COMMITTEE OF ADJUSTMENT
City Hall, 5th floor, 71 Main Street West, Hamilton, ON L8P 4Y5
Telephone (905) 546-2424, ext. 4221
E-mail: cofa@hamilton.ca

NOTICE OF PUBLIC HEARING
Consent/Land Severance

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.:	**B-25:059**	**SUBJECT PROPERTY:**	196 Weirs Lane, Flamborough

APPLICANTS: Owner: Valery Construction Ltd
Agent: Bousfields Inc c/p David Falletta and Brynne O'Niell

PURPOSE & EFFECT: To permit the conveyance of a parcel of land to create a new residential building lot for a proposed single-detached dwelling.

	Frontage	**Depth**	**Area**
SEVERED LANDS (Conveyed):	80 m±	> 200 m±	0.765 ha±
RETAINED LANDS (Retained):	> 150 m±	irregular	33.6 ha±

Associated Planning Act File(s): N/A

This Notice must be posted by the owner of any land which contains seven or more residential units so that it is visible to all residents.

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

DATE:	**Thursday, September 25, 2025**
TIME:	**2:50 p.m.**
PLACE:	**City Hall Council Chambers (71 Main St. W., Hamilton)**
	To be streamed (viewing only) at www.hamilton.ca/committeeofadjustment

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

- Visit www.hamilton.ca/committeeofadjustment

- Visit Committee of Adjustment staff at 5th floor City Hall, 71 Main St. W., Hamilton

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, written comments must be received no later than noon **September 23, 2025**

Orally: If you would like to speak to this item at the hearing you may do so via video link, calling in, or attending in person. Please see attached page for complete instructions, registration to participate virtually must be received no later than noon **September 24, 2025**

FURTHER NOTIFICATION

If you wish to be notified of future Public Hearings, if applicable, regarding B-25:059, you must submit a written request to cofa@hamilton.ca or by mailing the Committee of Adjustment, City of Hamilton, 71 Main Street West, 5th Floor, Hamilton, Ontario, L8P 4Y5**.**

If you wish to be provided the Notice of Decision of the proposed consent, you must make a written request to the Secretary-Treasurer of The City of Hamilton Committee of Adjustment by email at cofa@hamilton.ca or by mail through City Hall, 5th floor, 71 Main Street West, Hamilton, ON L8P 4Y5.

B-25:059

Subject Lands

DATED: September 8, 2025

_____

Justin Leung,
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.

If a person or public body that files an appeal of a decision of The City of Hamilton Committee of Adjustment in respect of the proposed consent does not make written submissions to The City of Hamilton Committee of Adjustment before it gives or refuses to give a provisional consent, the Ontario Land Tribunal may dismiss the appeal.

COMMITTEE OF ADJUSTMENT

City Hall, 5th floor, 71 Main Street West, Hamilton, ON L8P 4Y5

Telephone (905) 546-2424, ext. 4221

E-mail: cofa@hamilton.ca

PARTICIPATING PROCEDURES

1. Written Submission Ahead of the Meeting

Members of the public who wish to provide input without speaking at the Hearing may submit written comments in advance of the meeting. Comments must be received by 12:00 p.m. (noon) on the deadline date for written comment submissions listed on the Notice of Public Hearing.

How to Submit Written Comments:

By Email:
Send to: cofa@hamilton.ca

By Mail:
Committee of Adjustment
City of Hamilton
71 Main Street West, 5th Floor
Hamilton, Ontario
L8P 4Y5

All written comments received will be made available to the Committee and the public by the Tuesday prior to the Hearing.

2. Oral Submissions During the Hearing

Interested members of the public, agents, and owners may provide oral comments on Committee of Adjustment Hearing items either virtually via Webex (computer or phone) or by attending in person.

Speaking Time Limit:
All participants providing oral submissions, either in person or virtually are limited to a maximum of 5 minutes to speak. This is to ensure all parties have an equal opportunity to be heard and that the meeting runs efficiently.

3. In-Person Oral Submissions

To participate in person, attend Council Chambers on the date and time listed in the Notice of Public Hearing. You will be required to provide your name and address for the record. It is recommended you arrive at least 10 minutes prior to the scheduled start time.

4. Virtual Oral Submissions

To participate virtually, you must register by 12:00 p.m. (noon) on the virtual oral submissions registration deadline date. This is listed on the Notice of Public Hearing. To register, email cofa@hamilton.ca with the following information:

- Committee of Adjustment file number
- Hearing date
- Name and mailing address of each person wishing to speak
- Method of participation (phone or video), and, if applicable, the phone number to be used
- Each person must register separately

Registered participants will receive a Webex link one business day before the Hearing. Only those registered will be called upon to speak.

5. Presentations

All presentations are permitted at the discretion of the Committee.

Virtual Presentations:
Presenters participating virtually may be granted permission to share their screen during the Hearing. A copy of the presentation must be submitted to cofa@hamilton.ca **by 12:00 p.m. (noon) on the business day prior to the Hearing.** The submission must be one document in PDF format only.

In-Person Presentations:
Presenters attending in person may be granted permission to use the presentation screen. Presentations must be brought on a USB device and opened by the owner/applicant. A copy of the presentation must also be sent to cofa@hamilton.ca **by 12:00 p.m. (noon) on the business day prior to the Hearing.** The submission must be one document in PDF format only. Handouts are permitted only if the same content can be displayed on the presentation screen.

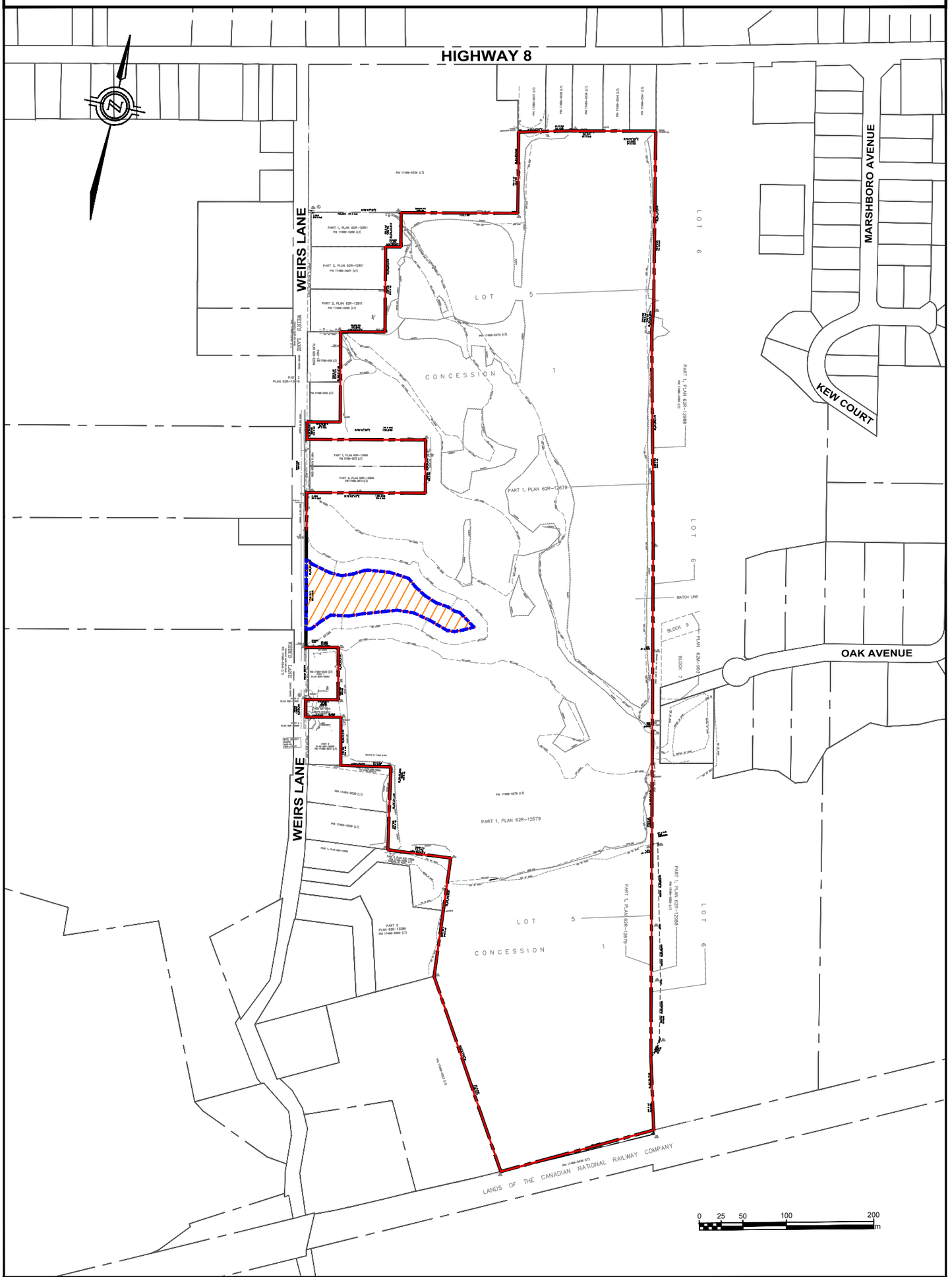
6. Additional Notes

- Webex (video) participation requires a compatible computer or smartphone. The necessary application must be downloaded in advance.
- It is the interested party's responsibility to ensure their device is functional and compatible prior to the Hearing.

For any questions, contact staff at cofa@hamilton.ca or call 905-546-2424 ext. 4221.

Lot 5, CONCESSION 1 (Weirs Lane)

City of Hamilton



Subject Lands = 34.408 ha

Lands to be Severed = 0.765 ha

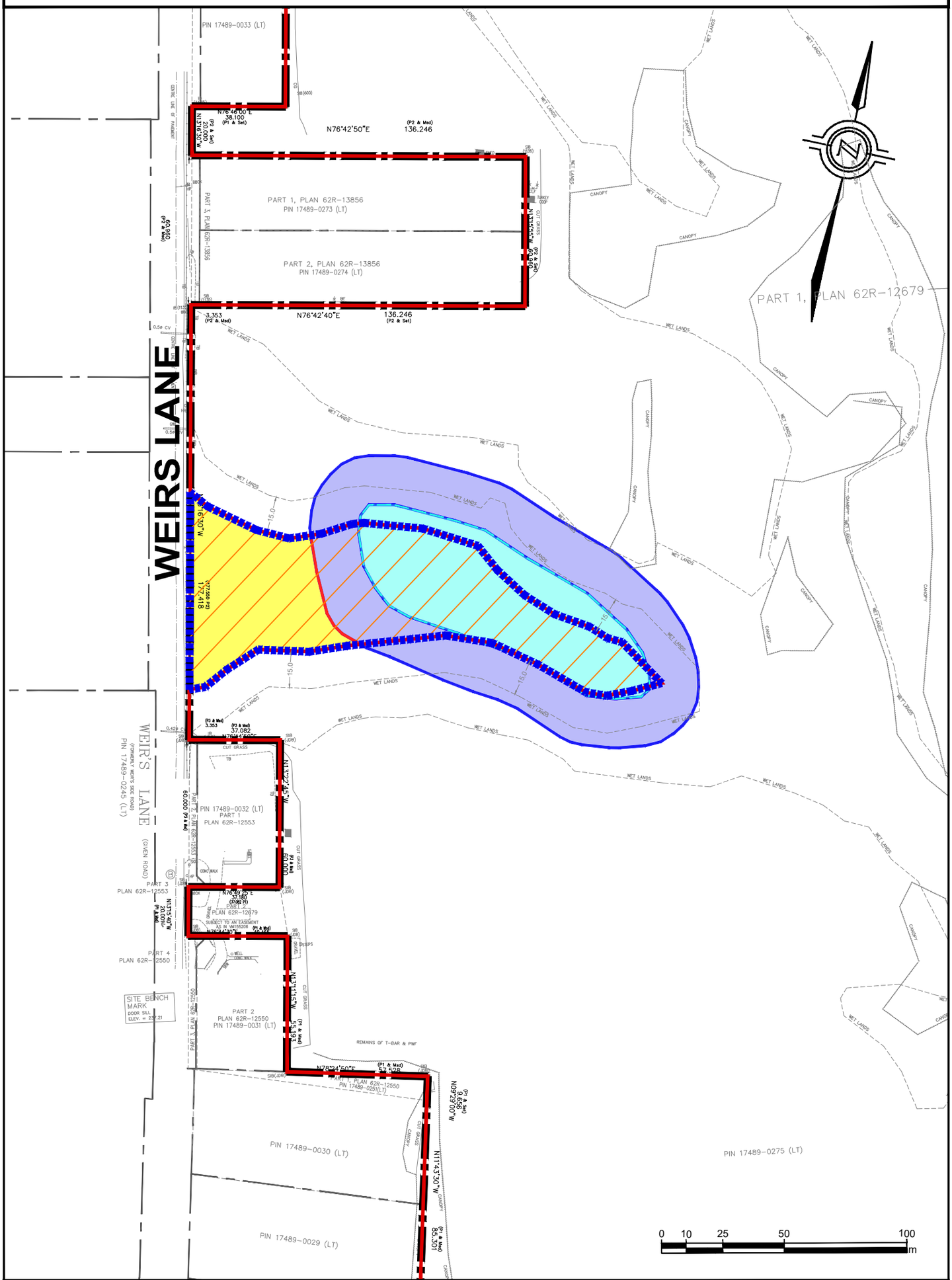
Lands to be Retained = 33.643 ha

FIGURE 1

BOUSFIELDS inc.

22181 24sk June, 2025

Lot 5, CONCESSION 1 (Weirs Lane)
City of Hamilton



Subject Lands = 34.408 ha

Lands to be Severed = 0.765 ha

Lands to be Retained = 33.643 ha

Archaeological Feature and Buffer

Net Developable Lands = 0.308 ha

FIGURE 2

BOUSFIELDS inc.

22181 25sk June, 2025

PLAN OF SURVEY
OF PART OF
LOT 5
CONCESSION 1
GEOGRAPHIC
TOWNSHIP OF WEST FLAMBOROUGH
IN THE
CITY OF HAMILTON

SCALE 1:750 METRIC

15 7.5 0 15 30 45 metres

R.A. McLAREN, O.L.S. – 2025

SCHEDULE			
PART	LOT	CON/PLAN	P.I.N.
1	PART OF LOT 5	CONCESSION 1	PART OF PIN 17489–0275 (LT)
2			

PLAN 62 R– _____

RECEIVED AND DEPOSITED

Date _____

_____

REPRESENTATIVE FOR
LAND REGISTRAR FOR THE LAND
TITLES DIVISION OF WENTWORTH (No. 62)

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT.

Date _____

DRAFT

ROB A. McLAREN, O.L.S.

HIGHWAY 8

NORTHEAST CORNER OF LOT 5, CONCESSION 1

(P1) 76.55

IB(600)

(RESULTANT TIE) 520.913

N36°41'35"E

A IB (1135)

N13°16'30"W

PART 1, PLAN 62R–12679

PART 1, PLAN 62R–13856

PART 2, PLAN 62R–13856

PART 3, PLAN 62R–13856

80.960 (P2 & Msd)

SIB (1135)

IB (1135)

N76°42'40"E 3.353 (P2 & Msd)

N13°16'30"W 58.926

L O T 5

WEIR'S LANE (GIVEN ROAD)

(FORMERLY WEIR'S SIDE ROAD)

PIN 17489–0245 (LT)

N64°21'40"W 9.377

PB 4.309

IB

SIB 5.068

N81°23'00"W 35.223

N62°38'15"E 25.234

IB

N79°37'40"E 30.903

SIB

N86°02'00"W 26.110

IB

N38°18'35"W 9.029

IB

PART 1, PLAN 62R–12679

3.353

N13°16'30"W 177.418 (177.560 P2)

PART 2

PART 1

PIN 17489–0275 (LT)

3.353

N13°16'30"W 84.165

78.973

N78°59'00"E 21.649

SIB

IB

N69°35'40"E 55.506

SIB

N85°36'35"E 19.825

IB

N75°26'25"W 42.502

SIB

IB

8.574

N63°13'25"E 23.134

SIB

N86°04'55"E

IB

N65°42'05"W 25.451

SIB

33.943 N79°52'55"W

IB

24.174 N57°18'40"W

SIB

4.174

PB

IB

29.894 N40°10'35"E 34.068

16.768

SIB (JDB)

IB (JDB)

N76°44'50"E 37.082 (P3 & Msd)

SIB (JDB)

3.353 (P3 & Msd)

N13°16'30"W

PART 2 PLAN 62R–12553

60.000 (P3 & Msd)

PART 1 PLAN 62R–12553

N13°22'45"W

60.000 (P3 & Msd)

PART 3 PLAN 62R–12553

SIB (JDB)

SIB (JDB)

N13°15'40"W 20.001 (P3 & Msd)

PART 2 PLAN 62R–12679

B

SIB (JDB)

PART 1 PLAN 62R–12550

PART 4 PLAN 62R–12550

PART 2 PLAN 62R–12550

C O N C E S S I O N 1

LEGEND:

□	DENOTES	MONUMENT SET
■	"	MONUMENT FOUND
IB	"	IRON BAR
PB	"	PLASTIC BAR
CC	"	CUT CROSS
SIB	"	STANDARD IRON BAR
SSIB	"	SHORT STANDARD IRON BAR
600	"	S.W. WOODS, O.L.S.
824	"	A.T. McLAREN, O.L.S.
1135	"	L.G. WOODS, O.L.S.
1511	"	G.V. CONSOLI, O.L.S.
JDB	"	J.D. BARNES LIMITED
OU	"	ORIGIN UNKNOWN
WIT	"	WITNESS
Msd	"	MEASURED
P1	"	PLAN 62R–12679
P2	"	PLAN 62R–13856
P3	"	PLAN 62R–12533

BEARING NOTE:
BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B, BY REAL TIME NETWORK OBSERVATIONS, UTM ZONE 17, NAD83 (CSRS) (2010.0)

NOTE:
DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999236821

INTEGRATION DATA

OBSERVED REFERENCE POINTS (ORP's): UTM ZONE 17, NAD83 (CSRS) (2010.0). COORDINATES TO URBAN ACCURACY PER SEC. 14(2) OF O.REG. 216/10

POINT ID	NORTHING	EASTING
ORP Ⓐ	4791063.484	580181.403
ORP Ⓑ	4790753.631	580254.493

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

METRIC NOTE:
DISTANCES AND COORDINATES 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. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE -- DAY OF JULY, 2025

_____ DRAFT

DATE ROB A. McLAREN, O.L.S.

THIS PLAN OF SURVEY RELATES TO AOLS PLAN SUBMISSION FORM NUMBER 107078

A.T. McLaren Limited
LEGAL AND ENGINEERING SURVEYS
69 JOHN STREET SOUTH, SUITE 230
HAMILTON, ONTARIO, L8N 2B9
PHONE (905) 527–8559

Drawn	Checked	Crew Chief	Scale	Dwg.No.
KM	RBM	JK	1:750	37068–R

BOUSFIELDS INC.

Project No. 22181

August 1, 2025

Committee of Adjustment
City Hall, 5th Floor
71 Main Street West
Hamilton, ON L8P 4Y5

Re: Consent to Sever Application
0 Weirs Lane, City of Hamilton

Bousfields Inc. is the planning consultant to C. Valery Construction Limited, the registered owner of 0 Weirs Lane in the City of Hamilton (the "subject site" or "site"). This letter has been prepared in support of the enclosed consent application (the "application") to provide relevant information regarding the proposed severance and to assist the Committee in making an informed decision. See enclosed the following digital materials:

- Two (2) Proposed Severance Sketches, one showing the proposed lot, and one showing the proposed lot with surrounding constraints, prepared by Bousfields Inc., dated June, 2025;
- Draft Reference Plan, prepared by AT McLaren;
- Scoped Environmental Impact Study, prepared by Beacon Environmental, dated July 30th, 2025;
- Scoped Stage 1 and 2 Archaeological Assessment, prepared by Detritus Consulting Ltd. dated December 5th, 2024; and,
- Signed and Commissioned Consent Application Form.

The required City Application fee ($3,460.00, plus $455.00 [additional sanitary/sewer fee]) and Hamilton Conservation Authority fee ($3,302.99) have been delivered to the City under a separate cover.

1.0 Subject Site

The subject site is municipally known as 0 Weirs Lane and is located in Greensville, West Flamborough. Greensville is in the south-west corner of Ward 13, outside of the City of Hamilton Urban Area, between Governor's Road & Highway No. 8. The subject site is located northwest of Dundas. The subject site is currently occupied by cash crops and natural environmental features and has a total area of 34.5 hectares with approximately 217 metres of frontage along Weirs Lane and a lot depth of

approximately 400 metres (see **Figure 1**). The area is generally comprised of agricultural uses, natural features and large rural residential properties.

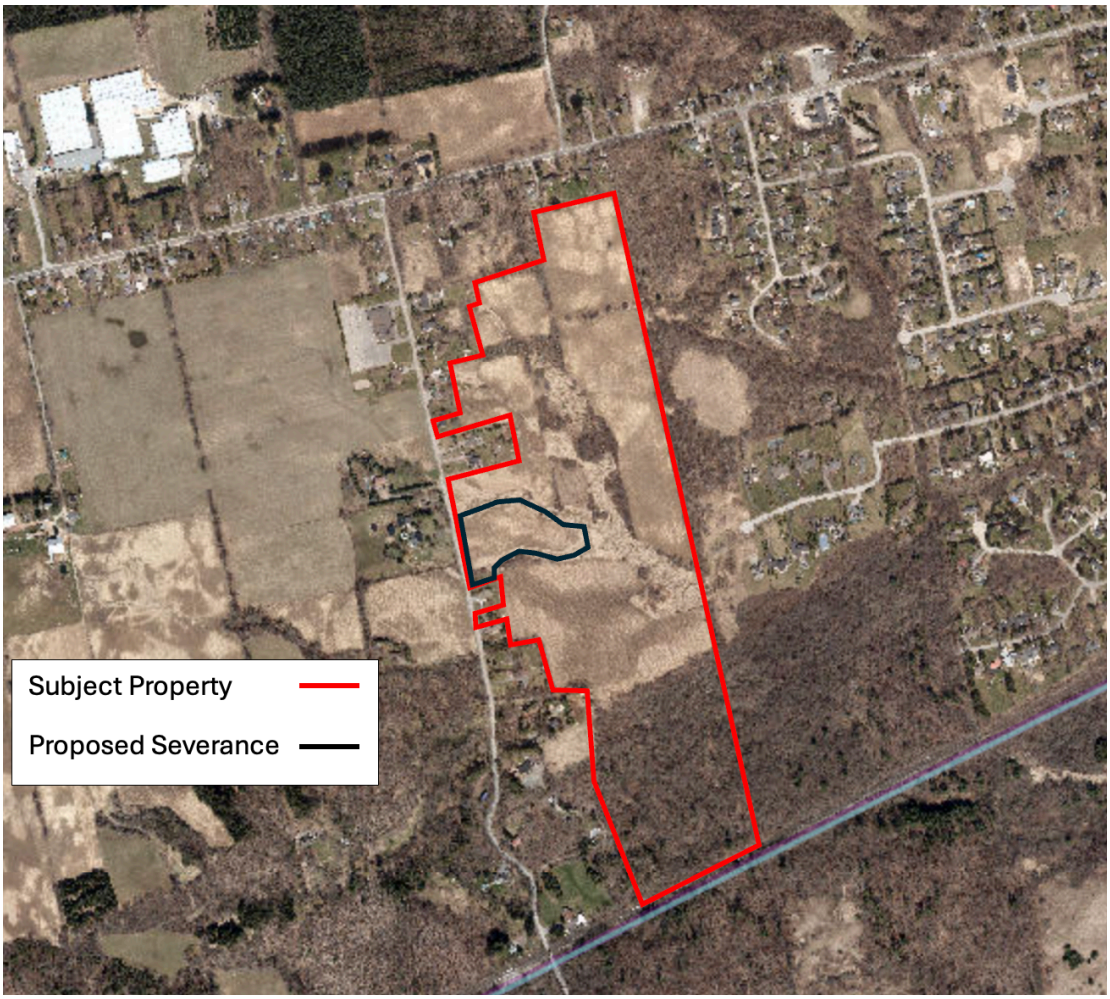


Figure 1: Aerial Photo

North of the subject site is bound by Highway 8 (Hamilton Road), a provincial highway. In this location Highway 8 is characterized by large lot residential, with agricultural and natural lands located behind these lots to the north and south. There is a veterinary clinic located on the south side of Highway 8, immediately adjacent to the subject site.

Subject Site *(source: Google Streetview)*

West of the subject site, across Weirs Lane, is mostly agricultural, with some natural lands located to the southwest. A church is located on the west side of Weirs Lane, north of the proposed severed lot. There are also several rural residential lots along Weirs Lane on both the west and east sides.

South of the subject lands the Canadian National Railway line is located approximately 500+ metres south of the subject site. South of the rail line is the northern edge of Dundas Valley Conservation Area.

East of the subject site is the Glenwood Heights neighbourhood, which is a residential neighbourhood mostly made up of large single detached dwellings. Oak Avenue is located immediately adjacent to the site and terminates in a cul-de-sac at the property boundary.

2.0 History

The subject site has an approved draft plan of subdivision, Brownview Heights – Phase One, which was approved on July 6, 1996 and continues to apply to the subject site as it has been extended several times. The Brownview Heights – Phase One draft plan of subdivision includes an extension of Oak Avenue west to the subject site with an intension to ultimately connect to Weirs Lane. The approved draft plan of subdivision is attached hereto as (**Attachment 1 – Brownview Heights Phase 1**).

A Formal Consultation (FC) submission and FC meeting took place in September 2022 (file no: FC-22-103). The FC contemplated the development of the subject site with 16 residential lots over 3 phases. Phase 1 included the severance of one single-detached lot with frontage on Weirs Lane. Phase 2 and Phase 3 were planned to be created through a draft plan of subdivision application and contemplated a street and cul-de-sac connection from Oak Avenue to the east, as well as a second street and cul-de-

sac from Weirs Lane to the west, with no connection between the two. Phases 2 and 3 are not being pursued at this time due to a variety of environmental and archaeological circumstances that need to be dealt with.

Since the filing of the Formal Consultation in 2022, additional environmental and archaeological analysis has been completed to further evaluate the development potential of the subject site. To this end, the proposed severance application, as discussed below, facilitates a similar development approach contemplated in the 2022 FC through the creation of a single-detached lot with frontage on Weirs Lane, while the balance of the lands remain untouched and will be dealt with through a future application at a subsequent date.

3.0 Proposed Consent Application

The purpose of the enclosed consent application is to sever a portion of the subject site located east of Weirs Lane to create a single-detached lot. These proposed lot has been cleared for archaeological purposes. As shown below, the application seeks to sever a 0.765-hectare (7,650 square metre) parcel from the subject site. A 3.0-metre-wide road widening is also provided for, as required in Schedule C-1 Future Right-of-Way Dedications of the Urban Hamilton Official Plan (the "UHOP"), which contemplates a total ROW width of Weirs Lane between Highway 8 and the Former Dundas Boundary of 20.117 metres.

The proposed lot is irregular in shape, with a lot width of 96.8 metres and a depth of over 200 metres. The lot is proposed to be developed with a single detached dwelling. The proposed lot dimensions and land uses comply with the applicable in-force "R2-24" (Settlement Residential Special Exception Zone) as provided in the Former Town of Flamborough Zoning By-law 90-145-Z.

Table 1 below provides an overview of the severance application and the resulting "Retained" and "Severed" parcel.

	Area of Lands (ha)	Frontage (m)
Severed Parcel	0.765	120
Retained Parcel	33.643	>20m (4 separate frontages)

Table 1: Severance Breakdown

4.0 Archaeological Potential

As noted above, archaeological work has been completed on the subject site, including the completion of a Stage 1-2 archaeological assessment prepared by Detritus Consulting Ltd., dated March 26, 2024. The findings of the Stage 1-2 archaeological assessment identified several portions of the subject would require further archaeological assessment work (i.e., a stage 3 archaeological assessment). Specifically, site P1 (AhHa-527), occupies a portion of the proposed lot, and was identified to have a high concentration of pre-contact Aboriginal findings and warrants a further Stage 3 site specific archaeological assessment for a portion of the site.

A further scoped Stage 1-2 archaeological assessment, also completed by Detritus Consulting Ltd., dated December 5, 2024, was completed to specifically evaluate the proposed severance lot further in support of the severance application. As a result of the Stage 1-2 archaeological assessments, the proposed 'Net Developable Lands' were refined and, as shown in **Figure 2** below, is located outside of site P1 (AhHa-527) and a 20 metres buffer has been applied to the eastern edge of the proposed lot. As outlined in the scoped Stage 1-2 archaeological assessment, a construction monitoring zone ranging from 20 metres to 70 metres surrounding P1 (AhHa-527), must also be observed within the limits of the Study Area. A licensed archaeologist must monitor any construction activities impacting this zone in order to prevent any construction impacts to P1 (AhHa-527). It is anticipated that this be included as a condition of consent. This approach has been circulated to City Staff in advance of this submission; with confirmation the approach is appropriate.

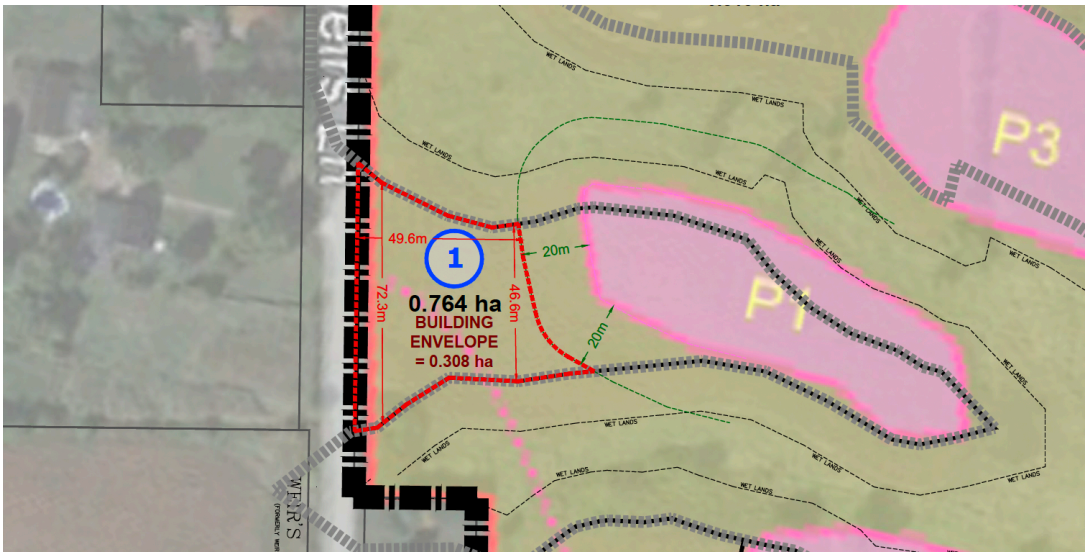


Figure 2 – Archaeological map

5.0 Environmental Features

A Scoped Environmental Impact Study (EIS) was completed by Beacon Environmental in relation to the proposed severance. The EIS notes the proposed severance is situated between two wetlands features. The buffers to these wetlands (also known as vegetation protection zones), were used to establish the new lot line. The EIS is generally supportive of the severance and provides several mitigation and enhancement recommendations to ensure that the integrity of the natural heritage features are maintained. These recommendations include that a 15-metre buffer be accommodated between the wetlands and the new dwelling, and a permanent fence be erected on the lot line. The setback is reflected in the plan through the proposed lot line in addition to the required side yard setbacks, and the fence can be accommodated through conditions of the severance. The EIS also includes some general recommendations about ensuring construction and removals occur within the development area and outside of nesting bird season. Finally, a buffer restoration and enhancement plan is recommended, which can also be accommodated as a condition of the severance.

6.0 Planning Analysis

6.1 Planning Act

Section 51 of the *Planning Act* authorizes the Committee of Adjustment to make decisions on the division of land. The *Planning Act* sets the standards to which provincial interests, and provincial and local policies and goals are implemented. Accordingly, to assess whether the Consent application is based on sound planning principles, regard must be had for the criteria listed in subsection 51(24) of the *Planning Act*.

The criteria in this section of the *Planning Act* include consideration of provincial interest, if the proposal is in the public interest, whether the plan conforms to the Official Plan and any adjacent plans of subdivision, the suitability of the land for the purpose for which it is to be divided, suitability for affordable housing units (if proposed), details regarding highways, dimension of lots, restrictions on the lands, conservation of natural resources and flood control, adequacy of utilities and municipal services, adequacy of school sites, the area to be conveyed for public purposes, efficient use of energy, the interrelationship with site plan control.

Regulation	Response
(a) the effect of development of the proposed subdivision on matters of provincial interest as referred to in section 2;	The proposed consent application does not negatively impact any natural features, conserves archaeological features, and contributes to the creation of new housing stock in Hamilton which is consistent with the PPS, 2024.
(b) whether the proposed subdivision is premature or in the public interest;	The application would allow for a small portion of the subject site to be severed, without impacting the viability of the retained lands for agriculture or future development.
(c) whether the plan conforms to the official plan and adjacent plans of subdivision, if any;	The site is designated *Rural Settlement Areas*, which limits residential uses to single detached dwellings, small scale residential care facilities, and small-scale institutional uses, which shall be permitted subject to the policies of the Rural Hamilton Official Plan. The site is further designated as Settlement Residential and Natural Open Space (Hazard Lands) in the Greensville Rural Settlement Area Plan. RHOP policy 1.7.4 states that an amendment to the RHOP is not required for changes to Natural Open Space (Hazard Lands) boundaries. The proposed lot configuration complies with the in-force zoning by-law and Rural Hamilton Official Plan. The application will facilitate the creation of one (1) new residential lot.
(d) the suitability of the land for the purposes for which it is to be subdivided;	The application will facilitate residential development on lands planned for residential uses in accordance with the in-force zoning by-law and official plan, while ensuring no impact to nearby

Regulation	Response
	environmental and archaeological features.
(d.1) if any affordable housing units are being proposed, the suitability of the proposed units for affordable housing;	Not applicable.
(e) the number, width, location and proposed grades and elevations of highways, and the adequacy of them, and the highways linking the highways in the proposed subdivision with the established highway system in the vicinity and the adequacy of them;	The application will utilize an existing municipal street (Weirs Lane). Due to it only being one additional dwelling, there is no concern with the additional usage of Weirs Lane or nearby highways.
(f) the dimensions and shapes of the proposed lots;	The proposed lot dimensions (lot frontage, lot area) comply with the in-force zoning by-law. The irregularity of the proposed lot is due to ensuring no impacts on adjacent natural features and their associated buffer areas.
(g) the restrictions or proposed restrictions, if any, on the land proposed to be subdivided or the buildings and structures proposed to be erected on it and the restrictions, if any, on adjoining land;	Not applicable.
(h) conservation of natural resources and flood control;	The proposed lot is located outside of the Conservation Management (CM) Zone and includes a 15-metre 'buffer' limiting development within the subject site.
(i) the adequacy of utilities and municipal services;	The subject site will be serviced by private utilities and services and has been sized accordingly.
(j) the adequacy of school sites;	The proposed lots will not impact existing school capacity. Greensville

Regulation	Response
	Elementary school is located a short drive away from the subject site. Through the circulation of the subject application, the school boards will be able to confirm this requirement.
(k) the area of land, if any, within the proposed subdivision that, exclusive of highways, is to be conveyed or dedicated for public purposes;	Not applicable.
(l) the extent to which the plan's design optimizes the available supply, means of supplying, efficient use and conservation of energy; and	The lot has been designed to accommodate a single detached dwelling in consideration of the archaeological and environmental constraints of the subject site. Matters of conservation of energy will be dealt with through the building permit process.
(m) the interrelationship between the design of the proposed plan of subdivision and site plan control matters relating to any development on the land, if the land is also located within a site plan control area designated under subsection 41 (2) of this Act or subsection 114 (2) of the City of Toronto Act, 2006. 1994, c. 23, s. 30; 2001, c. 32, s. 31 (2); 2006, c. 23, s. 22 (3, 4); 2016, c. 25, Sched. 4, s. 8 (2).	The application proposes the creation of one (1) new lot for single detached dwellings which are not subject to site plan control. The development of the buildings will be regulated by the zoning by-law, the building permit process and the Ontario Building Code.

6.2 Niagara Escarpment Plan

The subject property is located within the Niagara Escarpment Plan area, and is designated Rural Area within a Minor Urban Centre. Due to the proposed severed lot being within the Minor Urban Centre, a Development Permit from the NEC is not

required, but the policies of the NEP still apply to the lands. Section 1.6.8 provides Development and Growth Objectives for Minor Urban Centres, which includes that development and growth, including the creation of new lots, shall not extend into the Escarpment Natural Areas; should avoid Escarpment Protection Areas; be directed to Escarpment Rural Areas; and should be limited to minimize land use conflicts. The proposed severance is proposed within a Minor Urban Centre, which is part of the Escarpment Rural Area. The proposed new lot will be used for one residential dwelling which is consistent with the other uses along Weirs Lane, and is considered minor growth.

Policy 2.4.1 states "*Lot creation, including lots created within Urban Areas, Minor Urban Centres and Escarpment Recreation Areas, shall be subject to conformity with official plans and/or secondary plans and, where applicable, zoning by-laws that are not in conflict with the Niagara Escarpment Plan, and the criteria set out under Part 2, Development Criteria*." The proposed lot is consistent with the Rural Hamilton Official Plan, Greensville Secondary Plan, and Zoning By-law 90-145-Z, as discussed below.

Section 2.7 Development Affecting Natural Heritage aims to protect and where possible enhance natural heritage features and functions. Section 2.7.2 states that development is not permitted in key natural heritage features, with some exceptions. The proposed new lot is located outside of the natural heritage features, and a 15 metre buffer has been incorporated into the retained lands to ensure adequate separation between the new lot and the features.

Section 2.10 deals with Cultural Heritage, with the objective to conserve the Escarpment's cultural heritage resources. Policy 2.10.1 states that "*development shall not be permitted on lands containing archaeological resources or areas or archaeological potential unless significant archaeological resources are conserved*". The rear of the proposed lot requires a Stage 3 Archaeological Assessment, which is anticipated to be completed as a condition of the severance. No development is proposed at the rear of the lot where the archaeological feature is located.

The proposed consent is consistent with the policies of the Niagara Escarpment Plan as the proposed new lot is minor growth inside a Minor Urban Centre with no impacts to the Escarpment Natural and Protection Areas.

6.3 Rural Hamilton Official Plan

The subject site is designated Rural Settlement Areas (Greensville) on Schedule D – Rural Land Use Designation in the Rural Hamilton Official Plan ("RHOP"). Section D5.0 of the Rural Hamilton Official plans states that the Rural Settlement Areas designation applies to areas where a variety of land uses and developments have clustered together on a small scale outside the designated Urban Area. These areas are intended to be residential and service centres that serve the immediate community and the surrounding rural area. There are no policies associated with Rural Settlement Areas. Rather, Section D5.0 directs you to the associated Rural Settlement Area Secondary Plan set out in Volume 2 of the Plan. The subject site is within the Greensville Rural Settlement Area Plan, as discussed in Section 6.3 below.

Chapter F of the RHOP deals with 'Implementation' and Section 1.14.2 deals with lot creation within the rural area. Policy 1.14.2.4 states that within designated Rural Settlement Areas all proposed severances that create a new lot and proposed lot additions 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)

With respect to conditions (a) and (b), the proposed consent application would result in the creation of one (1) new lot, which conforms to the policies of the RHOP and the applicable Rural Settlement Areas policies, which identify the proposed lot as 'Settlement Residential' and 'Natural Open Space (Hazard Lands)' in the Greensville Rural Settlement Area Plan, as described below.

The proposed severed lands are located in proximity to other single detached dwellings along Weirs Lane and will be consistent with the character of existing lots and will not hinder nor impact any agricultural or surrounding operations. The proposed

new lot is not efficient to farm as it is isolated from larger farm parcels by environmental features.

With respect to conditions (c) and (d), the proposed lots comply with the in-force Zoning By-law (refer to Section 6.4 below) and both the severed and retained parcels will have frontage onto Weirs Lane.

With respect to conditions (e) and (f), the proposed lot is anticipated to meet the Minimum Distance Separation requirements as there are no immediate surrounding livestock operations and will be serviced by private water and sanitary infrastructure.

6.4 Greensville Rural Settlement Area Plan

Section 3.5 of Chapter A-3 – Flamborough Rural Settlement Area Plans provides a Secondary Plan policy framework to guide and direct future development and redevelopment within the Greensville Rural Settlement Area. Section 3.5.3.3 states that "Development shall generally occur through the subdivision process. Infilling of a minor nature may also be permitted through consent".

Map 8a of the Greensville Rural Settlement Area Plan establishes the land use pattern in Greensville. On this map the proposed severed lot is designated "Natural Open Space (Hazard Lands)" (see **Figure 3**). Typically lands within this designation consist of natural systems and their component parts such as wetlands, watercourses, floodplains, ravines and valleys. However, Section 3.5.17.1 within the "*Interpretation and Boundaries*" Section of the Plan states that "The boundaries separating land use designations on Map 8a are approximate except where they coincide with roads, water courses or other clearly identifiable features. Minor Adjustments to these boundaries shall not require an amendment to the Rural Settlement Area Plan where the general intent of the Plan is upheld. Similarly, all figures used in the text are approximate and no amendment shall be needed for minor variances from these figures".

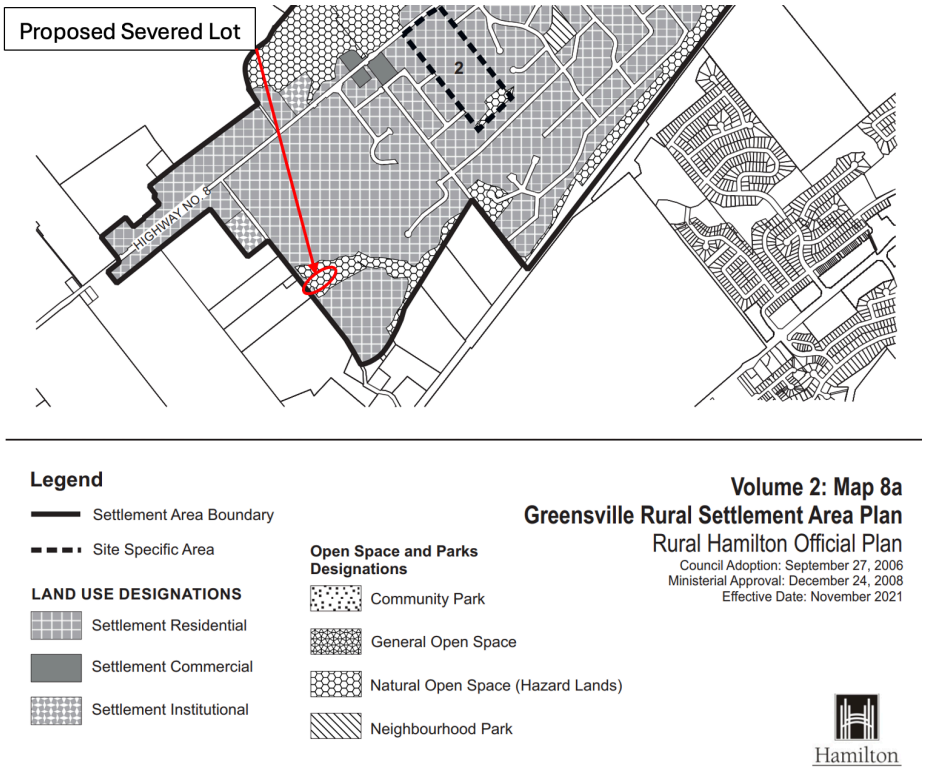


Figure 3 – Map 8a Greensville Rural Settlement Area Plan

The proposed severed lot does have Natural Open Space (Hazard Land) features along its perimeters. However, as per the EIS submitted as part of this application, the severance line has intentionally avoided these features, and recognizes that a 15m buffer will be required from these features to any development. Additionally, the lands are currently farmed, and therefore are not an active natural feature. Therefore, it is understood that the general intent of the Plan is upheld with this severance and no amendment is required.

Map 8b of the Greensville Rural Settlement Area Plan however, identifies the proposed severed lot as within "Major Development Area C" (see **Figure 4**). The proposed severed lands, should they be developed, will be developed in accordance with the relevant policies to "Major Development Area C". As such seen in Section 3.5.14: Development Phasing, whereby a maximum of twelve (12) lots will be developed at one given period, at the approval of the Province and City staff.

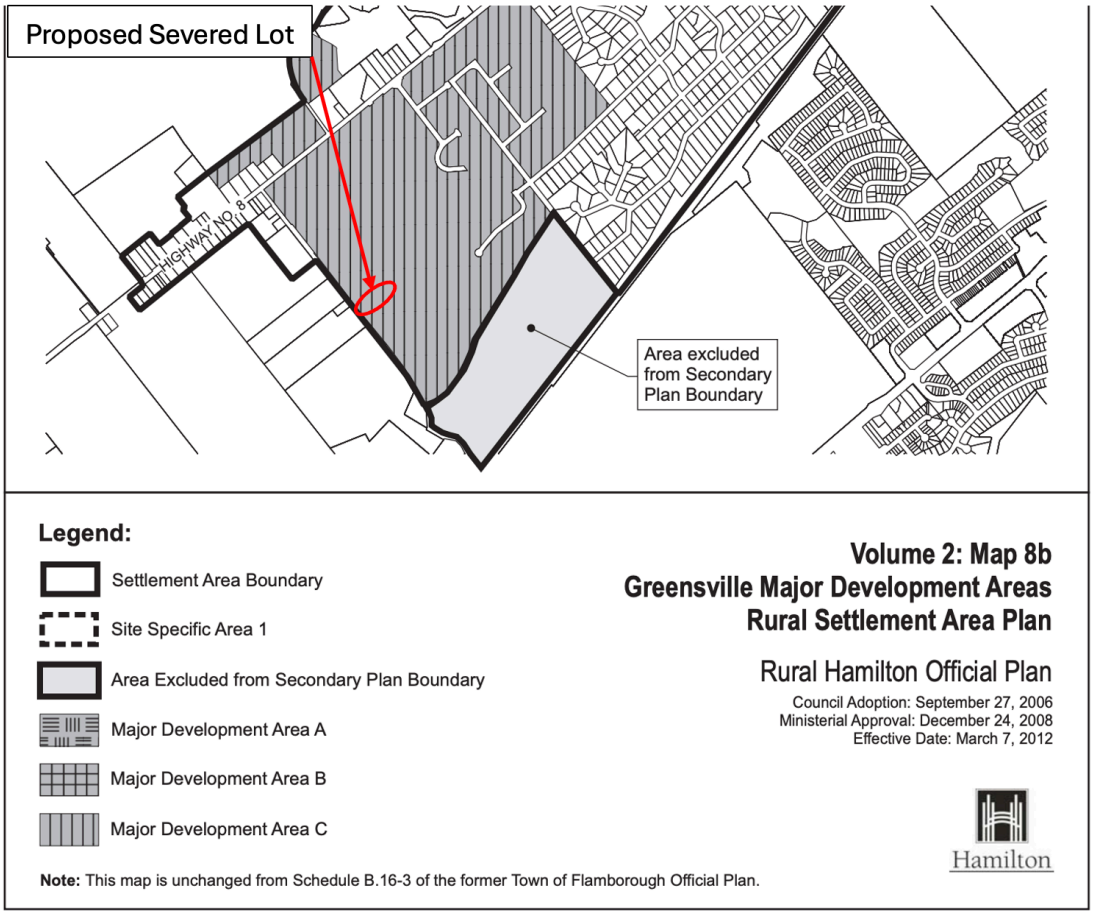


Figure 4 – Map 8b Greensville Major Development Areas

Section 3.5.13.4 notes that residential development shall be based upon a professional hydrogeologic and soils study. It is noted this is anticipated as a condition of consent.

Section 3.5.14.3 states that a maximum of five dwelling per year are permitted on new lots created by consent or Plan of Subdivision throughout the Greensville Rural Settlement Area. It is understood that this is something the City tracks as Building Permit applications are received and that this could result in a delay depending on the number of units that have already been approved.

6.5 Zoning

The site has multiple zoning designations under both Hamilton's new Zoning By-law 05-200 and the former Town of Flamborough Zoning By-law 90-145-Z:

Zoning By-law 05-200:
Conservation/Hazard Lane Rural (P6) Zone

Zoning By-law 90-145-Z:
Settlement Residential (R2-19) Site Specific Zone
Settlement Residential (R2-24(H)) Site Specific Zone
Conservation Management (CM) Zone

The proposed severed lot is zoned "Settlement Residential (R2-24(H)) Site Specific Zone", with a small portion of "Conservation Management (CM) Zone" along the proposed south property line as seen on **Figure 5**.

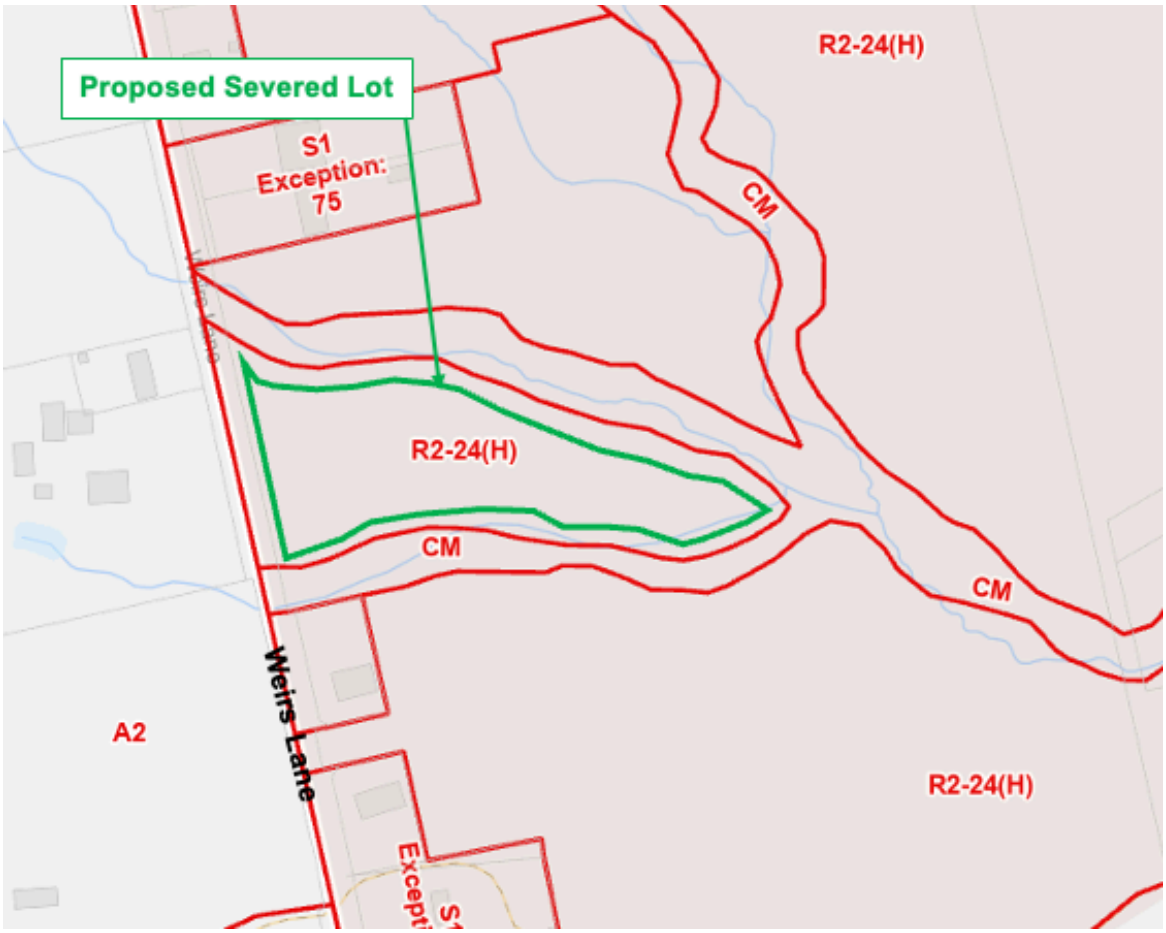


Figure 5 – Zone Map *(source: interactive zone map, City of Hamilton)*

The R2-24(H) Zone permits a single detached dwelling with the following zone requirements:

"R2-24(H)" (Settlement Residential)					
Lot	**Min Lot Width (m)**	**Provided Lot Width (m)**	**Min Lot Area (m^2)**	**Provided Lot Area (m^2)**	**Compliance**
Severed Lot	30	120±	2000	7,650±	Yes

The site-specific exception "24" states that the rear or side yard must be 30 metres from the Brow of the Niagara Escarpment. The proposed new lot has a setback to the brow of the Niagara Escarpment that is over 100 metres. The 'H' represents a Holding Provision, which will need to be removed prior to building permit, most likely as a condition of consent.

6.6 Analysis

The proposed consent is consistent with all provincial and local planning policy and is a representation of good planning. Both the natural heritage and archaeological constraints have been considered and have informed where and how the proposed severed lot will be created. Should the severance be approved, no natural heritage features or archaeological features will be impacted. It is understood that there may be conditions of consent that are required to confirm no impacts.

The proposed lot is a similar size of other rural residential lots in the area, and more specifically, along Weirs Lane. There is adequate space to provide a single detached dwelling and a septic bed outside of the wetland buffers and areas of archeological potential, and meet all setback requirements within the zoning by-law.

Overall, the proposed lot is appropriate for this area, and is consistent with other development in the area. There is capacity within the area for new dwellings, as stated in Section 3.5.14.3 of the Greensville Secondary Plan. Every attempt has been made to ensure that the wetland features and associated buffers have been maintained, and the development area is outside of the areas of archaeological potential.

7.0 Conclusion

Based on the above analysis, it is our opinion the requested Consent Application is appropriate and represents good planning and should be approved. We trust the foregoing is satisfactory however, should you require any additional information or clarification, please contact Brynne O'Neill (boneill@bousfields.ca) of our office.

Respectfully submitted,

Bousfields Inc.

David Falletta, MCIP, RPP
BO/df:jobs

Cc: C. Valery Construction Limited

DRAFT PLAN OF SUBDIVISION OF

BROWVIEW HEIGHTS — PHASE ONE

BEING A REVISION TO THE WESTERN PORTION OF
THE FORMER SUNDUSK ESTATES (REGIONAL FILE 25T-86026)
BEING
PART OF LOT 5, CONCESSION 1
IN THE FORMER
TOWNSHIP OF WEST FLAMBOROUGH
NOW IN THE
TOWN OF FLAMBOROUGH
IN THE
REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH

SCALE: 1:2000 (METRIC)

0 10 20 30 40 50 100

SURVEYOR'S CERTIFICATE

I CERTIFY THAT :
THE BOUNDARIES OF THE LAND UNDER APPLICATION BY THIS PLAN AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

SEPTEMBER 29 , 1993
DATE

J.D. BARNES LIMITED
PER. STEVE BALABAN, O.L.S.

OWNER'S CERTIFICATE

WE HEREBY AUTHORIZE SIDNEY W. WOODS ENGINEERING INC. TO SUBMIT THIS PLAN FOR APPROVAL.

SEPTEMBER 30 , 1993
DATE

LEWIS ROSS (in trust)

SEPTEMBER 30 , 1993
DATE

C. VALERI CONSTRUCTION LIMITED
C. VALERI, PRES.

SCHEDULE:

RE: SECTION 50(2) OF THE PLANNING ACT (1983)

A) SHOWN ON PLAN
B) SHOWN ON PLAN
C) SHOWN ON PLAN
D) SINGLE FAMILY RESIDENTIAL
E) SHOWN ON PLAN
F) SHOWN ON PLAN
G) SHOWN ON PLAN
H) PRIVATE WELLS
I) SANDY SILT & SILTY SANDS
J) SHOWN ON PLAN
K) HYDRO, STORM SEWERS
L) NONE

CAUTION: THIS IS NOT A FINAL PLAN AND IS SUBJECT TO REVISION AND AMENDMENT

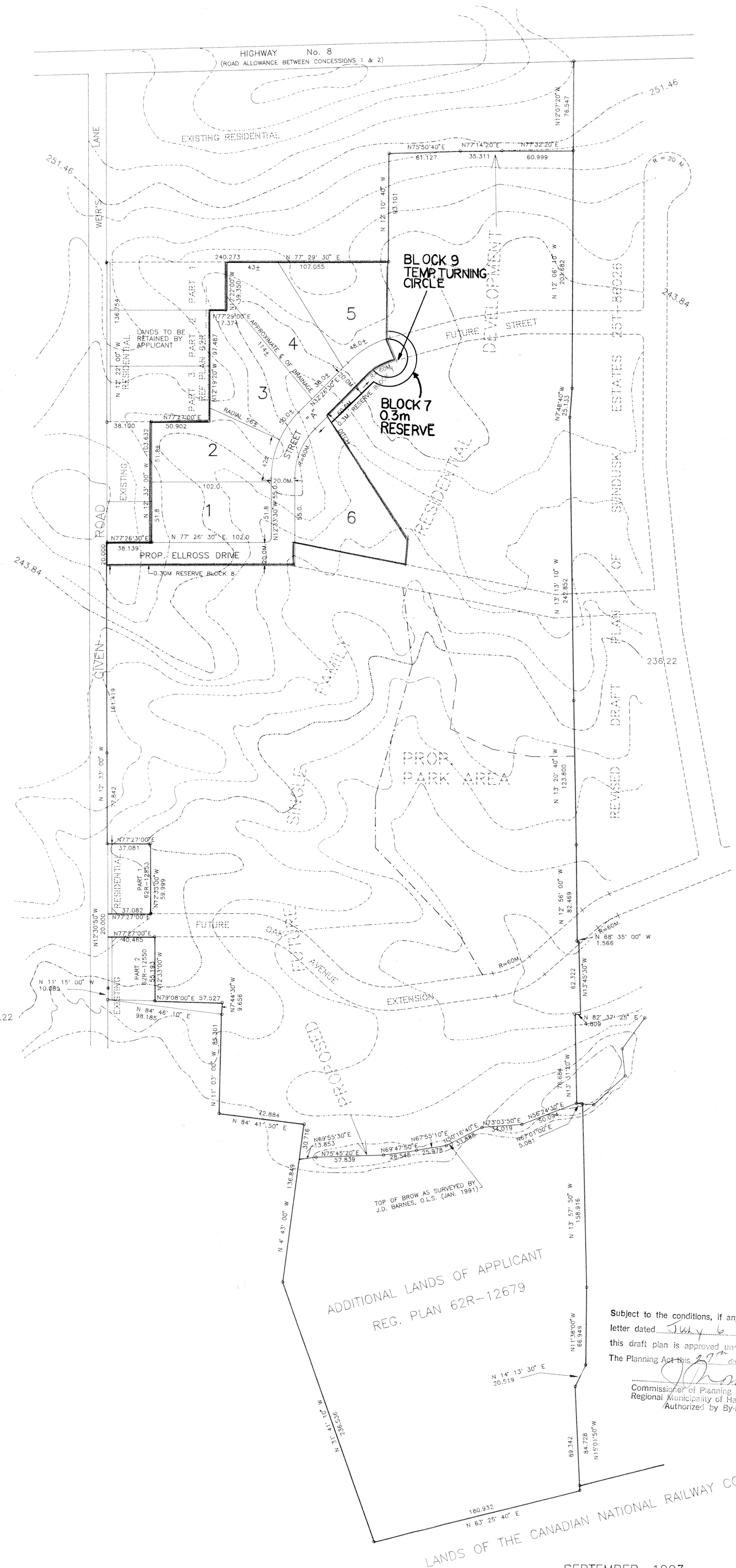
NOTE:
1) CONTOURS WERE TAKEN FROM THE HAMILTON REGION CONSERVATION AUTHORITY "TOWN OF DUNDAS" MAP (SCHEDULE No. 1 REG. MAP No. 2267) 1975
CONTOURS ARE IN METRES

2) THIS PLAN IS PART OF THE ORIGINAL SUNDUSK ESTATES DRAFT PLAN.
PREVIOUS DRAWING REF. No. E-1042-D

3) CORNER ROUNDINGS TO BE 4.5 METER RADIUS UNLESS OTHERWISE SHOWN.

PRINTED
OCT 4 1993
SIDNEY W. WOODS ENGINEERING INC.

SIDNEY W WOODS ENGINEERING INC.
Hamilton, Ontario



Subject to the conditions, if any, set forth in our letter dated July 6 1996 this draft plan is approved under Section 50 of The Planning Act this 27th day of October

Commissioner of Planning and Development
Regional Municipality of Hamilton-Wentworth
Authorized by By-law No. R89-171

SEPTEMBER, 1993

E-1108-D

Stage 1-2 Archaeological Assessment
Valery Group Property, Lot 1,
Weirs Lane, Greensville

Part of Lot 5, Concession 1, Geographic Township of West Flamborough, Historical County of Wentworth, City of Hamilton, Ontario

Submitted to:

Amber Lindsay
Valery Group
2140 King Street E,
Hamilton, Ontario L8K 1W6

and

Ontario's Ministry of Citizenship and Multiculturalism

Submitted by:

Detritus
CONSULTING LTD.
archaeology · heritage

196 Westheights Drive, Kitchener, Ontario, N2N 1J9
Mobile/Office: 519-744-7018
E-mail: garth@golden.net
Web: www.detritusconsulting.ca

Licensee: Garth Grimes
License Number: P017
PIF Number: P017-1121-2024
CP Number: 2024-159

ORIGINAL REPORT

December 5th, 2024

Executive Summary

Detritus Consulting Ltd. ('Detritus') was retained by the Valery Group (the 'Proponent') to conduct a Stage 1-2 archaeological assessment on part of Lot 5, Concession 1, in the Geographic Township of West Flamborough, within the Historical County of Wentworth, which is now the City of Hamilton, Ontario (Figure 1). This investigation was conducted in advance of the severance of Lot 1 (the 'Study Area'; Tile 5 and Tile 6 Supplementary Documentation) from the larger Severance Property located within a large vacant lot on Weirs Lane in Hamilton, Ontario (the 'Severance Property'; Figure 3).

This assessment was triggered by the Provincial Policy Statement ('PPS') that is informed by the *Planning Act* (Government of Ontario, 1990a), which states that decisions affecting planning matters must be consistent with the policies outlined in the larger *Ontario Heritage Act* (Government of Ontario, 1990b). According to Section 2.6.2 of the PPS, "development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved." To meet this condition, a Stage 1-2 assessment was conducted as part of a severance application of development under archaeological consulting license P017 issued to Mr. Garth Grimes by the Ministry of Citizenship and Multiculturalism ('MCM') and adheres to the archaeological license report requirements under subsection 65 (1) of the *Ontario Heritage Act* (Government of Ontario, 1990b) and the MCM's *Standards and Guidelines for Consultant Archaeologists* ('*Standards and Guidelines*'; Government of Ontario, 2011).

The Severance Property measures 34.44 hectares ('ha') and occupies the majority of Lot 5, Concession 1, with the exception several parcels that were severed earlier to form residential lots fronting onto Weirs Lane and Highway 8, the railway concession, and the portion of Lot 5 south of the railway line (Figure 3). The current Study Area occupies a portion of Field 9, which is identified as Lot 1 in the Revised Concept Plan (Tile 6 Supplementary Documentation). Following advice provided the City of Hamilton (the 'Approval Authority'; see correspondence in Supplementary Documentation) the Study Area was permitted to be severed to follow the limit of developable area in the Revised Concept Plan.

The Severance Property was a part of a previous archaeological assessment (Figure 3) summarised in a report on the findings under license 95-106 conducted during that year and filed with the MCM in 1997. The purpose of the assessment was to investigate Field 1. This field is located immediately to the east of the Dougherty-Sluis site (AhHa-158), which was identified in 1993 during the construction of the residence located at 198 Weirs Lane. The assessment consisted of a pedestrian survey and resulted in additional mapping of the Dougherty-Sluis site and the identification of a further six pre-contact Indigenous sites registered as Ross (AhHa-159), Muller (AhHa-160), Rita (AhHa-168), Griffin (AhHa-169), Short site (AhHa-170), Ross IF2 (AhHa-171), and Ross IF3. No formal report exists for these sites, but they are summarised below and are mapped in Tile 3 of the Supplementary Documentation to this report. All six sites occur within a portion of the Severance Property.

Dougherty-Sluis (AhHa-158) was first identified by Neal Ferris under archaeological license 93-094 in 1993 prior to the construction of a new residence at 198 Weirs Lane. The site was located immediately east of Weirs Lane on a sandy-loam ridge, extending east from Weirs Lane, encompassing two residential lots, and extending further east into an active agricultural field. The site was described as a scatter of material covering two to three acres that included lithics, ceramics, faunal remains and fire cracked rock. The exposed portion on the Dougherty property revealed two longhouses and various cultural features. No formal documentation on this investigation could be located, but the site is described as a Late Woodland village (Ferris, 1997). The exact site extent was not fully clarified in the initial assessment in 1993 nor the following in 1997, but the results of these assessments suggest that the site could extend north into the portion property here defined as Lot 1, the Study Area (see the dashed pink line of showing the possible site extent in Tile 3 and Tile 4 of the Supplementary Documentation).

The Study Area was also a part of a larger Stage 1-2 archaeological assessment that covered the entire Severance Property conducted by Detritus in the fall of 2023 under PIF# P017-1065-2023. It consisted of a typical test pit survey of the areas of forest, meadow, and lawn, and a typical

pedestrian survey of the agricultural land. The agricultural lands were labelled by field number (Fields 1 to 9) and the southernmost portion of the Severance Property was noted as being a part of the Dundas Valley Environmentally Significant Area and therefore protected and excluded from the assessment (Figure 3).

This assessment resulted in the recovery of 826 pre-contact Indigenous artifacts and 1 faunal remain related to 6 of the previous sites listed above, as well as 21 new archaeological sites. The new sites registered with the MCM included P1 (AhHa-527), P2 (AhHa-528), P3 (AhHa-529), P4 (AhHa-530), P5 (AhHa-531), P6 (AhHa-533), P7, P8 (AhHa-538), P9, P10 (AhHa-532), P11, P12, P13 , P14, P15, P16 (AhHa-534), P17 (AhHa-535), P18 (AhHa-536), P19, P20 and P21. An additional eleven findspots were also recovered. Artifacts were recovered in the vicinity of Ross (AhHa-159), Muller (AhHa-160), Rita (AhHa-168), Griffin (AhHa-169), and Ross IF3 (AhHa-537). No additional artifacts were recovered in the vicinity of the Short (AhHa-170) or Ross IF2 (AhHa-171). While additional artifacts were recovered in the vicinity of Dougherty-Sluis (AhHa-158), none of these were recovered within the southern limits of the current Study Area, suggesting that the site limits possibly do not extend north as far as the 1993 and 1997 assessments suggest.

According to the results of the assessment P1 (AhHa-527), P2 (AhHa-528), P3 (AhHa-529), P4 (AhHa-530), P5 (AhHa-531), P6 (AhHa-533), P8 (AhHa-538) were all determined to retain CHVI and were recommended for further work. While P7, P9, P10 (AhHa-532), P11, P12, P13 , P14, P15, P16 (AhHa-534), P17 (AhHa-535), P18 (AhHa-536), P19, P20 and P21 were determined to retain no further cultural heritage value or interest ('CHVI') and were not recommended for Stage 3 assessment.

P1 (AhHa-527), P20, and Isolated Findspot 489 were identified within Field 9 where the Study Area is located. P20 comprised two pre-contact Indigenous artifacts, both identified as pieces of chipping detritus, recovered from two findspots scattered across an area 17m by 1m in the southwest quadrant of Field 9, within the current Study Area. According to morphological analysis, the chipping detritus assemblage comprised one secondary flake manufactured from Onondaga chert and one tool thinning flake manufactured from Haldimand chert. Isolated Findspot 489 was identified along the northwest edge of Field 9, outside the current Study Area, and comprised one chopper manufactured from Haldimand chert. Neither P20 nor Isolated Findspot 489 were recommended for further work.

The Stage 2 assessment of P1 (AhHa-527) resulted in the documentation of 97 pre-contact Indigenous finds from 59 findspots spanning an area of 130m by 40m at the eastern end of Field 9. The assemblage comprised 95 pieces of chipping detritus, 1 projectile point fragment that was not temporally diagnostic, and 1 utilized flake. According to morphological analysis, the assemblage of chipping detritus was dominated by tool thinning flakes with roughly half again the amount of secondary flakes. This suggests late-stage lithic reduction occurred at the site for the refinement and maintenance of informal and formal tools. According to the results of the Stage 2 assessment and the documentation of at least ten non-diagnostic pre-contact Indigenous artifacts within a 10m by 10m pedestrian survey area, P1 (AhHa-527) was determined to retain CHVI and was recommended for a Stage 3 Site Specific Assessment. Based on the results of this assessment, the Proponent elected to alter their original concept plan by restricting current development to the Study Area and severing it from the Severance Property as indicated on their Revised Concept Plan (Tile 6 Supplementary Documentation).

The reduced Study Area comprises an irregular-shaped parcel measuring 0.31ha that fronts on Weirs Lane at the western edge of the Severance Property and occupies a portion Field 9, which at the time of this assessment was an active agricultural field. Recent aerial photography showed no visible disturbances within the Study Area (Figure 4).

The Stage 1 background research consisted of gathering all the information about previous assessments pertaining to the Study Area and the numerous archaeological sites recovered within the Severance Property. This research also included the consultation of the *City of Hamilton Archaeological Management Plan*, which indicated that the Study Area is located within an area of archaeological potential (City of Hamilton, 2012). Therefore, a Stage 2 Property Assessment was recommended for the Study Area in order to investigate the current conditions and to formulate recommendations for the Study Area.

The subsequent Stage 2 field assessment of the Study Area was conducted on September 3rd, 2024. This investigation consisted of a property inspection conducted according to Section 2.1.8, which is informed by Section 1.2 of the *Standards and Guidelines* (Government of Ontario, 2011). The inspection confirmed the absence of disturbances within the Study Area. The entire Study Area comprised an active agricultural field covered with short crops.

Based on the results of the Stage 2 investigation, P1 (AhHa-527) falls outside the area proposed for severance and developmental impacts. Although none of the proposed development occurs within P1 (AhHa-527), its 20m protective buffer abuts the eastern edge of the Study Area. Given the proximity of P1 (AhHa-527) **a construction monitoring zone ranging from 20m to 70m surrounding P1 (AhHa-527), must also be observed within the limits of the Study Area**. A licensed archaeologist must monitor any construction activities impacting this zone in order to prevent any construction impacts to P1 (AhHa-527), as per Section 7.8.5, Standard 1eiii of the *Standards and Guidelines* (Government of Ontario, 2011).

Furthermore, based on the results of the background research and given the high amount of artifacts in the area, it cannot be stated definitively whether or not Dougherty-Sluis (AhHa-158) extends northward into the Study Area. Given that Dougherty-Sluis (AhHa-158) is associated with an array of features, a lack of surface artifacts observed during a pedestrian survey of the Study Area cannot adequately confirm that there are no Late Woodland features present, a **Stage 3 assessment is recommended for the southern boundary of the Study Area.**

Typically, a Stage 3 assessment for sites documented during a pedestrian survey of ploughed agricultural land begins with an intensive controlled surface pickup ('CSP') across the Stage 2 limits of site, conducted as per Section 3.2.1 of the *Standards and Guidelines* (Government of Ontario, 2011). The Stage 2 pedestrian survey, however, consisted of an intensive surface collection across the entire site limits within the agricultural fields; all artifacts were mapped digitally and collected for laboratory analysis. Thus, the conditions for a Stage 3 CSP were met during the Stage 2 assessment. Instead, the Stage 3 investigation will comprise test unit excavation only conducted according to Section 3.2.2 of the *Standards and Guidelines* (Government of Ontario, 2011).

The Stage 3 assessment will consist of a line of 1m square test units every 5m along the proposed southern edge of Lot 1, the Study Area, excavated by systematic levels and into the first 5 centimetres ('cm') of subsoil, as per Table 3.1, Standard 1 of the Standards and Guidelines (Government of Ontario, 2011). All excavated soil will be screened through six-millimetre mesh; all recovered artifacts will be recorded by their corresponding grid unit designation and collected for laboratory analysis. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit. Results of this stage 3 may confirm the presence or absence of Dougherty-Sluis (AhHa-158) extending into the Study Area. If the site's presence is confirmed there will be a need for additional test squares to determine the true extents of this site.

Furthermore, **a construction monitoring zone ranging from 20m to 70m from the proposed southern edge of Lot 1, the Study Area, representing the northern limit of Dougherty-Suis (AhHa-158) will also be observed**. A licensed archaeologist must monitor any construction activities impacting this zone in order to prevent any construction impacts to Dougherty-Sluis (AhHa-158), as per Section 7.8.5, Standard 1eiii of the *Standards and Guidelines* (Government of Ontario, 2011). This recommendation applies to the portion of the Severance Property to be subject to developmental impacts according to the current development application, and which was included within the current Study Area (Figure 3).

The Executive Summary highlights key points from the report only; for complete information and findings, the reader should examine the complete report.

Table of Contents

Project Personnel

Project Manager:	Garth Grimes, P017
Field Director:	Mathew Gibson, R1160
Report Preparation:	Tina Ross
Mapping:	Tina Ross
Licensee Review:	Garth Grimes, P017

Acknowledgments

Generous contributions by Amber Lindsay, Director of Development with Valery Group made this report possible.

Mr. Liam Murphy, Bousfields Inc.

Ms. Cassandra Thornburrow, Valery Group

Ms. Amber Lindsay, Valery Group

1.0 Project Context

1.1 Development Context

Detritus Consulting Ltd. ('Detritus') was retained by the Valery Group (the 'Proponent') to conduct a Stage 1-2 archaeological assessment on part of Lot 5, Concession 1, in the Geographic Township of West Flamborough, within the Historical County of Wentworth, which is now the City of Hamilton, Ontario (Figure 1). This investigation was conducted in advance of the severance of Lot 1 (the 'Study Area'; Tile 5 and Tile 6 Supplementary Documentation) from the larger Severance Property located within a large vacant lot on Weirs Lane in Hamilton, Ontario (the 'Severance Property'; Figure 3).

This assessment was triggered by the Provincial Policy Statement ('PPS') that is informed by the *Planning Act* (Government of Ontario, 1990a), which states that decisions affecting planning matters must be consistent with the policies outlined in the larger *Ontario Heritage Act* (Government of Ontario, 1990b). According to Section 2.6.2 of the PPS, "development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved." To meet this condition, a Stage 1-2 assessment was conducted as part of a severance application of development under archaeological consulting license P017 issued to Mr. Garth Grimes by the Ministry of Citizenship and Multiculturalism ('MCM') and adheres to the archaeological license report requirements under subsection 65 (1) of the *Ontario Heritage Act* (Government of Ontario, 1990b) and the MCM's *Standards and Guidelines for Consultant Archaeologists* ('*Standards and Guidelines*'; Government of Ontario, 2011).

The purpose of a Stage 1 Background Study is to compile all available information about the known and potential archaeological heritage resources within the Study Area and to provide specific direction for the protection, management and/or recovery of these resources. In compliance with the *Standards and Guidelines* (Government of Ontario, 2011), the objectives of the following Stage 1 assessment are as follows:

- To provide information about the Study Area's geography, history, previous archaeological fieldwork and current land conditions;
- to evaluate in detail, the Study Area's archaeological potential which will support recommendations for Stage 2 survey for all or parts of the property; and
- to recommend appropriate strategies for Stage 2 survey.

To meet these objectives Detritus archaeologists employed the following research strategies:

- A review of relevant archaeological, historic and environmental literature pertaining to the Study Area;
- a review of the land use history, including pertinent historic maps; and
- an examination of the Ontario Archaeological Sites Database ('ASDB') to determine the presence of known archaeological sites in and around the Study Area.

The purpose of a Stage 2 Property Assessment is to provide an overview of any archaeological resources within the Study Area; to determine whether any of the resources might be archaeological sites with cultural heritage value or interest ('CHVI'); and to provide specific direction for the protection, management, and/or recovery of these resources. In compliance with the *Standards and Guidelines* (Government of Ontario, 2011), the objectives of the following Stage 2 assessment are as follows:

- To document all archaeological resources within the Study Area;
- to determine whether the Study Area contains archaeological resources requiring further assessment; and
- to recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

The licensee received permission from the Proponent to enter the land and conduct all required archaeological fieldwork activities, including the recovery of artifacts.

1.2 Historical Context

1.2.1 Post-Contact Indigenous Resources

Prior to the arrival of European settlers, much of the central and southern Ontario was occupied by Iroquoian speaking linguistic groups that had united to form confederacies, including the Huron-Wendat, the Neutral (or Attawandaran), and the Petun in Ontario, as well as the Five Nations Iroquois Confederacy in Upper New York State (Warrick, 2013; Birch, 2010). Of these groups, the Huron-Wendat established themselves to the east of the Niagara escarpment and the Neutral, to the west (Warrick, 2000).

Throughout the middle of the 17th century, the Iroquois Confederacy sought to expand upon their territory and to monopolize the fur trade between the European markets and the tribes of the western Great Lakes region. A series of bloody conflicts followed known as the Beaver Wars or the French and Iroquois Wars, contested between the Iroquois Confederacy and the Algonkian speaking communities of the Great Lakes region. Many communities were destroyed including the Huron, Neutral, Susquehannock and Shawnee leaving the Iroquois as the dominant group in the region. By 1653 after repeated attacks, the Niagara peninsula and most of Southern Ontario had been vacated (Heidenreich, 1990).

At this same time, the Anishinaabeg Nation, an Algonkian-speaking community situated inland from the northern shore of Lake Huron, began to challenge the Haudenosaunee for dominance in the Lake Huron and Georgian Bay region in order to advance their own role in the fur trade (Gibson, 2006). The Algonkian-speaking groups that settled in the area bound by Lake Ontario, Lake Erie, and Lake Huron were referred to by the English as the Chippewas or Ojibwas. By 1680, the Ojibwa began expanding into the evacuated Huron-Wendat territory, and eventually into Southern Ontario. By 1701, the Haudenosaunee had been driven out of Ontario completely and were replaced by the Ojibwa (Gibson, 2006; Schmalz, 1991).

The late 17th and early 18th centuries also mark the arrival of an Ojibwa band known as the Mississaugas into Southern Ontario and, in particular, the watersheds of the lower Great Lakes. 'The Mississaugas' is the name that the Jesuits had used in 1840 for the Algonquin community living near the Mississagi River on the northwestern shore of Lake Huron (Smith, 2002). The oral traditions of the Mississaugas, as recounted by Chief Robert Paudash and recorded in 1904, suggest that the Mississaugas defeated the Mohawk Nation, who retreated to their homeland south of Lake Ontario. Following this conflict, a peace treaty was negotiated between the two groups (Praxis Research Associates, n.d.).

From the beginning of the 18th century until the end of the Seven Year War in 1763, the Ojibwa nation, including the Mississaugas, experienced a golden age in trade holding no alliance with either the French or the British (Schmalz, 1991). At the end of the 17th century, the Mississaugas' settled permanently in Southern Ontario (Praxis Research Associates, n.d.). Around this same time, in 1722, the Five Nation Iroquois Confederacy adopted the Tuscarora in New York becoming the Six Nations (Pendergast, 1995).

The Study Area first entered the Euro-Canadian historical record on December 7th, 1792, as part of Treaty No. 3, which included land acquired in the 'Between the Lakes Purchase' dating to May 22, 1784. According to the terms of the treaty, the Mississaugas ceded to the Crown approximately 3,000,000 acres of land between Lake Huron, Lake Erie, and Lake Ontario in return for trade goods valued at £1180.

The limits of the Treaty 3 lands are documented as comprising,

> *Lincoln County excepting Niagara Township; Saltfleet, Binbrook, Barton, Glanford and Ancaster Townships, in Wentworth County; Brantford, Onondaga, Tusc[a]r[o]ra, Oakland and Burford Townships in Brant County; East and West Oxford, North and South Norwich, and Dereham Townships in Oxford County; North Dorchester Township in Middlesex County; South Dorchester, Malahide and Bayham Township in Elgin County; all Norfolk and Haldimand Counties;*

> *Pelham, Wainfleet, Thorold, Cumberland and Humberstone Townships in Welland County.*
>
> Morris, 1943, pp. 17-8

One of the stated objectives of the Between the Lakes Purchase was "to procure for that part of the Six Nation Indians coming into Canada a permanent abode" (Morris, 1943, p. 17). Shortly after the transaction had been finalised in May of 1784, Sir Frederick Haldimand, the Governor of Québec, made preparations to grant a portion of land to those Six Nations who remained loyal to the Crown during the American War of Independence. More specifically, Haldimand arranged for the purchase of approximately 550,000 acres of land adjacent to the Treaty 3 limits from the Mississaugas. This tract of land, referred to as either the Haldimand Tract or the 1795 Crown Grant to the Six Nations, was provided for in the Haldimand Proclamation of October 25th, 1784, and was intended to extend a distance of six miles on each side of the Grand River from mouth to source (Weaver, 1978). By the end of 1784, representatives from each constituent nation of the Six Nations, as well as other allies, relocated to the Haldimand Tract with Joseph Brant (Weaver, 1978; Tanner, 1987).

Throughout southern Ontario, the size and nature of the pre-contact settlements and the subsequent spread and distribution of Indigenous material culture began to shift with the establishment of European settlers. By 1834 it was accepted by the Crown that losses of portions of the Haldimand Tract to Euro-Canadian settlers were too numerous for all lands to be returned. Lands in the Lower Grand River area were surrendered by the Six Nations to the British Government in 1832, at which point most Six Nations people moved into Tuscarora Township in Brant County and a narrow portion of Oneida Township (Page, H. & Co., 1879; Weaver, 1978; Tanner, 1987). Following the population decline and the surrender of most of their lands along the Credit River, the Mississaugas were given 6000 acres of land on the Six Nations Reserve, establishing the Mississaugas of New Credit First Nation, now the Mississaugas of the Credit First Nation, in 1847 (Smith, 2002)

Despite the encroachment of European settlers on previously established Indigenous territories, "written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought" (Ferris, The Archaeology of Native-Lived Colonialism: Challenging History in the Great Lakes, 2009, p. 114). As Ferris observes, despite the arrival of a competing culture, First Nations communities throughout Southern Ontario have left behind archaeologically significant resources that demonstrate continuity with their pre-contact predecessors, even if they have not been recorded extensively in historical Euro-Canadian documentation.

1.2.2 Euro-Canadian Resources

The current Study Area is located on part of Lot 5, Concession 1, in the Geographic Township of West Flamborough, within the Historical County of Wentworth, which is now the City of Hamilton, Ontario.

In 1763, the Treaty of Paris brought an end to the Seven Years' War, contested between the British, the French, and their respective allies. Under the Royal Proclamation of 1763, the large stretch of land from Labrador in the east, moving southeast through the Saint Lawrence River Valley to the Great Lakes and on to the confluence of the Ohio and Mississippi Rivers became the British Province of Québec (Niagara Historical Society and Museum, 2008).

On July 24, 1788, Sir Guy Carleton, the Governor-General of British North America, divided the Province of Québec into the administrative districts of Hesse, Nassau, Mecklenburg, and Lunenburg (Archives of Ontario, 2012-2024). Further change came in December 1791 when the former Province of Québec was rearranged into Upper Canada and Lower Canada under the provisions of the Constitutional Act. Colonel John Graves Simcoe was appointed as Lieutenant-Governor of Upper Canada; he spearheaded several initiatives to populate the province including the establishment of shoreline communities with effective transportation links between them (Coyne, 1895).

In July 1792, Simcoe divided Upper Canada into 19 counties stretching from Essex in the west to Glengarry in the east. Each new county was named after a county in England or Scotland; the constituent townships were then given the names of the corresponding townships from each original British county (Powell & Coffman, 1956).

Later that year, the four districts originally established in 1788 were renamed as the Western, Home, Midland and Eastern Districts. The current Study Area is situated in the historic Home District, which comprised lands obtained in the "Between the Lakes Purchases" of 1784 and 1792 (Archives of Ontario, 2012-2024). As population levels in Upper Canada increased, smaller and more manageable administrative bodies were needed resulting in the establishment of many new counties and townships. In 1816, further administrative changes were made, with the creation of the Gore District, which encompassed Wentworth County, including the Township of West Flamborough.

In 1816, boundaries of the Home and Niagara Districts were shifted once again resulting in the formation of the Gore District and its two counties; Wentworth County and Halton County. Wentworth County was named after Sir. John Wentworth, the Lieutenant-Governor of Nova Scotia from 1792 to 1808. It originally consisted of seven townships formerly belonging to Haldimand, Lincoln and York Counties; Glanford County was originally part of Lincoln Township. In 1849, Gore District was replaced by the United Counties of Wentworth and Halton. This administrative configuration lasted until 1854. In 1973, Wentworth County was replaced by the Regional Municipality of Hamilton-Wentworth. In 2001, the Regional Municipality and its six constituent municipalities were amalgamated as the 'megacity' of Hamilton (Archives of Ontario, 2012-2024)

The first colonial settler in West Flamborough was Ann Morden and her family, who settled in what is now Dundas by 1782, the year following the signing of Treaty 3. It was at this time also that Augustus Jones surveyed the area (Flamborough Archives and Heritage Societey, 2021). Most early settlers in West Flamborough were United Empire Loyalists, who moved to Upper Canada following the Revolutionary War. The township was also refuge for settlers and native people fleeing the US military during the War of 1812, with some two thousand Anishinaabe camped there. Following the end of the war, settlement in the area was initially swift with first Ancaster and then Dundas becoming two of the most populous and industrialized towns in the province. However, once the locus of growth and industry shifted to Hamilton and Toronto, most of West Flamborough remained rural until the late 20th century.

The *Illustrated Historical Atlas of Wentworth County, Ont.* ('*Historical Atlas*'), demonstrates the extent to which West Flamborough Township had been settled by 1875 (Page & Smith, 1875). Landowners are listed for every lot within the township, many of which had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the late 19th century. Structures and orchards are prevalent throughout the township, almost all of which front early roads and water bodies, such as the various creeks that flow into Lake Ontario to the east of the Study Area.

According to the *Historical* Atlas, The entirety of Lot 5, Concession 1 was owned by John Weir Senior (Figure 2). The lot is divided basically in half by an escarpment and the railroad which lines atop this feature. Two large houses are depicted on the map in the northern portion of the lot along what is now Highway 8. A smaller structure and orchard are also depicted in the northern portion of the lot. The Study Area is located approximately in the middle of the northern portion where it fronts onto what is now known as Weirs Lane, which is a testament to the influence the Weir family had in this area. John Weir Junior is shown as owning the majority of the adjacent lot 4 to the west.

Although significant and detailed landowner information is available on the historical maps discussed here, it should be recognized that historical county atlases were funded by subscriptions fees and were produced primarily to identify factories, offices, residences and landholdings of subscribers. Landowners who did not subscribe were not always listed on the maps (Caston, 1997, p. 100). Moreover, associated structures were not necessarily depicted or placed accurately (Gentilcore & Head, 1984).

1.2.4 Recent Reports

Several investigations were undertaken within the Study Area. Neal Ferris conducted a partial assessment of the Study Area in 1995 and Detritus conducted a Stage 1-2 assessment in 2023. Table 1 below provides a list of all reports filed with the ministry in relation to the Study Area.

Table 1: Reports Relating to the Study Area

PIF Number	Stage	Report Title
95-106	n/a	A Report of Activities Conducted under Archaeological Licence 95-106 (Ferris, 1997).
P017-1065-2023	Stage 1-2	Stage 1-2 Archaeological Assessment. Valery Group Property, Weirs Lane, Greensville, Part of Lot 5 Concession 1, Geographic Township of West Flamborough Historical County of Wentworth, City of Hamilton, Ontario (Detritus Counsulting Ltd., 2024)

These reports are summarized in 1.3.5 below.

1.3 Archaeological Context

1.3.1 Property Description and Physical Setting

The Severance Property measures 34.44 hectares ('ha') and occupies the majority of Lot 5, Concession 1, with the exception several parcels that were severed earlier to form residential lots fronting onto Weirs Lane and Highway 8, the railway concession, and the portion of Lot 5 south of the railway line (Figure 3). The current Study Area occupies a portion of Field 9, which is identified as Lot 1 in the Revised Concept Plan (Tile 6 Supplementary Documentation). Following advice provided the City of Hamilton (the 'Approval Authority'; see correspondence in Supplementary Documentation) the Study Area was permitted to be severed to follow the limit of developable area in the Revised Concept Plan.

The reduced Study Area comprises an irregular-shaped parcel measuring 0.31ha that fronts on Weirs Lane at the western edge of the Severance Property and occupies a portion Field 9, which at the time of this assessment was an active agricultural field. Recent aerial photography showed no visible disturbances within the Study Area (Figure 4).

The majority of the region surrounding the Study Area has been subject to European-style agricultural practices for over 100 years, having been settled by Euro-Canadian farmers by the mid-19th century. Much of the region today continues to be used for agricultural purposes.

The Study Area is situated within the Norfolk Sand Plain. This region has been defined as a wedge-shaped area with a broad, curved base located along the shore of Lake Erie. To the north, it tapers to a point within the City of Brantford, along the Grand River. The plain drops from about 850 feet to the level of Lake Erie (572 feet) in a southerly direction, and to the top of the shore cliff 100 feet or more above the lake in a westerly direction. Throughout large stretches of the Norfolk Sand Plain, the slope is only a foot or two to the mile, with a noticeable break in the slope occurring five to ten miles from the shore of Lake Erie. The sands and silts of this region were deposited as a delta in glacial Lakes Whittlesey and Warren. Drainage throughout most of the region is facilitated by small rivers flowing directly to Lake Erie, except in a small area in the north, along a tributary to the Grand River (Chapman & Putnam, 1984).

The closest source of the closest sources of potable water are the unnamed seasonal creeks which bisect the Study Area from west to east and drain into Spencer Creek.

1.3.2 Pre-Contact Indigenous Land Use

This portion of southern Ontario was occupied by people as far back as 11,000 years ago as the glaciers retreated. For the majority of this time, people were practicing hunter-gatherer lifestyles with a gradual move towards more extensive farming practices. Table 2 provides a general outline of the cultural chronology of West Flamborough Township (Ellis & Ferris, 1990).

Table 2: Cultural Chronology for West Flamborough Township

Time Period	Cultural Period	Comments
9500–7000 BC	Paleo Indian	first human occupation hunters of caribou and other extinct Pleistocene game nomadic, small band society
7500–1000 BC	Archaic	ceremonial burials increasing trade network hunter-gatherers
1000–400 BC	Early Woodland	large and small camps spring congregation/fall dispersal introduction of pottery
400 BC–AD 800	Middle Woodland	kinship based political system incipient horticulture long distance trade network
AD 800–1300	Early Iroquoian (Late Woodland)	limited agriculture developing hamlets and villages
AD 1300–1400	Middle Iroquoian (Late Woodland)	shift to agriculture complete increasing political complexity large, palisaded villages
AD 1400–1650	Late Iroquoian	regional warfare and political/tribal alliances destruction of Huron and Neutral

1.3.3 Previous Identified Archaeological Work

In order to compile an inventory of archaeological resources, the registered archaeological site records kept by the MCM were consulted. In Ontario, information concerning archaeological sites stored in the ASDB (Government of Ontario, n.d.) is maintained by the MCM. This database contains archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden Block is approximately 13 kilometres ('km') east to west and approximately 18.5km north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found. The Study Area lies within block AhHa.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (Government of Ontario, 1990c). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MCM will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

According to the ASDB, ten archaeological sites have been registered within a 1km radius of the Study Area (Table 3). Seven are pre-contact Indigenous sites and three are Euro-Canadian sites.

Table 3: Registered Archaeological Sites within 1km of the Study Area

Borden Number	Site Name	Time Period	Affinity	Site Type
AhHa-28	McKinlay House	Post-Contact	Euro-Canadian	house
AhHa-171	Ross 1F2	Pre-Contact	Indigenous	findspot
AhHa-170	Short	Archaic, Late	Indigenous	findspot
AhHa-169	Griffin	Pre-Contact	Indigenous	Other camp/campsite
AhHa-168	Rita	Pre-Contact	Indigenous	Other camp/campsite
AhHa-160	Muller	Pre-Contact	Indigenous	Other camp/campsite
AhHa-159	Ross	Woodland, Late	Indigenous	hamlet
AhHa-158	Dougherty-Sluis	Woodland, Late	Indigenous, Iroquoian	hamlet, longhouse, village
AhHa-122	Darnley Mill	Post-Contact	Euro-Canadian	mill
AhGx-732		Post-Contact	Euro-Canadian	hamlet

1.3.4 Summary of Previous Investigations

Seven of the nearby sites listed above were documented during a partial assessment of the Study Area in 1995 by Neal Ferris (Figure 3). This assessment is only cursorily summarised in a report on the findings under license 95-106 conducted during that year and filed with the MCM in 1997. The purpose of the assessment was to investigate Field 1. This field is located immediately to the east of the Dougherty-Sluis site (AhHa-158), which was identified in 1993 during the construction of the residence located at 198 Weirs Lane. The assessment consisted of a pedestrian survey and resulted in additional mapping of the Dougherty-Sluis site and the identification of a further six pre-contact Indigenous sites registered as Ross (AhHa-159), Muller (AhHa-160), Rita (AhHa-168), Griffin (AhHa-169), Short site (AhHa-170), Ross IF2 (AhHa-171), and Ross IF3. No formal report exists for these sites, but they are summarised below according to the 1997 report and are mapped in Tile 3 of the Supplementary Documentation to this report. All six sites occur within a portion of the Severance Property.

Dougherty-Sluis (AhHa-158) was first identified by Neal Ferris under archaeological license 93-094 in 1993 prior to the construction of a new residence at 198 Weirs Lane. The site was located immediately east of Weirs Lane on a sandy-loam ridge, extending east from Weirs Lane, encompassing two residential lots, and extending further east into an active agricultural field. The site was described as a scatter of material covering two to three acres that included lithics, ceramics, faunal remains and fire cracked rock. The exposed portion on the Dougherty property revealed two longhouses and various cultural features. No formal documentation on this investigation could be located, but the site is described as a Late Woodland village (Ferris, 1997). The exact site extent was not fully clarified in the initial assessment in 1993 nor the following in 1997, but the results of these assessments suggest that the site could extend north into the portion property here defined as Lot 1, the Study Area (see the dashed pink line of showing the possible site extent in Tile 3 and Tile 4 of the Supplementary Documentation).

Ross (AhHa-159) was identified on a sandy ridge to the northeast of 198 Weirs Lane situated immediately south of a small creek approximately 200m by 60m that comprised 73 pre-contact Indigenous artifacts and 1 Euro-Canadian artifact. The assemblage included 2 projectile points, 1 drill, 3 strike-a-lights, 5 bifaces, 14 sherds of Indigenous pottery and 1 fragmentary end scraper. It was identified as a Late Woodland occupation. Muller (AhHa-160) was identified on a slight sandy rise to the east of Ross (aHHa-159) immediately adjacent to a low marshy area. It comprised seven pre-contact Indigenous artifacts from an area approximately 70m by 25m. The assemblage included six pieces of chipping detritus and a fragmentary end scraper, all manufactured form Onondaga chert. Rita (AhHa-168) was identified along an upward slope on the far east of the Ross property. It comprised five pre-contact Indigenous artifacts from an area approximately 30m by 20m. The assemblage included two flakes of Ancaster chert, a utilized flake of Onondaga, a biface of Onondaga, and a heavily worked square flake of Flint Ridge Chalcedony. Griffin (AhHa-169) was identified on the upward slope of the ridge to the north of the escarpment. It comprised seven pre-contact Indigenous artifacts from an area approximately 50m by 20m. The assemblage included seven pieces of chipping detritus, six of which were on Ancaster chert and one was of Onondaga chert. Short site (AhHa-170) was identified in the middle of the ploughed field and comprised an isolated findspot. The artifact was identified as a Late Archaic Narrow Point Tradition, side notched, Lamoka-like point manufactured form Onondaga chert. Ross IF2 (AhHa-171) and Ross IF3 were isolated findspots identified in the ploughed field in proximity to the Ross and Muller sites. Ross IF2 (AhH-171) was found in the ploughed field between the Ross and Muller site and comprised a triangular biface of Onondaga chert. Ross IF3 was identified near the Muller site and comprised two flakes of Ancaster chert.

A Stage 2 field assessment was conducted by Detritus that covered the entire Severance Property in the fall of 2023 under PIF# P017-1065-2023 and consisted of a typical test pit survey of the areas of forest, meadow, and lawn, and a typical pedestrian survey of the agricultural land. The agricultural lands were labelled by field number (Fields 1 to 9) and the southernmost portion of the Severance Property was noted as being a part of the Dundas Valley Environmentally Significant Area and therefore protected and excluded from the assessment (Figure 3).

This assessment resulted in the recovery of 826 pre-contact Indigenous artifacts and one faunal remain related to 6 of the sites listed above as well as 21 new archaeological sites. The new sites

registered with the MCM included P1 (AhHa-527), P2 (AhHa-528), P3 (AhHa-529), P4 (AhHa-530), P5 (AhHa-531), P6 (AhHa-533), P7, P8 (AhHa-538), P9, P10 (AhHa-532), P11, P12, P13 , P14, P15, P16 (AhHa-534), P17 (AhHa-535), P18 (AhHa-536), P19, P20 and P21. An additional eleven findspots were also recovered. Artifacts were recovered in the vicinity of Ross (AhHa-159), Muller (AhHa-160), Rita (AhHa-168), Griffin (AhHa-169), and Ross IF3 (AhHa-537). No additional artifacts were recovered in the vicinity of the Short (AhHa-170) or Ross IF2 (AhHa-171). While additional artifacts were recovered in the vicinity of Dougherty-Sluis (AhHa-158), none of these were recovered within the southern limits of Field 9 where the current Study Area is located, suggesting that the site limits do not extend north as far as the 1993 and 1997 assessments suggest.

According to the results of the assessment P1 (AhHa-527), P2 (AhHa-528), P3 (AhHa-529), P4 (AhHa-530), P5 (AhHa-531), P6 (AhHa-533), P8 (AhHa-538) were all determined to retain CHVI and were recommended for further work. While P7, P9, P10 (AhHa-532), P11, P12, P13 , P14, P15, P16 (AhHa-534), P17 (AhHa-535), P18 (AhHa-536), P19, P20 and P21 were determined to retain nor further CHVI and were not recommended for Stage 3 assessment.

P1 (AhHa-527), P20, and Isolated Findspot 489 were identified within Field 9 where the Study Area is located. P20 comprised two pre-contact Indigenous artifact, both identified as pieces of chipping detritus, recovered from two findspots scattered across an area 17m by 1m in the southwest quadrant of Field 9, within the current Study Area. According to morphological analysis, the chipping detritus assemblage comprised one secondary flake manufactured from Onondaga chert and one tool thinning flake manufactured from Haldimand chert. Isolated Findspot 489 was identified along the northwest edge of Field 9, outside the current Study Area, and comprised one chopper manufactured from Haldimand chert. Neither P20 nor Isolated Findspot 489 were not recommended for further work.

The Stage 2 assessment of P1 (AhHa-527) resulted in the documentation of 97 pre-contact Indigenous finds from 59 findspots spanning an area of 130m by 40m at the eastern end of Field 9. The assemblage comprised 95 pieces of chipping detritus, 1 projectile point fragment that was not temporally diagnostic, and 1 utilized flake. According to morphological analysis, the assemblage of chipping detritus was dominated by tool thinning flakes with roughly half again the amount of secondary flakes. This suggests late-stage lithic reduction occurred at the site for the refinement and maintenance of informal and formal tools. According to the results of the Stage 2 assessment and the documentation of at least ten non-diagnostic pre-contact Indigenous artifacts within a 10m by 10m pedestrian survey area, P1 (AhHa-527) was determined to retain CHVI and was recommended for a Stage 3 Site Specific Assessment. Based on the results of this assessment, the Proponent elected to alter their original concept plan by restricting current development to the Study Area and severing it from the Severance Property as indicated on their Revised Concept Plan (Tile 6 Supplementary Documentation).

To the best of Detritus' knowledge, no other assessments have been conducted adjacent to the Study Area, and no other sites are registered within 50m of the Study Area.

1.3.4 Archaeological Potential

Detritus applied archaeological potential criteria commonly used by the MCM to determine areas of archaeological potential within the Study Area. According to Section 1.3.1 of the *Standards and Guidelines* (Government of Ontario, 2011), these variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography, and the general topographic variability of the area.

Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, when considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect site locations and

types to varying degrees. As per Section 1.3.1 of the *Standards and Guidelines* (Government of Ontario, 2011), water sources may be categorized in the following manner:

- Primary water sources, lakes, rivers, streams, creeks;
- secondary water sources, intermittent streams and creeks, springs, marshes and swamps;
- past water sources, glacial lake shorelines, relic river or stream channels, cobble beaches, shorelines of drained lakes or marshes; and
- accessible or inaccessible shorelines, high bluffs, swamp or marshy lake edges, sandbars stretching into marsh.

As was discussed above, the closest sources of potable water are the unnamed seasonal creeks which bisect the Study Area from west to east and drain into Spencer Creek.

Soil texture is also an important determinant of past settlement, usually in combination with other factors such as topography. The Study Area is situated within the Norfolk Sand Plain physiographic region. As was discussed earlier, the soils within this region are imperfectly drained, but suitable for pre-contact and post contact Indigenous agricultural. Considering also the length of occupation of West Flamborough prior to the arrival of Euro-Canadian settlers, as evidenced by the seven pre-contact Indigenous sites registered within 1km, the pre-contact and post-contact Indigenous archaeological potential of the Study Area is judged to be moderate to high.

For Euro-Canadian sites, archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements; early transportation routes; and properties listed on the municipal register or designated under the *Ontario Heritage Act* (Government of Ontario, 1990b) or property that local histories or informants have identified with possible historical events. The *Historical Atlas* of West Flamborough Township from 1875 show the Study Area in close proximity to historical infrastructure, including the Grand Trunk Railway. Considering the location of the Study Area near to the early communities of Dundas and Ancaster, as well as the three post-contact Euro-Canadian registered within 1km, the potential for post-contact Euro-Canadian archaeological resources is judged to be moderate to high. Additionally, Detritus reviewed the *City of Hamilton Archaeological Management Plan*, which indicated that the Study Area is located within an area of archaeological potential (City of Hamilton, 2012).

Finally, despite the factors mentioned above, extensive land disturbance can eradicate archaeological potential within a Study Area, as outlined in Section 1.3.2 of the *Standards and Guidelines* (Government of Ontario, 2011). As was discussed above in Section 1.3.1, recent aerial imagery of the region revealed no visible disturbances within the Study Area (Figure 4). It is recommended that this area be subject to visual inspection and documentation during a Stage 2 property inspection conducted as per Section 2.1.8 of the *Standards and Guidelines* (Government of Ontario 2011) to confirm and document the level of disturbance.

2.0 Field Methods

The Stage 2 assessment of the Study Area was conducted on September 3rd, 2024, under archaeological consulting license P017 issued to Mr. Garth Grimes by the MCM. The limits of the Study Area were established in the field using a georeferenced shapefile produced using QGIS and uploaded to a hand-held GPS device running Qfield.

The Stage 2 field assessment consisted of a property inspection conducted as per Section 2.1.8, of the *Standards and Guidelines* (Government of Ontario, 2011). According to the results of this inspection, the absence of disturbances, identified on the current aerial imagery (see Section 1.3.4 above), was confirmed and photo documented in accordance with Section 2.1, Standard 6 and Section 7.8.1, Standard 1b of the *Standards and Guidelines* (Government of Ontario 2011).

The weather during the assessment was sunny and 24° Celsius. Photos 1 to 9 demonstrate the land conditions at the time of the survey throughout the Study Area. Figure 4 illustrates the photograph locations and directions and Tile 5 in the Supplementary Documentation shows the Study Area in relation to the proposed severance of the Study Area.

The entire Study Area comprised an active agricultural field covered with short crops. No artifacts were identified during the property inspection.

3.0 Record of Finds

The Stage 2 archaeological assessment was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by fieldwork is provided in Table 4 below.

Table 4: Inventory of Document Record

Document Type	Current Location of Document Type	Additional Comments
1 Page of Field Notes	Detritus' office	Stored digitally in project file
1 Map provided by the Proponent		
1 Field Map		
13 Digital Photographs		

No archaeological resources were identified within the Study Area during the Stage 2 assessment; therefore, no artifacts were collected. As a result, no storage arrangements were required.

4.0 Analysis and Conclusions

Detritus was retained by the Proponent to conduct a Stage 1-2 archaeological assessment in advance of the severance of the Study Area from the larger Severance Property located within a large vacant lot on Weirs Lane in Hamilton, Ontario.

The Severance Property was a part of a previous archaeological assessment summarised in a report on the findings under license 95-106 conducted during that year and filed with the MCM in 1997. The purpose of the assessment was to investigate Field 1. This field is located immediately to the east of the Dougherty-Sluis site (AhHa-158), which was identified in 1993 during the construction of the residence located at 198 Weirs Lane. The assessment consisted of a pedestrian survey and resulted in additional mapping of the Dougherty-Sluis site and the identification of a further six pre-contact Indigenous sites registered as Ross (AhHa-159), Muller (AhHa-160), Rita (AhHa-168), Griffin (AhHa-169), Short site (AhHa-170), Ross IF2 (AhHa-171), and Ross IF3. No formal report exists for these sites, but they are summarised below and are mapped in Tile 3 of the Supplementary Documentation to this report. All six sites occur within a portion of the Severance Property.

Dougherty-Sluis (AhHa-158) was first identified by Neal Ferris under archaeological license 93-094 in 1993 prior to the construction of a new residence at 198 Weirs Lane. The site was located immediately east of Weirs Lane on a sandy-loam ridge, extending east from Weirs Lane, encompassing two residential lots, and extending further east into an active agricultural field. The site was described as a scatter of material covering two to three acres that included lithics, ceramics, faunal remains and fire cracked rock. The exposed portion on the Dougherty property revealed two longhouses and various cultural features. No formal documentation on this investigation could be located, but the site is described as a Late Woodland village (Ferris, 1997). The exact site extent was not fully clarified in the initial assessment in 1993 nor the following in 1997, but the results of these assessments suggest that the site could extend north into the portion property here defined as Lot 1, the Study Area (see the dashed pink line of showing the possible site extent in Tile 3 and Tile 4 of the Supplementary Documentation).

The Study Area was also a part of a larger Stage 1-2 archaeological assessment that covered the entire Severance Property conducted by Detritus in the fall of 2023 under PIF# P017-1065-2023. It consisted of a typical test pit survey of the areas of forest, meadow, and lawn, and a typical pedestrian survey of the agricultural land. The agricultural lands were labelled by field number (Fields 1 to 9) and the southernmost portion of the Severance Property was noted as being a part of the Dundas Valley Environmentally Significant Area and therefore protected and excluded from the assessment.

This assessment resulted in the recovery of 826 pre-contact Indigenous artifacts and 1 faunal remain related to 6 of the previous sites listed above, as well as 21 new archaeological sites. The new sites registered with the MCM included P1 (AhHa-527), P2 (AhHa-528), P3 (AhHa-529), P4 (AhHa-530), P5 (AhHa-531), P6 (AhHa-533), P7, P8 (AhHa-538), P9, P10 (AhHa-532), P11, P12, P13 , P14, P15, P16 (AhHa-534), P17 (AhHa-535), P18 (AhHa-536), P19, P20 and P21. An additional eleven findspots were also recovered. Artifacts were recovered in the vicinity of Ross (AhHa-159), Muller (AhHa-160), Rita (AhHa-168), Griffin (AhHa-169), and Ross IF3 (AhHa-537). No additional artifacts were recovered in the vicinity of the Short (AhHa-170) or Ross IF2 (AhHa-171). While additional artifacts were recovered in the vicinity of Dougherty-Sluis (AhHa-158), none of these were recovered within the southern limits of the current Study Area, suggesting that the site limits possibly do not extend north as far as the 1993 and 1997 assessments suggest.

According to the results of the assessment P1 (AhHa-527), P2 (AhHa-528), P3 (AhHa-529), P4 (AhHa-530), P5 (AhHa-531), P6 (AhHa-533), P8 (AhHa-538) were all determined to retain CHVI and were recommended for further work. While P7, P9, P10 (AhHa-532), P11, P12, P13 , P14, P15, P16 (AhHa-534), P17 (AhHa-535), P18 (AhHa-536), P19, P20 and P21 were determined to retain no further cultural heritage value or interest ('CHVI') and were not recommended for Stage 3 assessment.

P1 (AhHa-527), P20, and Isolated Findspot 489 were identified within Field 9 where the Study Area is located. P20 comprised two pre-contact Indigenous artifact, both identified as pieces of

chipping detritus, recovered from two findspots scattered across an area 17m by 1m in the southwest quadrant of Field 9, within the current Study Area. According to morphological analysis, the chipping detritus assemblage comprised one secondary flake manufactured from Onondaga chert and one tool thinning flake manufactured from Haldimand chert. Isolated Findspot 489 was identified along the northwest edge of Field 9, outside the current Study Area, and comprised one chopper manufactured from Haldimand chert. Neither P20 nor Isolated Findspot 489 were recommended for further work.

The Stage 2 assessment of P1 (AhHa-527) resulted in the documentation of 97 pre-contact Indigenous finds from 59 findspots spanning an area of 130m by 40m at the eastern end of Field 9. The assemblage comprised 95 pieces of chipping detritus, 1 projectile point fragment that was not temporally diagnostic, and 1 utilized flake. According to morphological analysis, the assemblage of chipping detritus was dominated by tool thinning flakes with roughly half again the amount of secondary flakes. This suggests late-stage lithic reduction occurred at the site for the refinement and maintenance of informal and formal tools. According to the results of the Stage 2 assessment and the documentation of at least ten non-diagnostic pre-contact Indigenous artifacts within a 10m by 10m pedestrian survey area, P1 (AhHa-527) was determined to retain CHVI and was recommended for a Stage 3 Site Specific Assessment. Based on the results of this assessment, the Proponent elected to alter their original concept plan by restricting current development to the Study Area and severing it from the Severance Property as indicated on their Revised Concept Plan (Tile 6 Supplementary Documentation).

The reduced Study Area comprises an irregular-shaped parcel measuring 0.31ha that fronts on Weirs Lane at the western edge of the Severance Property and occupies a portion Field 9, which at the time of this assessment was an active agricultural field. Recent aerial photography showed no visible disturbances within the Study Area (Figure 4).

The Stage 1 background research consisted of gathering all the information about previous assessments pertaining to the Study Area and the numerous archaeological sites recovered within the Severance Property. This research also included the consultation of the *City of Hamilton Archaeological Management Plan*, which indicated that the Study Area is located within an area of archaeological potential (City of Hamilton, 2012). Therefore, a Stage 2 Property Assessment was recommended for the Study Area in order to investigate the current conditions and to formulate recommendations for the Study Area.

The subsequent Stage 2 field assessment of the Study Area was conducted on September 3rd, 2024. This investigation consisted of a property inspection conducted according to Section 2.1.8, which is informed by Section 1.2 of the *Standards and Guidelines* (Government of Ontario, 2011). The inspection confirmed the absence of disturbances within the Study Area. The entire Study Area comprised an active agricultural field covered with short crops.

Based on the results of the Stage 2 investigation, P1 (AhHa-527) falls outside the area proposed for severance and developmental impacts. Although none of the proposed development occurs within P1 (AhHa-527), its 20m protective buffer abuts the eastern edge of the Study Area.

Furthermore, based on the results of the background research and given the high amount of artifacts in the area, it cannot be stated definitively whether or not Dougherty-Sluis (AhHa-158) extends northward into the Study Area.

5.0 Recommendations

Given the proximity of P1 (AhHa-527) **a construction monitoring zone ranging from 20m to 70m surrounding P1 (AhHa-527), must also be observed within the limits of the Study Area**. A licensed archaeologist must monitor any construction activities impacting this zone in order to prevent any construction impacts to P1 (AhHa-527), as per Section 7.8.5, Standard 1eiii of the *Standards and Guidelines* (Government of Ontario, 2011).

Given that Dougherty-Sluis (AhHa-158) is associated with an array of features, a lack of surface artifacts observed during a pedestrian survey of the Study Area cannot adequately confirm that there are no Late Woodland features present, a **Stage 3 assessment is recommended for the southern boundary of the Study Area.**

Typically, a Stage 3 assessment for sites documented during a pedestrian survey of ploughed agricultural land begins with an intensive controlled surface pickup ('CSP') across the Stage 2 limits of site, conducted as per Section 3.2.1 of the *Standards and Guidelines* (Government of Ontario, 2011). The Stage 2 pedestrian survey, however, consisted of an intensive surface collection across the entire site limits within the agricultural fields; all artifacts were mapped digitally and collected for laboratory analysis. Thus, the conditions for a Stage 3 CSP were met during the Stage 2 assessment. Instead, the Stage 3 investigation will comprise test unit excavation only conducted according to Section 3.2.2 of the *Standards and Guidelines* (Government of Ontario, 2011).

The Stage 3 assessment will consist of a line of 1m square test units every 5m along the proposed southern edge of Lot 1, the Study Area, excavated by systematic levels and into the first 5 centimetres ('cm') of subsoil, as per Table 3.1, Standard 1 of the Standards and Guidelines (Government of Ontario, 2011). All excavated soil will be screened through six-millimetre mesh; all recovered artifacts will be recorded by their corresponding grid unit designation and collected for laboratory analysis. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit. Results of this stage 3 may confirm the presence or absence of Dougherty-Sluis (AhHa-158) extending into the Study Area. If the site's presence is confirmed there will be a need for additional test squares to determine the true extents of this site.

Furthermore, **a construction monitoring zone ranging from 20m to 70m from proposed southern edge of Lot 1, the Study Area, will also be observed**. A licensed archaeologist must monitor any construction activities impacting this zone in order to prevent any construction impacts to Dougherty-Sluis (AhHa-158), as per Section 7.8.5, Standard 1eiii of the *Standards and Guidelines* (Government of Ontario, 2011). This recommendation applies to the portion of the Severance Property to be subject to developmental impacts according to the current development application, and which was included within the current Study Area (Figure 3).

6.0 Advice on Compliance with Legislation

This report is submitted to the Minister Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest , and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license.

7.0 Bibliography

Archives of Ontario. (2012-2024). *The Evolution of the District and County System, 1788-1899.* Retrieved July 24, 2024, from http://www.archives.gov.on.ca/en/maps/ontario-districts.aspx

Birch, J. (2010). *Coalescence and Conflict in Iroquoian Ontario.* Retrieved January 20, 2022, from http://uga.academia.edu/JenniferBirch/Papers/183903/Coalescence_and_Conflict_in_Iroquoia n_Ontario

Caston, W. A. (1997). Evolution in the Mapping of Southern Ontario and Wellington County. *Wellington County History, 10*, 91-106.

Chapman, L. J., & Putnam, D. F. (1984). *The Physiography of Southern Ontario. Ontario Geological Survey. Special Volume 2* (3rd ed.). Toronto: Ontario Ministry of Natural Resources.

City of Hamilton. (2012). *City of Hamilton Archaeological Management Plan.* Hamilton.

Coyne, J. H. (1895). *The Country of Neutrals (As Far as Comprised in the County of Elgin): From Champlain to Talbot.* St. Thomas: The St. Thomas Print.

Detritus Counsulting Ltd. (2024). *Stage 1-2 Archaeological Assessment. Part of Lot 5, Concession 1, Geographic Township of West Flamborough Historical County of Wentworth, City of Hamilton, Ontario.* Report on File with the Ministry of Citisenzhip and Multiculturalism.

Ellis, C. J., & Ferris, N. (1990). *The Archaeology of Southern Ontario to A.D. 1650. Occasional Publication No. 5.* London: Ontario Archaeology Society, London Chapter.

Ferris, N. (1997). *A Report of Activities Conducted under Archaeological Licence 95-106.* Report on file with the Ministry of Citizenship and Multiculturalism.

Ferris, N. (2009). *The Archaeology of Native-Lived Colonialism: Challenging History in the Great Lakes.* Tucson: University of Arizona.

Flamborough Archives and Heritage Societey. (2021). *The Formation of East Flamborough.* Retrieved February 27, 2024, from https://flamboroughhistory.com/the-formation-of-east-flamborough/

Gentilcore, L. R., & Head, G. (1984). *Ontario's History in Maps.* Toronto: University of Toronto Press.

Gibson, M. M. (2006). *In the Footsteps of the Mississaugas.* Mississauga: Mississauga Heritage Foundation.

Government of Ontario. (1990a). *Ontario Planning Act, R.S.O. 1990, CHAPTER P. 13. Last Amendment: 2024, c. 18, Sched. 5.* Retrieved July 3, 2024, from https://www.ontario.ca/laws/statute/90p13

Government of Ontario. (1990b). *Ontario Heritage Act, R.S.O. 1990, CHAPTER O.18. Last amendment: 2024, c. 18, Sched. 2.* Retrieved July 3, 2024, from https://www.ontario.ca/laws/statute/90018

Government of Ontario. (1990c). *Freedom of Information and Protection of Privacy Act, R.S.O. 1990, CHAPTER F.31. Last amendment: 2023, c. 21, Sched. 10, s. 13.* Retrieved July 3, 2024, from https://www.ontario.ca/laws/statute/90f31

Government of Ontario. (2002). *Funeral, Burial and Cremation Services Act, S.O. 2002, c33. Last amendment: 2021, c. 4, Sched. 6, s. 49.* Retrieved July 3, 2024, from https://www.ontario.ca/laws/statute/02f33

Government of Ontario. (2011). *Standards and Guidelines for Consultant Archaeologists.* Toronto: Ministry of Citizenship and Multiculturalism.

Government of Ontario. (n.d.). *Archaeological Sites Database Files*. Ministry of Citizenship and Multiculturalism.

Heidenreich, C. (1990). History of the St. Lawrence–Great Lakes Area to 1650. In C. J. Ellis, & N. Ferris (Ed.), *The Archaeology of Southern Ontario. Occasional Publication No. 5*, pp. 475–492. London: Ontario Archaeological Society, London Chapter.

Morris, J. L. (1943). *Indians of Ontario (1964 reprint).* Ontario Department of Lands and Forests.

Niagara Historical Society and Museum. (2008). *Our Glory, A Brief History of Niagara-on-the-Lake*. Niagara-on-the-Lake: Niagara Historical Society and Museum.

Page & Smith. (1875). *The Illustrated Historical Atlas of the County of Brant*. Toronto: Page & Smith.

Page, H. & Co. (1879). *The Illustrated Historical Atlas of the County of Haldimand, Ontario*. Toronto: H. R. Page & Co.

Pendergast, J. (1995). The Identity of Jacques Cartier's Stadaconans and Hochelagans: The Huron-Iroquois Option. In A. Bekerman, & G. Warrick (Ed.), *Origins of the People of the Longhouse: Proceedings of the 21st Annual Symposium of the Ontario Archaeological Society* (pp. 106-118). Ontario Archaeological Society.

Powell, J. R., & Coffman, F. (1956). *Lincoln County, 1856–1956*. St. Catharines: Lincoln County Council.

Praxis Research Associates. (n.d.). *The History of the Mississaugas of the New Credit First Nation*. Hagersville: Lands, Research, and Membership, Mississaugas of the New Credit First Nation.

Schmalz, P. S. (1991). *The Ojibwa of Southern Ontario*. Toronto: University of Toronto Press.

Smith, D. (2002). Their Century and a Half on the Credit: The Mississaugas. In F. Dieterman (Ed.), *Mississauga: The First 10,000 Years* (pp. 107-122). Mississauga: Eastendbooks.

Tanner, H. (Ed.). (1987). *Atlas of Great Lakes Indian History*. Norman: University of Oklahoma Press.

Warrick, G. A. (2000). The Precontact Iroquoian Occupation of Southern Ontario. *Journal of World Prehistory, 14*(4), 415-66.

Warrick, G. A. (2013). The Aboriginal Population of Ontario in Late Prehistory. In M. K. Munson, & S. M. Jamieson (Eds.), *Before Archaeology: The Archaeology of a Province* (pp. 62-76). McGill-Queen's University Press.

Weaver, S. (1978). Six Nations of the Grand River, Ontario. In B. Trigger (Ed.), *Handbook of North American Indians* (Vol. 15: Northeast, pp. 525-536). Washington: Smithsonian Institute Press.

8.0 Maps

Figure 1: Study Area Location

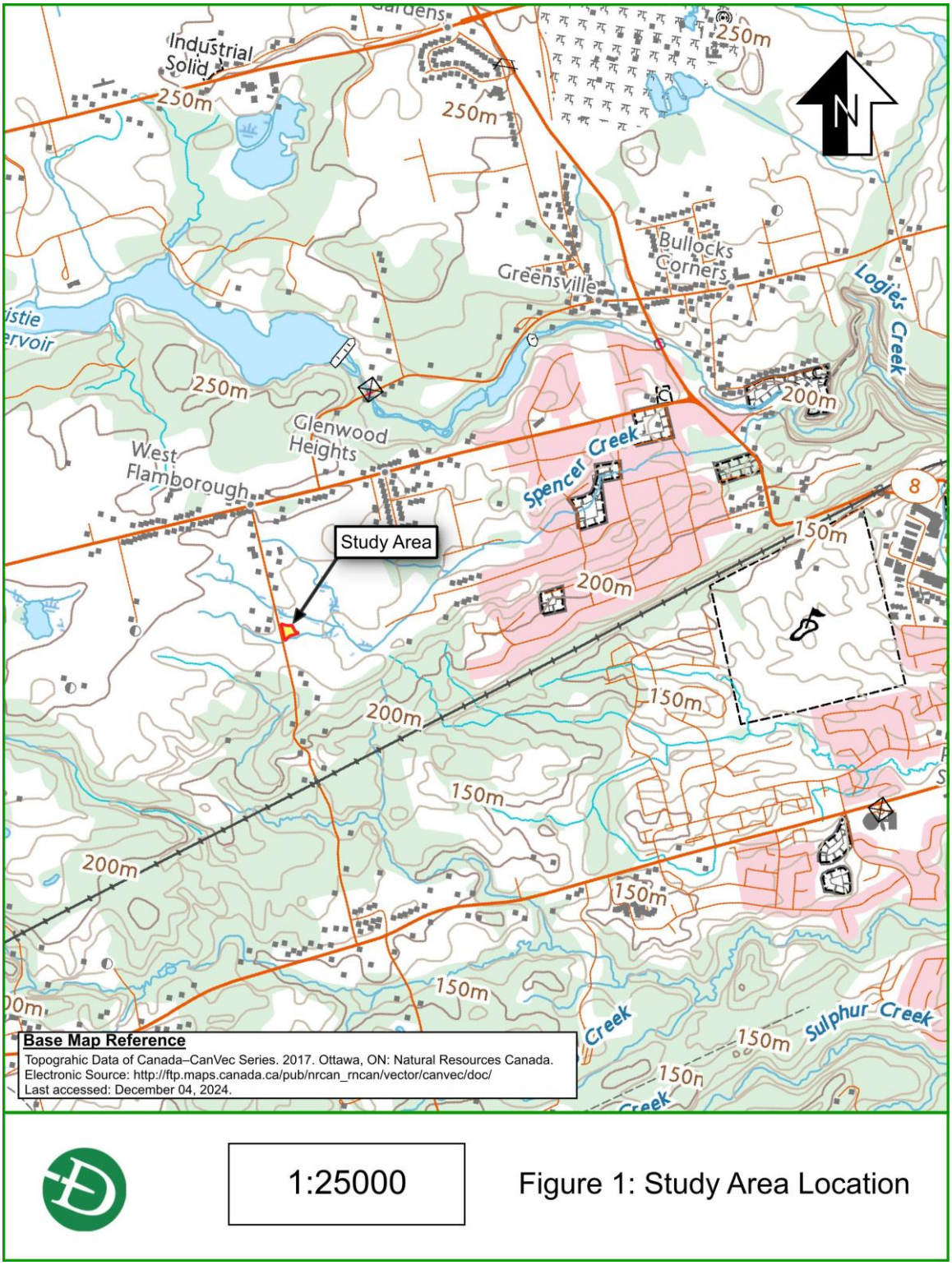
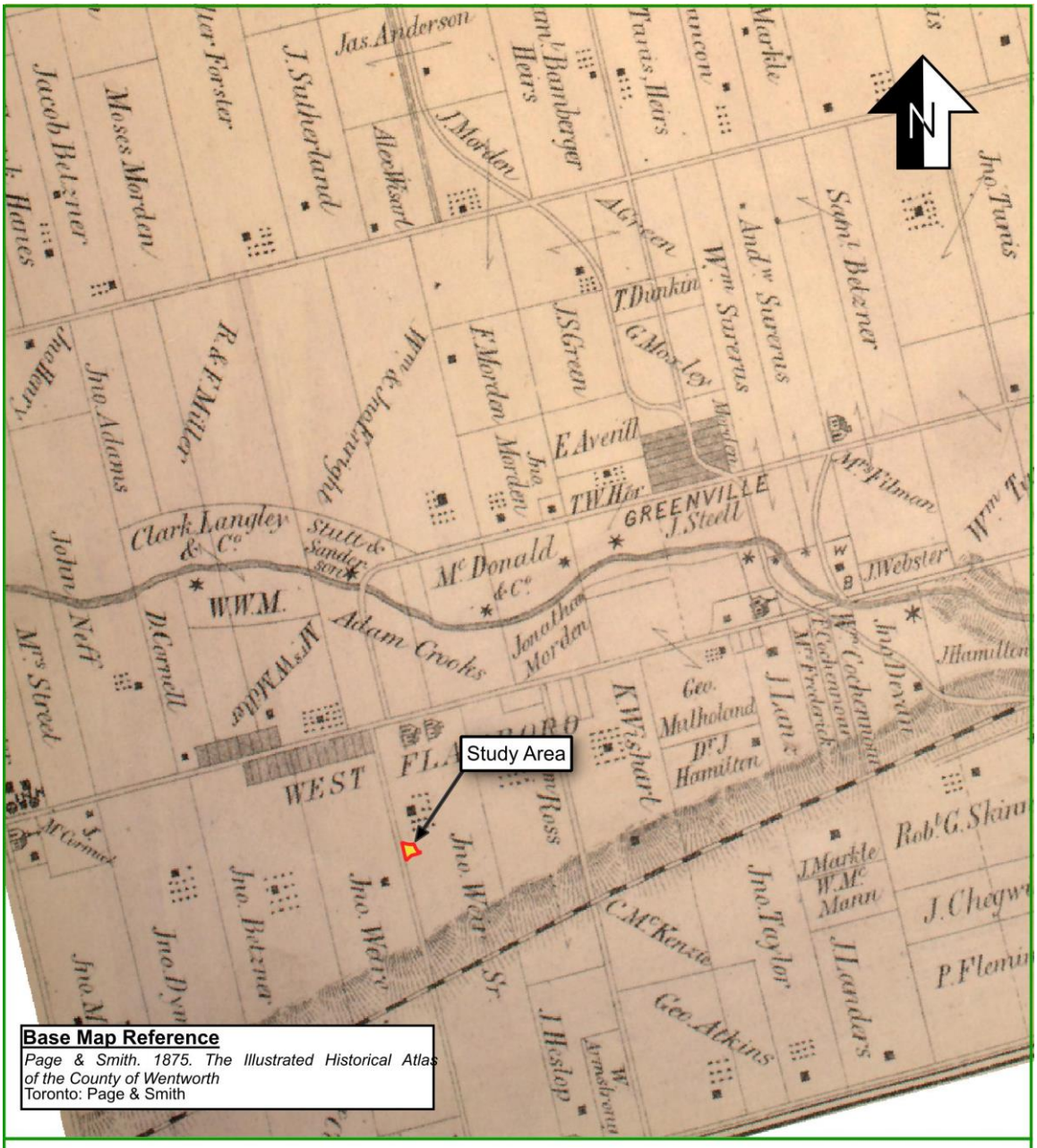


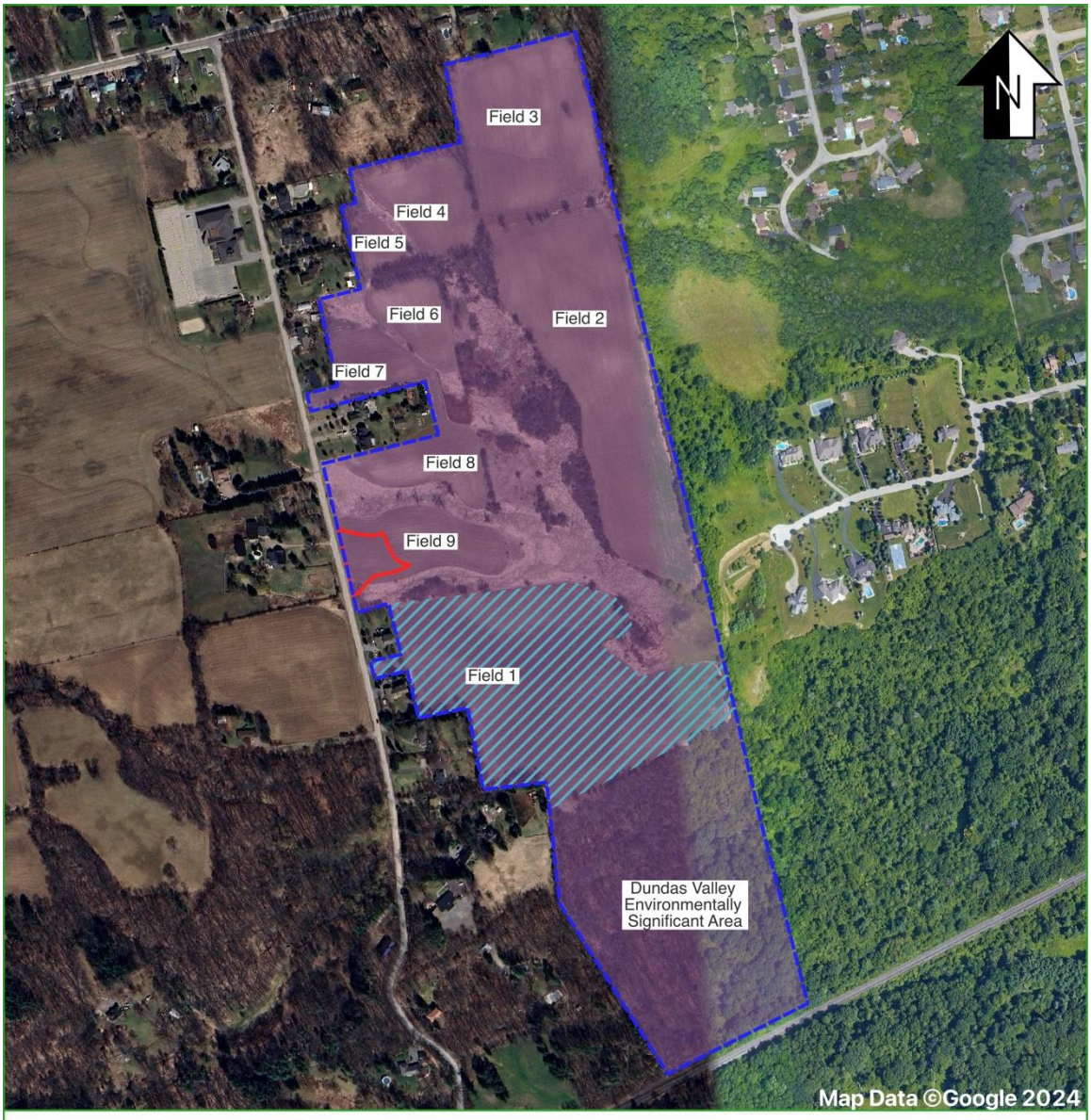
Figure 2: Historic Map Showing Study Area Location



Not to Scale

Figure 2: Portion of Page & Smith 1875 Historical Atlas Map of West Flamborough Township

Figure 3: Previous Assessments



Legend

Study Area

Severance Property

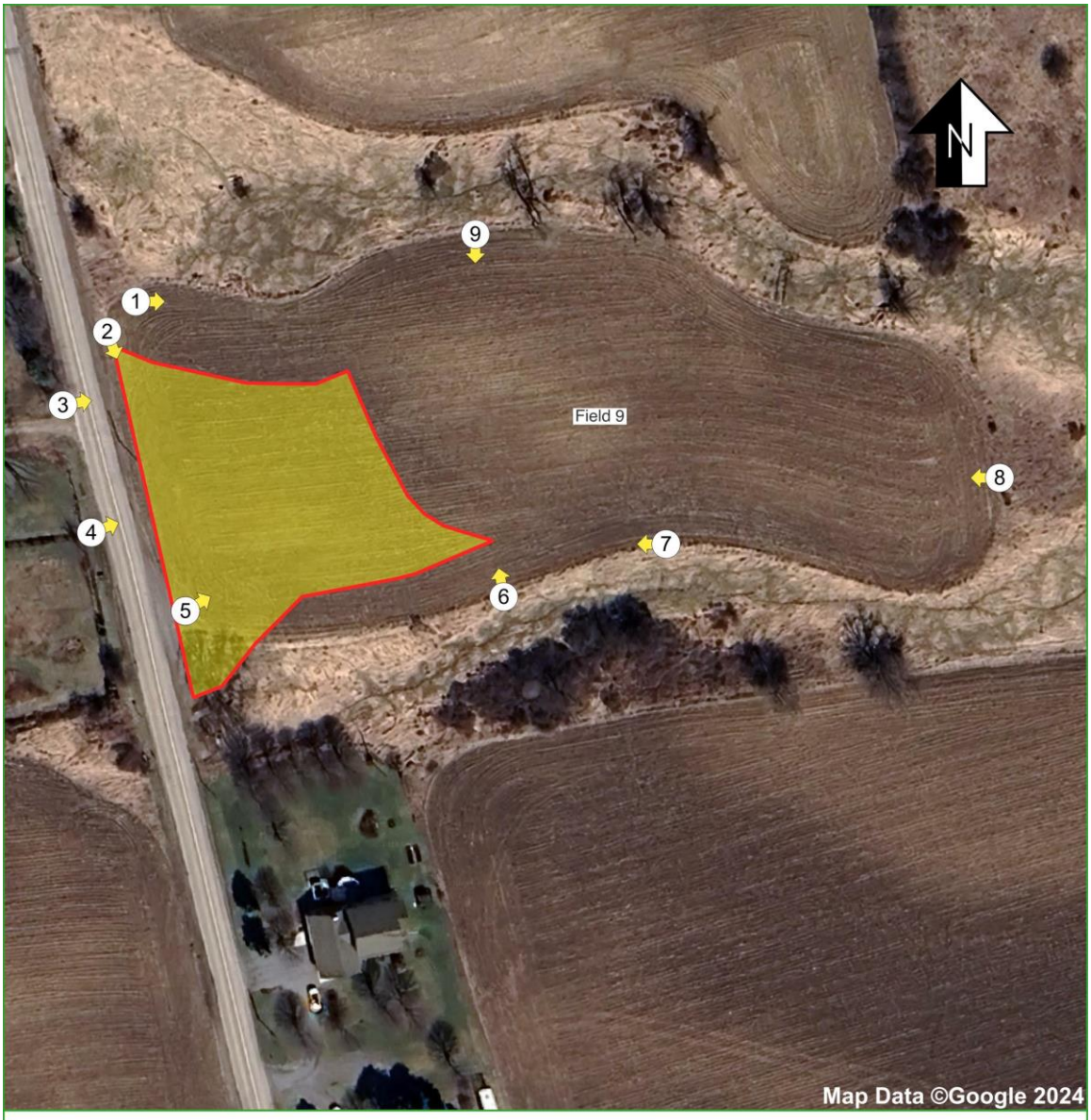
Stage 1-2 Assessment (Detritus,2023)

Pedestrian Survey (Ferris,1997)

0 100 200 m

Figure 3: Previous Assessments in the Severance Property and Study Area

Figure 4: Stage 2 Property Inspection



Legend

Study Area

Photo Location and Direction

0 20 40 m

Figure 4: Stage 2 Property Inspection

9.0 Images

9.1 Field Photos

Photo 1: Active agricultural field, looking east

Photo 2: Active agricultural field, looking south

Photo 3: Active agricultural field, looking east

Photo 4: Active agricultural field, looking east

Photo 5: Active agricultural field, looking east

Photo 6: Active agricultural field, looking north

Photo 7: Active agricultural field, looking west

Photo 8: Active agricultural field, looking west

Photo 9: Active agricultural field, looking south

Scoped Environmental Impact Study
Weirs Lane, Hamilton

Prepared For:

Vallery Group

Prepared By:

Beacon Environmental Limited

Date:	*Project:*
2025-07-30	**222235**

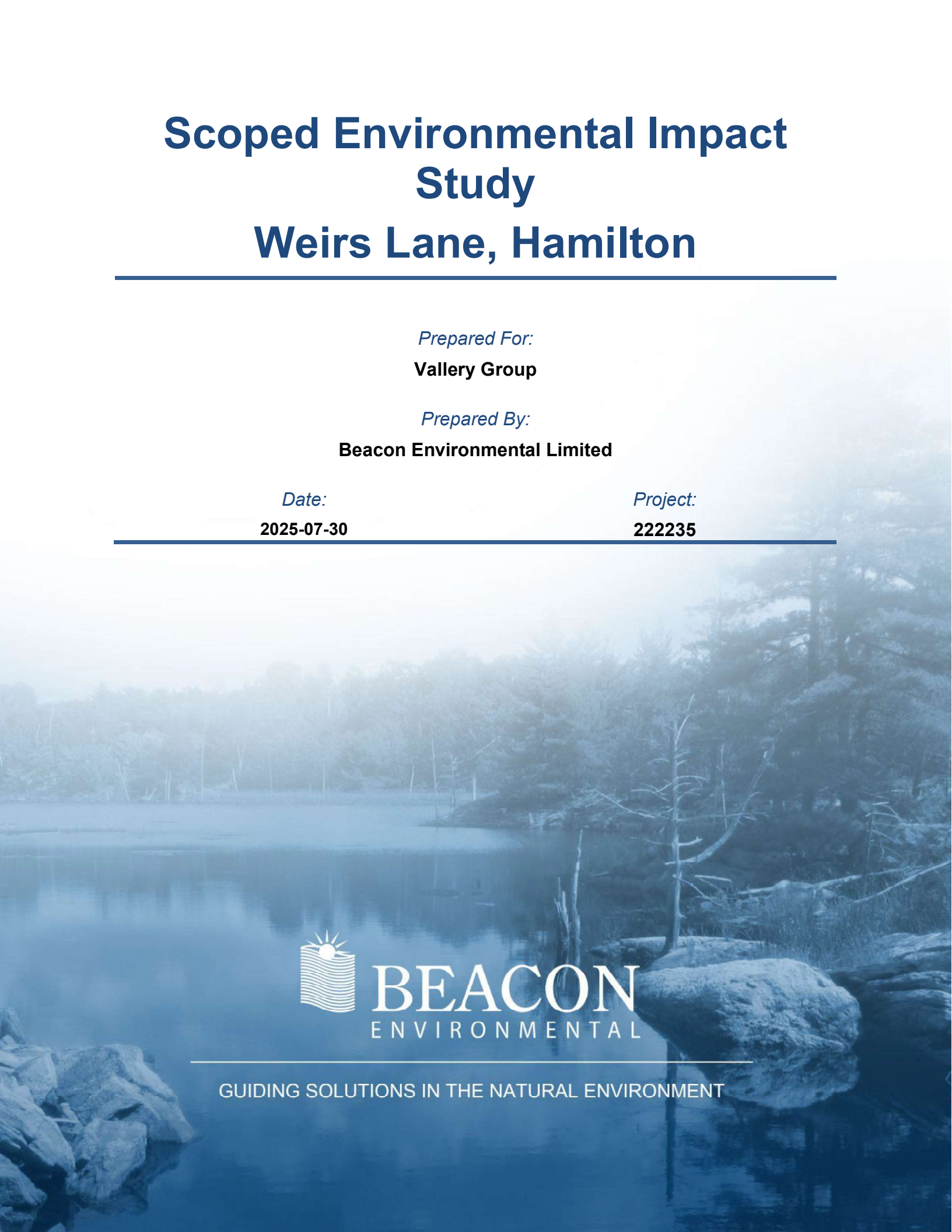


Table of Contents

Figures

Tables

Appendices

1. Introduction

Beacon Environmental Limited (Beacon) was retained by Valery Homes to complete a Scoped Environmental Impact Study (EIS) in support of a proposed severance of an approximately 34.5 ha property located east of Weirs Land and south of Hwy 8 in the Community of Greensville, City of Hamilton (hereafter referred to as the "subject property"). The location of the subject property is shown in **Figure 1**.

The subject property supports existing agricultural fields, as well as drainage features, wetlands, and woodlands.

The subject property is located within the Niagara Escarpment Plan (NEP) area in an area designated "Minor Urban Centre" (Greensville) and "Escarpment Rural Area." Lands at the south end of the subject property are outside the "Minor Urban Centre" boundary and are designated "Escarpment Natural Area."

The subject property contains components of the City of Hamilton's (the City's) Natural Heritage System (NHS), including features identified as "Core Areas" and "Linkages" on Schedule B of the City of Hamilton's Rural Official Plan.

Based on the presence of natural heritage features, an EIS or Natural Heritage Evaluation (NHE) is required under the City's Rural Official Plan and the NEP. A Linkage Assessment is required under the City's Rural Official Plan where linkages are identified. The purpose of the Scoped EIS and Linkage Assessment is to confirm and characterize the natural heritage features and ecological functions of the subject property, identify natural heritage constraints, assess impacts of the proposed development, recommend mitigation measures and evaluate conformity of the proposed development with the applicable natural heritage policies of the Provincial Planning Statement, the NEP, the City's Rural Official Plan, and Hamilton Conservation Authority (HCA) regulations and polices, as well as environmental protection legislation such as the Ontario *Endangered Species Act*.

The Scoped EIS and Linkage Assessment requirements were determined in consultation with the City and the HCA. Terms of Reference are provided in **Appendix A**. It is noted that the proposed development for the subject property consists of a severance to create an approximately 0.76 ha lot fronting on Weir's Lane. The EIS was originally scoped based on a development concept for a larger area of the subject property; therefore, the scope of this EIS is limited to a smaller area than what was originally contemplated.

2. Policy Review

This section provides a summary of the applicable environmental legislation, regulations and policies at the federal, provincial and local level.

2.1 *Endangered Species Act* (2007)

The provincial *Endangered Species Act* (ESA, 2007) primarily protects species listed as threatened or endangered by the Committee on the Status of Species at Risk in Ontario (COSSARO). Threatened or endangered species are protected, as is their habitat. Depending on the time of a species' listing, habitat is protected either under a General Habitat protection provision or a Species-Specific Habitat protection provision.

The ESA generally prohibits the killing or harming of a threatened or endangered species (Section 9), as well as the destruction of its habitat (Section 10). Where activities are likely to adversely affect threatened or endangered species or their habitat, permitting may be required under Section 17(2)(c) of the ESA.

2.2 Provincial Planning Statement (2024)

The Provincial Planning Statement (PPS 2024) provides policy direction to municipalities on matters of provincial interest as they relate to land use planning and development. The PPS provides for appropriate land use planning and development while protecting Ontario's natural heritage. Development governed by the *Planning Act* must be consistent with the policy statements issued under the PPS. These are outlined in Section 4.1 - Natural Heritage, Section 4.2 – Water, and Section 5.2 - Natural Hazards of the PPS, and relevant sections from each are provided in the following pages.

The PPS includes policies that speak to the identification and protection of natural heritage systems, as well as levels of protection for the various components that comprise such systems. Some of these features are present in the subject property and must be assessed in the context of these policies.

The policies specific to natural heritage are found in Section 4.1 of the PPS and are provided in their entirety below:

> *1 Natural features and areas shall be protected for the long term.*
>
> *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.*
>
> *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.*
>
> *4. Development and site alteration shall not be permitted in:*
> *a. Significant wetlands in Ecoregions 5E, 6E and 7E; and*
> *b. Significant coastal wetlands*

5 Development and site alteration shall not be permitted in:

a. Significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;
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 7E that are not subject to policy 4.1.4(b).

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

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

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.

8 Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 4.1.4, 4.1.5 and 4.1.6 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.

9 Nothing in policy 4.1 is intended to limit the ability of agricultural uses to continue.

2.3 Niagara Escarpment Plan (2017)

The subject property is located within the Greensville "Minor Urban Centre" and designated "Escarpment Rural Area" in the Niagara Escarpment Plan (NEP). A portion of land at the south end of the subject property is outside "Minor Urban Centre" and is designated "Escarpment Natural Area."

The Minor Urban Centres designation identifies rural settlements, villages and hamlets within the NEP Area.

Policy 1.6.8 (3) states that within Minor Urban Centres:

> *Development and growth should avoid Escarpment Protection Areas and be directed to Escarpment Rural Areas in a manner consistent with Escarpment Rural Area Objectives and Part 2, the Development Criteria of this Plan.*

Policy 1.6.8. (9) states:

> *Growth and development in Minor Urban Centres shall be compatible with and provide for:*
>
> *a) the protection of natural heritage features and functions;*
> *b) the protection of hydrologic features and functions;*
> *c) the protection of agricultural lands, including prime agricultural areas;*
> *d) the conservation of cultural heritage resources, including features of interest to First Nation and Métis communities;*
> *e) considerations for reductions in greenhouse gas emissions and improved resilience to the impacts of a changing climate;*
> *f) sustainable use of water resources for ecological and servicing needs; and*
> *g) compliance with the targets, criteria and recommendations of applicable water, wastewater and stormwater master plans, approved watershed planning and/or subwatershed plan in land use planning.*

The subject property is an area designated as an Area of Development Control. Lands located within an Area of Development Control could require a Development Permit from the Niagara Escarpment Commission (NEC) for certain types of development.

Policy 2.4 (5), which speaks to lot creation states:

> *New lots must:*
>
> *a) maintain and enhance the existing community character and/or open landscape character of the Escarpment; and*
> *b) protect and enhance existing natural heritage and hydrologic features and functions.*

Section 2.7 contains policies related to natural heritage.

The following are key natural heritage features (KNHF)) within the NEP:

- 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

Site Location	Figure 1
Weirs Lane and Hwy 8 Hamilton EIS	
BEACON ENVIRONMENTAL	Project: 222335 Last Revised: November 2022
Client: Valery Group	Prepared by: SZ Checked by: DW
N 1:10,000	Inset Map: 1:50,000

C:\ODB\OneDrive - Beacon Environmental\GeoSpatial\Geo Projects\2022\222335 Weirs Lane and Hwy 8 Hamilton EIS\Q Project Files\2022-11-14_Weirs Lane and Hwy 8 Hamilton_222335.qgz

Policy 2.7 (2) states that;

> *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.*

Policy 2.7 (3) states the following:

> *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.*

Policy 2.7 (4) states the following:

> *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.*

Policy 2.7 (5) states the following:

> *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.*

Policy 2.7 (6) states the following:

> *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:*
>
> *a) 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;*

b) 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;
c) determines the minimum vegetation protection zone required to protect and where possible enhance the key natural heritage feature and its functions; and
d) 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.

Policy 2.7 (7) states the following:

For the purposes of 2.7.6, a vegetation protection zone shall:
a) 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;
b) be established to achieve, and be maintained as, natural self- sustaining vegetation; and
c) 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.

Policy 2.7 (8) states the following:

Development within the habitat of endangered species and threatened species:
a) located within Escarpment Natural Areas and Escarpment Protection Areas, is not permitted, except for development referred to in Parts 2.7.2 a) b) c) d) or e) which may be permitted provided it is in compliance with the Endangered Species Act, 2007; and
b) located within Escarpment Rural Areas, Mineral Resource Extraction Areas, Urban Areas, Minor Urban Centres and Escarpment Recreation Areas, is not permitted unless it is in compliance with the Endangered Species Act, 2007.

2.4 City of Hamilton Rural Official Plan

The subject property is located within the City's Rural Area. Section C.2.0 of the City's Urban Official Plan contains policies pertaining to the protection of the NHS in the urban area of the City.

The NHS is identified on Schedule B of the Urban Official Plan. The NHS is comprised of "Core Areas" which include key natural heritage features, key hydrologic features, and associated vegetation protection zones.

Minor refinements to the boundaries of Core Areas may occur through Environmental Impact Statements, watershed studies or other appropriate studies accepted by the City without an amendment to the Plan.

The following are policy excerpts relevant to natural heritage features on the subject property:

> *C.2.3.4 New development or site alteration shall not be permitted within provincially significant wetlands, significant coastal wetlands, or significant habitat of threatened or endangered species, except in accordance with applicable provincial and federal regulations with respect to significant habitat of threatened or endangered species.*
>
> *C.2.5.2 Proposals for new development or site alteration shall not be permitted adjacent to provincially significant wetlands, significant coastal wetlands, or significant habitat of threatened or endangered species unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated through an Environmental Impact Statement prepared in accordance with Section F.3.2.1 that there will be no negative impacts on the natural feature and its ecological functions.*
>
> *C.2.5.3 New development or site alteration proposed within or adjacent to significant woodlands, significant wildlife habitat, significant valleylands, and significant areas of natural and scientific interest shall not be permitted unless the ecological function of the land has been evaluated and it has been demonstrated through an Environmental Impact Statement in accordance with Section F.3.2.1 that there will be no negative impacts on the natural features or their ecological functions.*
>
> *C.2.5.4 New development or site alteration shall not be permitted within fish habitat, except in accordance with provincial and federal requirements.*
>
> *C.2.5.5 New development or site alteration subject to Sections C.2.3.4, C.2.5. 2, C.2. 5.3 and C.2.5.4 requires, prior to approval, the submission and acceptance of an Environmental Impact Statement which demonstrates to the satisfaction of the City in consultation with the relevant Conservation Authority that:*
>
> *a) There shall be no negative impacts on the Core Areas or their ecological functions;*
>
> *b) Connectivity between Core Areas shall be maintained, or where possible, enhanced for the movement of surface and ground water, plants and wildlife across the landscape;*
>
> *c) The removal of other natural features shall be avoided or minimized by the planning and design of the proposed use or site alteration wherever possible.*
>
> *C.2.5.6 An Environmental Impact Statement shall also propose a vegetation protection zone which:*
>
> *a) Has sufficient width to protect the Core Area and it s ecological functions from impacts of the proposed land use or site alteration occurring during and after construction, and where possible, restores or enhances the Core Area and/or its ecological functions; and*
>
> *b) Is established to achieve, and be maintained as natural self-sustaining vegetation.*

C.2.5.7 Where vegetation protection zones have not been specified by watershed and sub-watershed plans, Secondary or Rural Settlement Area Plan policies, Environmental Assessments and other studies, the following minimum vegetation protection zone width objectives shall be evaluated and addressed by Environmental Impact Statements:

a) Permanent and intermittent streams: 30-metre vegetation protection zone on each side of the watercourse, measured from beyond the stable top of bank;
b) Wetlands: 30-metre vegetation protection zone. The Environmental Impact Statement shall also take into consideration adjacent upland habitat that is required by wetland species for breeding, foraging, dispersal, and other life processes;
c) Fish habitat: 30-metre minimum vegetation protection zone measured from beyond either side of the top of bank or meander belt allowance;
d) Woodlands: 15-metre minimum vegetation protection zone measured from the drip line of trees at the woodlot edge;
e) Significant Woodlands: a minimum 30-metre vegetation protection zone measured from the drip line of trees at the woodlot edge;
f) Life Science Areas of Natural and Scientific Interest (ANSIs): a minimum 30-metre vegetation protection zone;
g) Designated valley lands: 15-metre minimum vegetation protection zone measured from top of bank; and
h) Lakes: 30-metre vegetation protection zone, measured from the stable top of the shoreline.

Section 2.7 of the Urban Official Plan contains policies applicable to Linkages. Linkages are natural areas within the landscape that ecologically connect Core Areas. Linkages are a component of the NHS shown on Schedule B of the Official Plan.

C.2.7.5 Where new development or site alteration is proposed within a Linkage in the Natural Heritage System as identified by an Environmental Impact Statement, the Environmental Impact Statement shall include a Linkage Assessment in accordance with Section F.3.2.2. (OPA 5)

2.5 Conservation Authorities Act and Ontario Regulation 41/24

Ontario Regulation 41/24 of the *Conservation* Authorities *Act* came into effect on April 1, 2024. Under this new regulation, HCA is responsible for reviewing development proposals and approving works within and adjacent to natural hazards (i.e., areas subject to flooding and erosion) such as watercourses, wetlands, floodplains, steep slopes, and shorelines.

3. Methodology

The following sections describe the various field investigations and analyses undertaken to characterize the biophysical functions and significant ecological features associated with the subject property in more detail.

3.1 Background Review

Background information was gathered and reviewed at the outset of the project. This involved consideration of the following documents or information sources relevant to the subject property:

- Current and historic aerial imagery;
- Provincially Tracked Species Layer from Geospatial Ontario (GEO);
- Ontario Breeding Bird Atlas;
- Ontario Reptile and Amphibian Atlas;
- Natural Heritage Information Centre (NHIC) Data via the Make-A-Map application;
- Species at risk range maps https://www.ontario.ca/environment-and-energy/species-risk-ontario-list;
- High Resolution aerial photography of the subject property;
- Natural and physical feature layers from GEO—these geospatial layers include wetlands (provincially significant and un-evaluated wetlands), and watercourses with thermal regime;
- e-bird and i-Naturalist records;

3.2 Feature Staking

The driplines of treed areas associated with Core Area and Linkages were staked with the City on July 19, 2023. Wetlands on the subject property were staked with HCA on July 19, 2023.

3.3 Field Investigations

Field investigations of terrestrial natural heritage features on the subject property were conducted in June through September of 2023 by Beacon's team of ecologists specializing in vegetation and wildlife inventory and assessment. Surveys included aquatic habitat assessment, Ecological Land Classification (ELC), flora inventories, and breeding bird surveys as described in the following sections.

3.3.1 Headwater Drainage Feature Assessment

An assessment of the drainage features within or immediately adjacent to the subject property was completed following the *Evaluation, Classification and Management of Headwater Drainage Features Guidelines* (TRCA 2014) which included three rounds of seasonal assessments. Surveys were conducted on April 11 (survey 1), May 25 (survey 2), and September 5 (survey 3), 2023, and March 27 (survey 4), 2024.

Headwater drainage features (HDFs) were characterized based on flow regime, form, riparian vegetation, fish and fish habitat, and terrestrial habitat. Each HDF reach was evaluated individually based on each of these parameters and assigned a rating of important, valued, contributing, or limited based on functional significance.

3.3.2 Aquatic Habitat Assessment

An aquatic habitat assessment was undertaken to identify and assess watercourse characteristics that provide habitat, as outlined in the federal *Fisheries Act*. The habitat assessment details the characteristics and major physical attributes of the waterbody and is based on the Ontario Stream Assessment Protocol (OSAP; Stanfield 2017). The habitat assessment considers a variety of details including both flow characteristics and land influences, such as the following:

- Surrounding land use – classifies potential pollution sources and adjacent land use that may affect the water body;
- Riparian zone and canopy cover – a healthy riparian zone consists of vegetation characterized by trees, shrubs, grasses and herbaceous plants. These plants help buffer the water body from runoff, provide shade and create habitat for fish and insects;
- Stream banks – characteristics assessed include signs of erosion and bank scouring, undercut banks, evidence of the normal water mark and high-water mark which indicate the water level fluctuation;
- In-stream characteristics – details include substrate type (i.e. silt, gravel, cobble), aquatic vegetation, small and large woody debris. All of these in-stream characteristics provide habitat and cover for fish species and benthic macroinvertebrates, which are an important food source for fish; and
- Stream morphology – this includes the wetted width of the active channel and average wetted depth as well as a description of the stream morphology:
    - Runs - typically deep, fast moving water with little to no turbulence;
    - Riffles – shallow, fast moving water typically running over rocks. Riffles provide areas of high oxygenated waters;
    - Glides – low flowing water with a smooth un-agitated surface; and
    - Pools – deep pockets of slow moving water that provide ideal refuge habitat for fish.
- General water characteristics – water colour and clarity, presence and description of algae, and description of flow; and
- Stream physical conditions – which were inspected and documented with photographs.

The aquatic habitat assessment was conducted by aquatic ecologists on September 18, 2023, and September 12, 2024 for drainage features deemed potential suitable fish habitat on the subject property.

3.3.3 Ecological Land Classification and Flora Inventory

Vegetation resources on the subject property were inventoried on May 12, June 22, and September 20, 2023. Ecological communities on the subject property were mapped and described following the protocols of the Ecological Land Classification (ELC) system for Southern Ontario (Lee *et al.* 1998). This involved delineating vegetation communities on aerial photos of the subject property and recording pertinent information on the vegetation structure and composition. As per the Terms of Reference, ELC mapping included adjacent lands up to 120 m from the subject property. ELC mapping for adjacent private property was conducted based on a desktop review and limited field observations from the subject property.

A three-season flora inventory was completed for the subject property in conjunction with ELC surveys. A list was compiled of all observed vascular plant species.

3.3.4 Breeding Bird Surveys

Two breeding bird surveys were conducted on the mornings of May 30 and June 22, 2023, on days with low to moderate winds (0-2 Beaufort Scale), no precipitation, and temperatures within 5°C of normal average temperatures. The breeding bird community was surveyed using a roving type of survey, in which all parts of the subject property were walked to within 50 m and all birds heard or observed and showing breeding evidence (e.g. singing in suitable habitat or seen in pairs) were recorded as breeding species. All birds seen or heard were recorded in the location observed on an aerial photograph of the subject property.

A summary of the survey details and conditions is included in **Table 1**.

Table 1. 2023 Breeding Bird Survey Details

Details	Round 1	Round 2
Date:	May 30, 2023	June 22, 2023
Time	6:40 – 9:35 am	7:20 – 10:40 am
Temp (°C):	17	18
Wind (Beaufort):	1	2
Cloud cover (%):	0	60
Precipitation	None	None

3.3.5 Breeding Amphibians

Three rounds of evening surveys were conducted on the subject property to survey for breeding amphibians. These surveys took place on April 13, May 25, June 22, 2023. Four (4) survey locations were selected in proximity to wetland habitat considered suitable to support breeding amphibians (**Figure 2**). The surveys were conducted as per the protocol outlined in the Great Lakes Marsh Monitoring Program (Bird Studies Canada, 2009). Surveys consisted of auditory surveys undertaken during the prime breeding period to record calling males that are present, spread throughout the breeding season to include the short temporal peak for each species of interest. The surveys involved visiting the subject property after dusk when minimum night-time air temperatures of at least 5°C during the first visit, 10°C during the second visit and 17°C during the third visit. Calling amphibians, if present, were identified to species and chorus activity was assigned a code from the following options:

0 No calls;
1 Individuals of one species can be counted, calls not simultaneous;
2 Some calls of one species simultaneous, numbers can be reliably estimated and shown in brackets; and
3 Full chorus, calls continuous and overlapping

4. Existing Conditions

4.1 Headwater Drainage Features

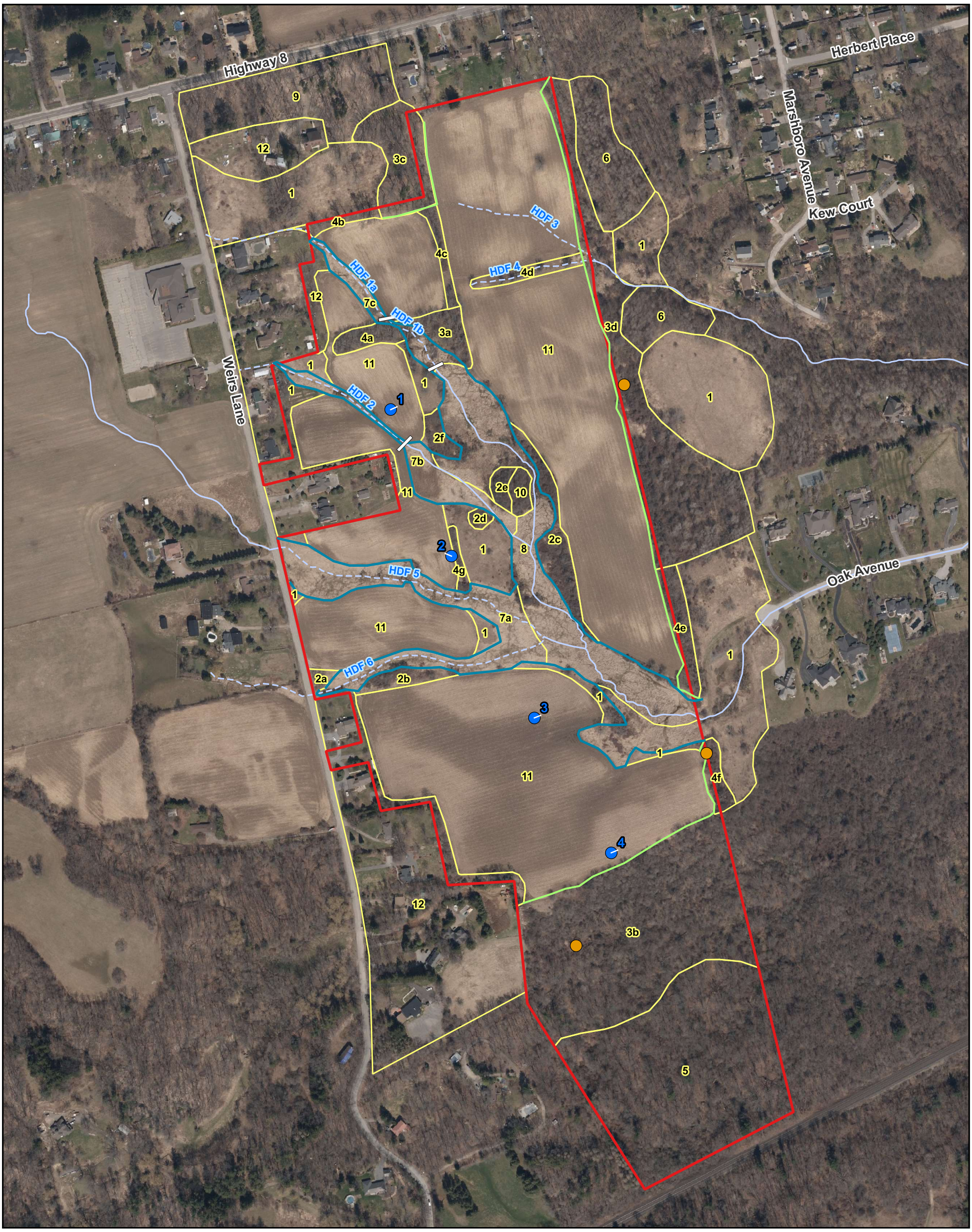
A total of six (6) HDFs were identified within the subject property through field investigations and desktop background review (**Figure 2**).

HDF 1a enters the subject property in the northwest area and flows southeast. It exhibits defined banks and occasional channel entrenchment as it traverses the northern agricultural field, eventually crossing a farm crossing at the edge of the field. HDF 1b, downstream of the farm vehicle crossing, was unentrenched, with channel definition gradually diminishing as it transitioned into the surrounding marsh wetland. HDF 2 also flows into the subject property from the northwest area, crossing the agricultural field within a narrow band of marsh wetland vegetation in a southeasterly direction until it enters the main area of the marsh wetland. It has poorly defined banks and is disrupted by a farm vehicle crossing.

Both features exhibit intermittent hydrology, with observable flow during surveys 1 and 2, and dry conditions noted during survey 3. The features all support wetland riparian vegetation and likely contribute nutrients to downstream fish habitat.

HDFs 3 and 4 have no defined features or flows were observed (**Photograph 1**). The area was surveyed on May 25, 2023, which found no evidence of a feature or flows within the subject property. The results of the March 27, 2024 survey during the spring freshet found only pooling water in the area of HDF4, indicating that only sheet flow occurs in this area.

HDFs 5 and 6 enter the subject property under Wiers Lane via culverts on the west boundary of the subject property. Observable flow entering the subject property was only noted in survey 1 in both features. Both features lack defined bed and banks, as flow diffuses into the wetland vegetation after exiting the culverts onto the subject property. No flow was seen entering the features in the later rounds, however the ground remained saturated and flow was seen exiting the subject property at the east boundary in surveys 2 and 3. The interstitial flows of HDFs 5 and 6 likely contribute to the overall permanency of the wetland, and as water was present during all three surveys, these features have been classified as important hydrology. The features both support wetland riparian vegetation and contribute nutrients to downstream fish habitat.



Legend

- Subject Property
- Ecological Communities
- Dripline (as staked by City of Hamilton on July 19, 2023)
- Wetland (as staked by Hamilton Conservation Authority on July 19, 2023)
- Watercourse (MNR 2023)
- Headwater Drainage Features (Beacon 2025)
- Reach Breaks
- Amphibian Survey Stations
- Butternut Locations

ID	Code	Wetland Communities
7	MAM2-2	Reed-canary Grass Mineral Meadow Marsh
8	MAS2-1	Cattail Mineral Shallow Marsh
		Forest Communities
9	FOD	Deciduous Forest
5	FOD2-2	Dry - Fresh Oak - Hickory Deciduous Forest
10	FOD2-3	Dry - Fresh Hickory Deciduous Forest
6	FOD8-1	Fresh - Moist Poplar Deciduous Forest
		Cultural Communities
1	CUM1-1	Dry - Moist Old Field Meadow
2	CUT1	Mineral Cultural Thicket
3	CUW1	Mineral Cultural Woodland
		Other Communities
11	AG (Row Crop)	Agricultural Row Crop
12	ANT	Anthropogenic
4b	HE	Hedgerow

Existing Conditions

Figure 2

Weirs Lane and Hwy 8 Hamilton EIS

BEACON ENVIRONMENTAL

Project: 222335
Last Revised: June 2025

Client: Valery Group

Prepared by: BD
Checked by: DW

N

1:4,000

0 90 180 m

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Photograph 1. A downstream view of HDF 4 with HDF 3 visible in the background, taken from the center of the agricultural field on March 27, 2024. No flow path was observed.

Each HDF reach was evaluated individually and assigned a rating of important, valued, contributing or limited based on functional significance. An evaluation of the HDFs is provided in **Table 2**.

Table 2. Headwater Drainage Feature Evaluations

WC Name	Hydrology	Modifiers	Riparian	Fish Habitat	Terrestrial Habitat
HDF 1a	Valued	None	Important	Contributing	Valued
HDF 1b	Valued	None	Important	Contributing	Valued
HDF 2	Valued	None	Important	Contributing	Valued
HDF 3	None	None	None	None	None
HDF 4	None	None	None	None	None
HDF 5	Important	None	Important	Contributing	Valued
HDF 6	Important	None	Important	Contributing	Valued

4.2 Aquatic Habitat Assessment

An aquatic habitat assessment was conducted on September 5, 2023. Flows on the subject property are headwaters of the Spencer Creek watershed, which outlets to Lake Ontario.

Flow was not observed entering the subject property from the headwaters or culverts on the east boundary. Soil within the central portion of the wetland area was heavily saturated, but surface flows were limited to interstitial flow at the time of the assessment. Surface flow was only visible near the western boundary. No fish were observed within the subject property during the headwater or aquatic habitat surveys.

Flow was seen exiting the subject property at the west boundary into a stormwater pond connected to a culvert (**Photographs 2 & 3**). Based off aerial desktop analysis, once flows exit the pond, the watercourse travels approximately 2 km underground before exiting at the Highway 8 crossing. It is unlikely that the features on the subject property would support direct fish habitat due to the underground culvert and lack of surface flow within the wetland.

Photograph 2. Flows exiting the wetland at the western boundary. Photo taken on September 5, 2025, facing west.

Photograph 3. Flows entering the culvert at the downstream end of the off-site stormwater pond. Photo taken on September 5, 2025, facing west.

4.3 Vegetation Communities

Vegetation communities on and adjacent to the subject property are illustrated in **Figure 2** and described below. As discussed, ELC mapping of features within 120 m of the subject property was prepared through a desktop review of aerial photography and limited field observations from the subject property. The classification and limits of offsite ELC communities are estimated and would require ground truthing to verify.

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

There are several small areas of old field meadow within the subject property. These communities are dominated by European cool season grasses (e.g. *Bromus inermis, Poa pratensis, Setaria* spp.), Tall Goldenrod (*Solidago altissima*), Creeping Thistle (*Cirsium arvense*), Cow Vetch (*Vicia cracca*), and Stinging Nettle *(Urtica dioica* ssp*. gracillis*).

ELC Unit 2: Mineral Cultural Thicket (CUT1)

These are several shrub thicket features on the subject property. These are dominated by Common Buckthorn (*Rhamnus cathartica)* and hawthorn species (*Crataegus* spp.), with Gray Dogwood (*Cornus racemosa*), Multi-flora Rose (*Rosa multiflora*), and raspberry (*Rubus* spp.).

Tree cover is generally sparse, but includes Black Walnut (*Juglans nigra*), Manitoba Maple (*Acer negundo*), and Green Ash (*Fraxinus pennsylvanica*).

ELC Unit 3: Mineral Cultural Woodland (CUW1)

Units 3a, 3c, and 3d: These woodlands are dominated by mid-aged to mature Black Walnut, with some Black Cherry (*Prunus serotina*), and dead trees. Unit 3d has a dense subcanopy of Common Buckthorn and Hawthorn, while 3a and 3c have a more open subcanopy. The understory of the communities are dominated by Black Raspberry (*Rubus occidentalis*), Riverbank Grape (*Vitis riparia*), and Multiflora Rose (*Rosa multiflora*). Groundcovers include grasses, Dame's Rocket (*Hesperis matronalis*), Thicket Creeper (*Parthenocissus vitacea*), and Enchanter's Nightshade (*Circaea canadensis*).

Unit 3b: This woodland is located on a slope toward the south end of the subject property. The upper canopy is sparse, consisting of Red Oak (*Quercus rubra*), Black Cherry, and Manitoba Maple. The lower canopy consists of Common Apple (*Malus pumila*), hawthorn species, and Common Buckthorn. The understory consists of Common Buckthorn, raspberry, and Multi-flora Rose. Ground covers include Garlic Mustard (*Alliaria petiolata*), Avens (*Geum* sp.), Dame's Rocket, and Thicket Creeper.

ELC Unit 4: Hedgerow (HE)

There are several hedgerows within the subject property, which include linear treed or shrub-dominated features between or along agricultural field and meadow.

ELC Unit 5: Dry-Fresh Oak-Hickory Deciduous Forest (FOD2-2)

This community is on a slope at the south end of the subject property. The canopy consists of Bitternut Hickory (*Carya cordifo*rmis), Red Oak, Black Cherry, Black Walnut, and Red Maple (*Acer rubrum*). The sub-canopy and understory consist of Common Buckthorn, Multi-flora Rose, raspberries, and Tartarian Honeysuckle (*Lonicera tatarica*). Ground covers include Garlic Mustard, Enchanter's Nightshade, Thicket Creeper, and Yellow Trout Lily (*Erythronium americanum*).

ELC Unit 6: Fresh-Moist Poplar Deciduous Forest (FOD8-1)

This community is located off-site to the east. It was classified based on air photo interpretation.

ELC Unit 7: Reed Canary Grass Mineral Meadow Marsh (MAM2-2)

This community comprises most of the wetland area on the subject property. It is dominated by Reed Canary Grass (*Phalaris arundinacea*), in association with other wetland forbs and graminoids in less abundance. Other species include Spotted Jewelweed (*Impatiens capensis*), Panicled Aster (*Symphyotrichum lanceolatum*), Broad-leaved Cattail (*Typha latifolia*), and Field Horsetail (*Equisetum arvense*), among others.

ELC Unit 8: Cattail Mineral Shallow Marsh (MAS2-1)

This community is situated within the central portion of the subject property. It is dominated by Broad-leaved Cattail and Narrow-leaved Cattail (*Typha angustifolia*), in association with sedges (*Carex* spp.), Joe-Pye Weed (*Eutrochium maculatum*), Reed Canary Grass, and Spotted Jewelweed, among others.

ELC Unit 9: Deciduous Forest (FOD)

This community is located off-site to the northeast on adjacent lands. It was classified based on air photo interpretation. The limits and composition of this feature were not verified through field invesigations.

ELC Unit 10: Fresh-Moist Hickory Deciduous Forest (FOD2-3)

This small woodland patch is in the central portion of the subject property. It is dominated by young Bitternut Hickory with an understory of Gray Dogwood, Multiflora Rose and Common Buckthorn. Groundcovers include Tall Goldenrod, Calico Aster (*Symphyotrichum lateriflorum*), Avens, and Thicket Creeper.

ELC Unit 11: Agricultural (Row Crop)

Most of the subject property consists of active agricultural fields, which were cropped in soybeans in 2023.

ELC Unit 12: Anthropogenic

Areas classified as “anthropogenic” are not natural and include areas of existing development that have been heavily modified by human activities, including roads and rural residential properties adjacent to the subject property.

4.4 Flora

A total of 128 plant species were documented on the subject property. Of these, 84 (66%) of the species are considered native to Ontario and 44 (34%) are non-native. Of the 84 native species, 83 are considered provincially common and secure (ranked S5 or S4 provincially by NHIC).

One provincially rare, endangered species, Butternut (*Juglans cinerea*), was observed on or immediately adjacent to the subject property. Butternut locations are illustrated in **Figure 2.**

Based on a review of the vascular plant species checklist of the *Hamilton Natural Areas Inventory Project* (Schwetz 2014) and the *List of the Vascular Plants of Ontario’s Carolinian Zone* (Oldham 2017), of the 84 native species, all are common to the City. A plant list is provided in **Appendix B**.

4.5 Breeding Birds

A total of 27 species of birds were observed on the subject property and adjacent lands during breeding bird surveys. A full list and summary of species observed is provided in **Appendix C**. Most of the subject property consists of open crop fields. Row crops typically provide poor bird breeding habitat, and only one bird species, Killdeer (*Charadrius vociferus*) was observed using the fields directly.

Most of the breeding birds observed were associated with the wetlands and woodlands. The most abundant birds recorded are typical species of disturbed habitats, notably Red-winged Blackbird (*Agelaius phoeniceus*), Yellow Warbler (*Setophaga petechia*), and Song Sparrow (*Melospiza melodia*). No birds considered to be specialists of woodland, wetland, or grassland habitats were recorded. None of the bird species observed are considered rare in Ontario, all having provincial rarity ranks of S4 or S5.

No species at risk listed as threatened or endangered under the Ontario ESA were observed on the subject property. Eastern Wood-pewee (*Contopus virens*), listed as 'special concern', was observed adjacent to the western edge of the subject property; however, suitable nesting habitat for this woodland species is not present on this portion of the subject property.

4.6 Breeding Amphibians

No calling anuran species were recorded from the amphibian survey stations on the subject property; however, the following species were recorded vocalizing outside of the 100 m station radius beyond the limits of the subject property: Spring Peeper (*Pseudacris crucifer),* Green Frog (*Lithobates clamitans*), and Gray Treefrog (*Dryophytes versicolor*). An American Toad (*Anaxyrus americana*) was observed crossing the field at station 4 on April 13, 2023.

The results are presented below in **Table 3** and include the call code notation along with the number of individuals in brackets.

Table 3. 2023 Breeding Amphibian Survey Results

Station	Visit 1 April 13	Visit 2 May 25	Visit 3 June 22
1	-	-	-
2	SPPE* to West	-	-
3	-	GRFR*	GRTR* to East
4	AMTO (visual observation)	-	-

* = Call recorded from off-site, outside of station area

- = No frog calls recorded

N/A = Stations not surveyed

AMTO = American Toad, GRFR = Green Frog, GRTR = Gray Treefrog, SPPE = Spring Peeper,

5. Evaluation of Natural Heritage Features and Linkages

The findings of the background review and field investigations have been used to assess the significance and ecological functions and attributes of the natural heritage features on the subject property and to identify components of the NHS based on applicable municipal and provincial mapping and criteria. The purpose of the analysis is to identify natural heritage features that require protection and/or natural hazards that must be considered in the context of future redevelopment.

5.1 Habitat of Endangered Species and Threatened Species

Beacon screened the features on the subject property through a list of threatened and endangered species known for the area based on background information, including records from the NHIC and wildlife atlases (**Table 4**).

Based on the background review and the observed habitat conditions on the subject property, it was determined that the woodland ecosites, including cultural woodlands and forest features, represent potential maternity roost habitat for endangered bats based on the Ministry of Environment, Conservation and Parks (MECP) protocol. Detailed surveys of the woodlands have not been conducted to confirm the presence or absence of endangered bats.

As discussed in **Section 4.3**, several Butternut trees were also identified on the subject property (**Figure 2**).

While potential habitat was identified for several other threatened or endangered species, surveys confirmed their absence as summarised in **Table 4**.

Table 4. Assessment Habitat of Threatened and Endangered Species

Common Name	Scientific Name	ESA	SARA	Assessment of Subject Property
Blanding's Turtle	*Emydoidea blandingii*	THR		No suitable habitat
Red-headed Woodpecker	*Melanerpes erythrocephalus*	END	END	Potentially suitable habitat associated with treed areas. Not identified during breeding bird surveys
Eastern Whip-poor-will	*Antrostomus vociferus*	THR	THR	No suitable habitat
Least Bittern	*Ixobrychus exilis*	THR	THR	Potentially suitable habitat associated with wetlands. Not identified during breeding bird surveys
Chimney Swift	*Chaetura pelagica*	THR	THR	No suitable habitat
Bank Swallow	*Riparia riparia*	THR	THR	No suitable habitat
Bobolink	*Dolichonyx oryzivorus*	THR	THR	No suitable habitat
Eastern Meadowlark	*Sturnella magna*	THR	THR	No suitable habitat

Common Name	Scientific Name	ESA	SARA	Assessment of Subject Property
Cerulean Warbler	*Setophaga cerulea*	THR	END	Potentially suitable habitat associated with ELC unit 5. Not identified during breeding bird surveys.
Little Brown Myotis	*Myotis lucifugus*	END	END	Potentially suitable habitat associated with woodlands.
Northern Myotis	*Myotis septentrionalis*	END	END	Potentially suitable habitat associated with woodlands
Tricolored Bat	*Perimyotis subflavus*	END	END	Potentially suitable habitat associated with woodlands
Eastern Small-footed Myotis	*Myotis leibii*	END		Potentially suitable habitat associated with woodlands
Eastern Red Bat	*Lasiurus borealis*	END	END	Potentially suitable habitat associated with woodlands
Hoary Bat	*Lasiurus cinereus*	END	END	Potentially suitable habitat associated with woodlands
Silver-haired Bat	*Lasionycteris noctivagans*	END	END	Potentially suitable habitat associated with woodlands
Butternut	*Juglans cinerea*	END	END	Potentially suitable habitat - species confirmed on the subject property
Louisiana Waterthrush	*Parkesia motacilla*	THR	THR	No suitable habitat
Barn Owl	*Tyto alba*	END		No suitable habitat
Jefferson Salamander	*Ambystoma jeffersonianum*	END	END	No suitable habitat
Acadian Flycatcher	*Empidonax virescens*	END	END	No suitable habitat
Yellow-breasted Chat	*Icteria virens*	END		No suitable habitat
Prothonotary Warbler	*Protonotaria citrea*	END	END	No suitable habitat

ESA=Ontario Endangered Species Act
SARA=Federal Species at Risk Act
END=Endangered

5.2 Significant Woodlands

Significant Woodlands are generally depicted in Schedule B2 of the City's Official Plan. In the City, a woodland must meet at least two of the following criteria to qualify as significant:

- Size – Minimum patch size for significance is based on forest cover by planning unit:
  - < 5 % forest cover - 1 ha;
  - 5-10 % forest cover - 2 ha;
  - 11-15 % forest cover - 4 ha;
  - 16-20 % forest cover - 10 ha;
  - 21-30 % forest cover - 15 ha;
- Interior Forest - Woodlands that contain interior forest habitat. Interior forest habitat is defined as 100 metres from edge;

- 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);
- Proximity to Water - Woodlands where any portion is within 30 metres of any hydrological feature, including all streams, headwater areas, wetlands, and lakes;
- Age - Woodlands with trees of 100 years or more in age; and
- Rare Species - any woodland containing threatened, endangered, special concern, provincially or locally rare plant or wildlife species.

Based on City's Official Plan mapping in Schedule B2 mapping and consideration of the above criteria, the woodland along the south side of the property (consisting of ELC Units 3b and 5) qualifies as a signficant woodland.

Other smaller woodlands within the subject property and adjacent lands to the east are identified as a part of a Linkage in the City's Official Plan (see **Section 5.7**)

5.3 Wetlands

No Provincially Significant Wetlands (PSW) have been mapped by the Ministry of Natural Resources (MNR) on or adjacent to the subject property. However, the site supports other wetlands, which were staked and are regulated by HCA as illustrated in **Figure 2** and **Figure 3**. Portions of the wetlands on the subject property (ELC unit 7a and part of ELC unit 8) are identified as Core Areas of the NHS in Schedule B of the City's Official Plan, while others wetland units (ELC unit 7c and part of ELC units 7b and 8) are mapped a part of a Linkage (see **Section 5.7**).

5.4 Significant Valleylands

There are no valleylands associated with the subject property.

5.5 Significant Wildlife Habitat (SWH)

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

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

Within each of these categories, there are multiple types of SWH, each intended to capture a specialized type of habitat that may or may not be captured by other existing feature-based categories (e.g., significant wetlands, significant woodlands). The Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF 2015) was used to screen for potential SWH. The results of this screening are summarized in **Appendix D**.

Based on the assessment in **Appendix D**, the forested portions of the subject property support potential SWH for bat maternity colonies. The larger forested ecosite (ELC unit 5) and contiguous forested areas on adjacent lands at the south end of the subject property are potentially suitable for raptor nesting, though no signs of raptor nesting were observed in 2023.

5.6 Significant Areas of Natural and Scientific Interest (ANSI)

No Areas of Natural and Scientific Interest (ANSI) have been identified by MNR on or adjacent to the subject property.

5.7 Linkages

Portions of the subject property, corresponding with some of the wetlands, drainage features, hedgerows, thickets and woodlands have been identified as part of a "Linkage" in Schedule B the City's Official Plan. The Linkage includes areas mapped as ELC units 1, 2c, 2d, 2e, 2f, 3a, 3c, 4a, 4b, 4c, 4g, 7b (in part), 7c, 8 (in part), and 10. Within the subject property, Linkage segments range form 12 m to 120 in width.

The Linkage identified on the subject property connects directly to a Core Area identified in the southern portion of the subject property to the south; however, the Linkage terminates at the corner of Weirs Lane and Hwy 8 and is not physically connected to the Core Area to the north. There is a gap of about 175 m in length between the Linkage on the subject property and the Core Area identified to the north. The gap between the Linkage and the Core Area to the north is occupied by agricultural fields, rural residential properties, and Hwy 8. While the Linkage may provide an avenue for wildlife movement through the existing agricultural matrix within the subject property, the gap between Linkage and the Core Area to the north represents a barrier to wildlife movement. Wildlife would have to traverse the gap, including crossing Hwy 8, to utilize the Linkage for movement between Core Areas. Therefore, the Linkage may support some wildlife movement within the subject property; but at the broader landscape level the linkage function is diminished.

Wildlife that potentially utilize this area for movement or for other life process (foraging, habitation) could include species such as Raccoon (*Procyon lotor*), Striped Skunk (*Mephitis mephitis*), Virginia Opossum (*Didelphis virginiana*), Gray Squirrel (*Sciurus carolinensis*), and Eastern Chipmunk (*Tamias striatus)*. The Linkage also supports habitat for common rural and suburban breeding birds, including, but not necessarily limited to, those identified within the subject property (see **Section 4.5**).

5.8 Drainage Features and Fish Habitat

Under the City's Official Plan and Ontario Regulation 41/24 of the *Conservation Authorities Act*, HDFs 3 through 6 do meet the definition of a watercourse, as no defined bed and banks were observed within the features. HDFs 1a, 1b, and 2 meet the criteria for a watercourse, conveying intermittent flow in defined features.

Legend

- Subject Property
- Wetland (as staked by Hamilton Conservation Authority on July 19, 2023)
- Headwater Drainage Features (Beacon 2025)
- Proposed Severed Parcel

Proposed Development	Figure 3
Weirs Lane and Hwy 8 Hamilton EIS	
BEACON ENVIRONMENTAL	Project: 222335 Last Revised: July 2025
Client: Valery Group	Prepared by: BD Checked by: DW
N 1:900	0 20 40 m

C:\ODB\OneDrive - Beacon Environmental\GeoSpatial\Geo Projects\2022\222335 Weirs Lane and Hwy 8 Hamilton EIS\Q Project Files\2022-11-14_Weirs Lane and Hwy 8 Hamilton_222335.qgz

Due to downstream factors affecting fish migration, it is not expected that the drainage features within the subject property are occupied by fish; however, flows from the drainage features and associated wetland on the subject property contribute to fish habitat downstream.

5.9 Summary of Natural Heritage Constraints

In summary, the subject property supports the following natural heritage features/NHS components, which represent development constraints based on provincial municipal, and conservation authority policies and regulations:

- Significant Woodland
- Wetlands
- Potential SWH associated with signficant woodland
- Linkages

While impact avoidance is considered the primary method for environmental protection, it is also recognized that constrained areas cannot always be avoided, and that other effective methods exist that can mitigate potential adverse impacts of development on the natural heritage system.

6. Description of Proposed Development

The proposed development for the subject property consists of severance to create an approximately 0.76 ha residential lot fronting on Weir's Lane (**Figure 4**). The severed lot will support a single detached dwelling and permitted accessory uses.

7. Impact Assessment

This section discusses the potential direct and indirect impacts that the proposed development may have, including recommendations for impact avoidance and mitigation.

7.1 Impact Assessment

7.1.1 Wetlands

The proposed severance is situated between two wetland features, which are identified as Core Area in Schedule B of the City's Official Plan.

Buffers, sometimes referred to as vegetation protection zones (VPZ), were established to the wetland, which provided the basis for the development limits/new lot line. It is the policy of the City (Policy C.2.5.6) that an EIS shall propose a buffer/VPZ which:

> *a) Has sufficient width to protect the Core Area and it s ecological functions from impacts of the proposed land use or site alteration occurring during and after construction, and where possible, restores or enhances the Core Area and/or its ecological functions; and*
> *b) Is established to achieve and be maintained as natural self-sustaining vegetation.*

The NEP has a similar policy (2.7.7) which states that a;

> *vegetation protection zone shall:*
> *a) 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;*
> *b) be established to achieve, and be maintained as, natural self- sustaining vegetation*

Buffers/VPZs provide physical separation between a proposed development/land use change and adjacent natural heritage features to prevent or minimize potential negative impacts on the natural features and their ecological functions. Some ecological benefits and functions that buffers provide include:

- Protection of root zone of edge trees;
- Reduction in the effects of hydrological changes from site alterations;
- Filtering of contaminants such as nutrients from lawn fertilizers;
- Extension of edge, thus increasing potential for woodland interior conditions to develop;
- Minimizing disturbances to wildlife, such as noise and light; and
- Minimizing potential residential encroachments (e.g. dumping).

Mitigation measures other than, and/or in addition to, buffers can also be utilized to sufficiently minimize impacts on natural features.

Factors to consider when making buffer recommendations include the sensitivity and significance of the natural feature(s), habitat requirements of species utilizing the feature(s), the proposed land use and risk of potential impacts to the feature(s), and the land use context (i.e., surrounding land uses and existing form).

As it relates to the proposed development, Beacon recommends that an ecological buffer be applied to the staked wetland as this will provide protection to the wetland and associated ecological functions. Through consideration of key factors for determination of buffer width described above (i.e., sensitive ecological receptors, existing and potential new stressors, and buffer form) as well as consideration of the scale and form of the proposed development (lot severance to accommodate a single detached dwelling), it is recommended that a 15 m naturalized/vegetated buffer be applied to the wetland to mitigate potential direct and indirect impacts related to new development.

Beacon emphasizes the importance of establishing a well-vegetated buffer (i.e. buffers that are planted with native species) to enhance the function of the buffer. This is consistent with City's policy that asserts where possible, buffers should restore or enhance the Core Area and/or its ecological functions and be maintained as natural, self-sustaining vegetation.

The wetland adjacent to the proposed severance/future residential use (ELC units 7a) is dominated by Reed Canary Grass, a very common and ubiquitous grass of meadow marshes in southern Ontario. The plant species within the wetland are all common, not sensitive to development, and, in many cases, thrive in disturbed areas.

Beacon considers a 15 m naturalized buffer to the wetland, in combination with other mitigation measures and best management practices (e.g. fencing, restorative plantings) recommended in this report, to be ecologically appropriate for protecting the wetland features. Furthermore, the ecological conditions within the wetland are expected to improve post-development by removing the existing disturbances associated with the existing farm use (ploughing up to the wetland edge, spraying chemicals) and restoring native vegetation within the buffer.

There is potential for indirect impacts related to residential encroachments, including:

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

The buffers can help absorb impacts related to residential encroachments. It is also recommended that the new lot be fenced to discourage encroachments. To make future homeowners aware, instructions regarding encroachment restrictions into features and buffers on the adjacent lands, including prohibitions on yard waste dumping, vegetation removal, and tampering with fencing should be included in the agreement of purchase and sale.

Provided that a 15 m naturalized buffer to the wetland is maintained and other mitigation measures recommended in this report are implemented, no negative impacts on the adjacent wetland are anticipated.

7.1.2 Drainage Features and Fish Habitat

The proposed severance and future residence are situated between two ephemeral headwater drainage features (HDFs 5 and 6). Due to the ephemeral flow regime and downstream factors affecting fish migration, HDFs 5 and 6 do not provide direct/occupied fish habitat, though flows contribute to fish habitat downstream (off-site).

The HDFs are contained entirely within the wetland (ELC unit 7a) to which a 15 m buffer was applied as discussed in detail in **Section 7.1.1**. The application of a 15 m buffer to the wetland will provide sufficient protection to the ephemeral surface drainage features associated with wetlands.

Soil erosion and run-off from construction sites can result in adverse environmental impacts on drainage features and aquatic habitat. Therefore; prior to construction, sediment and erosion control fencing (silt fence) should be established at the limit of development to prevent runoff during construction. The location of silt fencing should be show on all construction plans (Site Plan, grading plan).

7.1.3 Wildlife Habitat

The only species of bird observed in the footprint of the proposed development was Killdeer, a common ground nesting bird of urban and rural areas.

Several other species of birds were observed in the marshes adjacent to this footprint, all common generalist bird species that are not sensitive to development. No amphibians were heard calling from the wetland in proximity to the proposed severance.

There are existing rural residences along Weirs Lane in proximity to the wetland/Core Area; therefore, it expected that wildlife inhabiting the natural area are adapted to a certain level human activity and the addition of a new lot with a single residence adjacent to the wetland is not expected to introduce new or exacerbate existing stressors or disturbances (e.g. noise, light).

The provision of a 15 m naturalized buffer to the wetland will help mitigate potential indirect impacts of development on adjacent lands and enhance wetland habitat through naturalization of the buffer.

Given that the proposed development will be confined to an existing agricultural field, there are limited opportunities for nesting birds, though some species such as Killdeer may nest in the fields. The federal *Migratory Birds Convention Act* (1994) protects the nests, eggs and young of most bird species from harm or destruction. The general bird nesting season in southern Ontario is April 1 to August 31. Beacon recommends that during the peak period of bird nesting, no vegetation removal or disturbance to nesting bird habitat occur – i.e., between May 16 and July 15. In the shoulder seasons of April 1 to May 15, and July 16 to August 31, vegetation clearing could occur, but only after an Ecologist with appropriate avian knowledge has surveyed the area to confirm lack of nesting. If nesting is found, then vegetation clearing (in an area around the nest) must wait until nesting has concluded. Between September 1 and March 31, tree clearing can occur without nest surveys, but the requirement for nest protection still holds (i.e., if an active nest is known it should be protected).

No impacts on SWH or habitat for threatened or endangered species are anticipated. All potential SWH and habitats of threatened or endangered species (Butternut, bats) are over 150 m from the development area.

7.1.4 Significant Woodlands

The proposed development is over 300 m from the signficant woodland on the subject property; therefore, no direct or indirect impacts are anticipated.

7.1.5 Linkages

The proposed development is situated in an agricultural field between two wetland fingers associated with drainage features, where are identified as Core Feature of the City's NHS. The Linkage identified in the City's Official Plan is further east of the proposed development and will not be affected by the lot severance or future residential use. A 15 m buffer was applied to the wetlands and no impacts on the linkage function of these features is anticipated.

7.2 Summary of Mitigation and Enhancement Recommendations

A number of mitigation and enhancement measures are recommended to ensure the natural heritage features (wetlands) on the subject property are protected and enhanced during and following construction.

1. Maintain a 15 m buffer between the proposed development and the adjacent wetlands.
2. To protect wetlands and downstream aquatic habitat during construction, a sediment and erosion control plan should be prepared to prevent sediment and other deleterious substance from entering adjacent features during construction.
3. Permanent fencing should be installed at the development limits (15 m wetland buffer) to control access to the wetlands and prevent accumulation of waste and debris within the features.
4. Development, including septic systems, should be confined to the established limits of development, except where landscaping or restoration works are approved. All construction materials and equipment should be stored inside the limits of development.
5. Grading should be minimized and existing grades maintained to the extent feasible.
6. To avoid impacts on nesting birds, vegetation removal should be conducted between September 1 and March 3.
7. A buffer restoration and enhancement plan should be prepared and implemented. This should include a planting plan that utilises a diversity of native species that are appropriate to the region and the site condition. Recommended species include:
    - Red Maple (*Acer rubrum*);
    - Red Oak (*Quercus rubra*);
    - Basswood (*Tilia americana*);
    - Black Cherry (*Prunus serotina*);
    - Ironwood (*Ostrya virginiana*);
    - White Pine (*Pinus strobus*);
    - Chokecherry (*Prunus virginiana*);
    - Alternate-leaved Dogwood (*Cornus alternifolia*);
    - Elderberry (*Sambucus canadensis*);
    - Purple Flowering Raspberry (*Rubus odoratus*); and
    - Nannyberry (*Viburnum lentago*).

8. Policy Conformity

A summary of federal, provincial and municipal environmental protection and planning policies and regulations applicable to the subject property were discussed in **Section 2**. An evaluation of how the proposed re-development complies with the applicable environmental policies and legislation is summarized below in **Table 5**.

Table 5. Policy Compliance Assessment

APPLICABLE POLICY / LEGISLATION	Policy Intent/Summary	EIS Findings
Ontario *Endangered Species Act* (2007)	Provides legal protection to endangered and threatened species and their habitats	There is potential habitat for endangered bats associated with woodland features on the subject property and several Butternut trees were identified. The proposed development is confined to an agricultural field and will not result in impacts on SAR bat habitat or Butternut.
Provincial Planning Statement (2024)		
1. Habitat for Threatened and Endangered Species	The PPS does not permit development or site alteration in habitats for threatened and endangered species except in accordance with provincial and federal requirements.	No impacts on threatened or endangered species are anticipated.
2. Significant Wetlands	The PPS does not permit development or site alteration in Significant Wetlands, except for conservation, wildlife management and stewardship purposes. The PPS allows for development or site alteration on lands adjacent to Significant Wetlands if it can be demonstrated that such activities will not adversely impact upon the feature and its functions.	There are no PSWs on or adjacent to the subject property.
3. Significant Woodlands	The PPS does not permit development or site alteration in Significant Woodlands unless it can be demonstrated through an EIS that there will be no negative impacts.	A significant woodland is located within the south portion of the subject property. The proposed development is approximately 300 m from the woodland; therefore, no impacts are anticipated.
4. Significant Valleylands	The PPS allows for development or site alteration in Significant Valleylands if it can be demonstrated through an EIS that there will be no negative impacts.	No significant valleylands were identified on the subject property.
5. Significant Wildlife Habitat	The PPS allows for development or site alteration in SWH if it can be demonstrated through an EIS that there will be no negative impacts.	Potential SWH associated with woodland features will not be impacted by development.
6. Significant Areas of Natural and Scientific Interest (ANSI)	The PPS allows for development or site alteration in Significant ANSIs if it can be demonstrated through an EIS that there will be no negative impacts.	There are no ANSIs on or adjacent to the subject property.
7. Fish Habitat	Development and site alteration are not permitted in fish habitat except in accordance with provincial and federal requirements.	There is no direct or occupied fish habitat on the subject property. An erosion and sediment control plan is recommended to protect aquatic habitat downstream of the subject property during construction.

APPLICABLE POLICY / LEGISLATION	Policy Intent/Summary	EIS Findings
Niagara Escparpment Plan	The NEP has policies concerning the protection of key natural heritage features within the NEP area including wetlands, habitat of endangered and threatened species and threatened species, fish habitat, Life Science and Earth Science Areas of Natural and Scientific Interest, significant valleylands, significant woodlands, significant wildlife habitat, and habitat of special concern species in Escarpment Natural and Escarpment Protection Areas. With some exceptions outlined in the NEP, new development is no permitted within KNHF and an appropriate vegetation protection zone must be determined through a natural heritage evaluation/ environmental impact study.	The subject property is located within the Greensville "Minor Urban Centre" and designated "Escarpment Rural Area" in the NEP. A portion of land at the south end of the subject property is outside "Minor Urban Centre" and is designated "Escarpment Natural Area." The signficant woodland at the south end of the subject property is part of the Escarpment Natural Area. The proposed development is over 300 m from this area; therefore, no impacts are anticipated. The proposed development is located within the Escarpment Rural Area adjacent to wetlands, which are recognized as a key natural heritage feature under the NEP. A 15 m buffer/vegetation protection zone has been applied to the wetland limit based on consideration of the sensitivity and significance of the natural feature(s), habitat requirements of species utilizing the feature(s), the proposed land use and risk of potential impacts to the feature(s), and the land use context (i.e., surrounding land uses and existing form). No impacts on the wetland are anticipated provided the recommended mitigation measures are implemented. Significant Woodlands, Potential SWH, and habitat for threatened and endangered species (SAR bats, Butternut) are over 150 m from the proposed development; therefore, no impacts on these features are anticipated.
City of Hamilton Rural Official Plan	The City of Hamilton identifies a natural heritage system consisting of Core Areas and Linkages. New development is not permitted within PSW or significant habitat of threatened and endangered species. New development is not permitted within significant woodlands, SWH, significant valleylands, significant ANSIs, or Linkages unless it has been demonstrated that there shall be no negative impacts on the natural features or their ecological functions.	The subject property contains wetlands, signficant woodlands, potential SWH, watercourses, and Linkage which collectively contribute to the NHS. The proposed redevelopment is within an existing agricultural field. No development is proposed within any Core Area or Linkage. Wetlands identified as Core Area of the NHS are situated to the north and south of the proposed severance. A 15 m buffer was applied to the wetland limit, which provided the basis for the development limit/new lot line. No direct impacts on the wetland are expected, and indirect impacts can be avoided or minimized through mitigation recommended in this report.

APPLICABLE POLICY / LEGISLATION	Policy Intent/Summary	EIS Findings
		Significant Woodlands, potential SWH, and habitat for threatened and endangered species (SAR bats, Butternut) are over 150 m from the proposed development; therefore, no impacts on these features are anticipated.
Conservation Authorities Act and Ontario Regulation 41/24.	The HCA regulates land use activities in and adjacent to natural hazards, including floodplains, wetlands, watercourses and valleylands. made under the *Conservation Authorities Act*.	The subject property contains wetlands and watercourses that are regulated by HCA. The two headwater drainage features adjacent to the proposed severed lot (5 and 6) do not qualify as watercourses under Ontario Regulation 41/21; however, the wetlands associated with these HDFs are regulated under this legislation. A 15 m buffer was applied to the wetlands based on consideration of the wetland sensitivity and the scale of the proposed development. No impacts on the wetlands are anticipated. HCA regulates lands within 30 m of all wetlands; therefore, a permit will be required if development or site alteration will occur within this area.

9. Conclusion

This Scoped EIS and Linkage Assessment has been prepared for a proposed development for a property situated at the corner of Weirs Lane and Hwy 8 in the City of Hamilton.

The subject property supports existing agricultural fields, as well as watercourses, wetlands, and woodlands.

The subject property is located within the Greensville "Minor Urban Centre" and designated "Escarpment Rural Area" in the NEP. A portion of land at the south end of the subject property is outside "Minor Urban Centre" and is designated "Escarpment Natural Area." Parts of the subject property contain components of the City's NHS, including features identified as "Core Areas" and "Linkages" on Schedule B of the City's Rural Official Plan.

The proposed development of the subject property consists of a severance in order to build a single residential dwelling on the severed lot.

This report characterizes the natural heritage features on the subject property, identifies development constraints, assesses the impact of the proposed development on the natural heritage features, and recommends mitigation and enhancement measures to avoid or minimize impacts of the proposed development, and improve the ecological function of the NHS.

No negative impacts on the NHS features are anticipated provided the mitigation measures identified in this report are implemented. The proposed development is limited to an area of agricultural field. Buffers have been provided to adjacent wetland features and several mitigation and enhancement measures have been identified to avoid or minimize impacts of the on the wetlands associated with the proposed lot including:

- Implementing erosion and sediment control measures prior to construction;
- Establishing permanent fencing at the development limit;
- Timing vegetation removals to avoid impacts on nesting birds;
- Preparing and implementing a buffer restoration and enhancement plan;

Provided that the recommendations identified in this report are implemented, Beacon concludes the following:

1. No negative impacts on the natural heritage features or their ecological functions are expected.
2. The proposed development is in conformity with appliable natural heritage polices of the PPS, NEP, the City's Rural Official Plan, and HCA policies and regulations.

Prepared by:
Beacon Environmental

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Reviewed by:
Beacon Environmental

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10. References

City of Hamilton. 2013.
Rural Hamilton Official Plan. September 2013.

eBird. 2024. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. Available: http://www.ebird.org.

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. SCSS Field Guide FG-02. 225 pp.

Government of Ontario. 2017.
Niagara Escarpment Plan. Office consolidation April 1, 2025.

Ontario Ministry of Municipal Affairs and Housing (MMAH). 2024.
Provincial Planning Statement. Toronto, Ontario.

Ontario Ministry of Natural Resources. 2000.
Significant Wildlife Habitat Technical Guide. October 200.

Ontario Ministry of Natural Resources. 2010.
Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. Second Edition. March 18, 2010.

Ontario Ministry of Natural Resources. 2015.
Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E. January 2015.

Schwetz, N (ed.). 2014. Hamilton Natural Areas Inventory Project 3rd Edition - Species Checklist Document. Report prepared by the City of Hamilton, Hamilton Conservation Authority, and Hamilton Naturalists Club.

Toronto and Region Conservation Authority. 2014.
Evaluation, Classification and Management of Headwater Drainage Features Guideline. Toronto and Region Conservation Authority and Credit Valley Conservation, TRCA Approval July 2013 (Finalized January 2014).

Appendix A

EIS Terms of Reference

March 13 , 2022 BEL 222335

Jessica Abrahamse *via* email: Jessica.Abrahamse@hamilton.ca
Natural Heritage Planner
Planning Division, Planning and Economic Development Department
Hamilton City Hall
71 Main Street West
Hamilton, ON L8P 4Y5

Re: Terms of Reference for Scoped Environmental Impact Study (EIS) and Linkage Assessment, Weir's Road Residential Subdivision, City of Hamilton

Dear Ms. Abrahamse:

Beacon Environmental Limited (Beacon) has prepared the following Terms of Reference for a Scoped Environmental Impact Study (EIS) and Linkage Assessment in support of a proposed development for a property located at the southeast corner of Weirs Lane and Hwy 8 in the City of Hamilton (**Figure 1**).

The subject property contains features identified as Core Areas and Linkages on Schedule B of the City of Hamilton's Rural Official Plan. The purpose of the Scoped EIS and Linkage Assessment is to confirm and characterize the natural heritage features and ecological functions such as linkages on the subject property, identify natural heritage constraints, assess impacts of the proposed development, recommend mitigation measures and evaluate conformity of the proposed development with the applicable natural heritage policies of the Provincial Policy Statement, Niagara Escarpment Plan, City of Hamilton Rural Official Plan, Hamilton Conservation Authority, as well as and environmental protection legislation such as the Ontario *Endangered Species Act*.

In accordance with the City's March 2015 EIS Guidelines and Linkage Assessment Guidelines, Beacon has prepared the following work plan outlining the various tasks that will be undertaken to complete a scoped EIS and Linkage Assessment.

Work Plan

Background Review

Beacon will review available natural heritage information resources to assist with characterization of the study area and impact assessment:

- Natural Heritage Information Centre Databases;
- Wildlife Atlases;
- SAR records;

- Applicable engineering reports (e.g. Geotechnical, FSR);
- Topographic maps and aerial imagery;
- MNRF Aquatic Resources mapping and data (e.g. stream classicisation and fish records); and
- Mid-Spencer/Greensville Rural Settlement Area Subwatershed Study.

The scoped EIS and Linkage Assessment will rely on existing background information and supporting technical reports to characterize the watercourses, soils, physiography, and groundwater.

Beacon will also undertake a review of applicable environmental legislation, regulations and policies and prepare a summary framework for use in determining project compliance,

- Provincial *Endangered Species Act*;
- Provincial Policy Statement;
- City of Hamilton Rural Official Plan;
- Niagara Escarpment Plan; and
- Hamilton Conservation Authority Regulation.

Feature Staking (June 2023)

Beacon will undertake a site visit with City of Hamilton and HCA staff to stake wetland and woodland limits. Staked feature limits and applicable buffers will be added to all plans and will inform the development limits.

Field Investigations (April-September 2023)

The following field investigations are proposed to document vegetation resources and wildlife habitats, associated with the subject property and adjacent lands (up to 120 m from the subject property). The information will be used to evaluate the ecological function, sensitivity, and significance of natural heritage features in accordance with the applicable legislation, policies and guidelines.

For this project, Beacon will undertake vegetation surveys, breeding bird surveys, anuran surveys, and an assessment of drainage features/aquatic habitat. An assessment of adjacent lands will be conducted to the extent possible from the subject property.

Drainage Feature Assessment (March/April-June 2023)

Beacon will complete two (2) assessments of the drainage features and any aquatic habitat , one during high flow (spring) and one during low flow (summer) conditions to evaluate aquatic conditions within the subject property. Based on the findings of the two site visits, a third late summer evaluation may be required and will be completed if necessary. Aquatic habitat assessments will be completed following a modified version of the Ontario Stream Assessment Protocol (OSAP; Stanfield and MNRF 2017) and will characterize various aquatic habitat components including channel morphology, substrate, riparian vegetation and aquatic vegetation.

Vegetation Communities and Flora (May-September 2023)

Vegetation communities on the property will be mapped and described according to the Southern Ontario Ecological Land Classification System (Lee *et al*. 1996) which is the standard methodology for classifying ecosystems in southern Ontario. Vegetation communities will be mapped onto aerial photography of the site and pertinent information regarding the structure and composition of the communities will be documented to classify the communities.

A three-season (spring, summer, fall) floristic survey will be completed in May, late June/early July, and late August/early September A list of all plant species observed on the property, and their status, will be compiled.

Breeding Birds (May-June 2023)

Two early morning breeding bird surveys will be undertaken between late May and early July to determine what species of birds are nesting on the property. The first survey will be completed from May 24-June 15, and the second survey is to be completed from June 15-July 10.

All species heard or seen will be documented and the location and observation details for confirmed or probable breeding species will be documented. A checklist of observed species and their status will be compiled.

Breeding Anurans (March/April-June/July 2023)

The subject property supports wetlands; therefore, anuran breeding surveys will be conducted during evenings between April and June to determine the diversity and abundance of frog and toad species on the property. Some amphibians breed early in the spring and other breed later; therefore, three (3) surveys are typically required in order to detect the full range of amphibian species present on a site. Surveys will be conducted in accordance with the Marsh Monitoring Protocols (Bird Studies Canada 2009).

Threatened or Endangered Species

A list of Threatened or Endangered Species that have the potential to occur in the study area will be produced by evaluating suitability of the habitat features on the property with the habitat descriptions of threatened or endangered known to occur within the area (based on NHIC records, LIO data, wildlife atlases, etc.).

Surveys for Threatened and Endangered species will be undertaken for select species if suitable habitat exists on the subject property and there is potential for impact to the species or habitats resulting from the proposed development.

Other/Incidental Wildlife

Incidental observations of other wildlife taxa, including insects and mammals, will be documented during surveys for other taxonomic groups discussed above.

Reporting

The EIS and Linkage Assessment report will be prepared based on the City of Hamilton's EIS Guidelines (2015) and Linkage Assessment Guideline (2015) and in accordance with the approved Terms of Reference. The report will:

- Characterize the subject property and surrounding area based on the findings of the background review and scoped field investigations;
- Assess the function and significance of natural heritage features, including linkages on the subject property;
- Describe the proposed development;
- Evaluate anticipated direct, indirect, and cumulative impacts of the proposed development on the significant natural heritage features, hydrological features, and linkages identified, and recommend mitigation and enhancement opportunities to avoid or minimize impacts; and
- Assess conformity with applicable provincial and municipal policies and regulations.

The EIS will be prepared according to the following outline:

- Introduction: This section of the report will include introductory remarks regarding the purpose and scope of the study, a general description of the site and the site location, and a brief description of the proposed development;
- Planning Context: This section will include a summary of the applicable Federal, Provincial, municipal and conservation authority natural heritage policies and legislation, including Provincial *Endangered Species Act*; Provincial Policy Statement; the Niagara Escarpment Plan, the City of Hamilton Rural Official Plan; and applicable Hamilton Conservation Authority Policies;
- Methodology: This section of the report will include a description of the methods used to characterize the site's natural heritage features and functions, including dates/times of surveys and weather conditions of field surveys;
- Existing Conditions: The report will provide a description of existing conditions based on a combination of background studies and site-specific field investigations. Existing natural heritage and hydrological features on the subject property will be described., including soils, physiography, watercourses/aquatic habitat, vegetation communities, flora, wildlife species and habitat will be described. A figure illustrating existing conditions will be provided, showing the locations of watercourses, vegetation communities, significant species, staked feature limits; and linkages;
- Evaluation of Significance: The significance of natural heritage features, as well as linkage functions, associated with the subject property will be evaluated based on the applicable policies and guidelines, including the City of Hamilton Urban Official Plan, the Signficant Wildlife Habitat Technical Guide, and The Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E (MNRF 2015);

- Constraints and Opportunities: This section of the report will provide a summary of the natural heritage constraints identified on and adjacent to the subject property, including natural heritage features, linkages, and recommended buffers and/or setbacks. Opportunities to restore and enhance the NHS will also be identified;
- Description of Proposed Development: This section of the report will provide a description and location of the proposed development, including a site plan with lot layout and roads, as well as consideration for grading and servicing plans provided in other technical reports;
- Impact Assessment and Mitigation: This section will evaluate potential direct and indirect impacts of the proposed development on natural heritage and hydrological features and linkages and recommend mitigation measures to avoid or minimize impact. Opportunities for enhancements to the NHS will be identified;
- Policy Conformity: This section will summarize how the proposed development conforms to the applicable provincial, municipal, and conservation authority policies and regulations;
- Conclusion: This section will provide summary of recommendations as well as a concluding environmental impact statement related to the proposed development;
- Appendices: Appendices will include, but not necessarily be limited to:
    - EIS Terms of Reference;
    - Vascular Plant Species List;
    - Breeding Bird Species List;
    - Screening for Habitat of Threatened and Endangered Species;
    - Signficant Wildlife Habitat Assessment; and
    - ELC Data Cards.

We trust that the proposed EIS and Linkage Assessment TOR described above are satisfactory. Should you have any questions, please do not hesitate to contact the undersigned.

Prepared by:
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Site Location	Figure 1
Weirs Lane and Hwy 8 Hamilton EIS	
BEACON ENVIRONMENTAL	Project: 222335 Last Revised: November 2022
Client: Valery Group	Prepared by: SZ Checked by: DW
N 1:10,000	Inset Map: 1:50,000

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Appendix B

Vascular Plant Species List

Appendix B

Vascular Plant Species List

Scientific Name	Common Name	Family	ESA	SARA	SRank
Acer negundo	Manitoba Maple	Sapindaceae			S5
Acer platanoides	Norway Maple	Sapindaceae			SE5
Acer rubrum	Red Maple	Sapindaceae			S5
Agrostis gigantea	Redtop	Poaceae			SE5
Alliaria petiolata	Garlic Mustard	Brassicaceae			SE5
Apios americana	American Groundnut	Fabaceae			S5
Arctium lappa	Great Burdock	Asteraceae			SE5
Arisaema triphyllum	Jack-in-the-pulpit	Araceae			S5
Asclepias syriaca	Common Milkweed	Apocynaceae			S5
Bidens frondosa	Devil's Beggarticks	Asteraceae			S5
Bromus inermis	Smooth Brome	Poaceae			SE5
Caltha palustris	Yellow Marsh Marigold	Ranunculaceae			S5
Cardamine concatenata	Cut-leaved Toothwort	Brassicaceae			S5
Cardamine impatiens	Narrow-leaved Bittercress	Brassicaceae			SE1
Carex lacustris	Lake Sedge	Cyperaceae			S5
Carex stipata	Awl-fruited Sedge	Cyperaceae			S5
Carya cordiformis	Bitternut Hickory	Juglandaceae			S5
Chelidonium majus	Greater Celandine	Papaveraceae			SE5
Chenopodium album	Common Lamb's-quarters	Amaranthaceae			SE5
Circaea canadensis	Broad-leaved Enchanter's Nightshade	Onagraceae			S5
Cirsium arvense	Canada Thistle	Asteraceae			SE5
Cornus racemosa	Grey Dogwood	Cornaceae			S5
Cornus sericea	Red-osier Dogwood	Cornaceae			S5
Crataegus punctata	Dotted Hawthorn	Rosaceae			S5
Dactylis glomerata	Orchard Grass	Poaceae			SE5
Daucus carota	Wild Carrot	Apiaceae			SE5
Echinocystis lobata	Wild Cucumber	Cucurbitaceae			S5
Elaeagnus umbellata	Autumn Olive	Elaeagnaceae			SE3
Epilobium ciliatum	Northern Willowherb	Onagraceae			S5
Equisetum arvense	Field Horsetail	Equisetaceae			S5
Erigeron annuus	Annual Fleabane	Asteraceae			S5
Erythronium americanum	Yellow Trout-lily	Liliaceae			S5
Eupatorium perfoliatum	Common Boneset	Asteraceae			S5
Euthamia graminifolia	Grass-leaved Goldenrod	Asteraceae			S5
Eutrochium maculatum	Spotted Joe Pye Weed	Asteraceae			S5
Fragaria virginiana	Wild Strawberry	Rosaceae			S5
Fraxinus americana	White Ash	Oleaceae			S4
Fraxinus pennsylvanica	Red Ash	Oleaceae			S4

Scientific Name	Common Name	Family	ESA	SARA	SRank
Galium aparine	Common Bedstraw	Rubiaceae			S5
Galium asprellum	Rough Bedstraw	Rubiaceae			S5
Galium triflorum	Three-flowered Bedstraw	Rubiaceae			S5
Geranium maculatum	Spotted Geranium	Geraniaceae			S5
Geranium robertianum	Herb-Robert	Geraniaceae			S5
Geum canadense	Canada Avens	Rosaceae			S5
Geum urbanum	Wood Avens	Rosaceae			SE3
Glechoma hederacea	Ground-ivy	Lamiaceae			SE5
Glyceria striata	Fowl Mannagrass	Poaceae			S5
Hesperis matronalis	Dame's Rocket	Brassicaceae			SE5
Hydrophyllum virginianum	Virginia Waterleaf	Hydrophyllaceae			S5
Inula helenium	Elecampane	Asteraceae			SE5
Juglans cinerea	Butternut	Juglandaceae	END	END	S2?
Juglans nigra	Black Walnut	Juglandaceae			S4?
Juncus bufonius	Toad Rush	Juncaceae			S5
Juncus tenuis	Path Rush	Juncaceae			S5
Lapsana communis	Common Nipplewort	Asteraceae			SE5
Leersia oryzoides	Rice Cutgrass	Poaceae			S5
Lemna minor	Small Duckweed	Araceae			S5
Leucanthemum vulgare	Oxeye Daisy	Asteraceae			SE5
Ligustrum vulgare	European Privet	Oleaceae			SE5
Lilium michiganense	Michigan Lily	Liliaceae			S4
Lonicera tatarica	Tatarian Honeysuckle	Caprifoliaceae			SE5
Maianthemum stellatum	Star-flowered False Solomon's Seal	Asparagaceae			S5
Malus pumila	Common Apple	Rosaceae			SE4
Mentha canadensis	Canada Mint	Lamiaceae			S5
Myosotis scorpioides	True Forget-me-not	Boraginaceae			SE5
Myosotis sylvatica	Woodland Forget-me-not	Boraginaceae			SE4
Nasturtium officinale	Watercress	Brassicaceae			SE
Onoclea sensibilis	Sensitive Fern	Onocleaceae			S5
Oxalis stricta	Upright Yellow Wood-sorrel	Oxalidaceae			SE5
Panicum capillare	Common Panicgrass	Poaceae			S5
Panicum dichotomiflorum	Fall Panicgrass	Poaceae			SE5
Parthenocissus vitacea	Thicket Creeper	Vitaceae			S5
Persicaria maculosa	Spotted Lady's-thumb	Polygonaceae			SE5
Persicaria virginiana	Virginia Smartweed	Polygonaceae			S4
Phalaris arundinacea	Reed Canarygrass	Poaceae			S5
Phragmites australis ssp. australis	European Reed	Poaceae			SE5
Pilea pumila	Dwarf Clearweed	Urticaceae			S5
Plantago major	Common Plantain	Plantaginaceae			SE5
Poa palustris	Fowl Bluegrass	Poaceae			S5
Poa pratensis	Kentucky Bluegrass	Poaceae			S5
Podophyllum peltatum	May-apple	Berberidaceae			S5
Populus grandidentata	Large-toothed Aspen	Salicaceae			S5
Populus tremuloides	Trembling Aspen	Salicaceae			S5

Scientific Name	Common Name	Family	ESA	SARA	SRank
Prunus avium	Sweet Cherry	Rosaceae			SE4
Prunus serotina	Black Cherry	Rosaceae			S5
Prunus virginiana	Chokecherry	Rosaceae			S5
Quercus rubra	Northern Red Oak	Fagaceae			S5
Ranunculus acris	Common Buttercup	Ranunculaceae			SE5
Ranunculus sceleratus	Cursed Buttercup	Ranunculaceae			S5
Rhamnus cathartica	European Buckthorn	Rhamnaceae			SE5
Rhus typhina	Staghorn Sumac	Anacardiaceae			S5
Ribes americanum	American Black Currant	Grossulariaceae			S5
Rosa multiflora	Multiflora Rose	Rosaceae			SE5
Rubus allegheniensis	Allegheny Blackberry	Rosaceae			S5
Rubus idaeus ssp. strigosus	North American Red Raspberry	Rosaceae			S5
Rubus occidentalis	Black Raspberry	Rosaceae			S5
Rumex crispus	Curled Dock	Polygonaceae			SE5
Salix amygdaloides	Peach-leaved Willow	Salicaceae			S5
Salix discolor	Pussy Willow	Salicaceae			S5
Sambucus canadensis	Common Elderberry	Viburnaceae			S5
Sassafras albidum	Sassafras	Lauraceae			S4
Scutellaria galericulata	Marsh Skullcap	Lamiaceae			S5
Setaria faberi	Giant Foxtail	Poaceae			SE4
Setaria pumila	Yellow Foxtail	Poaceae			SE5
Setaria viridis	Green Foxtail	Poaceae			SE5
Silene vulgaris	Bladder Campion	Caryophyllaceae			SE5
Solanum dulcamara	Bittersweet Nightshade	Solanaceae			SE5
Solidago altissima var. altissima	Eastern Tall Goldenrod	Asteraceae			S5
Sonchus arvensis	Field Sow-thistle	Asteraceae			SE5
Sorbus aucuparia	European Mountain-ash	Rosaceae			SE4
Symphyotrichum lanceolatum ssp. lanceolatum	Eastern Panicled Aster	Asteraceae			S5
Symphyotrichum lateriflorum var. lateriflorum	Calico Aster	Asteraceae			S5
Symphyotrichum puniceum var. puniceum	Purple-stemmed Aster	Asteraceae			S5
Symphyotrichum urophyllum	Arrow-leaved Aster	Asteraceae			S4
Symplocarpus foetidus	Eastern Skunk Cabbage	Araceae			S5
Taraxacum officinale	Common Dandelion	Asteraceae			SE5
Thelypteris palustris	Marsh Fern	Thelypteridaceae			S5
Tilia americana	Basswood	Malvaceae			S5
Toxicodendron radicans var. radicans	Eastern Poison Ivy	Anacardiaceae			S5
Typha angustifolia	Narrow-leaved Cattail	Typhaceae			SE5
Typha latifolia	Broad-leaved Cattail	Typhaceae			S5
Urtica gracilis ssp. gracilis	Slender Stinging Nettle	Urticaceae			S5
Verbena urticifolia	White Vervain	Verbenaceae			S5
Viburnum lentago	Nannyberry	Viburnaceae			S5
Vicia cracca	Tufted Vetch	Fabaceae			SE5

Scientific Name	Common Name	Family	ESA	SARA	SRank
Vicia tetrasperma	Four-seed Vetch	Fabaceae			SE5
Viola sororia	Woolly Blue Violet	Violaceae			S5
Vitis riparia	Riverbank Grape	Vitaceae			S5

Appendix C

Bird Species List

Appendix C

Bird Species List

Common Name	Scientific Name	Provincial breeding season SRANK[1]	Maximum Number Observed
Mourning Dove	*Zenaida macroura*	S5	2
Killdeer	*Charadrius vociferus*	S4	2
Northern Flicker	*Colaptes auratus*	S5	1
Willow Flycatcher	*Empidonax traillii*	S4	2
Eastern Phoebe	*Sayornis phoebe*	S5	1
Great Crested Flycatcher	*Myiarchus crinitus*	S5	1
Eastern Kingbird	*Tyrannus tyrannus*	S4	2
Red-eyed Vireo	*Vireo olivaceus*	S5	2
Blue Jay	*Cyanocitta cristata*	S5	2
Black-capped Chickadee	*Poecile atricapillus*	S5	4
House Wren	*Troglodytes aedon*	S5	2
American Robin	*Turdus migratorius*	S5	6
Gray Catbird	*Dumetella carolinensis*	S5	4
European Starling	*Sturnus vulgaris*	SNA	3
Cedar Waxwing	*Bombycilla cedrorum*	S5	2
American Goldfinch	*Spinus tristis*	S5	4
Chipping Sparrow	*Spizella passerina*	S5	6
Song Sparrow	*Melospiza melodia*	S5	9
Swamp Sparrow	*Melospiza georgiana*	S5	1
Baltimore Oriole	*Icterus galbula*	S4	3
Red-winged Blackbird	*Agelaius phoeniceus*	S5	15
Brown-headed Cowbird	*Molothrus ater*	S5	4
Common Grackle	*Quiscalus quiscula*	S5	3
Common Yellowthroat	*Geothlypis trichas*	S5	5
Yellow Warbler	*Setophaga petechia*	S5	9
Northern Cardinal	*Cardinalis cardinalis*	S5	3
Indigo Bunting	*Passerina cyanea*	S5	3

1 SRANK (from Natural Heritage Information Centre) for breeding status if:
S1 (Critically Imperiled), S2 (Imperiled),S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure)
SNA (Not applicable…'because the species is not a suitable target for conservation activities'; includes non-native species)

Appendix D

Significant Wildlife Habitat (SWH) Assessment

Appendix D

Significant Wildlife Habitat (SWH) Assessment

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 7E*	Application to the Subject Property and Adjacent Lands
Seasonal Concentration Areas			
1. Waterfowl Stopover and Staging Areas (Terrestrial)			
American Black Duck Wood Duck Mallard Northern Pintail Gadwall Blue-winged Teal Green-winged Teal American Wigeon Northern Shoveler	CUM1 CUT1 Plus evidence of annual spring flooding from malt water or run-off within these Ecosites.	*Suitable Habitat* • Fields with sheet water during Spring (mid-March to May) *Suggested Criteria* Studies carried out and verified presence of an annual concentration of any listed species	Not suitable habitat; None of the listed species observed
2. Waterfowl Stopover and Staging Areas (Aquatic)			
Canada Goose Cackling Goose Snow Goose American Black Duck Northern Pintail Northern Shoveler American Wigeon Gadwall Green-winged Teal Blue-winged Teal Hooded Merganser Common Merganser Lesser Scaup Greater Scaup Long-tailed duck Surf Scoter White-winged Scoter Black Scoter Ring-necked duck Common Goldeneye Bufflehead Redhead Ruddy Duck Red-breasted Merganser Brant Canvasback	MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7	*Suitable Habitat* • Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration • Sewage treatment ponds and storm water ponds do not qualify as SWH, however a reservoir managed as a large wetland or pond/lake does qualify • These habitats have an abundant food supply (mostly aquatic invertebrates and vegetation in shallow water) *Suggested Criteria* Studies carried out and verified presence of: • Aggregations of 100 or more of listed species for 7 days, results in > 700 waterfowl use days • Areas with annual staging of ruddy ducks, canvasbacks, and redheads are SWH • Wetland area and shorelines associated with sites identified within the Significant Wildlife Habitat Technical Guide (SWHTG) (MNRF 2000) Appendix K are SWH	No suitable habitat; None of the listed species observed
3. Shorebird Migratory Stopover Area			
Greater Yellowlegs Lesser Yellowlegs Marbled Godwit Hudsonian Godwit Black-bellied Plover American Golden-Plover Semipalmated Plover Solitary Sandpiper Spotted Sandpiper Semipalmated Sandpiper Pectoral Sandpiper	BBO1 BBO2 BBS1 BBS2 BBT1 BBT2 SDO1 SDS2 SDT1 MAM1 MAM2	*Suitable Habitat* • Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats • Great Lakes coastal shorelines, including groynes and other forms of armour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and early July to October. Sewage treatment ponds and storm water ponds do not qualify as a SWH *Suggested Criteria* • Presence of 3 or more of listed species and > 1000 shorebird use days during spring or fall migration period (shorebird use days are the accumulated number of shorebirds counted per day over the course of the fall or spring migration period)	No suitable habitat; None of the listed species observed

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 7E*	Application to the Subject Property and Adjacent Lands
White-rumped Sandpiper Baird's Sandpiper Least Sandpiper Purple Sandpiper Stilt Sandpiper Short-billed Dowitcher Red-necked Phalarope Whimbrel Ruddy Turnstone Sanderling Dunlin	MAM3 MAM4 MAM5	• Whimbrel stop briefly (<24hrs) during spring migration, any site with >100 Whimbrel used for 3 years or more is significant • The area of significant shorebird habitat includes the mapped ELC shoreline ecosites plus a 100 m radius area	
4. Raptor Wintering Area			
Rough-legged Hawk Red-tailed Hawk Northern Harrier American Kestrel Snowy Owl Short-eared Owl Bald Eagle	<u>Hawks/Owls:</u> Combination of ELC Community Series; need to have present one Community Series from each land class; Forest: FOD, FOM, FOC. Upland: CUM, CUT, CUS, CUW. <u>Bald Eagle:</u> Forest Community Series: FOD, FOM, FOC, SWD, SWM, or SWC on shoreline areas adjacent to large rivers to adjacent to lakes with open water (hunting area).	*Suitable Habitat* • The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors • Raptor wintering (hawk/owl) sites need to be > 20 ha with a combination of forest and upland *Suggested Criteria* Studies confirm the use of these habitats by: • One or more Short-eared Owls or; One of more Bald Eagles or at least 10 individuals and two listed hawk/owl species • To be significant a site must be used regularly (3 in 5 years) for a minimum of 20 days by the above number of birds The habitat area for an Eagle winter site is the shoreline forest ecosites directly adjacent to the prime hunting area	Not suitable habitat. None of the listed species observed.
5. Bat Hibernacula			
Big Brown Bat Tri-colored Bat	Bat Hibernacula may be in the Ecosites: CCR1 CCR2 CCA1 CCA2	*Suitable Habitat* • Hibernacula may be found in caves, mine shafts, underground foundations and Karsts *Suggested Criteria* • All sites with confirmed hibernating bats are SWH • The area includes 200m radius around the entrance of the hibernaculum for most development types and for wind farms (Note: buildings are not to be considered SWH)	No suitable habitat
6. Bat Maternity Colonies			
Big Brown Bat Silver-haired Bat	Maternity Colonies considered for SWH are found in forested Ecosites. All ELC Ecosites in ELC Community Series: FOD FOM SWD SWM	*Suitable Habitat* • Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH) • Maternity colonies located in mature deciduous or mixed forest stands with >10/ha large diameter (>25cm dbh) wildlife trees • Female bats prefer wildlife tree (snags) in early stages of decay, class 1-3 or class 1 or 2 • Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred *Suggested Criteria* • Maternity colonies with confirmed use by; – >10 Big Brown Bats – >5 Adult Female Silver-haired Bats The area of the habitat includes the entire woodland or the forest stand ELC ecosite or an ecoelement containing the maternity colonies	Potentially suitable habitat associated with forest ecosites

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 7E*	Application to the Subject Property and Adjacent Lands
7. Turtle Wintering Areas			
Midland Painted Turtle Northern Map Turtle Snapping Turtle	Snapping and Midland Painted Turtles: ELC Community Classes; SW, MA, OA and SA, ELC Community Series; FEO and BOO. Northern Map Turtles: Open Water areas such as deeper rivers, or streams and lakes with current can also be used as over-wintering habitat.	*Suitable Habitat* • For most turtles, wintering areas are in the same general area as their core habitat. Water has to be deep enough not to freeze and have soft mud substrates • Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen • Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH *Suggested Criteria* • Presence of 5 over-wintering Midland Painted Turtles is significant • One or more Northern Map Turtle or Snapping Turtle over-wintering within a wetland is significant • The mapped ELC ecosite area with the over wintering turtles is the SWH If the hibernation site is within a stream or river, the deep-water pool where the turtles are over wintering is the SWH	No suitable habitat.
8. Reptile Hibernaculum			
Eastern Gartersnake Northern Water Snake Northern Red-bellied Snake Northern Brownsnake Smooth Green Snake Northern Ring-necked Snake Milksnake Eastern Ribbonsnake Five-lined Skink	For all snakes, habitat may be found in any ecosite other than very wet ones. Talus, Tock Barren, Crevice, Cave and Alvar may be directly related to these habitats. Observations or congregations of snakes on sunny warm days in the spring or fall is a good indicator. For Five-lined Skink, ELC Community Series of FOD and FOM and ecosite: FOC1 and FOC3.	*Suitable Habitat* • For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural locations • The existence of features that go below frost line; such as rock piles or slopes, old stone fences, and abandoned crumbling foundations assist in identifying Candidate SWH • Areas of broken and fissured rock are particularly valuable since they provide access to subterranean sites below the frost • Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover • For five-lined Skink, Community Series FOD and FOM, and FOC1 and FOC3 should be considered. They prefer mixed forests with rock outcrop openings with cover rock overlaying granite bedrock with fissures *Suggested Criteria* Studies confirming: • Presence of snake hibernacula used by a minimum of five individuals of a snake sp. or; individuals of two or more snake spp. • Congregations of a minimum of five individuals of a snake sp. or; individuals of two or more snake spp. near potential hibernacula (e.g., foundation or rocky slope) on sunny warm days in spring	Not suitable habitat.
9. Colonially-Nesting Bird Breeding Habitat (Bank and Cliff)			
Cliff Swallow Northern Rough-winged Swallow (this species is not colonial but can be found in Cliff Swallow colonies)	Eroding banks, sandy hills, steep slopes and sand piles. Cliff faces, bridge abutments, silos and barns. Habitat found in the following ecosites: CUM1 CLO1 CUT1 CLS1 CUS1 CLT1 BLO1 BLS1 BLT1	*Suitable Habitat* • Any site or areas with exposed soil banks, undisturbed or naturally eroding that is not a licensed/permitted aggregate area • Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such as berms, embankments, soil or aggregate stockpiles • Does not include a licensed/permitted Mineral Aggregate Operation *Suggested Criteria* Studies confirming: • Presence of 1 or more nesting sites with 8 or more cliff swallow pairs or 50 Bank Swallow and/or Rough-winged Swallow pairs during the breeding season A colony identified as SWH will include a 50m radius habitat area from the peripheral nests	No suitable habitat.
10. Colonially-Nesting Bird Breeding Habitat (Tree/Shrubs)			
Great Blue Heron Black-crowned Night-Heron Great Egret Green Heron	SWM2 SWM3 SWM5 SWM6 SWD1 SWD2 SWD3 SWD4	*Suitable Habitat* • Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used • Most nests in trees are 11 to 15 m from ground, near the top of the tree *Suggested Criteria* Studies confirming: • Presence of 2 or more active nests of Great Blue Heron or other listed species	No suitable habitat

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 7E*	Application to the Subject Property and Adjacent Lands
	SWD5 SWD6 SWD7 FET1	The habitat extends from the edge of the colony and a minimum 300m radius or extent of the forest ecosite containing the colony or any island <15.0 ha with a colony is the SWH	
11. Colonially-Nesting Bird Breeding Habitat (Ground)			
Herring Gull Great Black-backed Gull Little Gull Ring-billed Gull Common Tern Caspian Tern Brewer's Blackbird	Any rocky island to peninsula (natural or artificial) with a lake or larger river. Close proximity or watercourses in open fields or pastures with scattered trees or shrubs (Brewer's Blackbird). MAM1-6 MAS1-3 CUM CUT CUS	*Suitable Habitat* • Nesting colonies of gulls and terns are on islands or peninsulas associated with open water or in marshy areas • Brewers Blackbird colonies are found loosely on the ground in or in low bushes in close proximity to streams and irrigation ditches within farmlands *Suggested Criteria* Studies confirming: • Presence of >25 active nests for Herring Gulls or Ring-billed Gulls, >5 active nests for Common Tern or >2 active nests for Caspian Tern • Any active nesting colony of one or more Little Gull, and Great Black-backed Gull is significant • Presence of 5 or more pairs for Brewer's Blackbird • The edge of the colony and a minimum 150m area of habitat, or the extent of the ELC ecosites containing the colony or any island <3.0ha with a colony is the SWH	No suitable habitat
12. Migratory Butterfly Stopover Areas			
Painted Lady Red Admiral Monarch	Combination of ELC Community Series; need to have present one Community Series from each land class: <u>Field:</u> CUM CUT CUS <u>Forest:</u> FOC FOD COM CUP A candidate site will have a history of butterflies being observed.	*Suitable Habitat* • A butterfly stopover area will be a minimum of 10 ha in size with a combination of field and forest habitat present, and will be located within 5 km of Lake Ontario or Lake Erie • The habitat is typically a combination of field and forest, and provides the butterflies with a location to rest prior to their long migration south • The habitat should not be disturbed, fields/meadows with an abundance of preferred nectar plants and woodland edge providing shelter are requirements for this habitat • Staging areas usually provide protection from the elements and are often spits of land or areas with the shortest *Suggested Criteria* Studies confirm: • The presence of Monarch Use Days (MUD) during fall migration (Aug/Oct). MUD is based on the number of days a site is used by Monarchs, multiplied by the number of individuals using the site. • Numbers of butterflies can range from 100-500/day - significant variation can occur between years and multiple years of sampling should occur MUD of >5000 or >3000 with the presence of Painted Ladies or Red Admirals is to be considered significant	No suitable habitat.
13. Landbird Migratory Stopover Areas			
All migratory songbirds	All Ecosites associated with the ELC Community Series; FOC FOM FOD SWC SWM SWD	*Suitable Habitat* • Woodlots >10 ha in size and within 5 km of Lake Ontario and Lake Erie • If multiple woodlands are located along the shoreline those Woodlands <2 km from Lake Erie or Ontario are more significant • Sites have a variety of habitats; forest, grassland and wetland complexes • The largest sites are more significant • Woodlots and forest fragments are important habitats to migrating birds, these features located along the shore and located within 5km of Lake Ontario are Candidate SWH *Suggested Criteria* Studies confirm: • Use of the woodlot by >200 birds/day and with >35 species with at least 10 bird spp. recorded on at least 5 different survey dates	Does not occur as the subject property is over 5 km from Lake Ontario.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 7E*	Application to the Subject Property and Adjacent Lands
		This abundance and diversity of migrant bird species is considered above average and significant	
14. Deer Yarding Areas			
White-tailed Deer	*Note: MNRF to determine this habitat.* ELC Community Series providing a thermal cover component for a deer yard would include: FOD, FOC, SWM and SWC. Or ELC Ecosites: CUP2, CUP3, FOD3 and CUT	*Suitable Habitat* • Deer yarding areas or winter concentration areas (yards) are areas deer move to in response to the onset of winter snow and cold. Deer establish traditional use areas with two areas called Stratum I and Stratum II • Stratum II covers entire winter yard and is usually in FOD or FOM (or agricultural lands) where browsing can occur. Deer move here in early winter, and will continue to stay here until snow depths reach about 30 cm. • Stratum I is the core of a deer yard, and is found within the Stratum II, and is critical for deer survival in areas where winter is severe. It is primarily coniferous trees with a canopy cover of at least 60% *Suggested Criteria* Studies confirm: • Snow depth and temperature or the greatest influence on deer use of winter yards. Snow depths of >40 cm for more than 60 days are minimum criteria for a deer yard to be considered as SWH • Deer management is an MNRF responsibility, and they field investigations (by aircraft over a series of winters to establish boundaries of Stratum I and II. Deer yarding areas considered significant will be mapped by MNRF If SWH is determined for deer wintering area or if a proposed development is within Stratum II yard areas, then movement corridors are to be considered	This type of habitat has not been identified by MNR on or adjacent tot property.
15. Deer Winter Congregation Areas			
White-tailed Deer	All Forested Ecosites with these ELC Community Series: FOC FOM FOD SWC SWM SWD Conifer Plantations much smaller than 50 ha may also be used.	*Suitable Habitat* • Woodlots >100 ha in size. Woodlots <100 ha may be considered significant based on MNRF studies or assessment • Deer movement during winter in Ecoregion 6E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands • Large woodlots > 100 ha and up to 1500 ha are known to be used annually by densities of deer that range from 0.1-1.5 deer/ha • Woodlots with high densities of deer due to artificial feeding are not significant *Suggested Criteria* Studies confirm: • Deer management is an MNRF responsibility, deer winter congregation areas considered significant will be mapped by MNRF • Use of the woodlot by white-tailed deer will be determined by MNRF, all woodlots exceeding the area criteria are significant, unless determined not to be significant by MNRF If SWH is determined for deer wintering area or if a proposed development is within Stratum II yard areas, then movement corridors are to be considered	This type of habitat has not been identified by MNR on or adjacent tot property.
Rare Vegetation Communities			
16. Cliffs and Talus Slopes			
ELC Communities: TAO, TAS, TAT, CLO, CLS, CLT		• A Cliff is vertical to near vertical bedrock >3m in height • A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris • Most cliff and talus slopes occur along the Niagara Escarpment	Does not occur on the subject property
17. Sand Barren			
ELC Communities: SBO1, SBS1, BT1		• Sand Barrens typically are exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion • Usually located within other types of natural habitat such as forest or savannah • Vegetation can vary from patchy and barren to tree covered but less than 60%	Does not occur on the subject property

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities	Provincial Guidance for SWH in Ecoregion 7E*	Application to the Subject Property and Adjacent Lands
	Suggested Criteria • A sand barren area >0.5ha in size • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics).	
18. Alvar		
Field studies identify four of the five Alvar indicator species within ELC communities: ALO1, ALS, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2	• An alvar is typically a level, mostly unfractured calcareous bedrock feature with a mosaic of rock pavements and bedrock overlain by a thin veneer of soil • The hydrology of alvars is complex, with alternating periods of inundation and drought • Vegetation cover varies from sparse lichen-moss associations to grasslands and shrublands and comprising a number of characteristic or indicator plant • Undisturbed alvars can be phyto- and zoogeographically diverse, supporting many uncommon or are relict plant and animal species • Vegetation cover varies from patchy to barren with a less than 60% tree cover *Suggested Criteria* • An Alvar site > 0.5 ha in size • Five indicator species specific to alvars within Ecoregion 6E: *1) Carex crawei 2) Panicum philadelphicum 3) Eleocharis compressa 4) Scutellaria parvula 5) Trichostema brachiatum* • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics) • The Alvar must be in excellent condition and fit in with surrounding landscape with few conflicting land uses	Does not occur on the subject property
19. Old Growth Forest		
ELC Communities: FOD FOC FOM SWD SWC SWM	• Old-growth forests are characterized by heavy mortality or turnover of over-storey trees resulting in a mosaic of gaps that encourage development of a multi-layered canopy and an abundance of snags and downed woody debris *Suggested Criteria* • Woodland area is >30 ha with at least 10 ha of interior habitat • If dominant trees species of the ecosite are >140 years old, then stand is SWH • The forested area containing the old growth characteristics will have experienced no recognizable forestry activities (cut stumps will not be present) • The area of forest ecosites combined or an eco-element within an ecosite that contain the old growth characteristics is the SWH	Does not occur on the subject property.
20. Savannah		
ELC Communities: TPS1 TPS2 TPW1 TPW2 CUS2	• A Savannah is a tallgrass prairie habitat that has tree cover between 25 – 60% *Suggested Criteria* • No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH • Field studies confirm one or more of the Prairie indicator species listed in Appendix N should be present. Note: Savannah plant spp. list from Ecoregion 6E should be used • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics)	Does not occur on the Subject Property
21. Tallgrass Prairie		
ELC Communities: TPO1 TPO2	• A Tallgrass Prairie has ground cover dominated by prairie grasses. An open Tallgrass Prairie habitat has < 25% tree cover • In ecoregion 6E, known Tallgrass Prairie and savannah remnants are scattered between Lake Huron and Lake Erie, near Lake St. Clair, north of and along the Lake Erie shoreline, in Brantford and in the Toronto area (north of Lake Ontario) *Suggested Criteria* • No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH • ELC communities TPO1, TPO2 • Field studies confirm one or more of the Prairie indicator species listed in Appendix N in SWHTG (MNRF 2000) should be present. Prairie plant spp. list from Ecoregion 6E should be used • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics)	Does not occur on the Subject Property

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 7E*	Application to the Subject Property and Adjacent Lands
22. Other Rare Vegetation Communities			
		• Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG (MNRF 2000) • Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps • ELC Ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in SWHTG (MNRF 2000) Appendix M • The MNRF/NHIC will have up to date listing for rare vegetation communities	Does not occur on the Subject Property
Specialized Habitat for Species			
23. Waterfowl Nesting Area			
American Black Duck Northern Pintail Northern Shoveler Gadwall Blue-winged Teal Green-winged Teal Wood Duck Hooded Merganser Mallard	All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH: MAS1, MAS2, MAS3 SAS1, SAM1, SAF1 MAM1, MAM2, MAM3, MAM4, MAM5, MAM6 SWT1, SWT2, SWD1, SWD2, SWD3, SWD4 Note: Includes adjacency to Provincially Significant Wetlands	*Suitable Habitat* • A waterfowl nesting area extends 120 m from a wetland (> 0.5 ha) or a wetland (>0.5 ha) with small wetlands (<0.5ha) within 120m or a cluster of 3 or more small (<0.5 ha) wetlands within 120 m of each individual wetland where waterfowl nesting is known to occur • Upland areas should be at least 120m wide so that predators such as racoons, skunks, and foxes have difficulty finding nests *Suggested Criteria* Studies confirm: • Presence of 3 or more nesting pairs for listed species excluding Mallards, or presence of 10 or more nesting pairs for listed species including Mallards • Any active nesting site of an American Black Duck is considered significant Wood Ducks and Hooded Mergansers utilize large diameter trees (>40 cm dbh) in woodlands for cavity nest sites	Suggested criteria not satisfied, none of the noted species were encountered on the subject property.
24. Bald Eagle and Osprey Nesting, Foraging and Perching Habitat			
Osprey Bald Eagle	ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM, SWC directly adjacent to riparian areas - rivers, lakes, ponds and wetlands.	*Suitable Habitat* • Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water • Osprey nests are usually at the top a tree whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree's canopy • Nests located on man-made objects are not to be included as SWH (e.g. telephone poles and constructed nesting platforms) *Suggested Criteria Studies confirm the use of these nests by:* • One or more active Osprey or Bald Eagle nests in an area • Some species have more than one nest in a given area and priority is given to the primary nest with alternate nests included within the area of the SWH • For an Osprey, the active nest and a 300 m radius around the nest or the contiguous woodland stand is the SWH [ccvii], maintaining undisturbed shorelines with large trees within this area is important • For a Bald Eagle the active nest and a 400-800 m radius around the nest is the SWH. Area of the habitat from 400-800m is dependent on site lines from the nest to the development and inclusion of perching and foraging habitat To be significant a site must be used annually. When found inactive, the site must be known to be inactive for >3 years or suspected of not being used for >5 years before being considered not significant	Osprey and Bald Eagle were absent during the 2023 breeding bird season and not anticipated to breed in this location.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 7E*	Application to the Subject Property and Adjacent Lands
25. Woodland Raptor Nesting Habitat			
Northern Goshawk Cooper's Hawk Sharp-shinned Hawk Red-shouldered Hawk Barred Owl Broad-winged Hawk	May be found in all forested ELC Ecosites. May also be found in: SWC SWM SWD CUP3	*Suitable Habitat* • All natural or conifer plantation woodland/forest stands combined >30ha or with >4 ha of interior habitat; interior habitat determined with a 200 m buffer • Stick nests found in a variety of intermediate-aged to mature conifer, deciduous or mixed forests within tops or crotches of trees. Species such as Coopers hawk nest along forest edges sometimes on peninsulas or small off-shore island • In disturbed sites, nests may be used again, or a new nest will be in close proximity to old nest *Suggested Criteria* Studies confirm: • Presence of 1 or more active nests from species list is considered significant • Red-shouldered Hawk and Northern Goshawk **–** a 400m radius around the nest or 28 ha of suitable habitat is the SWH. (the 28 ha habitat area would be applied where optimal habitat is irregularly shaped around the nest) • Barred Owl **–** a 200m radius around the nest is the SWH • Broad-winged Hawk and Coopers Hawk,**–** a 100m radius around the nest is the SWH Sharp-Shinned Hawk **–** a 50m radius around the nest is the SWH	Potentially suitable habitat associated with ELC unit 5 and contiguous forest areas off-site; However, no raptors were identified on the subject property.
26. Turtle Nesting Areas			
Midland Painted Turtle Northern Map Turtle Snapping Turtle	Exposed mineral soil (sand or gravel) areas adjacent (<100 m) to within the following Ecosites: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 BOO1 FEO1	*Suitable Habitat* • Best nesting habitat for turtles are close to water and away from roads and sites less prone to loss of eggs by predation from skunks, raccoons or other animals • For an area to function as a turtle-nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas • Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH • Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used *Suggested Criteria* Studies confirm: • Presence of 5 or more nesting Midland Painted Turtles • One or more Northern Map Turtle or Snapping Turtle nesting • The area or collection of sites within an area of exposed mineral soils where the turtles nest, plus a radius of 30-100m around the nesting area dependant on slope, riparian vegetation and adjacent land use is the SWH Travel routes from wetland to nesting area are to be considered within the SWH	No exposed mineral soils were observed on the property in proximity to wetlands.
27. Seeps and Springs			
Wild Turkey Ruffed Grouse Spruce Grouse White-tailed Deer Salamander spp.	Seeps and springs are areas where ground water comes to the surface. Often, they are found within headwater areas within forested habitats. Any forested Ecosite within headwater areas of a stream could have seeps/springs.	*Suitable Habitat* • Any forested area (with <25% meadow/field/pasture) within the headwaters of a stream or river system (could contain a seep or spring - areas where ground water comes to the surface) • Seeps and springs are important feeding and drinking areas especially in the winter will typically support a variety of plant and animal species • The protection of the recharge area considering the slope, vegetation, height of trees and groundwater condition need to be considered in delineation the habitat *Suggested Criteria* Studies confirm: • Presence of a site with 2 or more seeps/springs should be considered SWH The area of an ELC forest ecosite containing the seeps/springs is the SWH	No seeps or springs were identified on the subject property.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 7E*	Application to the Subject Property and Adjacent Lands
28. Amphibian Breeding Habitat (Woodland)			
Eastern Newt Blue-spotted Salamander Spotted Salamander Gray Treefrog Spring Peeper Western Chorus Frog Wood Frog	All Ecosites associated within these ELC Community Series: FOC, FOM, FOD, SWC, SWM, SWD Breeding pools within the woodland or the shortest distance from the forest habitat are more significant because they are more likely to be used due to reduced risk to migrating amphibians.	*Suitable Habitat* • Presence of a wetland, pond, or woodland pool within or adjacent (within 120m) to a woodland (no minimum size) • Some small wetlands may not be mapped and may be important breeding pools for amphibians • Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat *Suggested Criteria* Studies confirm: Presence of breeding population of 1 or more of the listed salamander species or 2 or more of the listed frog species with at least 20 individuals (adults, juveniles, eggs/larval masses) or 2 or more of the listed frog species with Call Level Codes of 3	Thresholds for significance was not met for anuran breeding based on call survey results.
29. Amphibian Breeding Habitat (Wetland)			
Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	Classes SW, MA, FE, BO, OA and SA. Typically, these wetland Ecosites will be isolated >120 m) from woodland ecosites, however larger wetlands containing predominantly aquatic species (e.g. Bullfrog) may be adjacent to woodland.	*Suitable Habitat* • Wetlands >500 m^2 (about 25 m diameter) supporting high species diversity are significant • Some small or ephemeral habitats may not be identified on MNRF mapping and could be important amphibian breeding habitats • Presence of shrubs and logs increase significance of pond for some amphibian species because of available structure for calling, foraging, escape and concealment from predators • Bullfrogs require permanent water bodies with abundant emergent vegetation *Suggested Criteria* Studies confirm: • Presence of breeding population of 1 or more of the listed newt/salamander species or 2 or more of the listed frog or toad species and with at least 20 individuals (adults, juveniles, eggs/larval masses) or 2 or more of the listed frog species with Call Level Codes of 3 The ELC ecosite wetland area and the shoreline are the SWH	Thresholds for significance was not met for anuran breeding based on call survey results.
30. Woodland Area-Sensitive Bird Breeding Habitat			
Yellow-bellied Sapsucker Red-breasted Nuthatch Veery Blue-headed Vireo Northern Parula Black-throated Green Warbler Blackburnian Warbler Black-throated Blue Warbler Ovenbird Scarlet Tanager Winter Wren Cerulean Warbler Canada Warbler	All Ecosites associated with these ELC Community Series: FOC FOM FOD SWC SWM SWD	*Suitable Habitat* • Habitats where interior forest breeding birds are breeding • Typically large mature (>60 yrs old) forest stands or woodlots >30 ha • Interior forest habitat is at least 200 m from forest edge habitat *Suggested Criteria* Studies confirm: • Presence of nesting or breeding pairs of 3 or more of the listed wildlife species. Any site with breeding Cerulean Warblers or Canada Warblers is to be considered SWH	None of the listed species were identified on the subject property. No interior forest habitat at least 200 m from the forest edge is present.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 7E*	Application to the Subject Property and Adjacent Lands
Habitat for Species of Conservation Concern			
31. Marsh Bird Breeding Habitat			
American Bittern Virginia Rail Sora Common Moorhen American Coot Pied-billed Grebe Marsh Wren Sedge Wren Common Loon Sandhill Crane Green Heron Trumpeter Swan Black Tern Yellow Rail	MAM 1 MAM2 MAM3 MAM4 MAM5 MAM6 SAS1 SAM1 SAF1 FEO1 BOO1 For Green Heron: All SW, MA and CUM1 sites.	*Suitable Habitat* • Nesting occurs in wetlands • All wetland habitat is to be considered as long as there is shallow water with emergent aquatic vegetation present • For Green Heron, habitat is at the edge of water such as sluggish streams, ponds and marshes sheltered by shrubs and trees. Less frequently, it may be found in upland shrubs or forest a considerable distance from water *Suggested Criteria* Studies confirm: • Presence of 5 or more nesting pairs of Sedge Wren or Marsh Wren or breeding by any combination of 4 or more of the listed species • Note: any wetland with breeding of 1 or more Trumpeter Swans, Black Terns or Yellow Rail is SWH • Area of the ELC ecosite is the SWH	None of the listed species were identified during field investigations.
32. Open Country Bird Breeding Habitat			
Upland Sandpiper Grasshopper Sparrow Vesper Sparrow Northern Harrier Savannah Sparrow Short-eared Owl	CUM1 CUM2	*Suitable Habitat* • Large grassland areas (includes natural and cultural fields and meadows) >30 ha • Grasslands not Class 1 or 2 agricultural lands, and not being actively used for farming (i.e. no row cropping or intensive hay or livestock pasturing in the last 5 years) • Grassland sites considered significant should have a history of longevity, either abandoned fields, mature hayfields and pasturelands that are at least 5 years or older • The Indicator bird species are area sensitive requiring larger grassland areas than the common grassland species *Suggested Criteria* Field Studies confirm: • Presence of nesting or breeding of 2 or more of the listed species • A field with 1 or more breeding Short-eared Owls is to be considered SWH. The area of SWH is the contiguous ELC ecosite field areas	No suitable habitat
33. Shrub/Early Successional Bird Breeding Habitat			
<u>Indicator Species</u>: Brown Thrasher Clay-coloured Sparrow <u>Common Species:</u> Field Sparrow Black-billed Cuckoo Eastern Towhee Willow Flycatcher <u>Special Concern:</u> Yellow-breasted Chat Golden-winged Warbler	CUT1 CUT2 CUS1 CUS2 CUW1 CUW2 Patches of shrub ecosites can be complexed into a larger habitat for some bird species.	*Suitable Habitat* • Large natural field areas succeeding to shrub and thicket habitats >10ha in size. Shrub land or early successional fields, not class 1 or 2 agricultural lands, not being actively used for farming (i.e. no row-cropping, haying or live-stock pasturing in the last 5 years) • Shrub thicket habitats (>10 ha) are most likely to support and sustain a diversity of these species • Shrub and thicket habitat sites considered significant should have a history of longevity, either abandoned fields or pasturelands *Suggested Criteria* Field Studies confirm: • Presence of nesting or breeding of 1 of the indicator species and at least 2 of the common species • A habitat with breeding Yellow-breasted Chat or Golden-winged Warbler is to be considered as Significant Wildlife Habitat The area of the SWH is the contiguous ELC ecosite field/thicket area	Only one common species, Willow Flycatcher, was observed n the subject property. There are no shrub thickets or cultural woodlands over 10 ha in site. Suggested criteria not satisfied.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 7E*	Application to the Subject Property and Adjacent Lands
34. Terrestrial Crayfis7			
Chimney or Digger Crayfish (*Fallicambarus fodiens*) Devil Crawfish or Meadow Crayfish (*Cambarus Diogenes*)	MAM1, MAM2, MAM3, MAM4, MAM5, MAM6 MAS1, MAS2, MAS3 SWD, SWT, SWM CUM1 within inclusions of above meadow marsh or swamp ecosites can be used by terrestrial crayfish.	*Suitable Habitat* • Wet meadow and edges of shallow marshes (no minimum size) identified should be surveyed for terrestrial crayfish • Constructs burrows in marshes, mudflats, meadows; the ground can't be too moist • Can often be found far from water • Both species are a semi-terrestrial burrower which spends most of its life within burrows consisting of a network of tunnels; usually the soil is not too moist so that the tunnel is well formed *Suggested Criteria* Studies Confirm: • Presence of 1 or more individuals of species listed or their chimneys (burrows) in suitable marsh meadow or terrestrial sites Area of ELC Ecosite polygon is the SWH	No evidence of Terrestrial Crayfish was documented during field studies.
35. Special Concern and Rare Wildlife Species			
		• All Special Concern and Provincially Rare (S1-S3, SH) plant and animal species • When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or provincially rare species • Linking candidate habitat on the site needs to be completed to ELC Ecosites *Suggested Criteria* Studies confirm: • Assessment/inventory of the site for the identified special concern or rare species needs to be completed during the time of year when the species is present or easily identifiable • Habitat form and function needs to be assessed from the assessment of ELC vegetation types and an area of significant habitat that protects the rare or special concern species identified • The area of the habitat to the finest ELC scale that protects the habitat form and function is the SWH; this must be delineated through detailed field studies • The habitat needs be easily mapped and cover an important life stage component for a species (e.g. specific nesting habitat or foraging habitat)	
Animal Movement Corridors			
36. Amphibian Movement Corridors			
Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog		• Amphibian movement corridors should only be identified as SWH where a confirmed or Candidate SWH has been identified by MNRF or the planning authority • Movement corridors between breeding habitat and summer habitat • Movement corridors must be considered when amphibian breeding habitat is confirmed as SWH • Field Studies must be conducted at the time of year when species are expected to be migrating or entering breeding sites • Corridors should consist of native vegetation, with several layers of vegetation • Corridors unbroken by roads, waterways or bodies, and undeveloped areas are most significant • Corridors should be at least 15 m of vegetation on both sides of waterway or be up to 200 m wide of woodland habitat and with gaps <20 m • Shorter corridors are more significant than longer corridors, however amphibians must be able to get to and from their summer and breeding habitat	Wetlands and drainage features within the site may facilitate the movement of amphibians within the subject property.

* Adapted from the listed species and habitat criteria provided in the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF 2015) but updated to reflect any relevant changes in species status. For example, Tri-coloured Bat (Perimyotis subflavus) is now listed as Threatened so needs to be addressed as a Species at Risk under the Endangered Species Act (2007) and not under SWH.

Committee of Adjustment
City Hall, 5th Floor,
71 Main St. W.,
Hamilton, ON L8P4Y5

Phone: (905) 546-2424 ext. 4221
Email: cofa@hamilton.ca

APPLICATION FOR CONSENT TO SEVER LAND
and VALIDATION OF TITLE
UNDER SECTION 53 & 57 OF THE *PLANNING ACT*

Please see additional information regarding how to submit an application, requirements for the required sketch and general information in the Submission Requirements and Information.

1. APPLICANT INFORMATION

	NAME	MAILING ADDRESS	
Purchaser*			**Phone:** **E-mail:**
Registered Owners(s)	C. Valery Construction Limited	[redacted]	
Applicant(s)**	C. Valery Construction Limited		
Agent or Solicitor	Bousfields Inc. c/o David Falletta c/o Brynne O'Neill		

*Purchaser must provide a copy of the portion of the agreement of purchase and sale that authorizes the purchaser to make the application in respect of the land that is the subject of the application.
** Owner's authorisation required if the applicant is not the owner or purchaser.

1.2 Primary contact ☐ Purchaser ☐ Owner ☑ Applicant ☑ Agent/Solicitor

1.3 Sign should be sent to ☐ Purchaser ☐ Owner ☑ Applicant ☑ Agent/Solicitor

1.4 Request for digital copy of sign ☑ Yes* ☐ No
If YES, provide email address where sign is to be sent [redacted]

1.5 All correspondence may be sent by email ☑ Yes* ☐ No
If Yes, a valid email must be included for the registered owner(s) AND the Applicant/Agent (if applicable). Only one email address submitted will result in the voiding of this service. This request does not guarantee all correspondence will sent by email.

1.6 Payment type ☐ In person ☐ Credit over phone*
☑ Cheque

*Must provide number above

2. LOCATION OF SUBJECT LAND

2.1 Complete the applicable sections:

Municipal Address	0 Weirs Lane, Flamborough (municipal address not assigned at time of		
Assessment Roll Number	251830211031350		
Former Municipality	Flamborough		
Lot	5	Concession	1
Registered Plan Number	n/a	Lot(s)	n/a
Reference Plan Number (s)	62R-12679	Part(s)	1, 2

2.2 Are there any easements or restrictive covenants affecting the subject land?
☐ Yes ☑ No
If YES, describe the easement or covenant and its effect:

3 PURPOSE OF THE APPLICATION

3.1 Type and purpose of proposed transaction: (check appropriate box)

☑ creation of a new lot(s)
☐ addition to a lot
☐ an easement
☐ validation of title (must also complete section 8)
☐ cancellation (must also complete section 9
☐ creation of a new non-farm parcel (must also complete section 10)
(i.e. a lot containing a surplus farm dwelling
resulting from a farm consolidation)

☐ concurrent new lot(s)
☐ a lease
☐ a correction of title
☐ a charge

3.2 Name of person(s), if known, to whom land or interest in land is to be transferred, leased or charged:

n/a

3.3 If a lot addition, identify the lands to which the parcel will be added:

n/a

3.4 Certificate Request for Retained Lands: ☐ Yes*
* If yes, a statement from an Ontario solicitor in good standing that there is no land abutting the subject land that is owned by the owner of the subject land other than land that could be conveyed without contravening section 50 of the Act. (O. Reg. 786/21)

4 DESCRIPTION OF SUBJECT LAND AND SERVICING INFORMATION

4.1 Description of subject land:

All dimensions to be provided in metric (m, m² or ha), attach additional sheets as necessary.

	Retained (remainder)	Parcel 1	Parcel 2	Parcel 3*	Parcel 4*
Identified on Sketch as:	Retained	Conveyed			
Type of Transfer	N/A	Severance			
Frontage	>150m	~80m			
Depth	irregular	>200m			
Area	33.6ha	0.765ha			
Existing Use	Agriculture	Agriculture			
Proposed Use	Agriculture	Residential			
Existing Buildings/ Structures	n/a	n/a			
Proposed Buildings/ Structures	n/a	n/a			
Buildings/ Structures to be Removed	n/a	n/a			

* Additional fees apply.

4.2 Subject Land Servicing

a) Type of access: (check appropriate box)

- ☐ provincial highway
- ☐ municipal road, seasonally maintained
- ☑ municipal road, maintained all year
- ☐ right of way
- ☐ other public road

b) Type of water supply proposed: (check appropriate box)

- ☑ publicly owned and operated piped water system
- ☐ privately owned and operated individual well
- ☐ lake or other water body
- ☐ other means (specify)

c) Type of sewage disposal proposed: (check appropriate box)

- ☐ publicly owned and operated sanitary sewage system
- ☑ privately owned and operated individual septic system
- ☐ other means (specify) _____

4.3 Other Services: (check if the service is available)

☑ electricity ☑ telephone ☑ school bussing ☑ garbage collection

5 CURRENT LAND USE

5.1 What is the existing official plan designation of the subject land?

Rural Hamilton Official Plan designation (if applicable): Settlement Residential/Natu

Rural Settlement Area: Greensville

Urban Hamilton Official Plan designation (if applicable) n/a

Please provide an explanation of how the application conforms with a City of Hamilton Official Plan.

Refer to cover letter.

5.2 Is the subject land currently the subject of a proposed official plan amendment that has been submitted for approval?

☐ Yes ☑ No ☐ Unknown

If YES, and known, provide the appropriate file number and status of the application.

5.3 What is the existing zoning of the subject land? R2-19, R2-24(H) and CM (By-law 90-145-Z) &

If the subject land is covered by a Minister's zoning order, what is the Ontario Regulation Number?

n/a

5.4 Is the subject land the subject of any other application for a Minister's zoning order, zoning by-law amendment, minor variance, consent or approval of a plan of subdivision?

☐ Yes ☑ No ☐ Unknown

If YES, and known, provide the appropriate file number and status of the application.

n/a

5.5 Are any of the following uses or features on the subject land or within 500 metres of the subject land, unless otherwise specified. Please check the appropriate boxes, if any apply.

Use or Feature	On the Subject Land	Within 500 Metres of Subject Land, unless otherwise specified (indicate approximate distance)
An agricultural operation, including livestock facility or stockyard * Submit Minimum Distance Separation Formulae (MDS) if applicable	☐	
A land fill	☐	
A sewage treatment plant or waste stabilization plant	☐	
A provincially significant wetland	☐	
A provincially significant wetland within 120 metres	☐	
A flood plain	☐	
An industrial or commercial use, and specify the use(s)	☐	
An active railway line	☐	Yes ~ 350m
A municipal or federal airport	☐	

6 HISTORY OF THE SUBJECT LAND

6.1 Has the subject land ever been the subject of an application for approval of a plan of subdivision or a consent under sections 51 or 53 of the *Planning Act*?

☐ Yes ☑ No ☐ Unknown

If YES, and known, provide the appropriate application file number and the decision made on the application.

n/a

6.2 If this application is a re-submission of a previous consent application, describe how it has been changed from the original application.

n/a

6.3 Has any land been severed or subdivided from the parcel originally acquired by the owner of the subject land?

☐ Yes ☑ No

If YES, and if known, provide for each parcel severed, the date of transfer, the name of the transferee and the land use.

n/a

6.4 How long has the applicant owned the subject land?

5+ years

6.5 Does the applicant own any other land in the City? ☑ Yes ☐ No

If YES, describe the lands below or attach a separate page.

Applicant owns multiple parcels of land within the City of Hamilton.

7 PROVINCIAL POLICY

7.1 Is this application consistent with the Policy Statements issued under Section 3 of the *Planning Act*?

☑ Yes ☐ No (Provide explanation)

Refer to cover letter.

7.2 Is this application consistent with the Provincial Policy Statement (PPS)?

☑ Yes ☐ No (Provide explanation)

Refer to cover letter.

7.3 Does this application conform to the Growth Plan for the Greater Golden Horseshoe?

☑ Yes ☐ No (Provide explanation)

Refer to cover letter.

7.4 Are the subject lands subject to the Niagara Escarpment Plan?

☑ Yes ☐ No (Provide explanation)

Refer to cover letter.

7.5 Are the subject lands subject to the Parkway Belt West Plan?

☐ Yes ☑ No (Provide explanation)

n/a

7.6 Are the subject lands subject to the Greenbelt Plan?

☐ Yes ☑ No (Provide explanation)

n/a

7.7 Are the subject lands within an area of land designated under any other provincial plan or plans?

☐ Yes ☑ No (Provide explanation)

n/a

8 ADDITIONAL INFORMATION - VALIDATION

8.1 Did the previous owner retain any interest in the subject land?

☐ Yes ☑ No (Provide explanation)

8.2 Does the current owner have any interest in any abutting land?

☐ Yes ☑ No (Provide explanation and details on plan)

8.3 Why do you consider your title may require validation? (attach additional sheets as necessary)

9 ADDITIONAL INFORMATION - CANCELLATION

9.1 Did the previous owner retain any interest in the subject land?

☐ Yes ☐ No (Provide explanation)

9.2 Does the current owner have any interest in any abutting land?

☐ Yes ☐ No (Provide explanation and details on plan)

9.3 Why do you require cancellation of a previous consent? (attach additional sheets as necessary)

10 ADDITIONAL INFORMATION - FARM CONSOLIDATION

10.1 Purpose of the Application (Farm Consolidation)

If proposal is for the creation of a non-farm parcel resulting from a farm consolidation, indicate if the consolidation is for:

☐ Surplus Farm Dwelling Severance from an Abutting Farm Consolidation

☐ Surplus Farm Dwelling Severance from a Non-Abutting Farm Consolidation

10.2 Location of farm consolidation property:

Municipal Address	n/a		
Assessment Roll Number	n/a		
Former Municipality	n/a		
Lot	n/a	Concession	n/a
Registered Plan Number	n/a	Lot(s)	n/a
Reference Plan Number (s)	n/a	Part(s)	n/a

10.3 Rural Hamilton Official Plan Designation(s)
If proposal is for the creation of a non-farm parcel resulting from a farm consolidation, indicate the existing land use designation of the abutting or non-abutting farm consolidation property.

n/a

10.4 Description of farm consolidation property:

Frontage (m): n/a	Area (m² or ha): n/a

Existing Land Use(s): n/a Proposed Land Use(s): n/a

10.5 Description of abutting consolidated farm (excluding lands intended to be severed for the surplus dwelling)

Frontage (m): n/a	Area (m² or ha): n/a

10.6 Existing Land Use: n/a Proposed Land Use: n/a

10.7 Description of surplus dwelling lands proposed to be severed:

Frontage (m): (from Section 4.1) n/a	Area (m² or ha): (from Section 4.1) n/a

Front yard set back: n/a

a) Date of construction:
☐ Prior to December 16, 2004 ☐ After December 16, 2004

b) Condition:
☐ Habitable ☐ Non-Habitable

11 COMPLETE APPLICATION REQUIREMENTS

11.1 All Applications

- [x] Application Fee
- [x] Site Sketch
- [x] Complete Application Form
- [ ] Signatures Sheet

11.2 Validation of Title

- [ ] All information documents in Section 11.1
- [ ] Detailed history of why a Validation of Title is required
- [ ] All supporting materials indicating the contravention of the Planning Act, including PIN documents and other items deemed necessary.

11.3 Cancellation

- [ ] All information documents in Section 11.1
- [ ] Detailed history of when the previous consent took place.
- [ ] All supporting materials indicating the cancellation subject lands and any neighbouring lands owned in the same name, including PIN documents and other items deemed necessary.

11.4 Other Information Deemed Necessary

- [x] Cover Letter/Planning Justification Report
- [ ] Minimum Distance Separation Formulae (data sheet available upon request)
- [ ] Hydrogeological Assessment
- [ ] Septic Assessment
- [x] Archeological Assessment
- [ ] Noise Study
- [ ] Parking Study