x			
Bird	<i>Actitis macularius</i>	Spotted Sandpiper	FALSE	G5	S5				FALSE	FALSE			x			
Bird	<i>Scolopax minor</i>	American Woodcock	FALSE	G5	S4B				FALSE	FALSE	x					
Bird	<i>Zenaida macroura</i>	Mourning Dove	FALSE	G5	S5				FALSE	FALSE		x	x			
Bird	<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo	FALSE	G5	S5B			HU	FALSE	FALSE	x					x
Bird	<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	FALSE	G5	S4B			HR	FALSE	FALSE						
Bird	<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker	FALSE	G5	S4B	END	SC	HR	FALSE	FALSE						x
Bird	<i>Melanerpes carolinus</i>	Red-bellied Woodpecker	FALSE	G5	S4			HU	FALSE	FALSE	x					
Bird	<i>Picoides villosus</i>	Hairy Woodpecker	FALSE	G5	S5				TRUE	FALSE						
Bird	<i>Colaptes auratus</i>	Northern Flicker	FALSE	G5	S4B				FALSE	FALSE	x		x			
Bird	<i>Dryocopus pileatus</i>	Pileated Woodpecker	FALSE	G5	S5			HU	TRUE	FALSE						
Bird	<i>Contopus virens</i>	Eastern Wood-pewee	FALSE	G5	S4B	SC	SC		FALSE	FALSE						

Type	Scientific Name	Common Name	Introduced	G Rank	S Rank	COSEWIC	ESA	Hamilton NAI	Area Sensitive	OWES Region 7	CUW/SWD	CUM	MAS/SWM	FOD/CUM	CUH	Off-site
Bird	<i>Empidonax traillii</i>	Willow Flycatcher	FALSE	G5	S5B			HU	FALSE	FALSE			x			
Bird	<i>Tyrannus tyrannus</i>	Eastern Kingbird	FALSE	G5	S4B				FALSE	FALSE						
Bird	<i>Myiarchus crinitus</i>	Great Crested Flycatcher	FALSE	G5	S4B				FALSE	FALSE						
Bird	<i>Vireo olivaceus</i>	Red-eyed Vireo	FALSE	G5	S5B				FALSE	FALSE	x				x	
Bird	<i>Cyanocitta cristata</i>	Blue Jay	FALSE	G5	S5				FALSE	FALSE	x	x				
Bird	<i>Corvus brachyrhynchos</i>	American Crow	FALSE	G5	S5B				FALSE	FALSE	x					x
Bird	<i>Corvus corax</i>	Common Raven	FALSE	G5	S5			HR	FALSE	FALSE		x				
Bird	<i>Hirundo rustica</i>	Barn Swallow	FALSE	G5	S4B	THR	THR		FALSE	FALSE	x					
Bird	<i>Poecile atricapillus</i>	Black-capped Chickadee	FALSE	G5	S5				FALSE	FALSE	x	x				
Bird	<i>Sitta carolinensis</i>	White-breasted Nuthatch	FALSE	G5	S5				TRUE	FALSE		x				
Bird	<i>Troglodytes aedon</i>	House Wren	FALSE	G5	S5B				FALSE	FALSE		x			x	
Bird	<i>Hylocichla mustelina</i>	Wood Thrush	FALSE	G4	S4B	THR	SC		FALSE	FALSE						x
Bird	<i>Turdus migratorius</i>	American Robin	FALSE	G5	S5B				FALSE	FALSE	x	x	x			
Bird	<i>Dumetella carolinensis</i>	Gray Catbird	FALSE	G5	S4B				FALSE	FALSE	x	x				
Bird	<i>Bombycilla cedrorum</i>	Cedar Waxwing	FALSE	G5	S5B				FALSE	FALSE	x	x				
Bird	<i>Vermivora cyanoptera</i>	Blue-winged Warbler	FALSE	G5	S4B			HU	FALSE	FALSE						

Type	Scientific Name	Common Name	Introduced	G Rank	S Rank	COSEWIC	ESA	Hamilton NAI	Area Sensitive	OWES Region 7	CUW/SWD	CUM	MAS/SWM	FOD/CUM	CUH	Off-site
Bird	<i>Setophaga petechia</i>	Yellow Warbler	FALSE	G5	S5B				FALSE	FALSE	x	x	x			
Bird	<i>Setophaga cerulea</i>	Cerulean Warbler	FALSE	G4	S3B	END	SC		TRUE	FALSE						
Bird	<i>Setophaga ruticilla</i>	American Redstart	FALSE	G5	S5B				TRUE	FALSE	x					
Bird	<i>Geothlypis trichas</i>	Common Yellowthroat	FALSE	G5	S5B				FALSE	FALSE	x		x			
Bird	<i>Piranga olivacea</i>	Scarlet Tanager	FALSE	G5	S4B				TRUE	FALSE						
Bird	<i>Pipilo erythrophthalmus</i>	Eastern Towhee	FALSE	G5	S4B			HU	FALSE	FALSE	x					
Bird	<i>Spizella pusilla</i>	Field Sparrow	FALSE	G5	S4B				FALSE	FALSE	x	x				
Bird	<i>Melospiza melodia</i>	Song Sparrow	FALSE	G5	S5B				FALSE	FALSE	x	x	x			
Bird	<i>Cardinalis cardinalis</i>	Northern Cardinal	FALSE	G5	S5				FALSE	FALSE	x	x			x	
Bird	<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	FALSE	G5	S4B				FALSE	FALSE	x		x			
Bird	<i>Passerina cyanea</i>	Indigo Bunting	FALSE	G5	S4B				FALSE	FALSE						
Bird	<i>Agelaius phoeniceus</i>	Red-winged Blackbird	FALSE	G5	S4				FALSE	FALSE	x	x	x			
Bird	<i>Quiscalus quiscula</i>	Common Grackle	FALSE	G5	S5B				FALSE	FALSE						x
Bird	<i>Molothrus ater</i>	Brown-headed Cowbird	FALSE	G5	S4B				FALSE	FALSE		x				
Bird	<i>Icterus galbula</i>	Baltimore Oriole	FALSE	G5	S4B				FALSE	FALSE	x		x			
Bird	<i>Spinus tristis</i>	American Goldfinch	FALSE	G5	S5B				FALSE	FALSE	x					



Type	Scientific Name	Common Name	Introduced	G Rank	S Rank	COSEWIC	ESA	Hamilton NAI	Area Sensitive	OWES Region 7	CUW/SWD	CUM	MAS/SWM	FOD/CUM	CUH	Off-site
Mammal	<i>Tamias striatus</i>	Eastern Chipmunk	FALSE	G5	S5				FALSE	FALSE						
Mammal	<i>Microtus pennsylvanicus</i>	Meadow Vole	FALSE	G5	S5				FALSE	FALSE		x				
Mammal	<i>Canis latrans</i>	Coyote	FALSE	G5	S5				FALSE	FALSE						
Mammal	<i>Procyon lotor</i>	Raccoon	FALSE	G5	S5				FALSE	FALSE						
Mammal	<i>Odocoileus virginianus</i>	White-tailed Deer	FALSE	G5	S5				FALSE	FALSE	x					
Amphibian	<i>Plethodon cinereus</i>	Eastern Red-backed Salamander	FALSE	G5	S5				FALSE	FALSE						
Amphibian	<i>Pseudacris crucifer</i>	Spring Peeper	FALSE	G5	S5				FALSE	FALSE						x
Amphibian	<i>Anaxyrus americanus</i>	American Toad	FALSE	G5	S5				FALSE	FALSE	x					
Butterfly/Moth	<i>Papilio polyxenes</i>	Black Swallowtail	FALSE	G5	S5				FALSE	FALSE						
Butterfly/Moth	<i>Pieris rapae</i>	Cabbage White	TRUE	G5	SNA				FALSE	FALSE		x				
Butterfly/Moth	<i>Danaus plexippus</i>	Monarch	FALSE	G4	S2N,S4B	END	SC		FALSE	FALSE		x				

