Hamilton

COMMITTEE OF ADJUSTMENT

City Hall, 5th floor, 71 Main Street West, Hamilton, ON L8P 4Y5
Telephone (905) 546-2424, ext. 4221, 3935 Fax (905) 546-4202
E-mail: cofa@hamilton.ca

NOTICE OF PUBLIC HEARING

Application for Consent/Land Severance

APPLICATION NUMBER: **FL/B-20:27**

SUBJECT PROPERTY: **353 11th Con. Rd. E., Flamborough**

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

APPLICANT(S): St. Mary's Cement Inc. c/o David Hanratty

PURPOSE OF APPLICATION: To permit the conveyance of a parcel of land and to retain a parcel of land.

To be heard in conjunction with FL/B-20:28 and FL/A-20:104.

Severed lands:
Lot 1: 250m± x variable and an area of 29.3 ha±
Lot 5: 315m± x variable and an area of 17.5ha±

Retained lands: (Lots 2,3 and 4)
1375m± x variable and an area of 167.3 ha±

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

DATE: **Thursday, July 23rd, 2020**
TIME: **2:10 p.m.**
PLACE: **Via video link or call in (see attached sheet for details)**
To be streamed at www.hamilton.ca/committeeofadjustment
for viewing purposes only

PUBLIC INPUT

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

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

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MORE INFORMATION

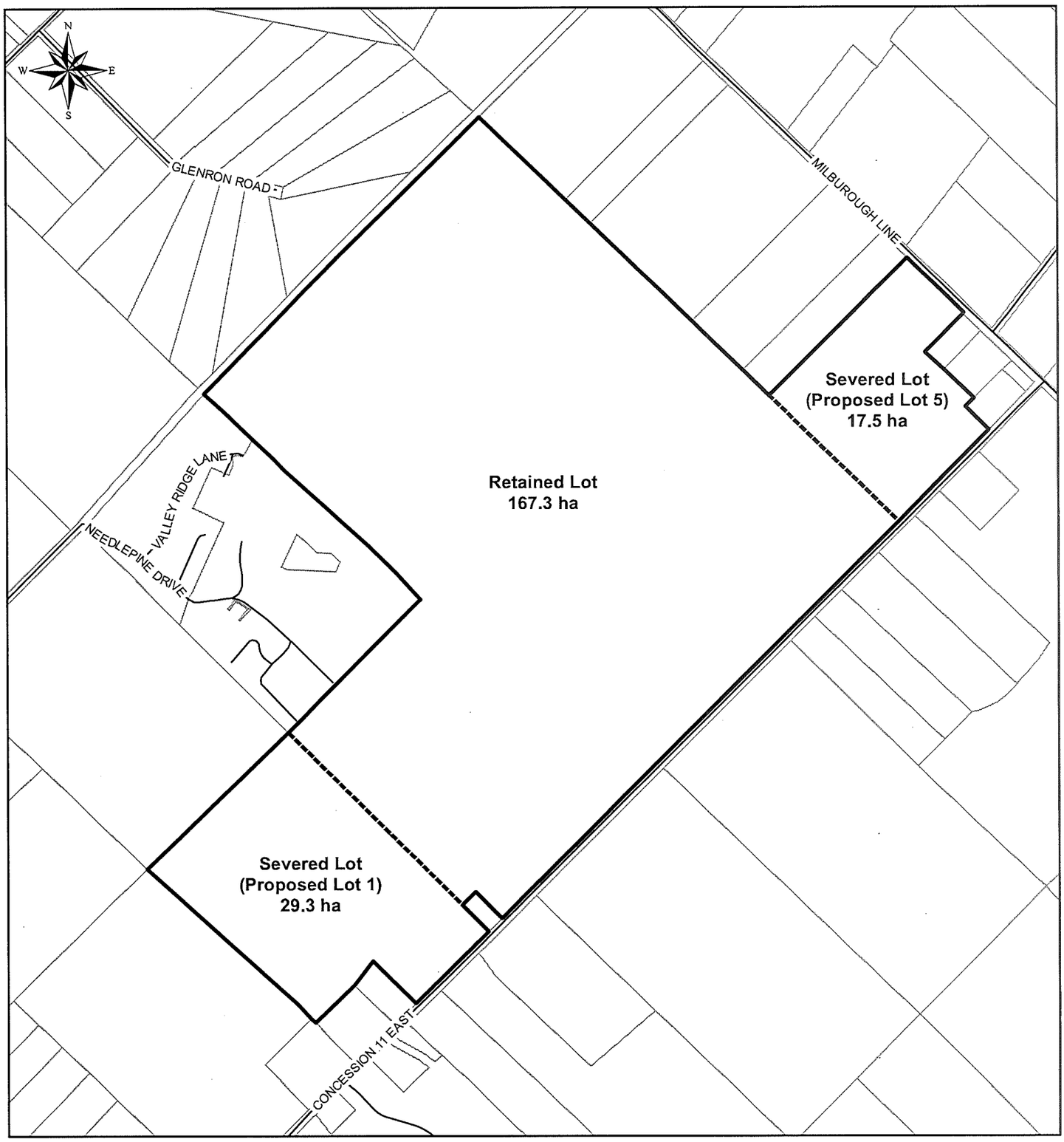
For more information on this matter, including access to drawings illustrating this request:

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

DATED: July 7th, 2020

Jamila Sheffield,
Secretary-Treasurer
Committee of Adjustment

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



Severance Sketch
Consent Application # 1

CBM Flamborough
Part Lots 1-5, Concession 11
East Flamborough
City of Hamilton

Legend

Subject Lands

Proposed Lot Severance Line

DATE March 19, 2020

SOURCES

Lot 3 configuration based on Environmental Constraints figure by Stantec dated November 27, 2019.

0 60 120 240 360 480
Meters (1:12,500)

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MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

Hamilton

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NOTICE OF PUBLIC HEARING

Application for Consent/Land Severance

APPLICATION NUMBER: **FL/B-20:28**

SUBJECT PROPERTY: **353 11th Con. Rd. E., Flamborough**

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

APPLICANT(S): St. Mary's Cement Inc. c/o David Hanratty

PURPOSE OF APPLICATION: To permit the conveyance of two parcels of land and to retain a parcel of land.

To be heard in conjunction with FL/B-20:27 and FL/A-20:104.

Severed lands:
Lot 2: 425m± x variable and an area of 31.7 ha±
Lot 4: 848m± x variable and an area of 86ha±

Retained lands: (Lot 3)
102 m± x variable and an area of 49.6 ha±

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DATED: July 7th, 2020

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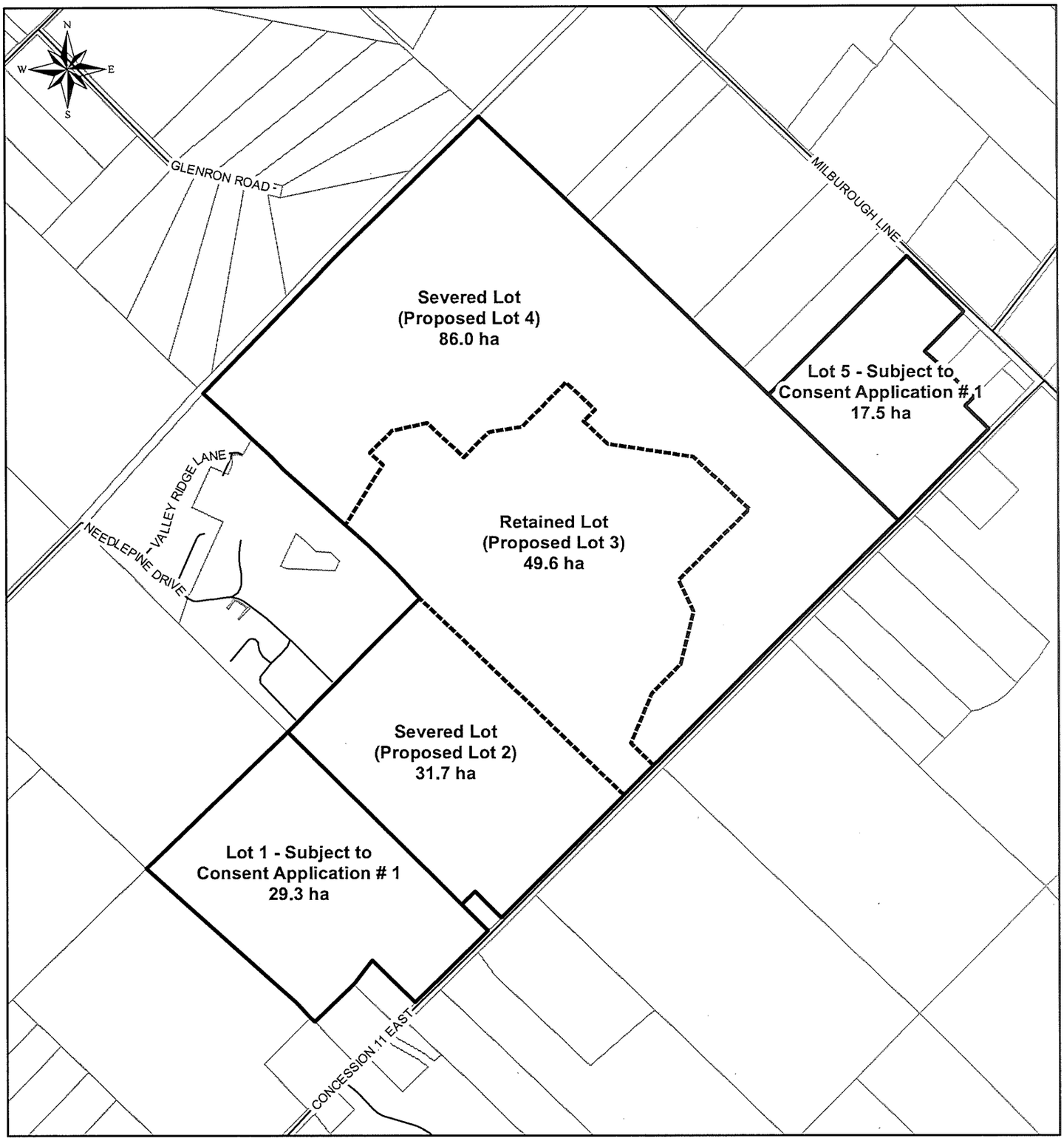

Severance Sketch
Consent Application # 2

CBM Flamborough
Part Lots 1-5, Concession 11
East Flamborough
City of Hamilton

Legend

Subject Lands

Proposed Lot Severance Line

DATE March 19, 2020

SOURCES

Lot 3 configuration based on Environmental Constraints figure by Stantec dated November 27, 2019.

0 60 120 240 360 480
Meters (1:12,500)

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MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

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E-mail: cofa@hamilton.ca

NOTICE OF PUBLIC HEARING
Minor Variance

You are receiving this notice because you are either:

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

APPLICATION NO.: **FL/A-20:104**

APPLICANTS: Owner: St. Mary's Cement Inc. c/o David Hanratty

SUBJECT PROPERTY: Municipal address **353 11th Con. Rd. E., Flamborough**

ZONING BY-LAW: Zoning By-law 05-200, as Amended

ZONING: P6, 257, P7-257, P7, 258, P8, P8,257, and A2, 258 (Conservation Hazard Land – Rural P6, Conservation Hazard Land – Rural P7, Conservation Hazard Land – Rural P8, and Rural) district

PROPOSAL: To permit the creation of five (5) lots through Consent Application FL/B-20:28, notwithstanding that;

1. A minimum lot area of 29.3ha shall be permitted for Lot #1 and a minimum lot area of 31.7ha shall be permitted for Lot #2 instead of the minimum 40.4ha lot area required.

Notes:

This variance is necessary to facilitate Consent Application FL/B-20:28.

The zoning By-law requires a minimum front yard, side yard and rear yard of 15.0m from any building to a lot line. The applicant shall ensure that the minimum 15.0m setback can be maintained; otherwise, further variances shall be required.

The zoning By-law permits a maximum 20.0% lot coverage. The applicant shall ensure that the maximum lot coverage can be maintained for the new lots; otherwise, further variances shall be required.

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

DATE: **Thursday, July 23rd, 2020**
TIME: **2:05 p.m.**
PLACE: **Via video link or call in (see attached sheet for details)**
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PUBLIC INPUT

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- Email Committee of Adjustment staff at cofa@hamilton.ca

DATED: July 7th, 2020.

Jamila Sheffield,
Secretary-Treasurer
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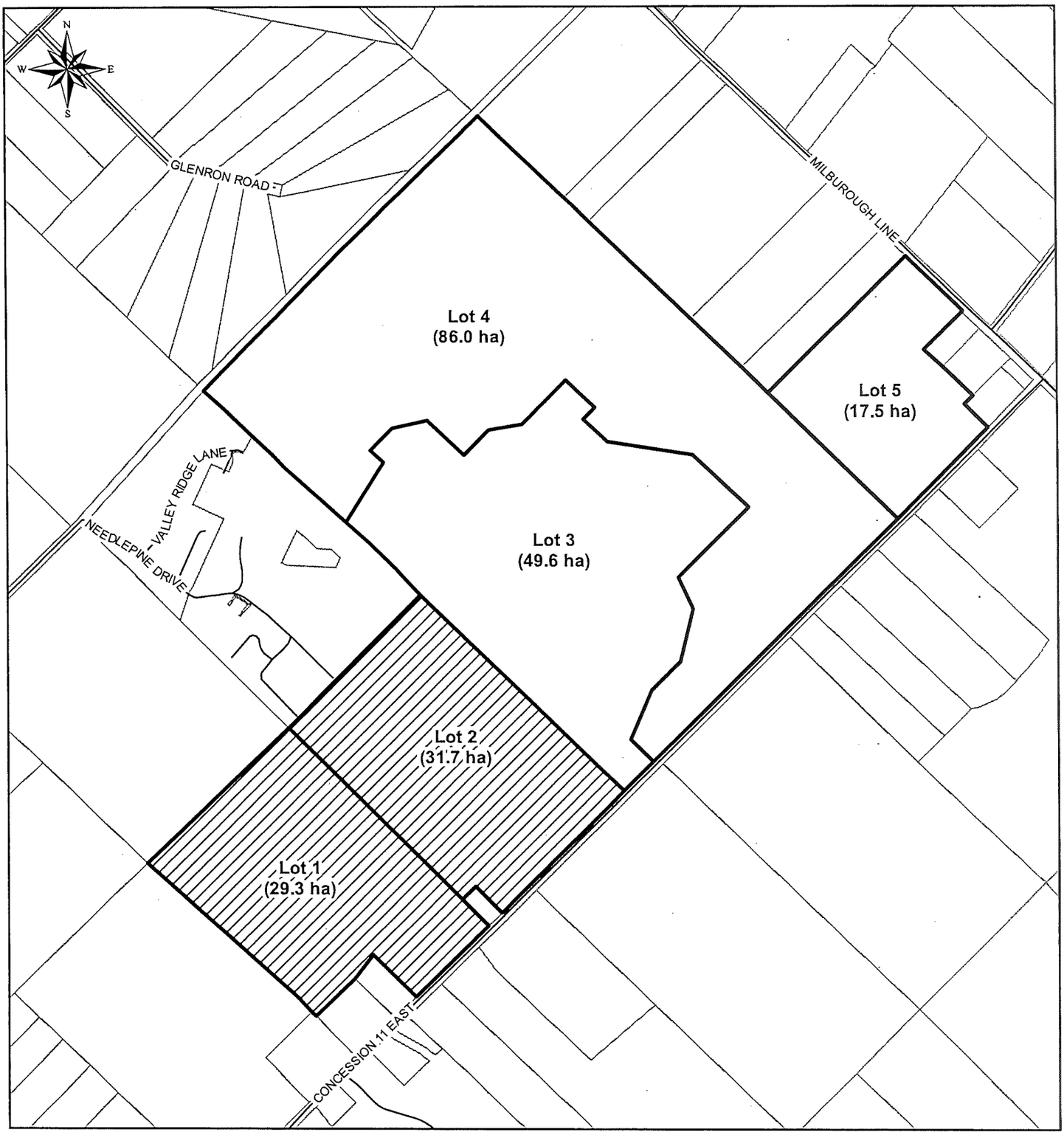

Lands Subject to Minor Variance Application

CBM Flamborough
Part Lots 1-5, Concession 11
East Flamborough
City of Hamilton

Legend

Lands subject to minor variance application to permit a reduced minimum lot area

DATE March 19, 2020

SOURCES

Lot 3 configuration based on Environmental Constraints figure by Stantec dated November 27, 2019.

0 60 120 240 360 480
Meters (1:12,500)

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MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

Hamilton

Planning and Economic Development Department
Planning Division

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

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

APPLICATION FOR CONSENT TO SEVER LAND
UNDER SECTION 53 OF THE *PLANNING ACT*

Office Use Only

Date Application Received:	Date Application Deemed Complete:	Submission No.:	File No.:

1 APPLICANT INFORMATION

1.1, 1.2	NAME	ADDRESS	PHONE/FAX
Registered Owners(s)	St.Marys Cement Inc. (Can c/o David Hanratty	[redacted]	
Applicant(s)*	St.Marys Cement Inc. (Can c/o David Hanratty		
Agent or Solicitor			

* Owner's authorisation required if the applicant is not the owner.

1.3 All correspondence should be sent to ☒ Owner ☐ Applicant ☐ Agent/Solicitor

2 LOCATION OF SUBJECT LAND

Complete the applicable lines

2.1 Area Municipality	Lot	Concession	Former Township
Flamborough	2-4	11	Flamborough
Registered Plan N°.	Lot(s)	Reference Plan N°.	Part(s)
Municipal Address 385,412,475 Concession 11 East			Assessment Roll N°.

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)

a) Urban Area Transfer **(do not complete Section 10)**:

☐ creation of a new lot
☐ addition to a lot
☐ an easement

Other: ☐ a charge
☐ a lease
☐ a correction of title

b) Rural Area / Rural Settlement Area Transfer **(Section 10 must be completed):**

- [x] creation of a new lot
- [ ] creation of a new non-farm parcel
  (i.e. a lot containing a surplus farm dwelling resulting from a farm consolidation)
- [ ] addition to a lot

Other:
- [ ] a charge
- [ ] a lease
- [ ] a correction of title
- [ ] an easement

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

4 DESCRIPTION OF SUBJECT LAND AND SERVICING INFORMATION

4.1 Description of land intended to be **Severed**:

Frontage (m)	Depth (m)	Area (m² or ha)
Please see attached Planning Justification Report and Severance Sketch for Consent Application #2		

Existing Use of Property to be severed:

- [x] Residential
- [x] Agriculture (includes a farm dwelling)
- [x] Other (specify) Rural
- [ ] Industrial
- [ ] Agricultural-Related
- [x] Commercial
- [x] Vacant

Proposed Use of Property to be severed:

- [x] Residential
- [x] Agriculture (includes a farm dwelling)
- [x] Other (specify) No change in use proposed
- [ ] Industrial
- [ ] Agricultural-Related
- [ ] Commercial
- [x] Vacant

Building(s) or Structure(s):

Existing: See planning justification report

Proposed: No buildings or structures proposed

Type of access: (check appropriate box)

- [ ] provincial highway
- [ ] municipal road, seasonally maintained
- [x] municipal road, maintained all year
- [ ] right of way
- [ ] other public road

Type of water supply proposed: (check appropriate box)

- [ ] publicly owned and operated piped water system
- [x] privately owned and operated individual well
- [ ] lake or other water body
- [ ] other means (specify)

Type of sewage disposal proposed: (check appropriate box)

- [ ] publicly owned and operated sanitary sewage system
- [x] privately owned and operated individual septic system
- [ ] other means (specify)

4.2 Description of land intended to be **Retained**:

Frontage (m) 102m	Depth (m) Varies	Area (m² or ha) 49.6ha
Please see the attached Planning Justification Report and Severance Sketch for Consent Application #2		

Existing Use of Property to be retained:

- [x] Residential
- [x] Agriculture (includes a farm dwelling)
- [x] Other (specify) Rural
- [ ] Industrial
- [ ] Agricultural-Related
- [x] Commercial
- [x] Vacant

Proposed Use of Property to be retained:

[x] Residential
[x] Agriculture (includes a farm dwelling)
[x] Other (specify) Rural

[ ] Industrial
[ ] Agricultural-Related

[ ] Commercial
[x] Vacant

Building(s) or Structure(s):

Existing: See Planning Justification Report

Proposed: No buildings or structures proposed

Type of access: (check appropriate box)

[ ] provincial highway
[ ] municipal road, seasonally maintained
[x] municipal road, maintained all year
[ ] right of way
[ ] other public road

Type of water supply proposed: (check appropriate box)

[ ] publicly owned and operated piped water system
[x] privately owned and operated individual well
[ ] lake or other water body
[ ] other means (specify)

Type of sewage disposal proposed: (check appropriate box)

[ ] publicly owned and operated sanitary sewage system
[x] privately owned and operated individual septic system
[ ] other means (specify)

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

[x] electricity [x] telephone [ ] school bussing [x] 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): Rural

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.

See Planning Justification report

5.2 What is the existing zoning of the subject land?
If the subject land is covered by a Minister's zoning order, what is the Ontario Regulation Number? See Planning Justification Report - Minister's Zoning Order - O-Reg 138/10

5.3 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	[x]	See attached technical reports

A land fill	☐	
A sewage treatment plant or waste stabilization plant	☐	
A provincially significant wetland	☒	See attached technical reports
A provincially significant wetland within 120 metres	☒	See attached technical reports
A flood plain	☐	
An industrial or commercial use, and specify the use(s)	☐	
An active railway line	☐	
A municipal or federal airport	☐	

6 PREVIOUS USE OF PROPERTY

☒ Residential ☐ Industrial ☐ Commercial
☒ Agriculture ☒ Vacant ☐ Other (specify)

6.1 If Industrial or Commercial, specify use N/A

6.2 Has the grading of the subject land been changed by adding earth or other material, i.e., has filling occurred?
☐ Yes ☒ No ☐ Unknown

6.3 Has a gas station been located on the subject land or adjacent lands at any time?
☐ Yes ☒ No ☐ Unknown

6.4 Has there been petroleum or other fuel stored on the subject land or adjacent lands?
☐ Yes ☒ No ☐ Unknown

6.5 Are there or have there ever been underground storage tanks or buried waste on the subject land or adjacent lands?
☐ Yes ☒ No ☐ Unknown

6.6 Have the lands or adjacent lands ever been used as an agricultural operation where cyanide products may have been used as pesticides and/or biosolids was applied to the lands?
☐ Yes ☒ No ☐ Unknown

6.7 Have the lands or adjacent lands ever been used as a weapons firing range?
☐ Yes ☒ No ☐ Unknown

6.8 Is the nearest boundary line of the application within 500 metres (1,640 feet) of the fill area of an operational/non-operational landfill or dump?
☐ Yes ☒ No ☐ Unknown

6.9 If there are existing or previously existing buildings, are there any building materials remaining on site which are potentially hazardous to public health (e.g., asbestos, PCB's)?
☐ Yes ☒ No ☐ Unknown

6.10 Is there reason to believe the subject land may have been contaminated by former uses on the site or adjacent sites?
☐ Yes ☒ No ☐ Unknown

6.11 What information did you use to determine the answers to 6.1 to 6.10 above?

General knowledge of the subject property

6.12 If previous use of property is industrial or commercial or if YES to any of 6.2 to 6.10, a previous use inventory showing all former uses of the subject land, or if appropriate, the land adjacent to the subject land, is needed.
Is the previous use inventory attached?
☐ Yes ☒ No

7 PROVINCIAL POLICY

7.1 a) Is this application consistent with the Policy Statements issued under subsection of the *Planning Act*? (Provide explanation)

☒ Yes ☐ No
See Planning Justification report

b) Is this application consistent with the Provincial Policy Statement (PPS)?
[X] Yes [ ] No (Provide explanation)

See Planning Justification report

c) Does this application conform to the Growth Plan for the Greater Golden Horseshoe?
[X] Yes [ ] No (Provide explanation)

See Planning Justification report

d) Are the subject lands within an area of land designated under any provincial plan or plans? (If YES, provide explanation on whether the application conforms or does not conflict with the provincial plan or plans.)
[X] Yes [ ] No

See Planning Justification report

e) Are the subject lands subject to the Niagara Escarpment Plan?
[ ] Yes [X] No

If yes, is the proposal in conformity with the Niagara Escarpment Plan?
[ ] Yes [ ] No
(Provide Explanation)

N/A

f) Are the subject lands subject to the Parkway Belt West Plan?
[ ] Yes [X] No

If yes, is the proposal in conformity with the Parkway Belt West Plan?
[ ] Yes [ ] No (Provide Explanation)

N/A

g) Are the subject lands subject to the Greenbelt Plan?
[X] Yes [ ] No

If yes, does this application conform with the Greenbelt Plan?
[X] Yes [ ] No (Provide Explanation)

See Planning Justification report

8 HISTORY OF THE SUBJECT LAND

8.1 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, indicate the appropriate application file number and the decision made on the application.

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

N/A

8.3 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.

8.4 How long has the applicant owned the subject land?

Since the early 2000`s

8.5 Does the applicant own any other land in the City? ☒ Yes ☐ No

If YES, describe the lands in "11 - Other Information" or attach a separate page.

9 OTHER APPLICATIONS

9.1 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 if known, specify file number and status of the application.

9.2 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 if known, specify file number and status of the application(s).

File number MZO - O-Reg 138/10 (Consent Application submitted concurrently) Status MZO - In force April 13, 2010 (Consent Application - submitted concurrently)

10 RURAL APPLICATIONS

10.1 **Rural Hamilton Official Plan Designation(s)**

☐ Agricultural ☒ Rural ☐ Specialty Crop

☐ Mineral Aggregate Resource Extraction ☐ Open Space ☐ Utilities

☐ Rural Settlement Area (specify) _____ (Settlement Area) _____ (Designation)

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 operation.

N/A

10.2 **Type of Application** (select type and complete appropriate sections)

☒ Agricultural Severance or Lot Addition
☐ Agricultural Related Severance or Lot Addition
☐ Rural Resource-based Commercial Severance or Lot Addition
☐ Rural Institutional Severance or Lot Addition

(Complete Section 10.3)

☐ Rural Settlement Area Severance or Lot Addition

☐ Surplus Farm Dwelling Severance from an Abutting Farm Consolidation (Complete Section 10.4)

☐ Surplus Farm Dwelling Severance from a Non-Abutting Farm Consolidation (Complete Section 10.5)

10.3 **Description of Lands**

a) Lands to be Severed: See Planning Justification report and Severance Sketch for Consent Application #2

Frontage (m): (from Section 4.1)	Area (m^2 or ha): (from in Section 4.1)

Existing Land Use: _____ Proposed Land Use: _____

b) Lands to be Retained: See Planning Justification report and Severance Sketch for Consent Application #2

Frontage (m): (from Section 4.2)	Area (m2 or ha): (from Section 4.2)
102m	49.6ha

Existing Land Use: _____ Proposed Land Use: _____

10.4 **Description of Lands (Abutting Farm Consolidation)**

a) Location of abutting farm: N/A

_____

(Street) (Municipality) (Postal Code)

b) Description abutting farm:

Frontage (m):	Area (m2 or ha):

Existing Land Use(s): _____ Proposed Land Use(s): _____

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

Frontage (m):	Area (m2 or ha):

Existing Land Use: _____ Proposed Land Use: _____

d) Description of surplus dwelling lands proposed to be severed:

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

Front yard set back: _____

e) Surplus farm dwelling date of construction:

☐ Prior to December 16, 2004 ☐ After December 16, 2004

f) Condition of surplus farm dwelling:

☐ Habitable ☐ Non-Habitable

g) Description of farm from which the surplus dwelling is intended to be severed (retained parcel):

Frontage (m): (from Section 4.2)	Area (m2 or ha): (from Section 4.2)

Existing Land Use: _____ Proposed Land Use: _____

10.5 **Description of Lands (Non-Abutting Farm Consolidation)**

a) Location of non-abutting farm

N/A

_____

(Street) (Municipality) (Postal Code)

b) Description of non-abutting farm

Frontage (m):	Area (m2 or ha):

Existing Land Use(s): _____ Proposed Land Use(s): _____

c) Description of surplus dwelling lands intended to be severed:

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

Front yard set back: _____

d) Surplus farm dwelling date of construction:

☐ Prior to December 16, 2004 ☐ After December 16, 2004

e) Condition of surplus farm dwelling:

☐ Habitable ☐ Non-Habitable

f) Description of farm from which the surplus dwelling is intended to be severed (retained parcel):

Frontage (m): (from Section 4.2)	Area (m2 or ha): (from Section 4.2)

Existing Land Use: _____ Proposed Land Use: _____

11 OTHER INFORMATION

Is there any other information that you think may be useful to the Committee of Adjustment or other agencies in reviewing this application? If so, explain below or attach on a separate page.

See Planning Justification report

Regarding Section 8.5 - St. Marys owns additional lands that we subject to

consent application #1 (353 Concession Road 11 and 515 Concession Road 11)

12 SKETCH (Use the attached Sketch Sheet as a guide)

12.1 The application shall be accompanied by a sketch showing the following in metric units:

(a) the boundaries and dimensions of any land abutting the subject land that is owned by the owner of the subject land;

(b) the approximate distance between the subject land and the nearest township lot line or landmark such as a bridge or railway crossing;

(c) the boundaries and dimensions of the subject land, the part that is intended to be severed and the part that is intended to be retained;

(d) the location of all land previously severed from the parcel originally acquired by the current owner of the subject land;

(e) the approximate location of all natural and artificial features (for example, buildings, barns, railways, roads, watercourses, drainage ditches, banks of rivers or streams, wetlands, wooded areas, wells and septic tanks) that,

i) are located on the subject land an on land that is adjacent to it, and
ii) in the applicant's opinion, may affect the application;

(f) the current uses of land that is adjacent to the subject land (for example, residential, agricultural or commercial);

(g) the location, width and name of any roads within or abutting the subject land, indicating whether it is an unopened road allowance, a public travelled road, a private

Schedule "A"
Description of Lands

Municipal Address	Legal Description
353 Concession Road 11 East	Pt Lot 5, Concession 11 East Flamborough, As in CD183074, Flamborough City of Hamilton being PIN 17525-0151 (LT)
385 Concession Road 11 East	Pt Lot 4, Concession 11 East Flamborough, As in CD399791; save and except Part 1 on 62R16062; Hamilton being PIN 17525-0227 (LT)
412 Concession Road 11 East	Pt Lot 2 and Lot 3, Concession 11 East Flamborough, As in AB157693, Flamborough City of Hamilton being PIN 17525-0157 (LT)
475 Concession Road 11 East	Pt Lot 2, Concession 11 East Flamborough, As in AB149944, Flamborough City of Hamilton being PIN 17525-0158 (LT)
515 Concession Road 11 East	Pt Lot 1, Concession 11 East Flamborough, As in AB200144, Flamborough City of Hamilton being PIN 17525-0164 (LT)

Hamilton

Planning and Economic Development Department
Planning Division

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

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

APPLICATION FOR CONSENT TO SEVER LAND
UNDER SECTION 53 OF THE *PLANNING ACT*

Office Use Only

Date Application Received:	Date Application Deemed Complete:	Submission No.:	File No.:

1 APPLICANT INFORMATION

1.1, 1.2	NAME	ADDRESS	PHONE/FAX
Registered Owners(s)	St.Marys Cement Inc. (Canada) c/o David Hanratty	[redacted]	
Applicant(s)*	St.Marys Cement Inc. (Canada) c/o David Hanratty		
Agent or Solicitor			**Business ( )** **Fax: ( )** **E-mail:**

* Owner's authorisation required if the applicant is not the owner.

1.3 All correspondence should be sent to ☒ Owner ☐ Applicant ☐ Agent/Solicitor

2 LOCATION OF SUBJECT LAND Complete the applicable lines

2.1 Area Municipality	Lot	Concession	Former Township
Flamborough	1-5	11	Flamborough
Registered Plan N°.	Lot(s)	Reference Plan N°.	Part(s)
Municipal Address 353,385,412,475,515 Concession 11 East			Assessment Roll N°.

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)

a) Urban Area Transfer **(do not complete Section 10)**:

☐ creation of a new lot
☐ addition to a lot
☐ an easement

Other: ☐ a charge
☐ a lease
☐ a correction of title

b) Rural Area / Rural Settlement Area Transfer **(Section 10 must be completed):**

- [x] creation of a new lot
- [ ] creation of a new non-farm parcel
  (i.e. a lot containing a surplus farm dwelling resulting from a farm consolidation)
- [ ] addition to a lot

Other:
- [ ] a charge
- [ ] a lease
- [ ] a correction of title
- [ ] an easement

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

4 DESCRIPTION OF SUBJECT LAND AND SERVICING INFORMATION

4.1 Description of land intended to be **Severed**:

Frontage (m)	Depth (m)	Area (m² or ha)
Please see attached Planning Justification Report and Severance Sketch for Consent Application #1		

Existing Use of Property to be severed:

- [x] Residential
- [x] Agriculture (includes a farm dwelling)
- [x] Other (specify) Rural
- [ ] Industrial
- [ ] Agricultural-Related
- [x] Commercial
- [x] Vacant

Proposed Use of Property to be severed:

- [x] Residential
- [x] Agriculture (includes a farm dwelling)
- [x] Other (specify) No change in use proposed
- [ ] Industrial
- [ ] Agricultural-Related
- [ ] Commercial
- [x] Vacant

Building(s) or Structure(s):

Existing: See planning justification report

Proposed: No buildings or structures proposed

Type of access: (check appropriate box)

- [ ] provincial highway
- [ ] municipal road, seasonally maintained
- [x] municipal road, maintained all year
- [ ] right of way
- [ ] other public road

Type of water supply proposed: (check appropriate box)

- [ ] publicly owned and operated piped water system
- [x] privately owned and operated individual well
- [ ] lake or other water body
- [ ] other means (specify)

Type of sewage disposal proposed: (check appropriate box)

- [ ] publicly owned and operated sanitary sewage system
- [x] privately owned and operated individual septic system
- [ ] other means (specify)

4.2 Description of land intended to be **Retained**:

Frontage (m) 1,375m	Depth (m) varies	Area (m² or ha) 167.3 ha
Please see the attached Planning Justification Report and Severance Sketch for Consent Application #1		

Existing Use of Property to be retained:

- [x] Residential
- [x] Agriculture (includes a farm dwelling)
- [x] Other (specify) Rural
- [ ] Industrial
- [ ] Agricultural-Related
- [x] Commercial
- [x] Vacant

Proposed Use of Property to be retained:

[x] Residential
[x] Agriculture (includes a farm dwelling)
[x] Other (specify) Rural
[ ] Industrial
[ ] Agricultural-Related
[ ] Commercial
[x] Vacant

Building(s) or Structure(s):

Existing: See Planning Justification Report

Proposed: No buildings or structures proposed

Type of access: (check appropriate box)

[ ] provincial highway
[ ] municipal road, seasonally maintained
[x] municipal road, maintained all year
[ ] right of way
[ ] other public road

Type of water supply proposed: (check appropriate box)

[ ] publicly owned and operated piped water system
[x] privately owned and operated individual well
[ ] lake or other water body
[ ] other means (specify)

Type of sewage disposal proposed: (check appropriate box)

[ ] publicly owned and operated sanitary sewage system
[x] privately owned and operated individual septic system
[ ] other means (specify)

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

[x] electricity [x] telephone [ ] school bussing [x] 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): Rural

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.

See Planning Justification report

5.2 What is the existing zoning of the subject land?
If the subject land is covered by a Minister's zoning order, what is the Ontario Regulation Number? See Planning Justification Report - Minister's Zoning Order - O-Reg 138/10

5.3 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	[x]	See attached technical reports

A land fill	☐	
A sewage treatment plant or waste stabilization plant	☐	
A provincially significant wetland	☒	See attached technical reports
A provincially significant wetland within 120 metres	☒	See attached technical reports
A flood plain	☐	
An industrial or commercial use, and specify the use(s)	☐	
An active railway line	☐	
A municipal or federal airport	☐	

6 PREVIOUS USE OF PROPERTY

☒ Residential ☐ Industrial ☐ Commercial
☒ Agriculture ☒ Vacant ☐ Other (specify)

6.1 If Industrial or Commercial, specify use N/A

6.2 Has the grading of the subject land been changed by adding earth or other material, i.e., has filling occurred?
☐ Yes ☒ No ☐ Unknown

6.3 Has a gas station been located on the subject land or adjacent lands at any time?
☐ Yes ☒ No ☐ Unknown

6.4 Has there been petroleum or other fuel stored on the subject land or adjacent lands?
☐ Yes ☒ No ☐ Unknown

6.5 Are there or have there ever been underground storage tanks or buried waste on the subject land or adjacent lands?
☐ Yes ☒ No ☐ Unknown

6.6 Have the lands or adjacent lands ever been used as an agricultural operation where cyanide products may have been used as pesticides and/or biosolids was applied to the lands?
☐ Yes ☒ No ☐ Unknown

6.7 Have the lands or adjacent lands ever been used as a weapons firing range?
☐ Yes ☒ No ☐ Unknown

6.8 Is the nearest boundary line of the application within 500 metres (1,640 feet) of the fill area of an operational/non-operational landfill or dump?
☐ Yes ☒ No ☐ Unknown

6.9 If there are existing or previously existing buildings, are there any building materials remaining on site which are potentially hazardous to public health (e.g., asbestos, PCB's)?
☐ Yes ☒ No ☐ Unknown

6.10 Is there reason to believe the subject land may have been contaminated by former uses on the site or adjacent sites?
☐ Yes ☒ No ☐ Unknown

6.11 What information did you use to determine the answers to 6.1 to 6.10 above?

General knowledge of the subject property

6.12 If previous use of property is industrial or commercial or if YES to any of 6.2 to 6.10, a previous use inventory showing all former uses of the subject land, or if appropriate, the land adjacent to the subject land, is needed.
Is the previous use inventory attached?
☐ Yes ☒ No

7 PROVINCIAL POLICY

7.1 a) Is this application consistent with the Policy Statements issued under subsection of the *Planning Act*? (Provide explanation)

☒ Yes ☐ No
See Planning Justification report

b) Is this application consistent with the Provincial Policy Statement (PPS)?
[X] Yes [ ] No (Provide explanation)

See Planning Justification report

c) Does this application conform to the Growth Plan for the Greater Golden Horseshoe?
[X] Yes [ ] No (Provide explanation)

See Planning Justification report

d) Are the subject lands within an area of land designated under any provincial plan or plans? (If YES, provide explanation on whether the application conforms or does not conflict with the provincial plan or plans.)
[X] Yes [ ] No

See Planning Justification report

e) Are the subject lands subject to the Niagara Escarpment Plan?
[ ] Yes [X] No

If yes, is the proposal in conformity with the Niagara Escarpment Plan?
[ ] Yes [ ] No
(Provide Explanation)

N/A

f) Are the subject lands subject to the Parkway Belt West Plan?
[ ] Yes [X] No

If yes, is the proposal in conformity with the Parkway Belt West Plan?
[ ] Yes [ ] No (Provide Explanation)

N/A

g) Are the subject lands subject to the Greenbelt Plan?
[X] Yes [ ] No

If yes, does this application conform with the Greenbelt Plan?
[X] Yes [ ] No (Provide Explanation)

See Planning Justification report

8 HISTORY OF THE SUBJECT LAND

8.1 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, indicate the appropriate application file number and the decision made on the application.

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

N/A

8.3 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.

8.4 How long has the applicant owned the subject land?

Since the early 2000`s

8.5 Does the applicant own any other land in the City? ☐ Yes ☒ No

If YES, describe the lands in "11 - Other Information" or attach a separate page.

9 OTHER APPLICATIONS

9.1 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 if known, specify file number and status of the application.

9.2 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 if known, specify file number and status of the application(s).

File number MZO - O-Reg 138/10 (Minor Variance submitted concurrently)

Status MZO - In force April 13, 2010 (MV - submitted concurrently)

10 RURAL APPLICATIONS

10.1 **Rural Hamilton Official Plan Designation(s)**

☐ Agricultural ☒ Rural ☐ Specialty Crop

☐ Mineral Aggregate Resource Extraction ☐ Open Space ☐ Utilities

☐ Rural Settlement Area (specify) _____ (Settlement Area) _____ (Designation)

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 operation.

N/A

10.2 **Type of Application** (select type and complete appropriate sections)

☒ Agricultural Severance or Lot Addition
☐ Agricultural Related Severance or Lot Addition
☐ Rural Resource-based Commercial Severance or Lot Addition
☐ Rural Institutional Severance or Lot Addition

(Complete Section 10.3)

☐ Rural Settlement Area Severance or Lot Addition

☐ Surplus Farm Dwelling Severance from an Abutting Farm Consolidation (Complete Section 10.4)

☐ Surplus Farm Dwelling Severance from a Non-Abutting Farm Consolidation (Complete Section 10.5)

10.3 **Description of Lands**

a) Lands to be Severed: See Planning Justification report and Severance Sketch for Consent Application #1

Frontage (m): (from Section 4.1)	Area (m^2 or ha): (from in Section 4.1)

Existing Land Use: _____ Proposed Land Use: _____

b) Lands to be Retained: See Planning Justification report and Severance Sketch for Consent Application #2

Frontage (m): (from Section 4.2)	Area (m2 or ha): (from Section 4.2)
1,375m	167.3 ha

Existing Land Use: Rural Proposed Land Use: Rural

10.4 **Description of Lands (Abutting Farm Consolidation)**

a) Location of abutting farm: N/A

_____

(Street) (Municipality) (Postal Code)

b) Description abutting farm:

Frontage (m):	Area (m2 or ha):

Existing Land Use(s): _____ Proposed Land Use(s): _____

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

Frontage (m):	Area (m2 or ha):

Existing Land Use: _____ Proposed Land Use: _____

d) Description of surplus dwelling lands proposed to be severed:

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

Front yard set back: _____

e) Surplus farm dwelling date of construction:

☐ Prior to December 16, 2004 ☐ After December 16, 2004

f) Condition of surplus farm dwelling:

☐ Habitable ☐ Non-Habitable

g) Description of farm from which the surplus dwelling is intended to be severed (retained parcel):

Frontage (m): (from Section 4.2)	Area (m2 or ha): (from Section 4.2)

Existing Land Use: _____ Proposed Land Use: _____

10.5 **Description of Lands (Non-Abutting Farm Consolidation)**

a) Location of non-abutting farm

N/A

_____

(Street) (Municipality) (Postal Code)

b) Description of non-abutting farm

Frontage (m):	Area (m2 or ha):

Existing Land Use(s): _____ Proposed Land Use(s): _____

c) Description of surplus dwelling lands intended to be severed:

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

Front yard set back: _____

d) Surplus farm dwelling date of construction:

☐ Prior to December 16, 2004 ☐ After December 16, 2004

e) Condition of surplus farm dwelling:

☐ Habitable ☐ Non-Habitable

f) Description of farm from which the surplus dwelling is intended to be severed (retained parcel):

Frontage (m): (from Section 4.2)	Area (m2 or ha): (from Section 4.2)

Existing Land Use: _____ Proposed Land Use: _____

11 OTHER INFORMATION

Is there any other information that you think may be useful to the Committee of Adjustment or other agencies in reviewing this application? If so, explain below or attach on a separate page.

See Planning Justification report

12 SKETCH (Use the attached Sketch Sheet as a guide)

12.1 The application shall be accompanied by a sketch showing the following in metric units:

(a) the boundaries and dimensions of any land abutting the subject land that is owned by the owner of the subject land;

(b) the approximate distance between the subject land and the nearest township lot line or landmark such as a bridge or railway crossing;

(c) the boundaries and dimensions of the subject land, the part that is intended to be severed and the part that is intended to be retained;

(d) the location of all land previously severed from the parcel originally acquired by the current owner of the subject land;

(e) the approximate location of all natural and artificial features (for example, buildings, barns, railways, roads, watercourses, drainage ditches, banks of rivers or streams, wetlands, wooded areas, wells and septic tanks) that,

i) are located on the subject land an on land that is adjacent to it, and
ii) in the applicant's opinion, may affect the application;

(f) the current uses of land that is adjacent to the subject land (for example, residential, agricultural or commercial);

(g) the location, width and name of any roads within or abutting the subject land, indicating whether it is an unopened road allowance, a public travelled road, a private

Hamilton

Planning and Economic Development Department
Planning Division

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

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

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

FOR OFFICE USE ONLY.

APPLICATION NO. _____ **DATE APPLICATION RECEIVED** _____

PAID _____ **DATE APPLICATION DEEMED COMPLETE** _____

SECRETARY'S SIGNATURE _____

CITY OF HAMILTON
COMMITTEE OF ADJUSTMENT
HAMILTON, ONTARIO

The *Planning Act*

Application for Minor Variance or for Permission

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

1. Name of Owner St. Marys Cement Inc. (Canada) c/o David Hanratty [redacted]
2. [redacted]
3. [redacted]
4. [redacted]

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

5. Names and addresses of any mortgagees, holders of charges or other encumbrances:
   PBR Systems Group Inc. 385 11th Concession Road East
   Freelton, Ontario Postal Code L0R 1K0
   _____
   _____ Postal Code _____

6. Nature and extent of relief applied for:

A minor variance to the minimum lot area where 40.4 ha is required.

See Planning Justification report for details and Minor Variance sketch for details

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

See Planning Justification report

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

353 and 358 Concession Road 11 East

See Planning Justification report for legal descriptions

9. PREVIOUS USE OF PROPERTY

Residential X Industrial _____ Commercial _____

Agricultural X Vacant _____

Other _____

9.1 If Industrial or Commercial, specify use

N/A

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

Yes ____ No X Unknown ____

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

Yes ____ No X Unknown ____

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

Yes ____ No X Unknown ____

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

Yes ____ No X Unknown ____

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

Yes ____ No X Unknown ____

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

Yes ____ No X Unknown ____

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

Yes ____ No X Unknown ____

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

Yes ____ No X Unknown ____

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

Yes ____ No X Unknown ____

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

General knowledge of the subject property. Regarding 9.10 - St. Marys understands waste was dumped on-site prior to St. Marys ownership. St. Marys has worked with the MOE to clean up the site. MOE has confirmed the site has been cleaned to their satisfaction.

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

Is the previous use inventory attached? Yes ____ No X

ACKNOWLEDGEMENT CLAUSE

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

April 3 2020
Date

[redacted]
Signature Property Owner

DAVID HAWKATT
Print Name of Owner

10. Dimensions of lands affected:

Frontage	675m - See Planning Justification Report
Depth	692m - See Planning Justification Report
Area	61 ha - See Planning Justification Report
Width of street	20 metre right-of-way

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

Existing: See Planning Justification report

Proposed: No additional buildings or structures proposed

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

Existing: See Planning Justification report

Proposed: No additional buildings or structures proposed

13. Date of acquisition of subject lands:

Early 2000's

14. Date of construction of all buildings and structures on subject lands:

Unknown

15. Existing uses of the subject property: Agricultural, Residential

16. Existing uses of abutting properties: See Planning Justification report

17. Length of time the existing uses of the subject property have continued:

Unknown

18. Municipal services available: (check the appropriate space or spaces)

Water _____ Connected _____

Sanitary Sewer _____ Connected _____

Storm Sewers _____

19. Present Official Plan/Secondary Plan provisions applying to the land:

See Planning Justification report

20. Present Restricted Area By-law (Zoning By-law) provisions applying to the land:

See Planning Justification report

21. Has the owner previously applied for relief in respect of the subject property?

Yes No X

If the answer is yes, describe briefly.

N/A

22. Is the subject property the subject of a current application for consent under Section 53 of the *Planning Act*?

Yes X Consent Application submitted concurrently No

23. The applicant shall attach to each copy of this application a plan showing the dimensions of the subject lands and of all abutting lands and showing the location, size and type of all buildings and structures on the subject and abutting lands, and where required by the Committee of Adjustment such plan shall be signed by an Ontario Land Surveyor.

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

MHBC
PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE

KITCHENER
WOODBRIDGE
LONDON
KINGSTON
BARRIE
BURLINGTON

April 29, 2020

Mike Davis, MCIP, RPP
Senior Planner
Planning and Economic Development Department
Development Planning, Heritage and Design
71 Main St. W, 5th Floor
Hamilton, Ontario
L8P 4Y5

Dear Mr. Davis:

RE: St. Marys Cement Inc. (Canada) Flamborough Landholdings
Severance and Minor Variance Application Submission
Part Lots 1 – 5, Concession 11 East, Flamborough, City of Hamilton
MHBC File: 8816AA

St. Marys Cement Inc. (Canada) ("St. Marys") is pleased to submit a Severance application and a Minor Variance application at its current Flamborough landholdings known municipally as 353, 385, 412, 475, and 515 Concession Road 11 East, Hamilton. Enclosed please find the following:

- One (1) original signed Consent to Sever Land Application form for Consent #1, including signed Cost Acknowledgement Agreement;
- One (1) copy of the signed Consent to Sever Land Application form for Consent #1, including signed Cost Acknowledgement Agreement;
- Five (5) copies of Sketch associated with the Consent #1 Application (see Appendix C of the Planning Report);
- One (1) original signed Consent to Sever Land Application form for Consent #2, including signed Cost Acknowledgement Agreement;
- One (1) copy of the signed Consent to Sever Land Application form for Consent #2, including signed Cost Acknowledgement Agreement;
- Five (5) copies of Sketch associated with the Consent #2 Application (see Appendix D of the Planning Report);
- One (1) original signed Application for a Minor Variance, including signed Cost Acknowledgement Agreement;
- One (1) copy of the signed Application for a Minor Variance, including signed Cost Acknowledgement Agreement;

- Five (5) copies of Sketch associated with the Application for a Minor Variance (see Appendix E of the Planning Report);
- Five (5) copies of the Planning Justification Report dated March 2020 as prepared by MHBC;
- Five (5) copies of the Agricultural Viability Report dated March 2020 as prepared by MHBC;
- Five (5) copies of the Environmental Impact Study dated March 26, 2020 as prepared by Stantec;
- One (1) USB containing an electronic copy of the above mentioned documents.

The fees for these applications as provided on the applicable application forms total $12,073.00 and three cheques totalling this amount have been included in this submission. The fees are broken down as follows:

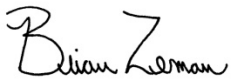
- Minor Variance Application Fees - $3,302.00
- Consent Application Fees - $6,618.00 ($3,309.00 per application)
- Conservation Halton Review Fee - $2,153.00

If you have any questions, please do not hesitate to contact us.

We look forward to hearing from you.

Yours truly,

MHBC



Brian Zeman, BES, MCIP, RPP
President

cc. David Hanratty, St. Marys Cement Inc. (Canada)
Stephen May, St. Marys Cement Inc. (Canada)
James Newlands, MHBC

MHBC
PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE

KITCHENER
WOODBRIDGE
LONDON
KINGSTON
BARRIE
BURLINGTON

PLANNING JUSTIFICATION **REPORT**

PROPOSED SEVERANCE and MINOR VARIANCE

353, 358, 412, 475, AND 515 CONCESSION ROAD 11 EAST

City of Hamilton

Date:

March 2020

Prepared for:

St. Marys Cement Inc. (Canada)

Prepared by:

Brian Zeman

MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC)

113 Collier Street

Barrie ON L4M 1H2

T: 705 728 0045 Ext. 226

F: 705 728 2010

Our File 8816AA

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1.0 INTRODUCTION

St. Marys Cement Inc. (Canada) ("St. Marys") owns a property with an approximate area of 214 hectares known as the former proposed Flamborough Quarry (the "Property"). **See Figure 1**. The Property consists of five (5) parcels identified as:

Municipal Address	Legal Description
353 Concession Road 11 East	Pt Lot 5, Concession 11 East Flamborough, As in CD183074, Flamborough City of Hamilton being PIN 17525-0151 (LT)
385 Concession Road 11 East	Pt Lot 4, Concession 11 East Flamborough, As in CD399791; save and except Part 1 on 62R16062; Hamilton being PIN 17525-0227 (LT)
412 Concession Road 11 East	Pt Lot 2 and Lot 3, Concession 11 East Flamborough, As in AB157693, Flamborough City of Hamilton being PIN 17525-0157 (LT)
475 Concession Road 11 East	Pt Lot 2, Concession 11 East Flamborough, As in AB149944, Flamborough City of Hamilton being PIN 17525-0158 (LT)
515 Concession Road 11 East	Pt Lot 1, Concession 11 East Flamborough, As in AB200144, Flamborough City of Hamilton being PIN 17525-0164 (LT)

These lands were assembled by St. Marys for their proposed Flamborough Quarry, resulting in the lands being merged into one parcel.

MacNaughton Hermsen Britton Clarkson Planning Limited (hereinafter "MHBC") has been retained by St. Marys to assess in the re-establishment of the five (5) parcels through applications for consent and minor variance.

See attached **Figure 2** for the proposed lot configuration and proposed lot areas. Proposed lots 1 (29.3ha), 2 (31.7ha), 3 (49.6 ha) and 5 (17.5 ha) would be retained by St. Marys for re-sale while proposed lot 4 (86.0 ha) could potentially be conveyed to the City of Hamilton, Conservation Halton or another party to be environmentally protected as it is predominantly zoned as Conservation/Hazard Land.

Proposed lots 1 and 2 do not meet the provision for the minimum lot area of 40.4 hectares for the Rural (A2) zone in the Zoning By-law. A minor variance application is being submitted to permit a reduced minimum lot area to facilitate the consent. An analysis of the proposed minor variance is provided in Section 4.0 of this report.

The City of Hamilton Zoning By-law No. 05-200 (Consolidated as of August 14 2019) zones the five parcels as follows. See **Figure 2**.

- Rural Special Exception 258 (A2-258);
- Conservation/Hazard Land - Rural Special Exception 257 (P6-257);
- Conservation/Hazard Land - Rural Special Exception 257 (P7-257);
- Conservation/Hazard Land - Rural Special Exception 258 (P7-258);

- Conservation/Hazard Land - Rural (P8); and
- Conservation/Hazard Land - Rural Special Exception 257 (P8-257).

A Minister Zoning Order was issued for the properties known as 412, 475, 515 Concession Road 11 East on April 13, 2010. See **Appendix A.** These three properties correspond with proposed lots 3, 4 and 5 in **Figure 2**. The Minister Zoning Order is explained in greater detail in Section 4.0 of this report.

1.1 Summary of Application Requirements

St Marys had a pre-consultation meeting with the City of Hamilton and Conservation Halton on October 9, 2019 to discuss the proposed consent and minor variance applications. Attached as **Appendix B** is a copy of the pre-consultation correspondence provided by the City of Hamilton which outlines the required studies for the application for consent. These studies included:

- Planning Justification Report;
- Environmental Impact Study (EIS); and
- Agricultural Viability Study.

Based on the pre-consultation meeting with the agencies, in addition to this report the following reports have been submitted to constitute a complete application:

- Environmental Impact Study prepared by Stantec, dated March, 2020;
- Agricultural Viability Study prepared by MHBC Planning, Urban Design and Landscape Architecture, dated March, 2020.

A severance sketch for Consent Application #1 has been prepared and is included as **Appendix C.**

A severance sketch for Consent Application #2 has been prepared and is included as **Appendix D.**

A third sketch has been prepared and is included as **Appendix E** which identifies the lands that are subject to the Minor Variance Application.

2.0 SITE DESCRIPTION AND SURROUNDING LAND USES

2.1 Site Description

The Property is approximately 214 hectares and is generally located west of Milburough Line and east of Centre Road along Concession 11 East. The Property is relatively flat and consists of a variety of uses including a horse training facility, agricultural uses, single detached residences, forested areas, and vacant land.

The Ministry of Natural Resources and Forestry (MNRF) and Rural Hamilton Official Plan recognizes the Property as containing various natural heritage features including provincially significant and unevaluated wetlands, significant woodlands, and being within the Natural Heritage System (**Figure 3**). The Property is also designated as Protected Countryside in the Greenbelt Plan (**Figure 4**).

There are no specialty crop areas, prime agricultural areas, or candidate areas located on the Subject Site.

2.2 Surrounding Land Uses

The general area of the Property is surrounded by agricultural and rural land uses, small rural businesses, single detached residences, conservation/hazard lands, and forested area.

NORTH: Single detached residences, forested area, and agricultural land.

EAST: Forrestdale Kennels, single detached residences, forested area, farm and agricultural operations.

SOUTH: Farm and agricultural operations, singe detached residences, Carlisle Canoe Co., and forested area.

WEST: Single detached residences, forested area, and Lawson Park Camping Resort.

3.0 PLANNING ANALYSIS

This section provides an assessment of the proposed consent and minor variance applications relative to the policies and provisions of the following documents:

- Provincial Policy Statement (PPS);
- Places to Grow, Growth Plan for the Greater Golden Horseshoe (Growth Plan);
- Greenbelt Plan;
- Rural Hamilton Official Plan; and
- City of Hamilton Zoning By-law.

3.1 Provincial Policy Statement (2020)

The PPS provides policy direction on matters of provincial interest related to land use planning and development. The PPS provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural environment. (Part 1, Preamble)

The 2020, Provincial Policy Statement (PPS) was issued under Section 3 of the Planning Act and comes into effect May 1, 2020. Section 3 of the Planning Act requires that decisions affecting planning matters "be consistent with" policy statements issued under the Act. (Part II, Legislative Authority).

The Provincial Policy Statement provides a policy-led planning approach that recognizes the complex inter-relationship among environmental, economic and social factors in land use planning. The Provincial Policy Statement supports a comprehensive, integrated and long-term approach to planning and recognizes linkages among policy areas. (Part III, How to Read the Provincial Policy Statement).

The following are policy excerpts from the PPS that are relevant to the proposed consent. A response follows each excerpt to demonstrate how the proposal is consistent with the PPS.

"On rural lands in municipalities, permitted uses are:

c) residential development, including lot creation, that is locally appropriate;
g) other rural land uses." (1.1.5.2)

The existing property is located on rural lands within the City of Hamilton. Residential uses and other rural land uses currently exist on the property and are not proposed to be changed. The proposed consent application would continue to permit the properties to be used for limited residential uses and other rural land uses.

"Development that is compatible with the rural landscape and can be sustained by rural service levels should be promoted" (1.1.5.4)

The proposed severances are not expected to change or create any additional land uses in the area. The result of the consent will not require any increase in rural services such as the road network, snow removal, or emergency services. Therefore the creation of the lots will be compatible with the rural landscape and can be sustained by the existing rural service levels.

"Development shall be appropriate to the infrastructure which is planned or available, and avoid the need for the unjustified and/or uneconomical expansion of this infrastructure." (1.1.5.5)

The proposed severances represent an efficient use of existing infrastructure by utilizing the existing municipal road network. No new infrastructure will be required for the creation of the lots.

"New land uses, including the creation of lots, and new or expanding livestock facilities, shall comply with the minimum distance separation formulae." (1.1.5.8)

The Property is within the vicinity of existing livestock facilities and provincial guidelines (Publication 853) require new development to comply with the Minimum Distance Separation (MDS) formulae.

Guideline #14 of the MDS document confirms that an MDS I setback is not required for the proposed severance from the existing livestock facility on the property as it is located on the same lot as the proposed development.

Guideline #8 requires that where lot creation is proposed, including new lots for agricultural uses, an MDS I setback is required for both the severed and retained lots. Proposed Lots 3 and 4 are vacant and will be considered new lots with Lot 3 being for agricultural uses. As per Guideline #8, an MDS I calculation is required for proposed Lots 3 and 4. The Agricultural Viability Report prepared with this application includes an MDS I calculation which indicated that the nearest livestock facility is an equestrian operation located on the south side of Concession 11 East. The calculation shows the MDS I setback is met for the neighbouring equestrian operation. Please refer to the Agricultural Viability Report for further details on the MDS I calculation.

Guideline #8 exempts proposed agricultural lots that already contain an existing residential dwelling from requiring an MDS I setback for said lot creation. Proposed Lots 1, 2 and 5 each contain an existing dwelling and are exempt from MDS I calculation requirements.

"Natural features and areas shall be protected for the long term." (2.1.1)

"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 areas, rural areas, and prime agricultural areas." (2.1.2)

The proposed lot configuration is arranged in such a way to protect the conservation and hazard lands containing significant woodlands and significant wetlands identified on the Property (see **Figure 3**).

Proposed lot 4 (see **Figure 2**) is primarily zoned Conservation and Hazard Lands and is to potentially be conveyed to the City of Hamilton, Conservation Halton or another party to be set aside as environmentally protected lands.

The existing areas zoned Conservation and Hazard Lands will be maintained. Furthermore, no new uses are proposed, therefore the ecological function and biodiversity of the existing natural features will be maintained. The Environmental Impact Study completed as part of this application supports the proposed lot configuration and concludes the application is not anticipated to impact the Key Natural Heritage Features on the property.

Based on the above summary, it is concluded that the consent is consistent with the policies of the Provincial Policy Statement.

3.2 Growth Plan for the Greater Golden Horseshoe (2019)

The Property is located within the Greater Golden Horseshoe, 2019 (Growth Plan) and this plan came into effect on May 16, 2019.

The Growth Plan is a policy document which guides the building of stronger more prosperous communities through the management of growth. The Growth Plan contains various principles which are to guide decisions on how land is developed. These include, among other matters, building compact, vibrant and complete communities, protecting and wisely using natural resources, optimizing the use of infrastructure, and providing for approaches to managing growth that recognize the diversity of communities.

Section 1.2.3 of the Growth Plan addresses the Plan's relationship with other Provincial Plans, including the Greenbelt Plan.

"Within the Greenbelt Area, policies of this Plan that address the same, similar, related, or overlapping matters as the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan, or the Niagara Escarpment Plan do not apply within that part of the Greenbelt Area covered by the relevant plan except where the policies of this Plan, the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan, or the Niagara Escarpment Plan provide otherwise." (1.2.3)

As the property is located within the Greenbelt Area, the policies of the Greenbelt Plan apply. A detailed review of the Greenbelt Plan can be found in Section 3.3 of this report.

The general growth management policies contained within Section 2 of the Growth Plan include policies to direct development to settlement areas, direct major growth to settlement areas with municipal water and sewage systems, build compact communities in Designated Greenfield Areas, and encourage the development of complete communities that contain a diverse mix of land uses, including a range and mix of housing types and high quality public open space (amongst others). There are, however provisions for limited amounts of growth in rural areas. The Growth Plan states,

"…development outside of settlement areas may be permitted on rural lands for:
a) the management or use of resources;
b) resource-based recreational uses; and
c) other rural land uses that are not appropriate in settlement areas provided they:
i. are compatible with the rural landscape and surrounding local land uses;

ii. will be sustained by rural service levels; and
iii. will not adversely affect the protection of agricultural uses and other resource-based uses such as mineral aggregate operations." (2.2.9.3)

The existing land uses on the property consist of the management or use of resources, and other rural land uses. No new uses are expected in result of the severance.

The Property is within the Growth Plan's Natural Heritage System. The Natural Heritage System supports a comprehensive, integrated, and long-term approach to planning for the protection of natural heritage and biodiversity (4.2.2.1). For areas within the Natural Heritage System for the Growth Plan,

"a) new development or site alteration will demonstrate that:

i. there are no negative impacts on key natural heritage features or key hydrologic features or their functions;

ii. connectivity along the system and between key natural heritage features and key hydrologic features located within 240 metres of each other will be maintained or, where possible, enhanced for the movement of native plants and animals across the landscape;

iii. the removal of other natural features not identified as key natural heritage features and key hydrologic features is avoided, where possible. Such features should be incorporated into the planning and design of the proposed use wherever possible;

vi. at least 30 per cent of the total developable area will remain or be returned to natural self-sustaining vegetation, except where specified in accordance with the policies in subsection 4.2.8." (4.2.2.3)

The EIS has confirmed the proposed severance application is not expected to have any impact on the existing natural function of the area. The natural vegetation will not be affected as a result of the consent as no buildings or structures are proposed. The majority of the key natural heritage features will be protected through retention on proposed Lot 4, which is proposed to be conveyed for conservation purposes.

"b) the full range of existing and new agricultural uses, agriculture related uses, on-farm diversified uses, and normal farm practices are permitted. However, new buildings or structures for agricultural uses, agriculture-related uses, or on-farm diversified uses are not subject to policy 4.2.2.3 a), but are subject to the policies in subsections 4.2.3 and 4.2.4." (4.2.2.3)

All related uses will continue to exist on the Property. No new uses are proposed.

Section 4.2.3 of the Growth Plan contains policies for lands within Key Hydrologic Features, Key Hydrologic Areas, and Key Natural Heritage Features. These policies place restrictions on the type of development that can occur on these lands. There will be no new uses proposed on the site. Further, the proposed lot configuration is arranged in such a way as to protect and direct development away from the Key Hydrologic Features and Natural Heritage Features identified on the Property.

Section 4.2.4 of the Growth Plan contains policies for lands within 120 metres of Key Hydrologic Features, Key Hydrologic Areas, and Key Natural Heritage Features. The EIS that has been prepared, confirmed Key

Natural Heritage Features exist on the property and that these features will be protected as part of the application. The EIS took into consideration the vegetation protection zone requirements in relation to the lands adjacent to the Key Natural Heritage Features.

Based on the above summary, it is concluded that the proposed consent conforms to the policies of the Growth Plan for the Greater Golden Horseshoe.

3.3 Greenbelt Plan (2017)

The Property is designated as "Protected Countryside" in the Greenbelt Plan (**Figure 4**). The Greenbelt Plan, together with other Provincial Plans, identifies where urbanization should not occur in order to provide permanent protection to the agricultural land base and the ecological and hydrological features, areas and functions occurring on this landscape.

Section 1.2.2 of the Greenbelt Plan contains goals for the Protected Countryside designation. These include goals for agricultural viability and protection; environmental protection; culture, recreation and tourism; settlement areas; infrastructure and natural resources; and climate change.

Section 3.1.4 of the Greenbelt Plan contains policies for Rural Lands. The policies generally provide direction for new and existing rural, residential, recreational, tourism, institutional, and resource based commercial/ industrial uses. No new uses are proposed as part of the applications. The Greenbelt Plan states,

"New land uses, including the creation of lots (as permitted by the policies of this Plan), and new or expanding livestock facilities, shall comply with the minimum distance separation formulae." (3.1.4.6)

As discussed in Section 3.1 of this report, the Property is within the vicinity of existing livestock facilities and provincial guidelines (Publication 853) require new development to comply with the Minimum Distance Separation (MDS) formulae.

Guideline #14 of the MDS document confirms that an MDS I setback is not required for the proposed severance from the existing livestock facilities on the property as the facilities are located on the same lot as the proposed development.

Guideline #8 requires that where lot creation is proposed, including new lots for agricultural uses, an MDS I setback is required for both the severed and retained lots. Proposed Lots 3 and 4 are vacant and will be considered new lots with Lot 3 being for agricultural uses. As per Guideline #8, an MDS I calculation is required for proposed Lots 3 and 4. The Agricultural Viability Report prepared with this application includes an MDS I calculation which indicated that the nearest livestock facility is an equestrian operation located on the south side of Concession 11 East. The calculation shows the MDS I setback is met for the neighbouring equestrian operation. Please refer to the Agricultural Viability Report for further details on the MDS I calculation.

Guideline #8 exempts proposed agricultural lots that already contain an existing residential dwelling from requiring an MDS I setback for said lot creation. Proposed Lots 1, 2 and 5 each contain an existing dwelling and are exempt from MDS I calculation requirements.

Section 3.2.2 provides policy direction for lands within the Natural Heritage System in the Protected Countryside designation. Existing and new agricultural uses are permitted as per Section 3.2.2.1. No new uses are proposed with the consent and minor variance applications.

"New development or site alteration in the Natural Heritage System (as permitted by the policies of this Plan) shall demonstrate that:

a) There will be no negative impacts on key natural heritage features or key hydrologic features or their functions;

b) Connectivity along the system and between key natural heritage features and key hydrologic features located within 240 metres of each other will be maintained or, where possible, enhanced for the movement of native plants and animals across the landscape;

c) The removal of other natural features not identified as key natural heritage features and key hydrologic features should be avoided. Such features should be incorporated into the planning and design of the proposed use wherever possible;" (3.2.2.3)

The Greenbelt Plan defines *development* to include the creation of new lots. As such, to ensure the creation of new Lots 3 and 4 do not negatively impact key natural heritage features or key hydrologic features, an EIS was completed. Measures have been taken to ensure there will be no negative impacts on the natural heritage system in the consent process. Such measures include configuring proposed Lot 4 such that the majority of key natural heritage features are captured within the one lot. Doing so ensures the natural features are protected, fragmentation is reduced, and connectivity along the system is maintained. Further, this large portion of the lands identified as containing key natural heritage features could be conveyed to public ownership for conservation purposes.

"Development or site alteration is not permitted in key hydrologic features and key natural heritage features within the Natural Heritage System, including any associated vegetation protection zone, with the exception of:

a) Forest, fish and wildlife management;

b) Conservation and flood or erosion control projects, but only if they have been demonstrated to be necessary in the public interest and after all alternatives have been considered; or

c) Infrastructure, aggregate, recreational, shoreline and existing uses, as described by and subject to the policies of section 4." (3.2.5.1)

The consent and minor variance applications do not propose new uses for the subject lands. Only the existing uses are proposed to continue. An EIS has been completed and concludes the lot severances will not negatively impact the key natural heritage features on the property.

Section 4 of the Greenbelt Plan provides general policies for the Protected Countryside designation. The existing uses on the Property consist of both agricultural and non-agricultural uses. As no new uses or expansion of uses are proposed, the existing uses are appropriate for location on rural lands.

Section 4.2 includes policies for infrastructure. There will be no new or expansion of infrastructure needed to facilitate the severances.

The consent will have no effect on existing uses and no new uses are proposed. All existing uses on the property are permitted in the Protected Countryside designation (4.5.1).

Section 4.6 includes policies for lot creation. Section 4.6.1 states the following,

"Lot creation is discouraged and may only be permitted for:

a) Outside prime agricultural areas, including specialty crop areas, the range of uses permitted by the policies of this Plan;

d) Facilitating conveyances to public bodies or non-profit entities for natural heritage conservation, provided it does not create a separate lot for a residential dwelling in prime agricultural areas, including specialty crop areas" (4.6.1)

The Property is not within a prime agricultural area or specialty crop area and is consistent with the range of uses permitted in the Protected Countryside designation. The consent will facilitate the conveyance of one of the severed lots to the City of Hamilton, Conservation Halton or another party to be set aside to be environmentally protected.

Based on the above summary, it is concluded that the proposed consent conforms to the policies of the Greenbelt Plan.

3.4 Rural Hamilton Official Plan

The Property is designated as "Rural" in the Rural Hamilton Official Plan (**Figure 5**). The Rural Hamilton Official Plan applies to the lands in the rural area of the City. The Plan provides direction and guidance on the management of communities, land use change, physical development, and provincial initiatives.

Chapter A of the Rural Official Plan provides a brief introduction of the policy direction for the City of Hamilton. Chapter B provides policy for communities located in the rural areas of the City of Hamilton. Chapter C includes policy direction for city-wide systems and designations.

The Property is within the Natural Heritage System identified on Schedule B of the Rural Hamilton Official Plan. Section C.2.0 contains policy for lands part of the Natural Heritage System. Applicable policy goals include the following:

"To protect and enhance biodiversity and ecological functions." (2.1.1)

"To achieve a healthy, functional ecosystem." (2.1.2)

"To conserve the natural beauty and distinctive character of Hamilton's landscape." (2.1.3)

"To maintain and enhance the contribution made by the Natural Heritage System to the quality of life of Hamilton's residents." (2.1.4)

"To restore and enhance connections, quality and amount of natural habitat." (2.1.5)

The consent does not propose any new buildings, structures, or site alteration which would disrupt any existing natural heritage features. The EIS completed as part of this application, concludes that the proposed lot configuration will not impact the key natural heritage features on site. Further, most of the identified natural heritage features have been retained within Lot 4 and will be protected further as proposed Lot 4 is proposed to be conveyed for environmental protection. The EIS has confirmed the continued agricultural land use of Lot 3 is not anticipated to impact the remaining key natural heritage features not located on Lot 4.

With respect to the existing land uses on the Property, the Rural Official Plan states:

"The policies in this Plan do not prohibit the continuation of existing or the establishment of new agricultural uses, agricultural-related and secondary uses within or adjacent to the Natural Heritage System lands." (2.2.2)

Schedule B of the Rural Official Plan identifies parts of the Property as being within the Core Area of the Natural Heritage System. The following Schedules apply to the Property:

- Schedule B-2 – Key Natural Heritage Features - Significant Woodlands
- Schedule B-4 – Key Natural Heritage Features and Key Hydrologic Features - Wetlands
- Schedule B-5 – Key Hydrologic Features - Lakes and littoral zones
- Schedule B-6 – Local Natural Area - Environmentally Significant Areas
- Schedule B-8 – Key Hydrologic Features - Streams

The EIS included comprehensive natural heritage field investigations completed between 2003 and 2007 as part of St. Marys previous aggregate application for the site. The field investigations focused on proposed Lots 3, 4, and 5 and included mapping vegetation communities, wetland and woodland delineation, vascular plant inventory, wildlife surveys and fisheries and aquatic habitat surveys of watercourses in the study area. Please refer to the EIS for further details.

Permitted uses within these areas include existing agricultural uses, conservation, and other existing uses (C.2.4.1). Section F.1.12.2 provides policy to allow existing non-complying uses to continue. All uses on the property are in conformity with the Rural Hamilton Official Plan.

Section C.2.3 contains policies for the Natural Heritage System Core Areas. Core Areas are comprised of key natural heritage features, key hydrologic features, including any associated vegetation protection zones, and provincially significant and local natural areas (C.2.3.2).

The Rural Hamilton Official Plan states:

"Any development or site alteration within or adjacent to Core Areas shall not negatively impact their environmental features or ecological functions." (C.2.3.3)

An EIS has been completed for the property and has determined that there will be no negative impact on the environmental features or their ecological functions.

"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.2.3.4)

The existing provincially significant wetlands on the Property will not be impacted through the application for consent as there will be no change in use or new buildings/structures proposed. The completed EIS has confirmed the proposed lot configuration is not anticipated to have any impacts on the on-site natural heritage features. A large portion of the provincially significant wetlands on the Property are planned to be conveyed for conservation and protection purposes. Further, the Rural Hamilton Official Plan states the following with respect to natural heritage system management:

"The City shall support agencies, community organizations, and private landowners in their efforts to protect and enhance natural heritage features through private habitat restoration and stewardship, land trusts, public acquisition, conservation easements, property tax mechanisms and similar tools". (C.2.11.1)

Section C.2.4 provides policy direction for Core Areas within the Greenbelt Plan Natural Heritage System of the Protected Countryside.

"New development or site alteration shall not be permitted within a key natural heritage feature within the Greenbelt Natural Heritage System or a key hydrologic feature anywhere in the Protected Countryside, including any associated vegetation protection zone. However, new development or site alteration proposed adjacent to (within 120 metres of) a key natural heritage feature within the Greenbelt Natural Heritage System or a key hydrologic feature anywhere in the Protected Countryside requires an Environmental Impact Statement which identifies a vegetation protection zone." (C.2.4.2)

An EIS was completed as part of this application and concludes the proposed lot configurations are not anticipated to have any impacts on the key natural heritage features located on the property. The establishment of a vegetation protection zone is not required as part of this application as no new uses or buildings are proposed.

The Rural Hamilton Official Plan outlines the requirements for an EIS for development subject to section C.2.4.6. Below are the requirements for the EIS, followed by our response:

> *"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;*
>
> *d) The disturbed area of a site shall not exceed 25 percent of the total developable area, except for golf courses, where permitted, for which the disturbed area shall not exceed 40 percent of the site. Impervious surfaces to be established in such disturbed areas shall not exceed 10 percent of the total developable area." (C.2.4.6)*

The EIS completed by Stantec concludes with the consideration that the lot severance is not anticipated to result in impacts to the key natural heritage features. Further, the proposed configuration will maintain connectivity between the core natural areas. No new uses or buildings/structures are proposed as part of this application which will ensure no natural features will be removed or land disturbed as part of this application.

Section C.3.1 contains policies for land uses which are permitted in all the rural area designations within the City. The application does not propose any new uses on the property. All existing uses are proposed to continue. As such the application conforms to Section C.3.1.

Section C.4.5 contains policies for roads.

"New development or redevelopment shall only be permitted on a property that has direct frontage on a publicly assumed road constructed to municipal standards." (C.4.5.8.4)

All proposed lots contain frontage on a publicly assumed road.

Section C.5.1 contains polices for private water and wastewater services. The application does not proposed to change the private water and wastewater services currently existing on the Property. All existing developed lots (lots 1,2, and 5) are able to continue to be serviced with the existing infrastructure provided. Proposed Lots 3 and 4 are vacant and are not proposed to establish any new uses as part of this application. Therefore, proposed Lots 3 and 4 can continue to be serviced with the existing infrastructure provided.

Section D.1.0 provides goals for the rural systems in the City of Hamilton. Goals include the protection of agricultural operations and protecting and recognizing the value of mineral aggregate resources. The Property is host to a variety of existing agricultural and rural uses. The Property has been identified on Appendix C of the Official Plan as having potential gravel and sand resources. However, a Minister zoning Order has been placed on the property to prohibit new uses on the Property, including the exploitation of aggregate resources. The proposed consent supports the continuation of agricultural operations.

Section D.4.0 provides policy direction for the Rural designation. In the Rural designation, a variety of agriculture, agriculture-related, on-farm secondary uses, other resource-based rural uses and institutional uses serving the rural community are permitted (D.4.1). All existing uses on the Property conform to policies for uses permitted uses in the Rural designation and are permitted to continue. This application does not propose to establish any new uses on the property.

Section F1.14.2 contains implementation policies for lot creation.

The Rural Official Plan states that a severance may be permitted for agricultural uses, agricultural-related uses and facilitating conveyances of land to a public body (F.1.14.2.1.b). The severance allows the continuation of the existing agricultural uses of the property and facilitates the potential for conveyance of conservation lands to the City of Hamilton or Conservation Halton.

Further, the Rural Official Plan states,

"All proposed severances that create a new lot shall:

- *i) comply with the policies of this Plan including a rural settlement area plan where one exists;*
- *ii) be compatible with and not hinder surrounding agricultural operations;*
- *iii) conform to the Zoning By-law;*

iv) only be permitted when both severed and retained lots have frontage on a public road; and,

v) meet the requirements of Section C.5.1, Private Water and Wastewater Services." (1.14.2.1 c))

The Property is not within a rural settlement area. There are no proposed changes in land use and the existing agricultural uses will continue. An Agricultural Viability Study was completed as part of this application and concludes that the proposed severances will not have an impact on surrounding agricultural operations. This study is discussed further in this report. The existing uses conform to the Zoning By-law and a minor variance application is included in this submission for Lots 1 and 2 since these lots are less than the minimum required lot area of 40.4 hectares. The requested minor variance is addressed in Section 4.0 of this report. As previously discussed, all severed lots have frontage on a public road and comply with the policies in the Official Plan regarding private water and wastewater services.

All proposed severances shall meet the MDS requirements (F.1.14.2.1 e)). As previously discussed, MDS I calculations were completed in the Agricultural Viability Report included in this application. The calculations confirm that the required MDS setbacks have been met for the neighbouring equestrian operation in relation to the location of proposed Lots 3 and 4. Please refer to the Agricultural Viability Report for further details on the MDS I calculation.

"The maximum lot size for all proposed severances and lot additions outside of designated Rural Settlement Areas, except severances or lot additions for agricultural purposes where both the severed and retained lots are proposed to contain agricultural uses, shall be restricted to the minimum size required for the use and to meet the land area requirements of Section C.5.1, with as little acreage as possible taken out of agricultural use." (F.1.14.2.1 f))

As discussed, a minor variance has been submitted in conjunction with the application for consent to sever to permit a smaller minimum lot area for proposed Lots 1 and 2. An Agricultural Viability Study was completed to provide justification to support the smaller agricultural lot sizes. Further, proposed Lots 3 and 4 are configured in such a way as to optimize the use of the existing agricultural while ensuring protection of the natural heritage lands. An EIS was completed and the proposed lot severances will not negatively impact the key natural heritage features on the property.

"Severances that facilitate the conveyance of lands to a public authority or a private land trust approved by the City for the purposes of natural heritage conservation shall be permitted provided:

i) a separate lot is not created for an additional dwelling or any other nonfarm use;

ii) there is no increased fragmentation of a key natural heritage feature or key hydrologic feature; and,

iii) a restrictive covenant or conservation easement is placed on title prohibiting development of the land for non-conservation or nonagricultural uses in perpetuity." (F.1.14.2.1 h))

Proposed Lot 4 is proposed to be configured as shown in **Figure 2** and conveyed to the City of Hamilton, Conservation Halton or another party to be set aside to be environmentally protected with the goal to maintain the connectivity and reduce fragmentation of the existing natural features on the Property. No new uses are proposed on Lot 4.

Section F.1.14.2.3 provides policy for lot creation in the Rural designation. Severances are permitted for agricultural uses.

"a) New lots for agricultural uses and agricultural-related uses shall demonstrate by a report prepared by an accredited professional knowledgeable in farm economics, such as an agrologist or agronomist, that the proposed agricultural lot(s) is(are) of sufficient size and nature to be reasonably expected to:

i) Sustain a commercially viable farm operation;

ii) Allow farm operators the flexibility to change the existing and proposed farm operation in the event of business failure;

iii) Allow farm operators the flexibility to diversify and intensify the production of agricultural commodities in response to changing economic conditions and trends in agriculture;"

An Agricultural Viability Study was completed as part of this application. The study contemplated the requirements of Section 1.14.2.3.a and concluded the proposed agricultural lots are of sufficient size and nature to be reasonably expected to sustain a commercially viable farm operation, allow farm operators the flexibility to change the existing and proposed farm operation in the event of business failure, and allow farm operators the flexibility to diversify and intensify the production of agricultural commodities in response to changing economic conditions and trends in agriculture. The study reviewed a number of resources to ensure the farm parcel sizes are sufficient to sustain a viable farm operation, while allowing flexibility to change/adapt the operation in response to changing trends in agriculture. Please refer to the Agricultural Viability Report to understand which resources were reviewed.

Section F.1.16 provides policy for MDS guidelines with respect to lot creation. A Minimum Distance Separation calculation was included in the Agricultural Viability Study and concludes the the required MDS I setback is met for the neighbouring equestrian operation in relation to the location of proposed Lots 3 and 4. Please refer to the Agricultural Viability Report for further details on the MDS I calculation.

The Rural Hamilton Official Plan designates the Property as Rural Site Specific Area R-33. The site specific area requires a portion of the lands will be zoned to protect the natural heritage and hydrologic features and functions and prohibits quarry and pit uses on the lands. As discussed in the forthcoming section, the existing zoning of the proposed lots protects the natural features on the Property and prohibits quarry and pit uses. The natural features will be further protected through the severance application as the majority of the natural features will be retained onto proposed Lot 4 and offered to Conservation Halton or the City of Hamilton for conservation purposes.

Based on the above summary, it is concluded that the proposed consent conforms to the policies of the Rural Hamilton Official Plan.

3.5 City of Hamilton Zoning By-law No. 05-200

The City of Hamilton Zoning By-law No. 05-200 came into effect on May 25, 2005 and is being implemented in stages. Various sections of the Zoning By-law have come into effect on different dates since 2005. Sections 7 and 12, which cover the applicable zones on the site were last passed by City of Hamilton Council under By-law 15-173 and became effective on July 15, 2015.

The Property consists of the following zones in the City of Hamilton Zoning By-law (see **Figure 6**):

- Rural Special Exception 258 (A2-258);
- Conservation/Hazard Land - Rural Special Exception 257 (P6-257);
- Conservation/Hazard Land - Rural Special Exception 257 (P7-257);
- Conservation/Hazard Land - Rural Special Exception 258 (P7-258);
- Conservation/Hazard Land - Rural (P8); and
- Conservation/Hazard Land - Rural Special Exception 257 (P8-257).

The Property is subject to a Minister's Zoning Order issued April 12, 2010. The order prohibits the erection, location, or use of any building or structure on the land except those lawfully in existence on the Property and those permitted by the applicable Zoning By-law. This application does not result in a change in use and does not propose to change or add any permitted uses to the subject site.

Below is a summary of the various zoning provisions which will continue to apply to the Property.

3.5.1 Rural (A2) Zone

The Rural (A2) zone permits the following uses:

- Abattoir
- Agriculture
- Agricultural Processing Establishment - Stand Alone
- Agricultural Storage Establishment
- Farm Product Supply Dealer
- Kennel
- Livestock Assembly Point
- Residential Care Facility
- Secondary Uses to Agriculture
- Single Detached Dwelling
- Veterinary Service – Farm Animal

Special Exception 258 prohibits the lands zoned A2-258 from being used as a mineral aggregate operation.

3.5.2 Conservation/Hazard Land – Rural (P6) Zone

The P6 Zone applies to all lands identified as an Environmentally Significant Area or Earth Science ANSI in the Rural Hamilton Official Plan. In addition, the P6 Zone is also applied to all lands identified as a Key Natural Heritage Feature outside of the Greenbelt Natural Heritage System, identified in the Rural Hamilton Official Plan.

The following uses are permitted in the Conservation/Hazard Land – Rural (P6) Zone:

- Agriculture
- Conservation
- Flood and Erosion Control Facilities
- Recreation, Passive
- Secondary Uses to Agriculture
- Single Detached Dwelling

Special Exception 257 prohibits the lands zoned P6-257 from being used as a mineral aggregate operation and that no new buildings or structures are permitted on these lands.

3.5.3 Conservation/Hazard Land – Rural (P7) Zone

The P7 Zone applies to all lands identified as a Key Hydrologic Feature, with the exception of Provincially Significant Wetlands, in the Rural Hamilton Official Plan. In addition, the P7 Zone is also applied to all lands identified as a Key Natural Heritage Feature within the Greenbelt Natural Heritage System, identified in the Rural Hamilton Official Plan.

The following uses are permitted in the Conservation/Hazard Land – Rural (P7) Zone:

- Agriculture
- Conservation
- Existing Single Detached Dwelling
- Flood and Erosion Control Facilities
- Recreation, Passive

Special Exception 257 prohibits the lands zoned P7-257 from being used as a mineral aggregate operation and that no new buildings or structures are permitted on these lands.

Special Exception 258 prohibits the lands zoned P7-258 from being used as a mineral aggregate operation.

3.5.4 Conservation/Hazard Land – Rural (P8) Zone

The P8 Zone applies to all lands identified as a Provincially Significant Wetland in the Rural Hamilton Official Plan.

The following uses are permitted in the Conservation/Hazard Land – Rural (P8) Zone:

- Agriculture
- Conservation
- Existing Single Detached Dwelling
- Flood and Erosion Control Facilities
- Recreation, Passive

Special Exception 257 prohibits the lands zoned P7-257 from being used as a mineral aggregate operation and that no new buildings or structures are permitted on these lands.

3.5.5 Summary

Below is a chart summarizing the proposed severances and minor variances that will be discussed further in Section 4.0 of this report.

Existing Parcel	Proposed Lot	Existing Zoning	Proposed Lot Area (ha)	Proposed Lot Frontage (m)	Minor Variances Required
353 Concession Road 11 East	1	P6-257, P7-257, P7-258, P8, A2-258	29.3 ha	250 metres along Concession 11 East	Relief of the required Minimum Lot Area of 40.4 ha to permit a 29.3 ha lot resulting in a variance of 11.1 ha.
385 Concession Road 11 East	2	P6-257, P7-257, P7-258, P8, A2-258	31.7 ha	425 metres along Concession 11 East	Relief of the required Minimum Lot Area of 40.4 ha to permit a 31.7 ha lot resulting in a variance of 8.7 ha.
412 Concession Road 11 East	3	P6-257, P7-257, P8-257, A2-258	49.6 ha	102 metres along Concession 11 East	No variances required
475 Concession Road 11 East	4	P6-257, P7-257, P8-257, A2-258	86 ha	848 metres along Concession 11 East	No variances required
515 Concession Road 11 East	5	P6-257, P7-257, P8-257	17.5 ha	315 metres along Concession 11 East and 193 metres along Milburough Line	No variances required

A variety of existing uses are present on the existing property. These uses include a horse training facility, single detached dwellings, vacant lands, and other agricultural operations. In the City of Hamilton Zoning By-law, the definition of "agriculture" includes horse training facilities. All existing residential, agricultural, and conservation uses are permitted in the various zones on the Property.

4.0 The Requested Minor Variance

During the pre-consultation meeting, the City of Hamilton confirmed that the reduction in minimum lot area for Lot 1 and Lot 2 could proceed by minor variance and a Zoning By-law amendment was not required. The lot sizes for Lot 1 and Lot 2 are to establish the pre-existing lot sizes and reflect the existing uses on site.

The purpose of this section of the Report is to analyze the request for the minor variance necessary to facilitate the application for consent to sever the property into five separate parcels.

In summary, the requested minor variance will permit proposed Lots 1 and 2 to have a reduced minimum required lot area of 29.3 ha and 31.7 ha respectively where a minimum of 40.4 hectares is required as set out in City of Hamilton By-law 05-200.

The table below provides details of the existing buildings located on lots 1 and 2 as observed using the City of Hamilton Base Mapping application.

Lot	Building Type	Approximate Ground Floor Area (m^2)	Height (storeys)
1	Residential	214	2
	Agricultural	310	1
	Accessory 1	30	1
	Accessory 2	30	1
	Accessory 3	12	1
	Accessory 4	32	1
2	Residential	480	2
	Agricultural 1 (five buildings total)	560 each	1
	Agricultural 2	755	1
	Agricultural 3	230	1
	Agricultural 4	9	1

Section 45 (1) of the *Planning Act* allows for variances to the zoning to be approved by the Committee of Adjustment if, in their opinion, it meets all of the following four tests:

1. It maintains intent of the Official Plan;
2. It maintains intent of the Zoning By-law;
3. It is desirable for the appropriate use of the land;
4. It is minor.

Test # 1 - Is the variance in-keeping with the intent of the Official Plan?

The Property is designated as "Rural" in the Rural Hamilton Official Plan (**Figure 5**). A variety of agriculture and agriculture-related uses are permitted on the Property. Although Rural lands are characterized as having lower agricultural potential, it is a goal of the Rural designation to maintain agricultural viability and preserve the lands for primarily agricultural uses. The proposed minor variance allows for smaller agricultural lots while providing agricultural flexibility and viability to serve the needs to the community. The proposed consent application proposed to re-establish Lots 1 and 2 as they were prior to St. Marys purchase and merging of title.

In accordance with Official Plan Policy Section 1.14.2.3.a, an Agricultural Viability Study was completed for the property to determine if the proposed lot sizes presented viable agricultural operations. The study analyzed many factors associated with agricultural lot sizes and factors that affect agricultural operation viability. The study concluded that the proposed severances should be permitted as the resultant parcels are reflective of surrounding farm sizes, provide opportunity for alternative farm function, promote local small scale agricultural production, and will provide continued growth and economic prosperity in the agricultural system.

The applications also aid in meeting the Official Plan's goals for Rural lands because the agricultural land will be protected for future use and no new uses or buildings and structures are proposed as part of the application.

For the reasons outlined above, it is our opinion the requested variance to reduce the minimum lot size for Lots 1 and 2 is in-keeping with the intent of the Official Plan.

Test # 2 - Is the variance in keeping with the intent of the Zoning By-law?

The Property is zoned Conservation/Hazard Land (P6), Conservation/Hazard Land (P7), Conservation/Hazard Land (P8), and Rural (A-2). A special exception through a Minister's Zoning Order has been added on the lands to prohibit any mineral aggregate operations on the property and that no new buildings or structures are permitted on these lands.

All zones on Lots 1 and 2 permit agricultural uses and existing residential uses. The intent of the minimum requirements for agricultural lot sizes within the Zoning By-law is to ensure agricultural lots are large enough to support viable and sustainable agricultural operations and to prevent fragmentation of the agricultural/rural land base.

Proposed Lots 1 and 2 meet all other requirements of the Zoning By-law and are not proposing any new uses other than the existing agricultural and residential uses. Further, an Agricultural Viability Study was completed to examine if the lots would be large enough to support viable agricultural operation. The study confirms the proposed lots would be agriculturally viable and are larger than the average parcel size for rural designated lands in the City of Hamilton and therefore meet the intent of the Zoning By-law. The reduced minimum lot area will allow for the continuation of agricultural uses without interruption on the property while allocating the surrounding natural heritage features to separate lots.

For the reasons outlined above, it is our opinion the requested variance to reduce the minimum lot size for Lots 1 and 2 is in-keeping with the intent of the Zoning By-law.

Test # 3 - Will the variance provide for the desirable development of the land?

The City of Hamilton's Official Plan and Zoning By-law identify the site within the City's rural land base and the Official Plan policies identify and protect this area for rural resource related activities which includes agricultural use and natural heritage resource management. Goals of the Official Plan include supporting the significant contribution agriculture makes to the lifestyle, environment and economy of the City and to encourage all lands used for agricultural uses to remain in agricultural uses. Further, the site is within the Greenbelt Area as part of the Protected Countryside.

It is our opinion the proposed severances provide for desirable development of the land for a number of reasons. The lands host existing residential and agricultural uses that are currently functioning within the extent of the proposed lot boundaries of the Property. The reduced lot areas will allow these existing uses to continue while still providing sufficient agricultural land to host the exiting agricultural operations, as confirmed by the Agricultural Viability Study.

The smaller lot sizes are more economically affordable for smaller, individual farmers to purchase and operate rather than one large parcel with multiple residential dwellings. These smaller lot sizes are also reflective of the lot sizes that once existed on the property.

The re-establishment of the lots will provide the opportunity for individuals to purchase a property and contribute to the economy of the City.

The proposed severances will allow for agricultural uses within the area to continue without changing the physical landscape of the area. The application does not propose any new uses, thereby ensuring continued protection of the existing rural land base for rural resource based activities.

For the reasons outlined above, it is our opinion the requested variance to reduce the minimum lot size for Lots 1 and 2 represents desirable development for the land.

Test # 4 - Is the variance minor in nature?

The proposed variance will allow the re-creation of previously existing rural lots prior to the lots merging on title under common ownership. The proposed lot sizes will allow the existing uses to continue at a scale that does not disrupt any adjacent properties and does not alter the physical appearance of the area. The Agricultural Viability Study confirms that the lots are of sufficient size to support the existing uses and that the proposed lot sizes are consistent with rural lot sizes in the surrounding area and City of Hamilton. New uses are not proposed that would impact the surrounding area.

For the reasons outlined above, it is our opinion the requested variance to reduce the minimum lot size for Lots 1 and 2 is minor in nature.

5.0 CONCLUSION

The Property is designated as Protected Countryside in the Greenbelt Plan and designated as Rural in the Rural Hamilton Official Plan. St. Marys is proposing to sever the property into five (5) separate parcels – four (4) for re-sale and one (1) for potential conveyance to the City of Hamilton, Conservation Halton or another party to be set aside for environmental protection as it is predominantly zoned as Conservation/Hazard Land. A minor variance to the minimum required lot area for two (2) of the proposed lots is included to facilitate the consent.

The proposed consent and minor variance applications will:

- Support the continuation of the existing agricultural operations on the Property at an appropriate scale; and
- Protect and enhance the existing natural heritage features located on the Property;

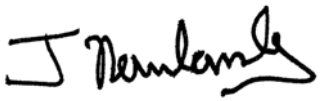
Overall the applications represent good planning and:

- Is consistent with the Provincial Policy Statement (2020);
- Conforms to the Growth Plan for the Greater Golden Horseshoe (2019);
- Conforms to the Greenbelt Plan (2017);
- Conforms to the Rural Hamilton Official Plan; and
- Complies with the City of Hamilton Zoning By-law.

Respectfully submitted,

MacNaughton Hermsen Britton Clarkson Planning Limited

Brian Zeman, BES, MCIP, RPP
President



James Newlands, HBComm., MSc.
Planner

Appendices

Appendix **A**

ONTARIO REGULATION 138/10

made under the

PLANNING ACT

Made: April 12, 2010
Filed: April 13, 2010
Published on e-Laws: April 14, 2010
Printed in *The Ontario Gazette*: May 1, 2010

ZONING AREA — CITY OF HAMILTON

Application of Order

1. This Order applies to the land in the City of Hamilton, formerly in the Town of Flamborough, described as part of Lot 1 and Lots 2 and 3 in Concession 11, East Flamborough, and further identified as Property Identifier Numbers 17525-0164 (LT), 17525-0158 (LT) and 17525-0157 (LT).

Use of Land

2. Every use of the land described in section 1, and every erection, location or use of any building or structure on the land described in section 1, is prohibited, except,

(a) uses, buildings and structures lawfully in existence on the date this Order comes into force; and

(b) the use of any land, building or structure that was permitted by the applicable zoning by-laws on the date this Order comes into force.

Conditions

3. (1) Every use of the land described in section 1, and every erection, location or use of any building or structure on the land described in section 1, shall be in accordance with this Order.

(2) Nothing in this Order prevents the reconstruction of any building or structure that is damaged or destroyed by causes beyond the control of the owner if the dimensions of the original building or structure are not increased or its original use altered.

(3) Nothing in this Order prevents the strengthening or restoration to a safe condition of any building or structure.

(4) Nothing in this Order prevents the demolition and reconstruction or replacement of any building or structure that is deemed unsafe under the Ontario Building Code if the dimensions of the original building or structure are not increased or its use altered.

(5) Any addition to any building or structure, and the extension or enlargement of any building or structure, is prohibited.

Commencement

4. This Regulation comes into force on the day it is filed.

Made by:

JIM BRADLEY

Minister of Municipal Affairs and Housing

Date made: April 12, 2010.

Back to top

Appendix **B**

Hamilton

REQUEST FOR FORMAL CONSULTATION

Office Use Only

Date Received	Date Circulated	File No.
Fee Paid $1,200.00 ☐	Hamilton Conservation Authority $570.00 ☐ Conservation Halton $1,685.00 ☐ (cheque made paybale to applicable Authority)	

PART I CONTACT INFORMATION

NAME	ADDRESS	TELEPHONE NO.
*Registered Owner(s)** St. Marys Cement Inc. (Canada) c/o David Hanratty, Director of Land & Resources		Home: ( ) Business: (705) 930 6180 Fax: ( ) E-Mail: David.Hanratty@vcimentos.com
Applicant (if different from Owner) Same as Owner		Home: ( ) Business: ( ) Fax: ( ) E-Mail:
All correspondence should be sent to (check one):	☒ Owner ☐ Applicant	

** If a numbered company, give name and address of principal owner*

PART II GENERAL PROPERTY DESCRIPTION

1. **Former Area Municipality** East Flamborough

2. **Address and Legal Description of Property**

Municipal Address	*Lot/Parcel No.*	*Concession*	*Former Township*
Multiple Addresses. Please see accompanying cover letter for information.			
Registered Plan No.	*Lot(s)/Block(s)*	*Reference Plan No.*	*Part(s)*

3. **Particulars of Property** (*in metric units*)

Frontage	*Depth*	*Area* 5 properties that have merged into one - total 214.10 hectares

4. **What is the current use of the subject lands?**
Agricultural, Rural residential, Natural Environment

PART III PROPOSAL

1. **Provide a Brief Description of the proposal.**
St. Marys is formally requesting a pre-consultation meeting with the City and Conservation Authority to further discuss the severance potential of its lands along Concession 11 East. As the City is aware, these lands were assembled by St. Marys for their proposed Flamborough Quarry. This resulted in the lands being merged into one parcel. St. Marys is proposing to re-establish five (5) lots. Proposed lots 1 (29.3ha), 2 (31.7ha), 3 (58.5 ha) and 5 (17.5 ha) would be retained by St. Marys for re-sale while proposed lot 4 (77.1 ha) could potentially be conveyed to the City or Conservation Halton for a tax receipt as it is predominantly zoned Environmental Protection.

2. **Attach a sketch or concept plan to the application.**
Please see attached.

3. **Please provide any additional information which may assist staff and other agencies in reviewing this proposal.**
Please see attached cover letter.

PART IV AUTHORIZATIONS

If the applicant is not the owner of the land that is the subject of this application, authorization set out below must be completed.

Authorization of Owner for Applicant to Make the Application

I, _____, am the owner of the land that is the subject of this application and I authorize _____ to make this application on my behalf.

_____ _____

Date Signature of Owner

Authorization of Owner for Agent to Provide Personal Information

I, _____, am the owner of the land that is the subject of this request and for the purposes of the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c. M.56, I authorize _____, as my agent for this application, to provide any of my personal information that will be included in this application or collected during the processing of the application.

_____ _____

Date Signature of Owner

PART V DISCLOSURE OF INFORMATION

Consent of Owner to the Disclosure of Application Information and Supporting Documentation

Application information is collected under the authority of the *Planning Act*, R.S.O. 1990, c. P.13. In accordance with that Act, it is the policy of the City of Hamilton to provide public access to all *Planning Act* applications and supporting documentation submitted to the City.

I, St. Marys Cement Inc (Canada) c/o David Hanratty, Director of Land and Resources (Print name of Owner), the Owner, hereby agree and acknowledge that the information contained in this application and any documentation, including reports, studies and drawings, provided in support of the application, by myself, my agents, consultants and solicitors, constitutes public information and will become part of the public record. As such, and in accordance with the provisions of the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c. M.56, I hereby consent to the City of Hamilton making this application and its supporting documentation available to the general public, including copying and disclosing the application and its supporting documentation to any third party upon their request.

12/08/19

Date

Signature of Owner (I have the authority to bind the Corporation)

NOTE: *Where owner or applicant is a corporation, the full name of the Corporation with name and title of signing officer must be set out.*

PART VI COLLECTION OF INFORMATION

The personal information contained on this form is collected under the authority of the *Planning Act*, R.S.O. 1990, c. P.13, and will be used for the purpose of processing the request and application. This information will become part of the public record and will be made available to the general public. Questions about the collection of this information should be directed to the Coordinator of Business Facilitation, Planning and Economic Development Department, City of Hamilton, 71 Main Street West, 1st Floor, City Hall., Hamilton, Ontario, Telephone: 905-546-2424, ext.1284.

MHBC
PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE

KITCHENER
WOODBRIDGE
LONDON
KINGSTON
BARRIE
BURLINGTON

August 13, 2019

Trudy Kennedy, Senior Project Manager
City of Hamilton, Planning Division
Planning and Economic Development Department
Development Planning, Heritage and Design (Rural Team)
71 Main St. W, 5th Floor Hamilton, Ontario, L8P 4Y5

Dear Ms. Kennedy:

RE: Request for Pre-consultation – Severance potential of St. Marys Cement Inc. (Canada) Former Proposed Flamborough Quarry
OUR FILE 8816AA

Further to our discussion with the City and an internal meeting on May 6th, 2019 St. Marys Cement Inc. (Canada) ("St. Marys") is now formally requesting a pre-consultation meeting with the City and Conservation Authority to further discuss the severance potential of the above mentioned lands. The lands consist of five parcels identified as:

Municipal Address	Legal Description
353 Concession Road 11 East	Pt Lot 5, Concession 11 East Flamborough, As in CD183074, Flamborough City of Hamilton being PIN 17525-0151 (LT)
385 Concession Road 11 East	Pt Lot 4, Concession 11 East Flamborough, As in CD399791; save and except Part 1 on 62R16062; Hamilton being PIN 17525-0227 (LT)
412 Concession Road 11 East	Pt Lot 2 and Lot 3, Concession 11 East Flamborough, As in AB157693, Flamborough City of Hamilton being PIN 17525-0157 (LT)
475 Concession Road 11 East	Pt Lot 2, Concession 11 East Flamborough, As in AB149944, Flamborough City of Hamilton being PIN 17525-0158 (LT)
515 Concession Road 11 East	Pt Lot 1, Concession 11 East Flamborough, As in AB200144, Flamborough City of Hamilton being PIN 17525-0164 (LT)

As the City is aware, these lands were assembled by St. Marys for their proposed Flamborough Quarry. This resulted in the lands being merged into one parcel. Please see the attached Figure 1 for the original parcel fabric and current zoning.

St. Marys is proposing to re-establish five (5) lots. See attached Figure 2 for the proposed lot configuration and proposed lot areas. Proposed lots 1 (29.3ha), 2 (31.7ha), 3 (58.5 ha) and 5 (17.5 ha) would be retained by St. Marys for re-sale while proposed lot 4 (77.1 ha) could potentially be conveyed to the City or Conservation Halton for a tax receipt as it is predominantly zoned Environmental Protection.

A similar application was approved by the Committee of Adjustment in 2014 and the parcel was subsequently sold. This parcel is located at 1869 Millburough Line and is shown on Figure 1.

The lands subject to this pre-consultation are outside of the Provincial Prime Agricultural system and the City's Prime Agricultural area mapping.

Yours truly,

MHBC

Brian Zeman, BES, MCIP, RPP
President

cc. *David Hanratty, St. Marys Cement Inc. (Canada)*
Stephen May, St. Marys Cement Inc. (Canada)

FIGURE 1 - Existing Zoning and Lot Configuration

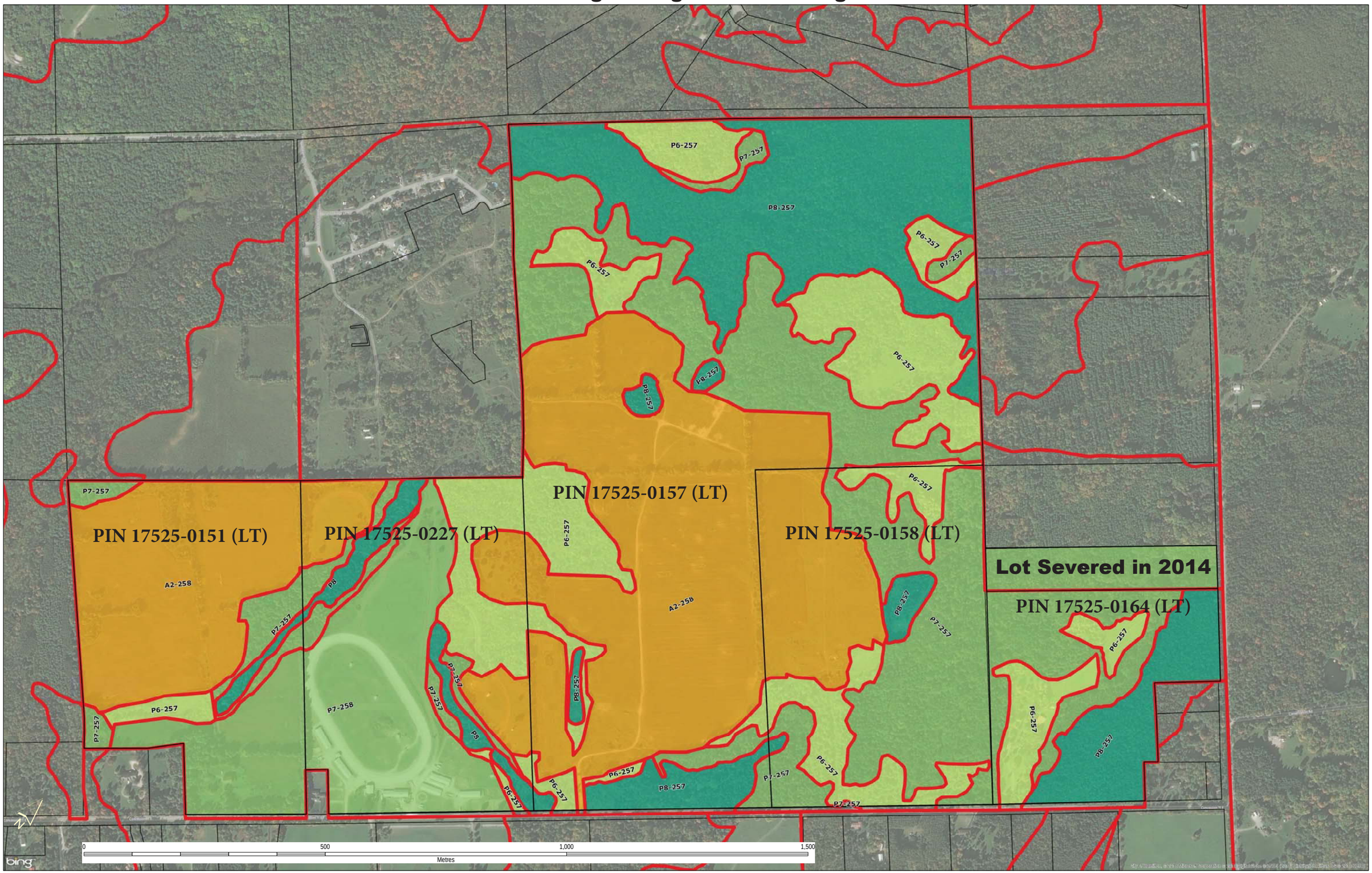
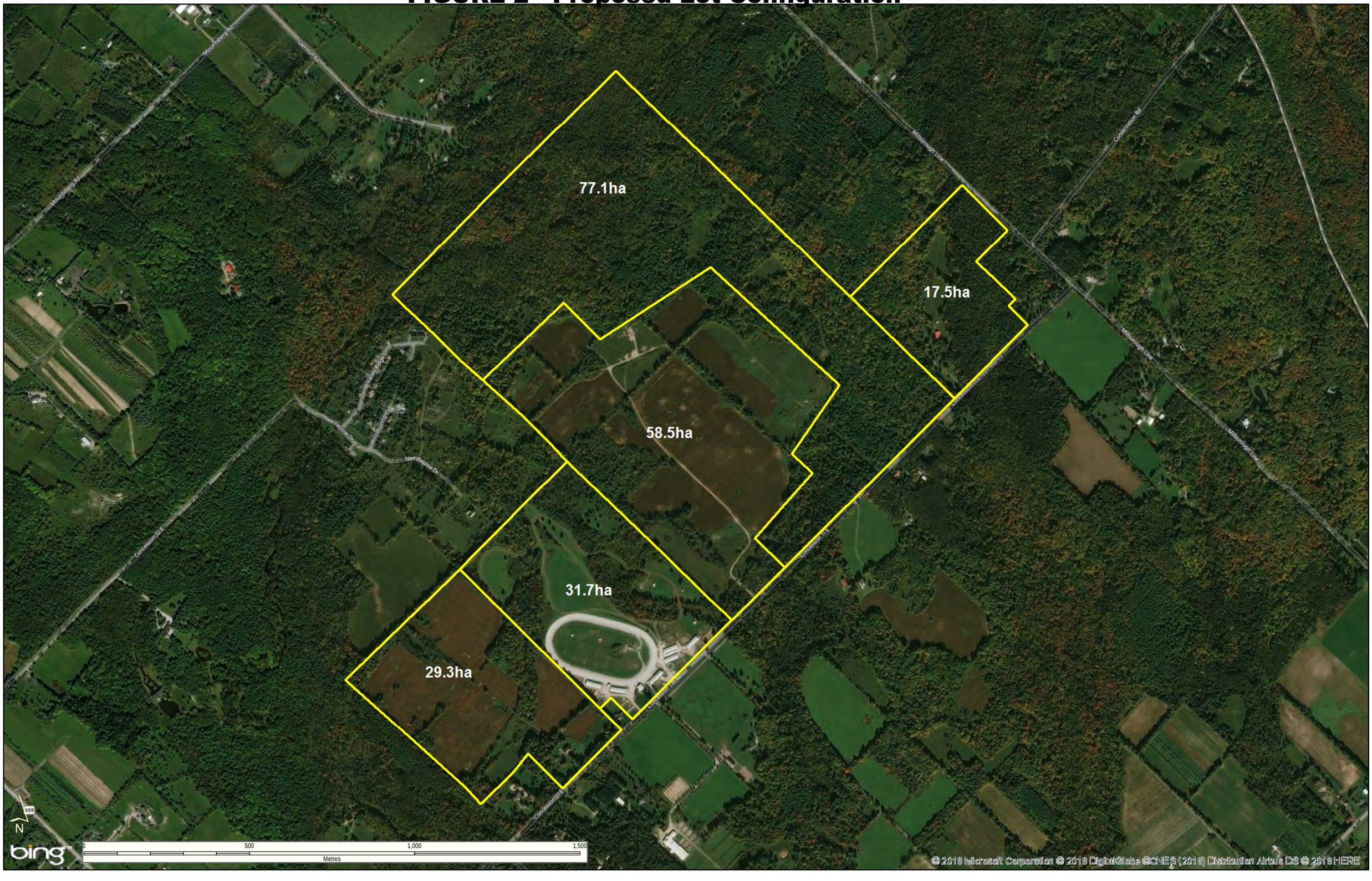


FIGURE 2 - Proposed Lot Configuration



Davis, Michael

From: Plosz, Catherine
Sent: October 3, 2019 2:43 PM
To: Davis, Michael
Cc: Christy, June
Subject: 353,385,412, 475, and 515 Concession 11 Road East, Flamborough (FC-19-106)

Hi Michael,

I have reviewed this formal consultation application to re-establish 5 lots that were assembled for the proposed Flamborough Quarry.

The property contains Core Areas (Provincially Significant Wetland, Significant Woodlands, Environmentally Significant Area, streams, and Significant Wildlife Habitat) shown on Schedule B of the Rural Hamilton Official Plan. It is within the Greenbelt Plan Protected Countryside and Natural Heritage System. Portions of the site are regulated by Conservation Halton.

Environmental studies were completed to support the proposed Flamborough Quarry in 2009.

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

Therefore, since severances are defined as development, an EIS report is required, to determine the appropriate number, size, and boundaries of lots. I recognize that there are existing homes, structures, and agricultural uses on the properties and that the proposal will re-establish these uses. Therefore the EIS can be scoped and can use the previous environmental data and reports. The EIS should be used, along with other studies (agricultural viability report) to guide the boundaries and number of lots.

I will attend DRT on October 9 to speak to my comments.

Catherine Plosz, R.P.P., M.Sc.
Natural Heritage Planner
Development Planning, Heritage and Design (Rural Team)
Planning and Economic Development Department
71 Main Street West, Hamilton, ON L8P 4Y5
Phone: (905) 546-2424 Ext. 1231
E-mail: Catherine.Plosz@hamilton.ca

Conservation Halton

905.336.1158
Fax: 905.336.7014
2596 Britannia Road West
Burlington, Ontario L7P 0G3
conservationhalton.ca

Protecting the Natural Environment from Lake to Escarpment

October 8, 2019

Ms. June Christy – Senior Project Manager, City of Hamilton
71 Main Street West, 5th Floor
Hamilton, ON L8P 4Y5

BY MAIL & EMAIL

Dear Ms. Christy:

Re: Formal Consultation Application FC-19-106
353, 385, 412, 475, 515 Concession Road 11 East
City of Hamilton
MHBC Planning – Applicant

Conservation Halton (CH) staff has reviewed the above-noted application as per our responsibilities under Ontario Regulation 162/06; the Provincial Policy Statement (PPS) (delegated responsibility for comments relating to provincial interests under Sections 3.1.1-3.1.7 inclusive); the Memorandum of Agreement (MOA, 2013) with the City of Hamilton; and as a public body under the *Planning Act*. These responsibilities are not mutually exclusive. Comments that pertain to items contained in the MOU may also apply to areas regulated under Ontario Regulation 162/06.

The following comments relate to the items marked as "applicable" for this specific application. Comments under Ontario Regulation 162/06 are clearly identified and are requirements. Other comments are advisory.

Ontario Regulation 162/06	**Applicable**
Lake Ontario/Burlington Bay/Hamilton Harbour Shoreline Hazards &/or allowances	☐
River and Stream Valley Hazards (flooding/erosion) &/or allowances	☒
Wetlands &/or Other Areas*	☒
Hazardous Lands (Unstable Soil/Unstable Bedrock)	☐
CH Permit Requirements	☒
One Window Delegated Authority under PPS	
Natural Hazards (Sections 3.1.1-3.1.7 inclusive)	☒
CA/MOA	
Sub-watershed Planning/Master Drainage Planning	☐
Significant Habitat of Endangered & Threatened Species	☐
Significant Wildlife Habitat	☐
Areas of Natural & Scientific Interest	☐
Fish & Fish Habitat	☐
Stormwater Management	☐
Sensitive Surface Water Features	☐
Sensitive Groundwater Features	☐
Other Comments (as a Public Body)	
Niagara Escarpment Plan	☐
Watershed Plan	☐
Greenbelt Plan	☒
Source Protection Plan	☐
Hamilton Harbour Remedial Action Plan	☐

*Other areas are areas where development could interfere with the hydrologic function of a wetland, including areas within 120 m of all provincially significant wetlands and wetlands greater than or equal to 2 ha in size, and areas within 30 m of wetlands less than 2 ha in size.

Proposal

St. Mary's Cement is proposing to re-establish five (5) lots that merged on title due to their assembly for the proposed Flamborough Quarry. Proposed lots 1 (29.3 ha), 2 (31.7 ha), 3 (58.5 ha) and 5 (17.5 ha) would be retained by St. Mary's for re-sale. The applicant also wishes to explore proposed lot 4 (77.1 ha) being conveyed to public ownership as it is predominantly zoned Conservation/Hazard Land. At a minimum, Consent to Sever and Minor Variance applications will be required to implement the proposal. Official Plan and Zoning By-law amendments may also be required.

Staff received the following in support of this application:

- *Figure 1 – Existing Zoning and Lot Configuration*
- *Figure 2 – Proposed Lot Configuration*

Ontario Regulation 162/06

The subject properties are regulated by CH as they are traversed by tributaries of Bronte Creek and contain the flooding and erosion hazards associated with those watercourses. CH regulates a distance of 15 metres from the greater of the flooding and erosion hazards associated with Bronte Creek. Additionally, the subject properties contain portions of the Lower Mountsberg Creek Provincially Significant Wetland (PSW) Complex and other wetlands. CH regulates a distance of 120 metres from the limit of a PSW or wetland greater than 2 hectares in size and 30 metres from the limit of a wetland less than 2 hectares in size. Formal permission is required to be issued by CH prior to any development (structures, grading, filling, etc.) on the subject properties.

Key Comments

#1.) Proposed Lots 1, 2, and 5

Proposed Lots 1, 2, and 5 contain the flooding and erosion hazards associated with Bronte Creek and a portion of a PSW and wetland greater than 2 hectares in size. Through review of planning applications, CH staff works with applicants and watershed municipalities to ensure no new development, including lot creation, or site alteration is permitted within the flooding and erosion hazards, as to ensure that the proposal in not contrary to the PPS or CH policies. Further, CH recommends that new lots maintain a minimum 30 metre setback from a PSW or wetland greater than 2 hectares in size, and a minimum 15 metre setback from a wetland less than 2 hectares in size be maintained for proposed lot lines. However, it is staff's understanding that this application has been made to re-establish the subject lots that merged on title. Given the nature of the application, that Proposed Lots 1, 2, and 5 contain existing dwellings and/or existing industrial uses, and that no new development is proposed, staff has no outstanding concerns to re-establish these lots to their previous configuration. The applicant is advised that the subject lots are regulated by CH and any proposed development would need to meet CH's regulatory policies.

#2.) Proposed Lots 3 and 4

Based on a review of *Figure 2* submitted with this application, the proposed configuration of Lots 3 and 4 bisects hazardous areas and natural heritage features. We recommend that all hazards and natural heritage features plus applicable regulated allowances and/or setbacks be conveyed to one lot, as the intent is to limit fragmentation of ownership of hazards and natural heritage lands.

In order to accurately delineate the hazards and natural heritage features, and ultimately establish the proposed lot lines, wetland staking by CH staff and a topographic survey delineating the hazards will be

required. CH would be pleased to arrange a time to stake the wetland and provide flood elevations for the subject lots.

#3.) Proposed Land Conveyance

Further discussions with City staff is recommended to determine the City's and/or CH's interest in obtaining these lands. At this point in time, CH is not in a position to make a determination on this and would need to take the request to our Land Panel meeting (meets monthly based on agenda items) to determine CH's interest in obtaining these lands via fee simple through Environment Canada's Ecological Gifts Program. If it was determined that the property was of interest, CH would then need to obtain an appraisal to determine Fair Market Value for the tax receipt. This process can take around 6 months. Please contact Meghan Hunter, Manager, Risk and Lands at extension 2332 for further information in this regard.

One Window Delegated Authority under PPS
Natural Hazards (Sections 3.1.1-3.1.7 inclusive)

Please refer to points #1 and #2 under the heading 'Key Comments' for comments in this regard.

CH/Hamilton MOA

The subject properties are either within or adjacent to lands that contain the following designations:

- Hamilton Natural Heritage System
- Significant Woodland
- Environmentally Sensitive Areas

Should the City decide that an Environmental Impact Study (EIS) is required in support of this application or future applications, CH would be pleased to provide technical support as per our MOA. Please keep CH apprised of any decisions in this regard.

Summary/Conclusion

In light of the above, staff has no outstanding concerns to the re-establishment of Lots 1, 2, and 5 to their previous configuration. It is recommended that the applicant reconfigure the proposed configuration of Lots 3 and 4 to ensure all hazards and natural heritage features be conveyed to one lot and avoid fragmenting such features.

Staff will be in attendance at the upcoming Development Review Team Meeting Wednesday October 9, 2019 to further discuss the items contained in this letter. Additional comments, requirements, and recommendations may arise following that meeting.

We trust the above is of assistance. If you have any further questions, please contact the undersigned at extension 2279.

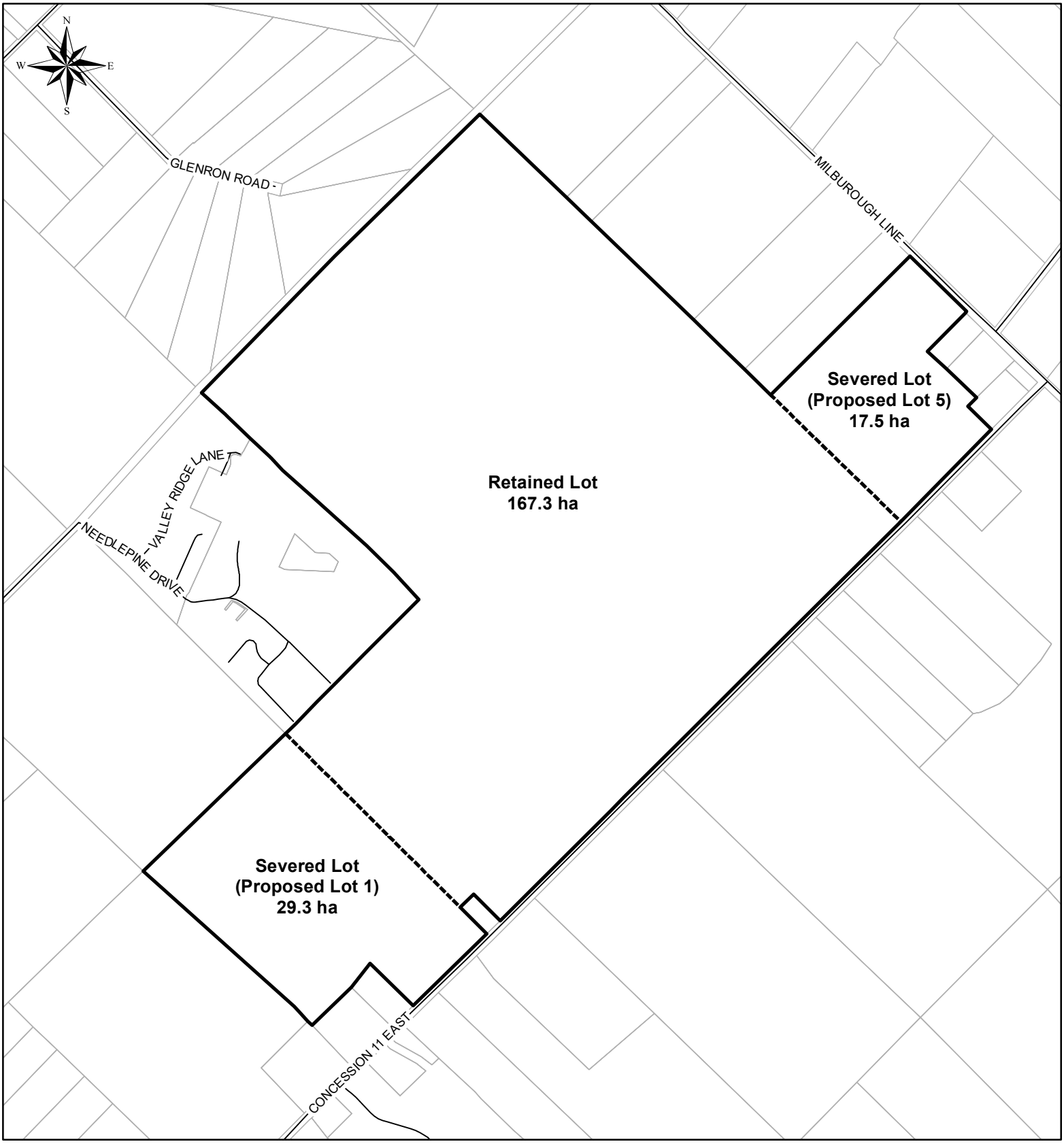
Sincerely,

O. Panczyk

Ola Panczyk
Environmental Planning Analyst
OP/

Cc: Michael Davis, City of Hamilton (By Email)

Appendix **C**



Severance Sketch
Consent Application # 1

CBM Flamborough
Part Lots 1-5, Concession 11
East Flamborough
City of Hamilton

Legend

Subject Lands

Proposed Lot Severance Line

DATE
March 19, 2020

SOURCES
Lot 3 configuration based on Environmental Constraints figure by Stantec dated November 27, 2019.

0 60 120 240 360 480
Meters (1:12,500)

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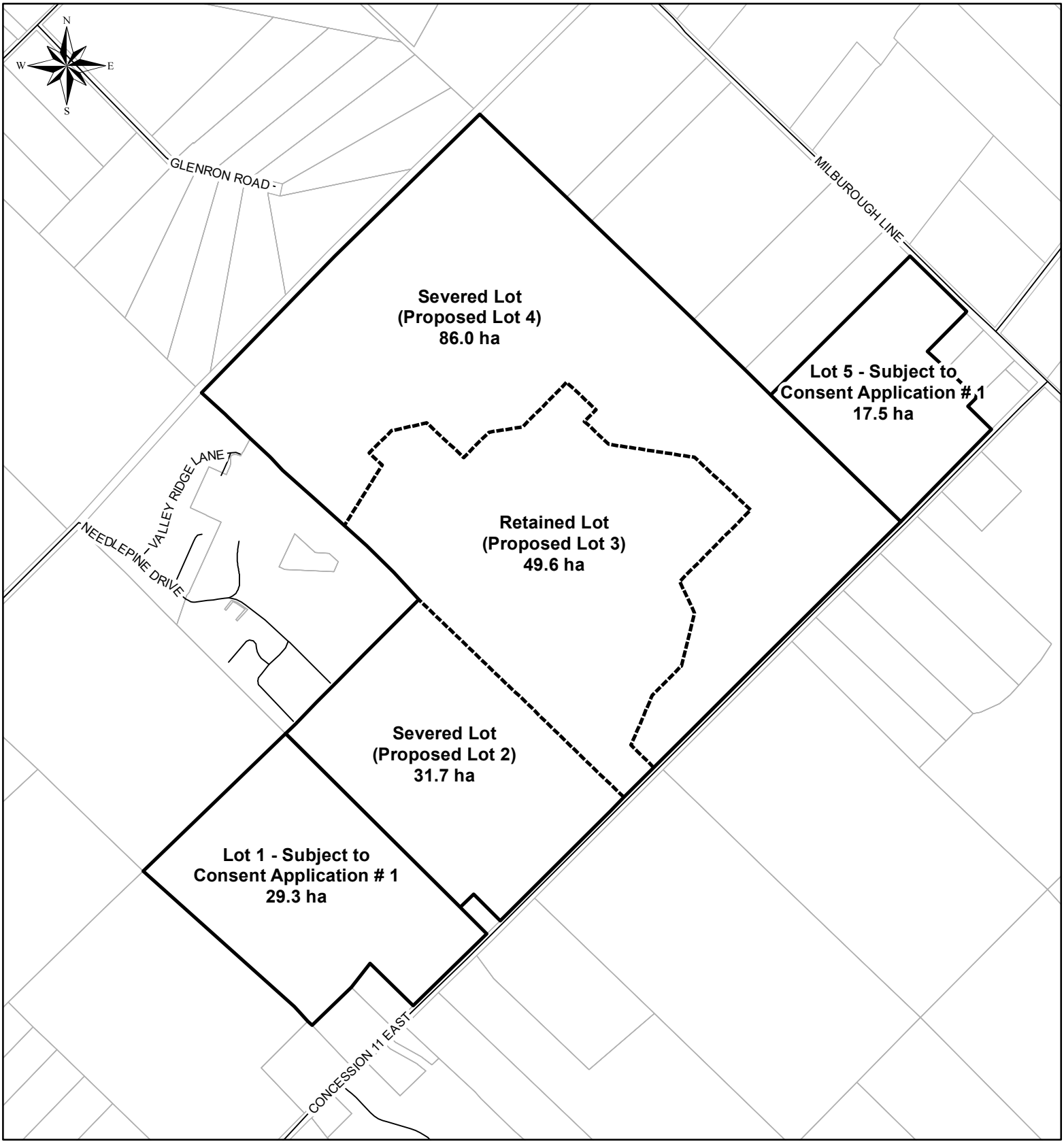
MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

Appendix **D**



Severance Sketch
Consent Application # 2

CBM Flamborough
Part Lots 1-5, Concession 11
East Flamborough
City of Hamilton

Legend

Subject Lands

Proposed Lot Severance Line

DATE
March 19, 2020

SOURCES
Lot 3 configuration based on Environmental Constraints figure by Stantec dated November 27, 2019.

0 60 120 240 360 480
Meters (1:12,500)

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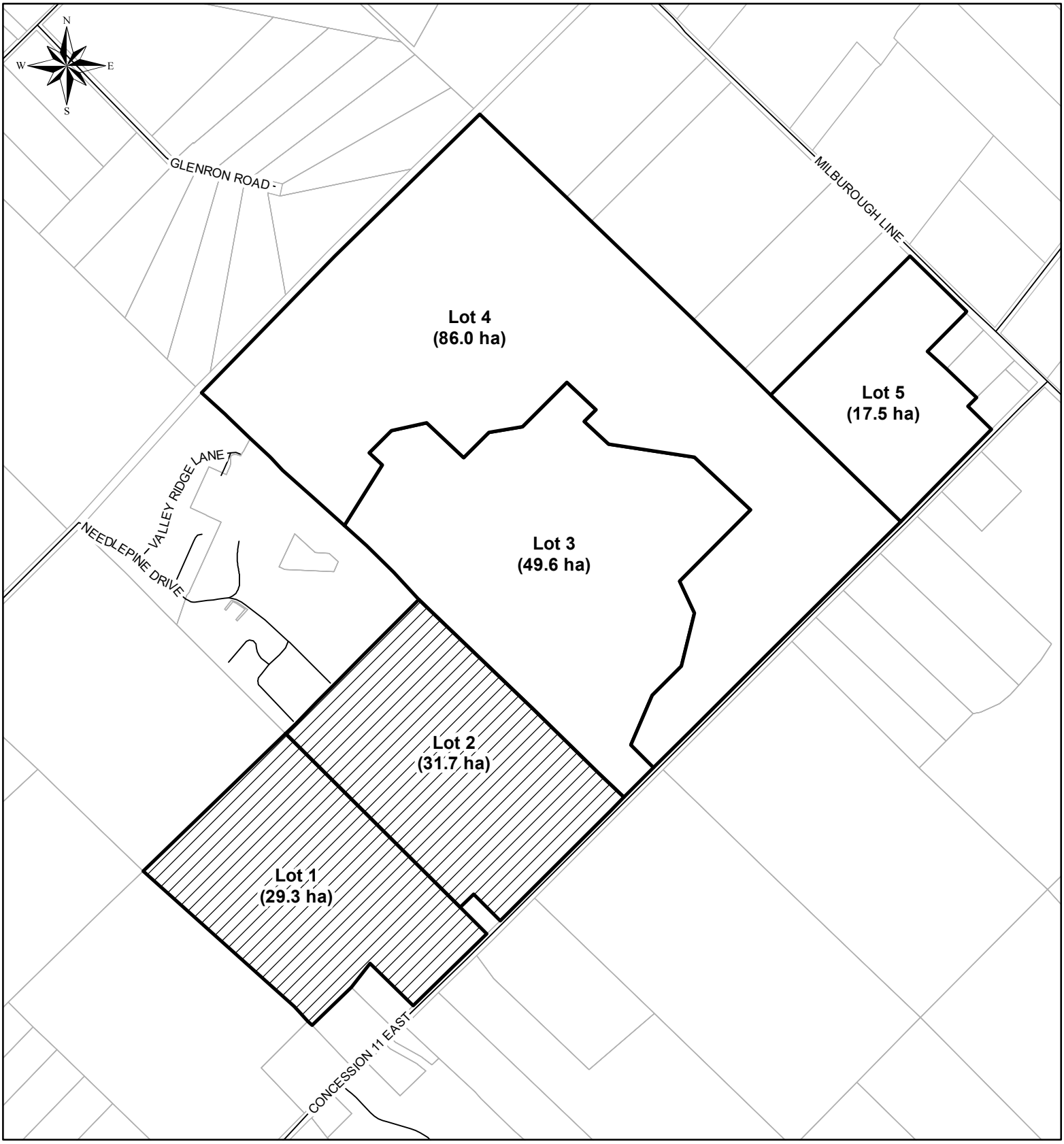
MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

Appendix **E**



Lands Subject to Minor Variance Application

CBM Flamborough
Part Lots 1-5, Concession 11
East Flamborough
City of Hamilton

Legend

Lands subject to minor variance application to permit a reduced minimum lot area

DATE
March 19, 2020

SOURCES
Lot 3 configuration based on Environmental Constraints figure by Stantec dated November 27, 2019.

0 60 120 240 360 480
Meters (1:12,500)

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MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

Figures

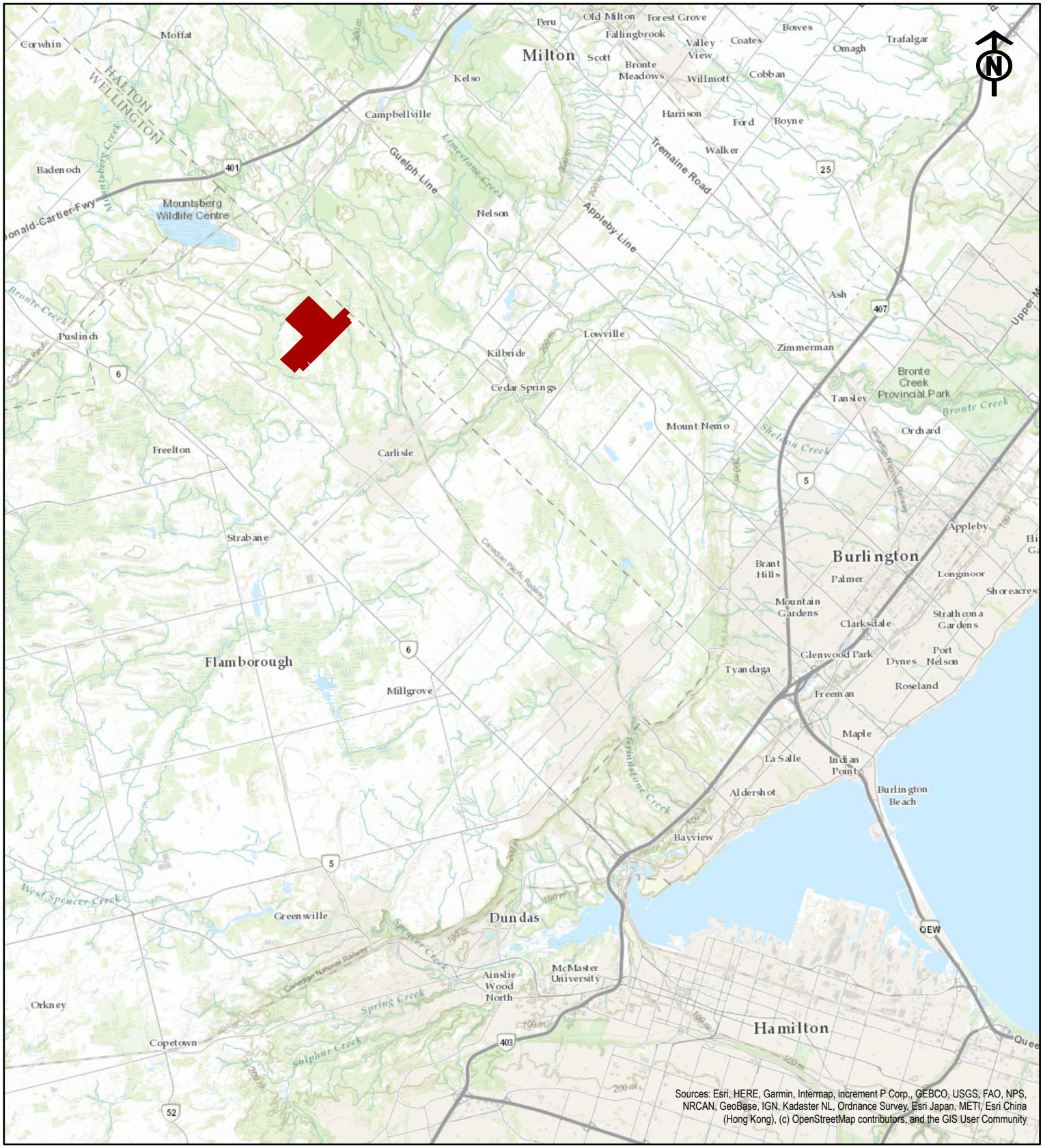


FIGURE 1

PROPERTY LOCATION

CBM Flamborough

Part Lots 1-5, Concession 11
East Flamborough
City of Hamilton

LEGEND

Project Boundary

DATE Dec. 3, 2019

SOURCES ESRI Topographic

0 0.5 1 2 3 4 5
Kilometers

8816AA - Report Figures

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

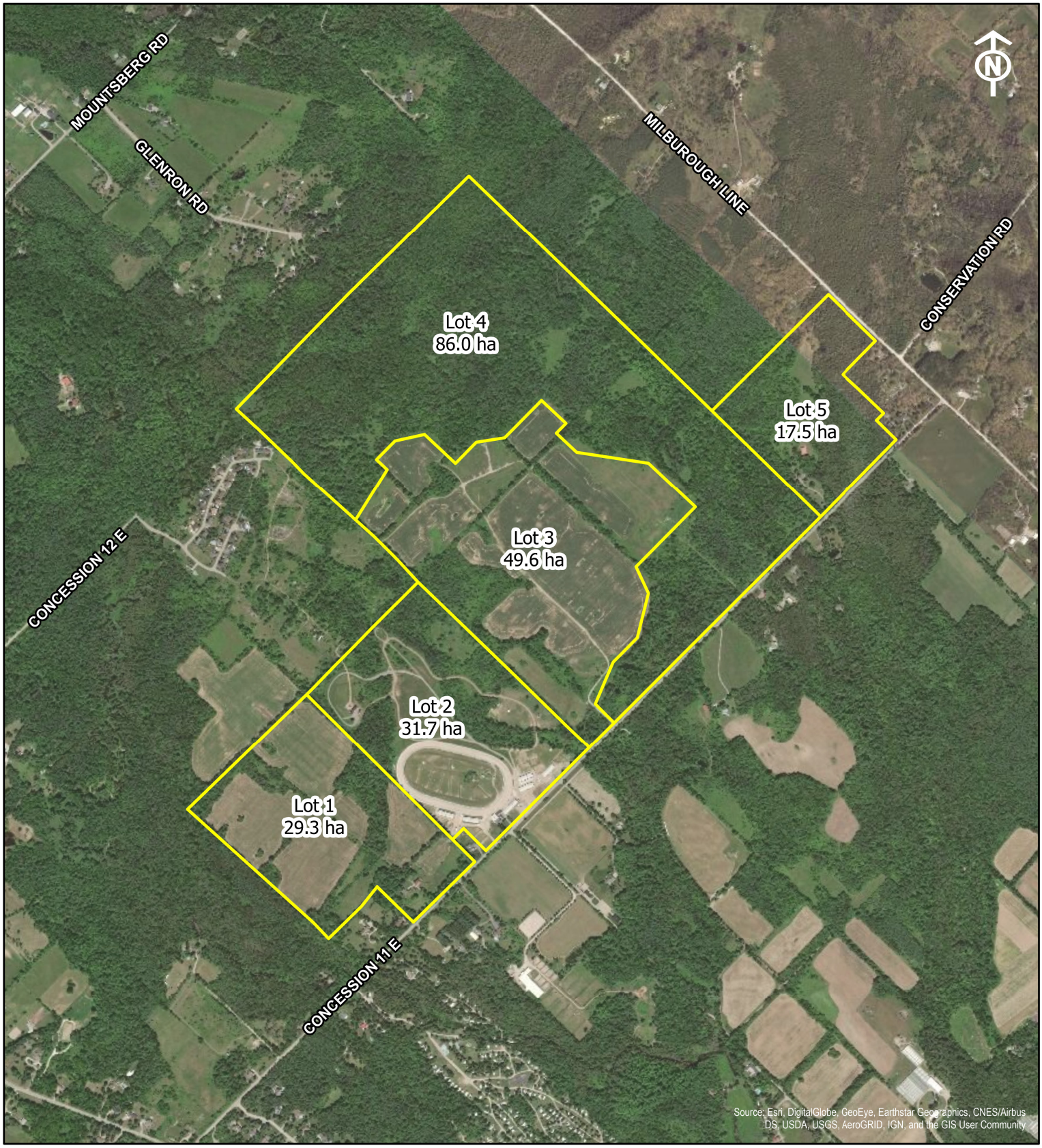


FIGURE 2

PROPOSED LOT CONFIGURATION

CBM Flamborough

Part Lots 1-5, Concession 11
East Flamborough
City of Hamilton

LEGEND

Lot Boundaries

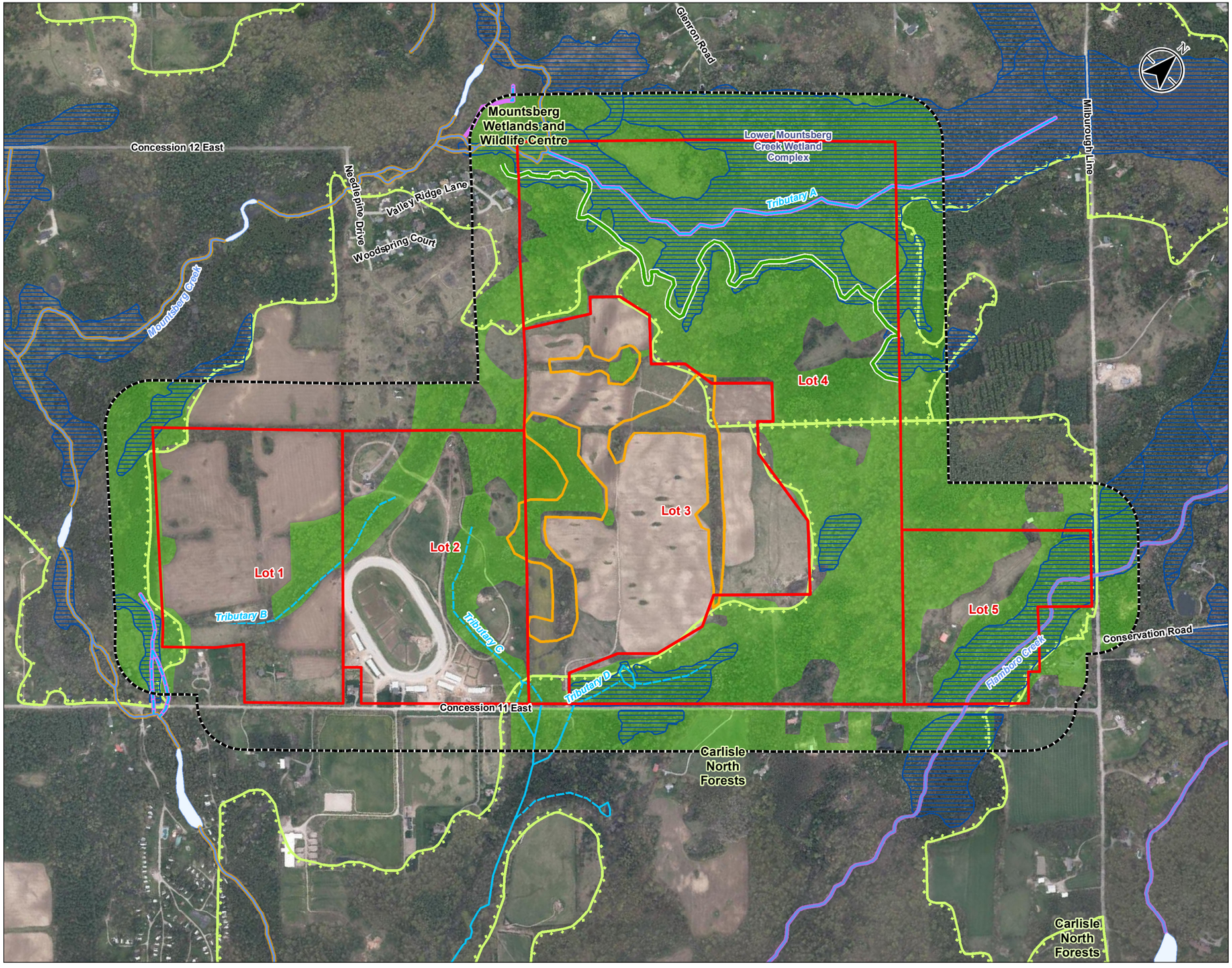
DATE Feb. 12, 2020

SOURCES ESRI Imagery

0 60 120 240 360 480 600
Meters

8816AA - Report Figures

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE



Stantec

Legend

- Study Area (120 m)
- Subject Lands
- Thermal Regime, Cold
- Thermal Regime, Warm
- Wetland Boundary (Stantec, 2006)
- Watercourse (Permanent)
- Area Containing Butternut
- Environmentally Sensitive Area (City of Hamilton)
- Significant Woodland (Stantec)
- Wetland, Provincially Significant

Watercourses (Stantec)*

- Watercourse (Intermittent)
- Watercourse (Permanent)

0 250 500 metres

1:10,000 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2018.
3. Orthoimagery © First Base Solutions, 2019. Imagery Date, 2019.

* Stantec watercourse mapping is based on a combination of field investigations and air photo interpretation completed in 2004 and 2005.

Project Location
City of Hamilton

160961347 REVA
Prepared by DH on 2020-01-30
Technical Review by ABC on yyyy-mm-dd
Independent Review by ABC on yyyy-mm-dd

Client/Project
ST. MARYS CEMENT INC.
FLAMBOROUGH LANDS EIS

Figure No.
6

Title
Environmental Constraints

V:\01459\active\160961347\03_data\gis_cad\gis\mxds\EcosystemsVasport_figures\ESS\160961347_Fig06a_Constraints.mxd Revised: 2020-01-30 By: dhavery

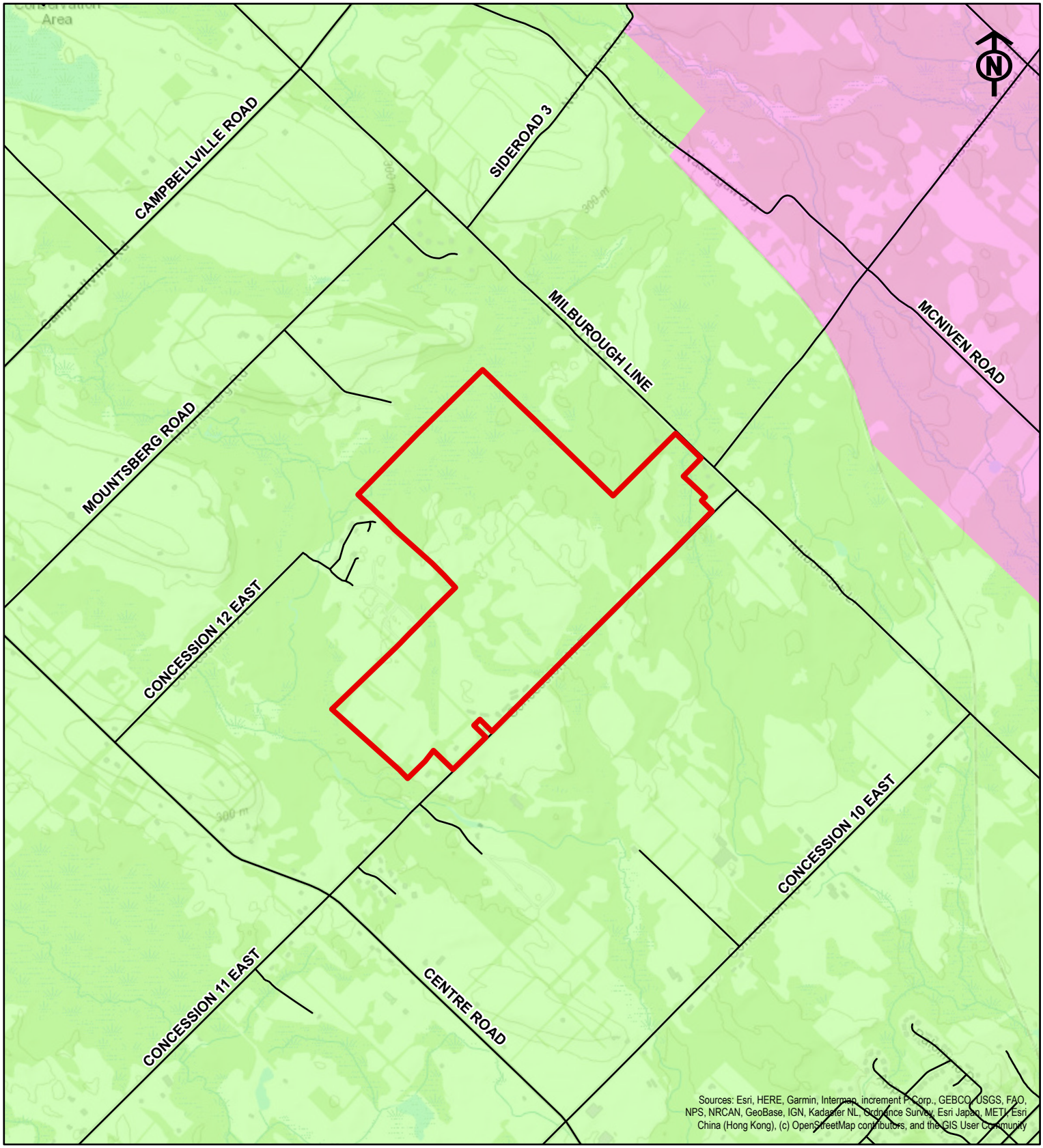


FIGURE 4

GREENBELT PLAN DESIGNATIONS

CBM Flamborough

Part Lots 1-5, Concession 11
East Flamborough
City of Hamilton

LEGEND

- Project Boundary
- Niagara Escarpment Plan
- Greenbelt Plan - Protected Countryside
- Orn Segment With Address

DATE: Dec. 3, 2019

SOURCES: ESRI Topographic
Land Information Ontario

0 100 200 400 600 800 1,000
Meters

8816AA - Report Figures

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

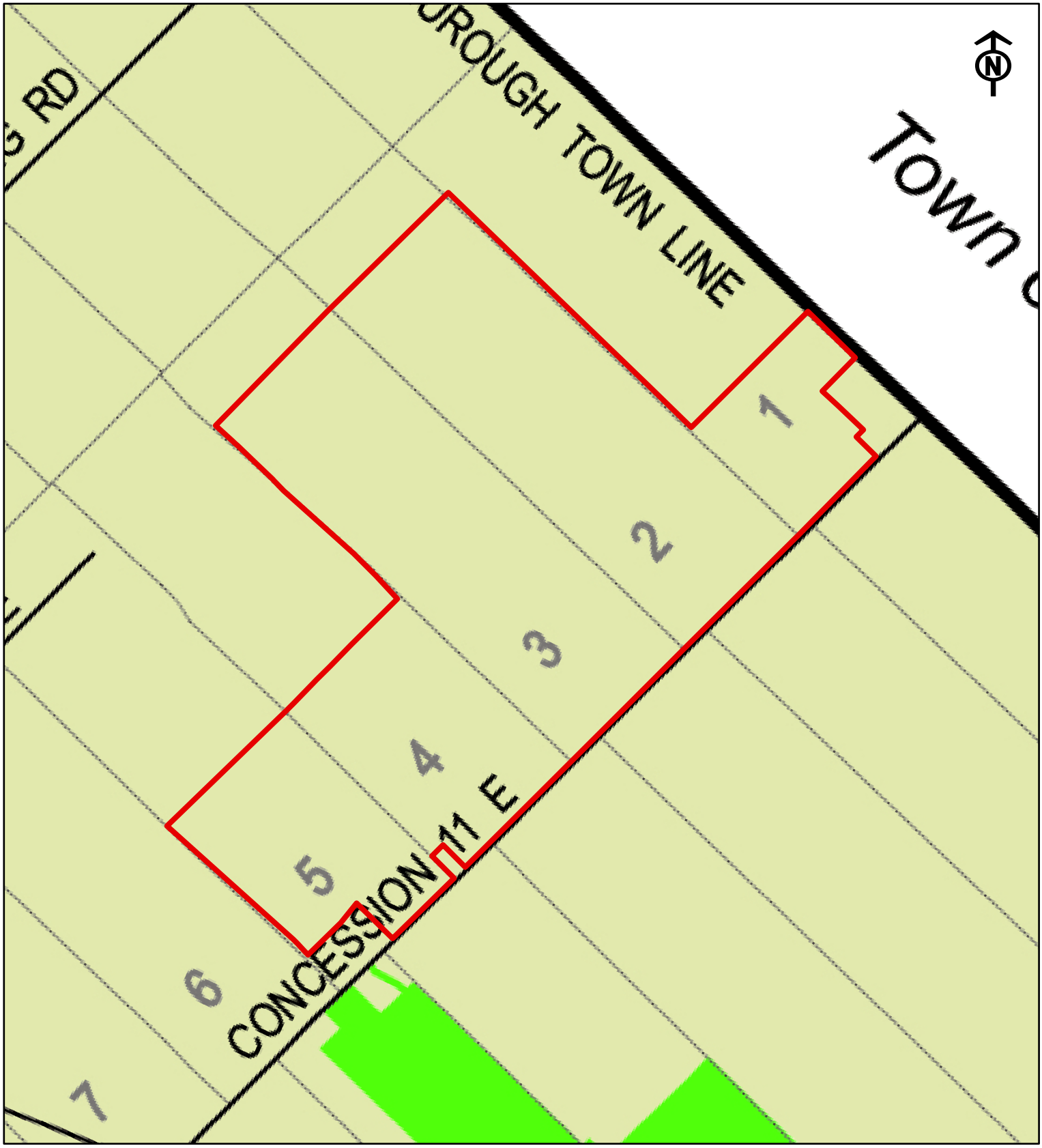


FIGURE 5
LAND USE
CITY OF HAMILTON
OFFICIAL PLAN - SCHEDULE D

CBM Flamborough
Part Lots 1-5, Concession 11
East Flamborough
City of Hamilton

LEGEND
- Project Boundary
- Rural
- Open Space

DATE: Dec. 3, 2019

SOURCES: City of Hamilton
Official Plan - Schedule D

0 50 100 200 300 400 500
Meters

8816AA - Report Figures

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

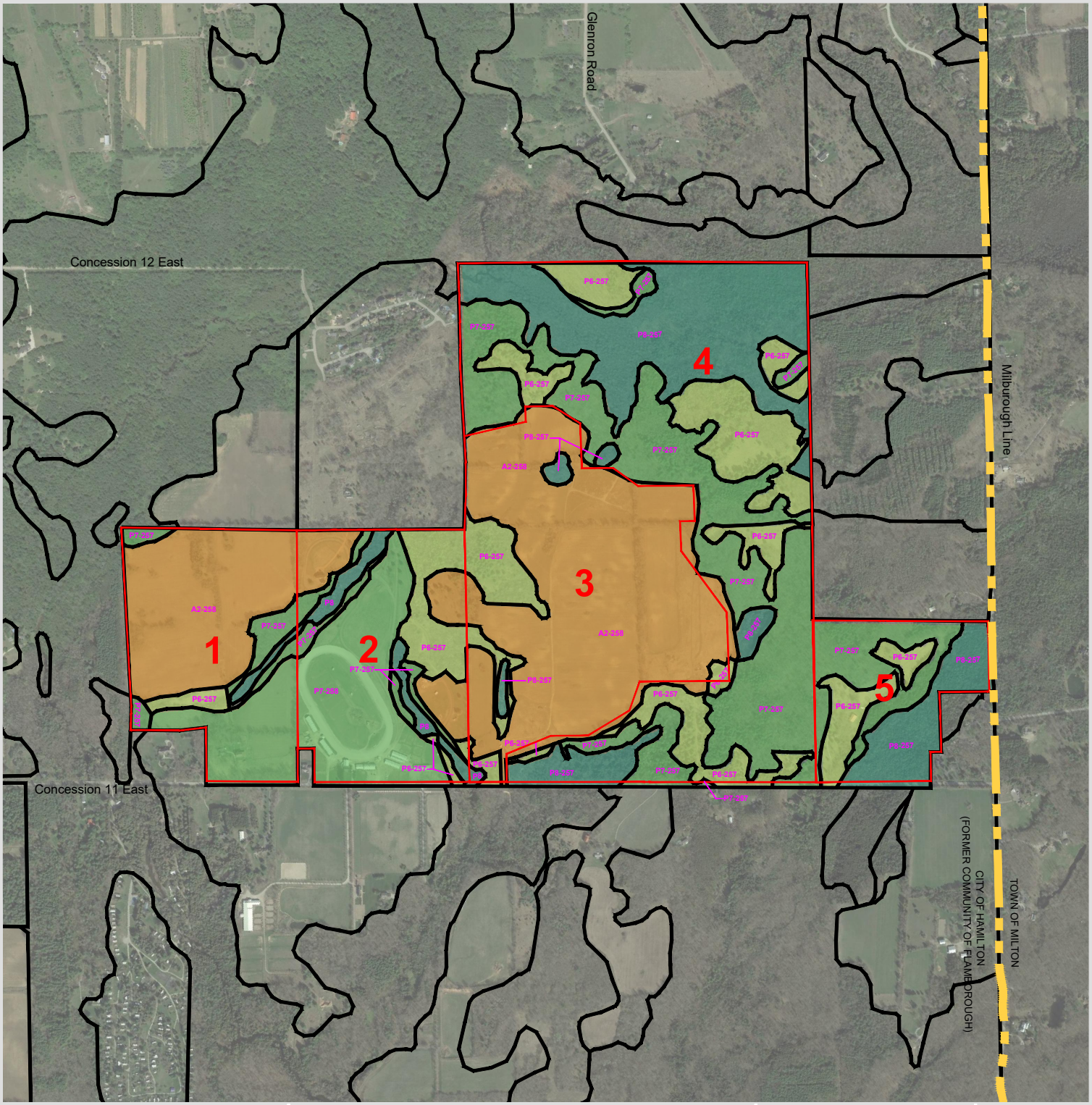


Figure 6
Zoning Map
City of Hamilton Zoning Bylaw 05-200

LEGEND

Subject Lands/Proposed Lots

Municipal Boundary

Zoning

(A2) Rural Zone

(P6) Conservation / Hazard Land Rural

(P7) Conservation / Hazard Land Rural

(P8) Conservation / Hazard Land Rural

Source: City of Hamilton Open Data
Google Satellite Imagery

DATE:	Feb. 12, 2020
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FILE:	Y321AI
DRN:	JB

north

N:\BRIAN\8816AA - CBM - FLAMBOROUGH\DRAWINGS\CAD\Y321AI_FIGURE 4 - ZONING\ZONING.DWG

CBM Flamborough
Part Lots 1-5, Concession 11
East Flamborough
City of Hamilton

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AGRICULTURAL VIABILITY REPORT

March, 2020

Proposed Consent Application

353 – 515 Concession Road 11 East
City of Hamilton

Our File: Y321AI

MHBC
PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE

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3.0 Description of Proposal 6

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APPENDICES

Appendix A: Minimum Distance Separation I Calculations

1.0

INTRODUCTION

MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC) was retained by St. Marys Cement Inc. (Canada) ('St. Marys') to complete an Agricultural Viability Report in support of a severance application for lands municipally addressed as 353, 385, 412, 475 and 515 Concession Road 11 East in the City of Hamilton. St. Marys is proposing to re-establish five (5) lots of record that were previously merged into one parcel. The severed lots would range in size from 17.5 hectares to 86 hectares. The subject lands are legally described as follows:

Lot	Municipal Address	Legal Description	Proposed Lot Size
1	353 Concession Road 11 East	Pt Lot 5, Concession 11 East Flamborough, As in CD183074, Flamborough City of Hamilton being PIN 17525-0151 (LT)	29.3 hectares
2	385 Concession Road 11 East	Pt Lot 4, Concession 11 East Flamborough, As in CD399791; save and except Part 1 on 62R16062; Hamilton being PIN 17525-0227 (LT)	31.7 hectares
3	412 Concession Road 11 East	Pt Lot 2 and Lot 3, Concession 11 East Flamborough, As in AB157693, Flamborough City of Hamilton being PIN 17525-0157 (LT)	49.6 hectares
4	475 Concession Road 11 East	Pt Lot 2, Concession 11 East Flamborough, As in AB149944, Flamborough City of Hamilton being PIN 17525-0158 (LT)	86.0 hectares
5	515 Concession Road 11 East	Pt Lot 1, Concession 11 East Flamborough, As in AB200144, Flamborough City of Hamilton being PIN 17525-0164 (LT)	17.5 hectares

The proposed severance is shown on **Figure 1.** The total area of the subject property is 214 hectares (529 acres), and each parcel can be accessed from Concession Road 11 East. The lands include uses such as rural residential dwellings, and two agricultural operations including a small

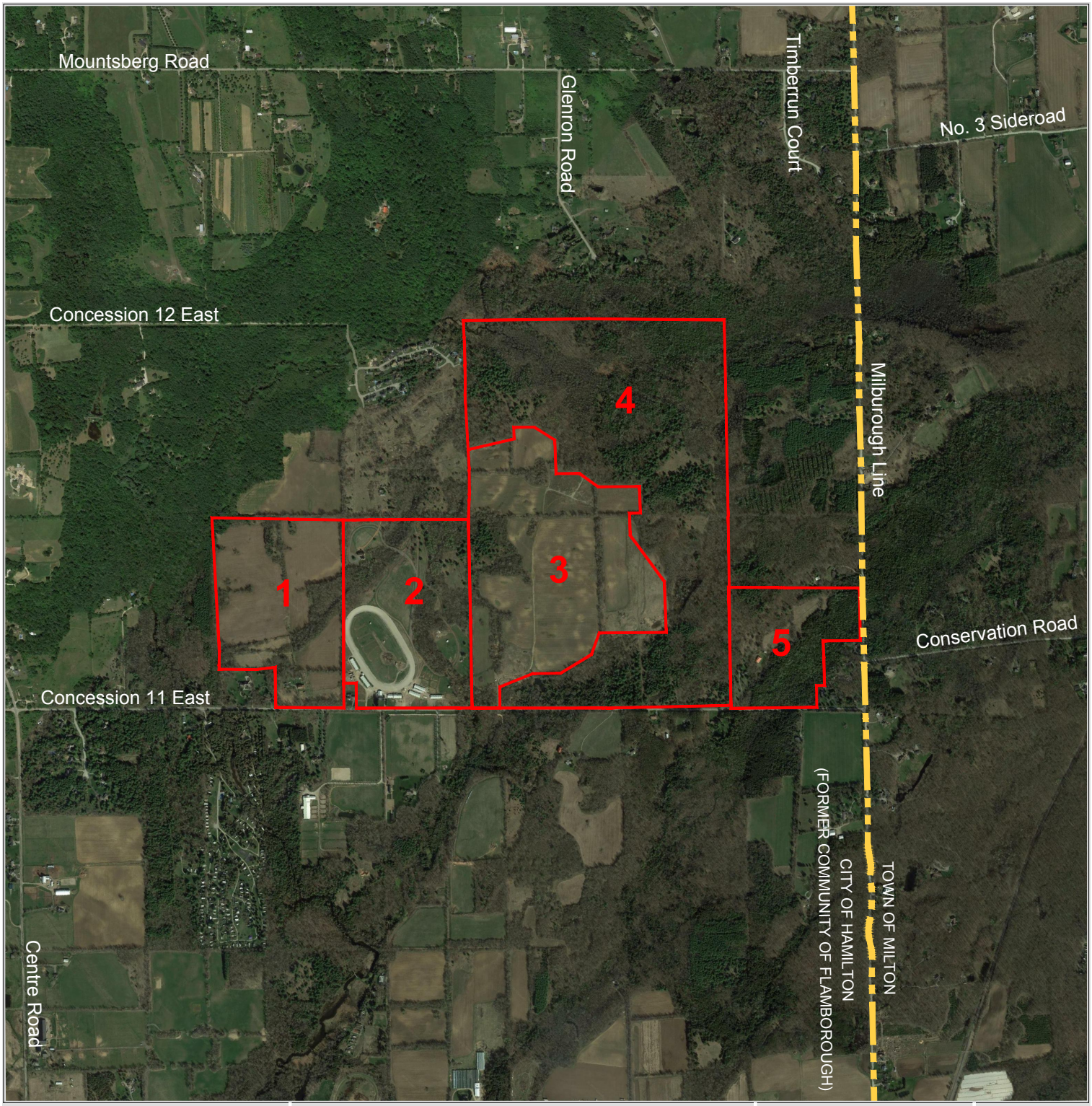

Figure 1
Location Map

353, 385, 412, 475, & 515
Concession Rd 11 E
City of Hamilton

LEGEND

Subject Lands/Proposed Lots

Municipal Boundary

Lot No.	Municipal Address	Proposed Lot Size
1	353 Concession Rd 11 E	29.3 ha
2	385 Concession Rd 11 E	31.7 ha
3	412 Concession Rd 11 E	49.6 ha
4	475 Concession Rd 11 E	86 ha
5	515 Concession Rd 11 E	17.5 ha

Source: City of Hamilton Open Data
Google Satellite Imagery

DATE: Jan. 28, 2020

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north

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abandoned livestock operation and an equestrian training centre (Baycairn Training Centre). While some areas are actively in agricultural/cash crop production, there is a significant amount of scrub/treed lands. The forested area is primarily located in the northeast portion of the lands, with several treed hedgerows further subdividing the lands.

By way of background, the lands were part of an aggregate extraction licence application that was not approved. As part of the land assembly for the proposed aggregate extraction operation, the five (5) parcels were merged on title. With the exception of lots 3 and 4, the proposed lots are consistent with the fabric that existed prior to the properties merging on title. Lots 3 and 4 have been reconfigured to address agency pre-consultation comments to consolidate agricultural uses on lot 3 and natural heritage features on lot 4. The applicant is proposing that the parcels be re-established through a consent application.

This report is being prepared in accordance with Section 1.1.4.2.3 (a) of the Rural Hamilton Official Plan, which requires a report to demonstrate how new lots for agricultural or agriculture-related uses are of a sufficient size and nature to sustain a commercially viable farm operation by providing flexibility to operators with the ability to diversify and intensify agricultural production. This report provides a summary of current site conditions, an evaluation of surrounding agricultural uses, and a planning analysis of the requested consent with regard to the relevant agricultural policy framework, planning considerations, and existing agricultural conditions and uses on the subject lands and in the surrounding area. This report also takes into consideration emerging trends in farming and farm operations, and the future viability of farm operations in the City of Hamilton, specifically.

2.0

SITE DESCRIPTION & SURROUNDING LAND USES

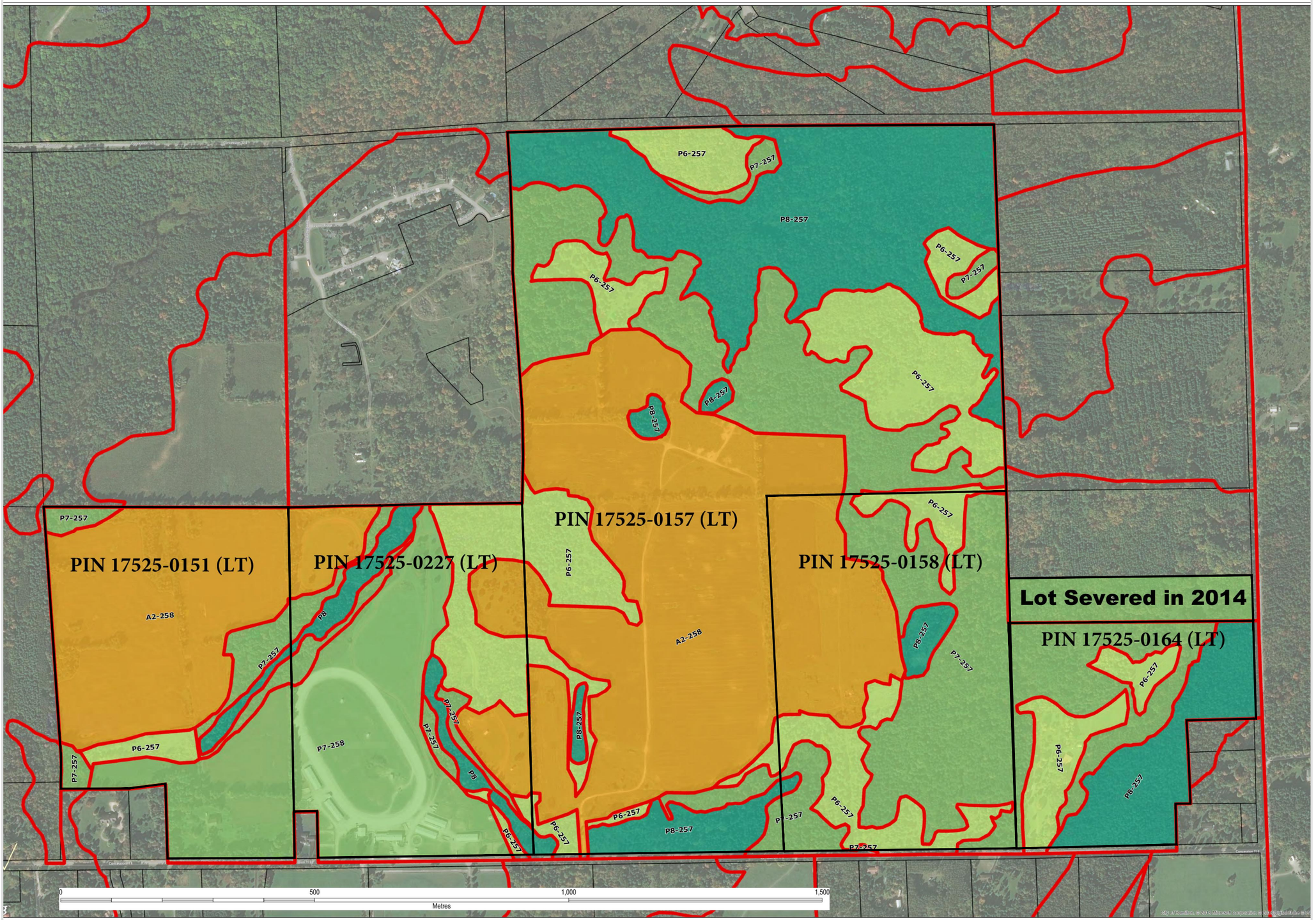
The subject lands have a total area of approximately 214 hectares (529 acres) and are located north of Concession Road 11 East, east of Highway 6 and Freelton in the City of Hamilton. These lands were formally in the Township of Flamborough. A portion of the lands is currently used for cash crop production (corn and soybeans at time of site visit), an equestrian training centre (Baycairn Training Facility), rural residential uses and natural heritage/woodlots. The subject lands can be accessed from Concession Road 11 East. A location map is included as **Figure 1** and surrounding context plan as **Figure 2** of this report. **Figure 3** illustrates the original parcel configuration of the subject lands prior to being merged on title. The proposed lots are consistent with the original lot configuration, other than lots 3 and 4. These lots have been configured in order to consolidate agricultural uses on lot 3 and natural heritage features on lot 4. The subject lands are designated Rural in the City of Rural Hamilton Official Plan and are not identified as Prime Agricultural Lands in the Province's Draft Agricultural System Mapping.

The subject lands are zoned in the City of Hamilton Zoning By-law (05-200) as Rural (A2), Conservation/Hazard Land – Rural (P6, P7 and P8), with special provisions 257 and 258, which prohibit Mineral Aggregate Operations and new building or structures adjacent to natural heritage features. The lands include environmentally significant areas, key hydrologic features and provincially significant wetlands. The zoning of the properties is illustrated on **Figure 4**. Surrounding land uses to the North, East, South and West are agricultural (equestrian), open space (mobile home park), and rural residential.

In terms of surrounding agricultural uses, the lands are not considered to be large, contiguous agricultural lands. The agricultural lands between Mounstberg Road, Milburough Line, Concession 11 East and Centre Road are generally fragmented, and largely characterized, by naturalized areas, rural residential uses and smaller hobby and equestrian farms.

Figure 2
Original Parcel Fabric

353, 385, 412, 475, & 515 Concession Rd 11 E
City of Hamilton



LEGEND

- Original Parcel Fabric

Zoning

- (A2) Rural Zone
- (P6) Conservation / Hazard Land Rural
- (P7) Conservation / Hazard Land Rural
- (P8) Conservation / Hazard Land Rural

Date: January 30, 2020
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north

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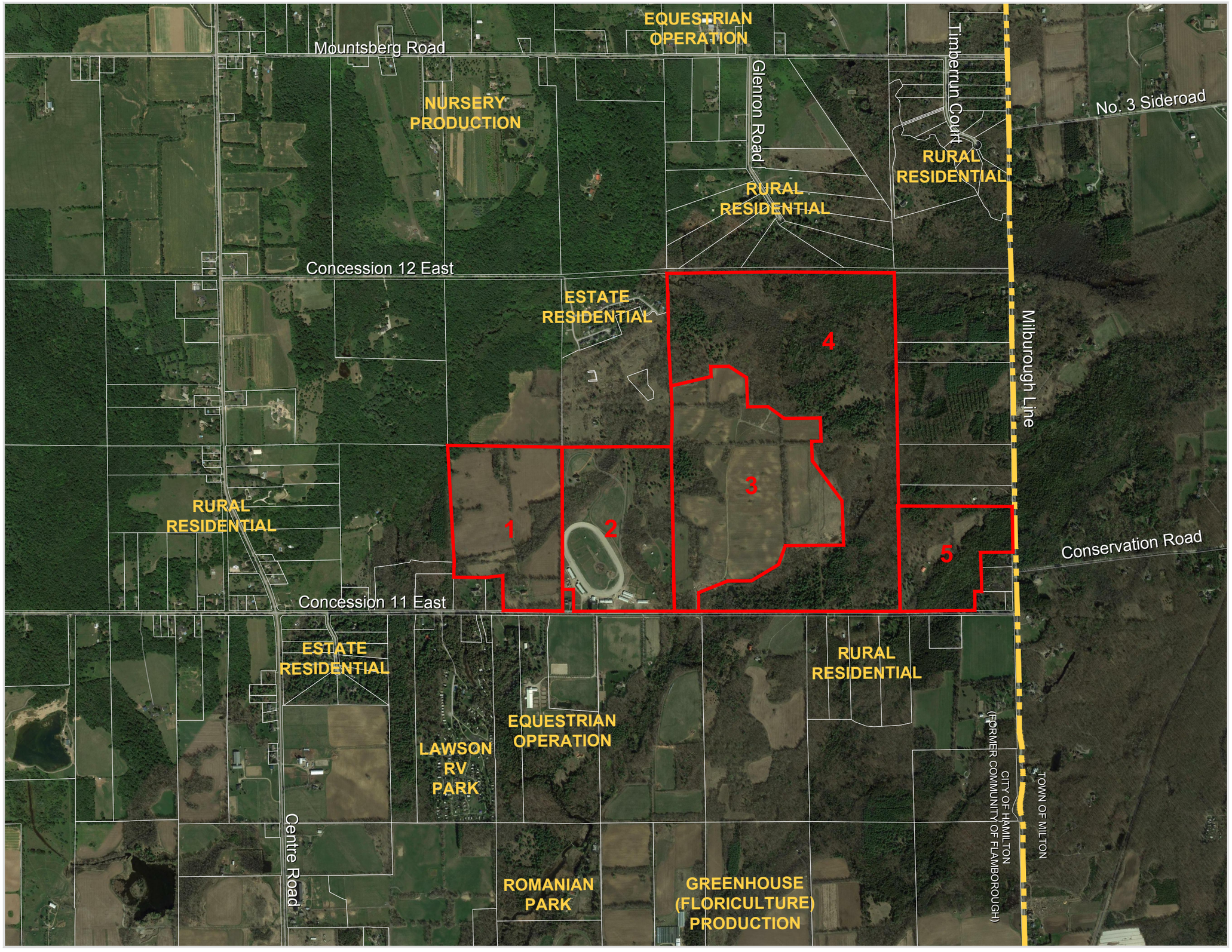

Figure 3
Context Plan

353, 385, 412, 475, & 515 Concession Rd 11 E
City of Hamilton

LEGEND

- Subject Lands/Proposed Lots
- Municipal Boundary
- Major Roads
- Parcel Fabric*

Source: City of Hamilton Open Data
Google Satellite Imagery
Contains information licensed under the Open Government Licence – Ontario.
*Location is approximate

Date: January 30, 2020
Scale: 1:15,000
File: Y321AI
Drawn: JB

north

K:\Y321AI\RPT\IMMEDIATE CONTEXT PLAN.DWG

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Figure 4
Zoning Map (City of Hamilton ZBL 05-200)

353, 385, 412, 475, & 515
Concession Rd 11 E
City of Hamilton

LEGEND

Subject Lands/Proposed Lots

Municipal Boundary

Zoning

(A2) Rural Zone

(P6) Conservation / Hazard Land Rural

(P7) Conservation / Hazard Land Rural

(P8) Conservation / Hazard Land Rural

Source: City of Hamilton Open Data
Google Satellite Imagery

DATE:	Jan. 30, 2020
SCALE:	1:15,000
FILE:	Y321AI
DRN:	JB

north

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200-540 BINGEMANS CENTRE DR. KITCHENER, ON. N2B 3X9
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3.0 DESCRIPTION OF PROPOSAL

The subject lands are designated Rural in the current Rural City of Hamilton Official Plan, and zoned as *Rural* and *Conservation/Hazard Lands – Rural*, with special provisions, in the City of Hamilton Zoning By-law.

The subject lands have an area of approximately 214 hectares (529 acres), which includes approximately 110 hectares (272 acres) of existing farmland, and 104 hectares (257 acre) of naturalized area. The purpose of this application, through a severance, is to re-establish five (5) lots of record that were merged into one parcel.

This Agricultural Viability Report is required to demonstrate the proposed agricultural lots are of a sufficient size and nature to support agricultural uses in the future. While severances resulting in lot sizes less than 40 hectares are permitted in Rural designated areas, this report is required in accordance with Official Plan Policy 1.14.2.3:

1.14.2.3 (Rural Designations)

> *In the rural designation, severances that create a new lot, except surplus farm dwelling severance, may be considered only for agricultural uses, agriculture-related uses, existing rural resource-based commercial uses, existing rural resource-based industrial uses, and existing rural institutional uses, provided all of the relevant conditions of Section D.4.1 and the following conditions are met*[1]*:*
>
> *a) New lots for agricultural uses and agriculture-related uses shall demonstrate by a report prepared by an accredited professional knowledgeable in farm economics, such as an agrologist or agronomist, that the proposed agricultural lot(s) is (are) of sufficient size and nature to be reasonably expected to:*
>
> *i) Sustain a commercially viable farm operation;*

[1] Section D.4.1 of the Rural Hamilton Official Plan contemplates the permitted uses in the Rural Designation, of which the current uses are permitted.

ii) Allow farm operators the flexibility to change the existing and proposed farm operation in the event of business failure;
iii) Allow farm operators the flexibility to diversify and intensify the production of agricultural commodities in response to changing economic conditions and trends in agriculture; and,

b) The City may request comments on the report required in F.1.14.2.3 (a) from the Province or an independent peer reviewer, at the expense of the applicant, prior to consideration of the new lot for severance approval.

If the proposed severances are permitted, there will be no changes to the existing land uses (agricultural and existing rural residential) of the property.

This report provides a planning analysis and background information in terms of viable farm size, and agricultural land viability to determine the suitability of the five (5) proposed parcels. The remaining sections of the report focus on these issues in providing planning justification that the proposed lot severances for farmland uses are viable and should be permitted.

4.0
PLANNING ANALYSIS

This section will include a review of relevant provincial and municipal land use policies and framework applicable to the subject lands and consent application. The proposal is assessed based on how it meets these considerations, and the suitability and viability of the proposed severance that results in the creation of five (5) parcels, ranging in size from 17.5 – 86 hectares.

4.1 Provincial Policy Framework

4.1.1 Provincial Policy Statement (2020)

The 2020 Provincial Policy Statement (PPS) replaces the 2014 PPS and was issued under Section 3 of the Planning Act, comes into effect on May 1, 2020. Although at the time of writing of this report the 2020 PPS was not in effect, the 2020 PPS has been reviewed for the purposes of this report.

The PPS provides direction on the growth and permitted uses for rural areas and rural lands in Ontario. Section 1.1.4 provides that rural areas are a system of lands that may include rural settlement areas, rural lands, prime agricultural areas, natural heritage features and areas, and other resource areas. *Rural lands* means lands which are located outside *settlement areas* and which are outside *prime agricultural areas.* Permitted uses on Rural Lands are:

- The management or use of resources;
- Resource-based recreational uses (including recreational dwellings);
- Limited residential development;
- Home occupations and home industries;
- Cemeteries; and,
- Other rural land uses.

Although agriculture, agriculture-related and on-farm diversified uses are promoted in Rural Areas, the policies of the PPS do allow for a broader range of uses than in the Prime Agricultural Areas. In this regard, policy 1.1.5.7 of the PPS reads:

Opportunities to support a diversified rural economy should be promoted by protecting agricultural and other resource-related uses and directing non-related development to areas where it will minimize constraints on these uses.

The subject lands are located on lands designated as Rural in the City's Rural Official Plan (see **Figure 5**). Rural Areas are generally considered to be a more "flexible" in terms of the range of permitted non-agricultural uses than the Agricultural areas, which are normally associated with prime agricultural lands or high agricultural capability soils. Therefore, a range of rural land uses are permitted, including agriculture, agriculture-related and on-farm diversified uses. The existing uses on the subject lands are not proposed to change and include agriculture and rural residential uses.

It is important to note that although agriculture is permitted and promoted in the Rural Area, agriculture can take many forms of size, type and intensity to make-up the agricultural system. This is illustrated through the definition of agriculture in the PPS:

Agricultural uses are defined in the PPS as:

> *the growing of crops, including nursery, biomass and horticultural crops; the raising of livestock; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including, but not limited to livestock facilities, manure storages, value-retaining facilities and accommodations for full-time farm labour when the size and nature of the operation requires additional employment.*

This definition illustrates the diverse range of agricultural activities found across Ontario, which include uses such as the growing of crops, raising of livestock, forestry and maple syrup production. Some of these activities do not require large land requirements that would be typically needed for traditional cash crop/livestock production.

In an attempt to minimize farmland and agricultural fragmentation, provincial and regional land-use planning policies often restrict farm severances in prime agricultural areas to control the number and type of new lots and to prevent fragmentation of agricultural lands. Provincial Policies will permit severances so long as:

> *1.1.5.8 New land uses, including the creation of lots, and new or expanding livestock facilities shall* ***comply with the minimum distance separation formulae****.*

The Minimum Distance Separation Formulae (MDS) aids in minimizing conflict between residential and agricultural uses through buffers and other mitigation techniques. The MDS formula is mandated provincially, and is a requirement of the City of Hamilton Official Plan. The City of Hamilton requires that all proposed severances and lot additions meet Minimum

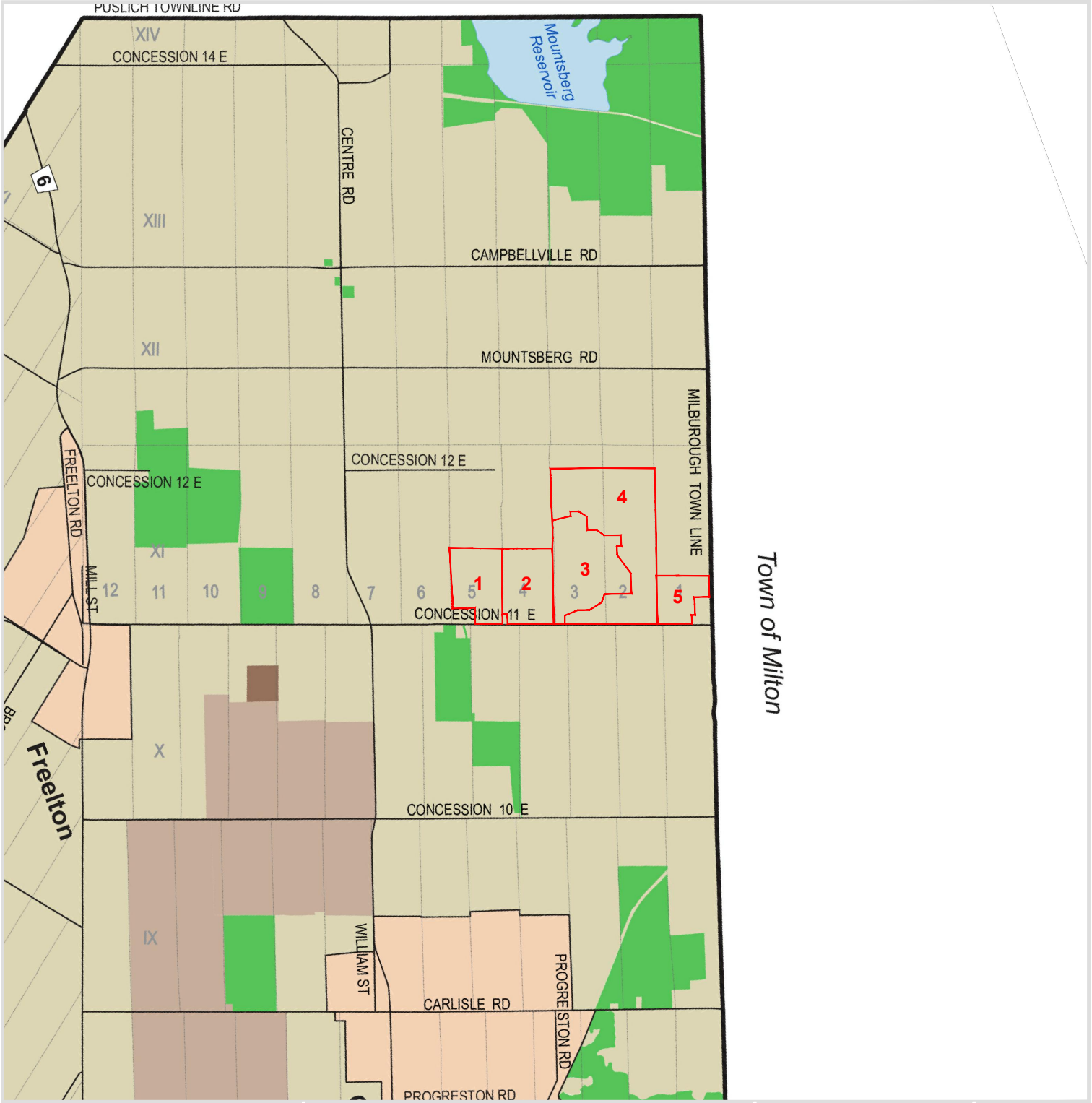

Figure 5
Official Plan Land Use (Rural Hamilton OP Schedule D)

Schedule D - Rural Land Use Designations
Rural Hamilton Official Plan, 2018

353, 385, 412, 475, & 515
Concession Rd 11 E
City of Hamilton

LEGEND

- Subject Lands/Proposed Lots
- Rural Settlement Areas
- Agriculture
- Rural
- Mineral Aggregate Resource Extraction Areas
- Open Space

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Distance Separation requirements in accordance with Section F.1.16 of the Official Plan and the Zoning by-law.

Figure 6 illustrates the required MDS I setback from the nearest livestock facilities: an equestrian operation is located south of proposed lots 1 and 2 at 362 Concession 11 East (Cedar Creek Equestrian) with a calculated MDS I setback of 246 m. As shown, MDS I setbacks are met from this existing equestrian facility. Attached in **Appendix A** is the MDS I Calculations for this livestock operation.

Furthermore, MDS is not applicable as it relates to the existing livestock facilities in accordance with Guidelines 9 and 14 of the Province's *Minimum Distance Separation (MDS) Document* (Publication 853). Guideline 9 reads as follows: "*where a new lot is proposed with an existing dwelling and an existing livestock facility or anaerobic digester on it, an MDS I setback is not required for that livestock facility or anaerobic digester in accordance with implementation guidelines #14*."

Guideline 14 further confirms that: "*An MDS I setback is not required to be met for proposed development, dwelling, agriculture-related use, or on-farm diversified use from an existing livestock facility or anaerobic digester located on the same lot as the proposal*." This confirms that MDS I setbacks are not required for the existing livestock facilities on Lot #1 and #2[2].

Given the forgoing, the proposed severances comply with the Minimum Distance Separation formulae in accordance with the provincial guidelines.

As previously noted, provincial policy is more restrictive in prime agricultural areas, whereby the PPS discourages severances on prime agricultural, and only permits lot creation under the following circumstances (section 2.3.4.1):

> *a) agricultural uses, provided that the lots are of a **size appropriate for the type of agricultural use(s) common in the area** and are **sufficiently large to maintain flexibility for future changes** in the type or size of agricultural operations.*
> *b) agriculture-related uses, provided that any new lot will be limited to a minimum size needed to accommodate the use and appropriate sewage and water services;*
> *c) a residence surplus to a farming operation as a result of farm consolidation, provided that:*

[2] Note, Lot #1 includes a vacant bank barn with no livestock at this time. However, the barn is capable of housing livestock.

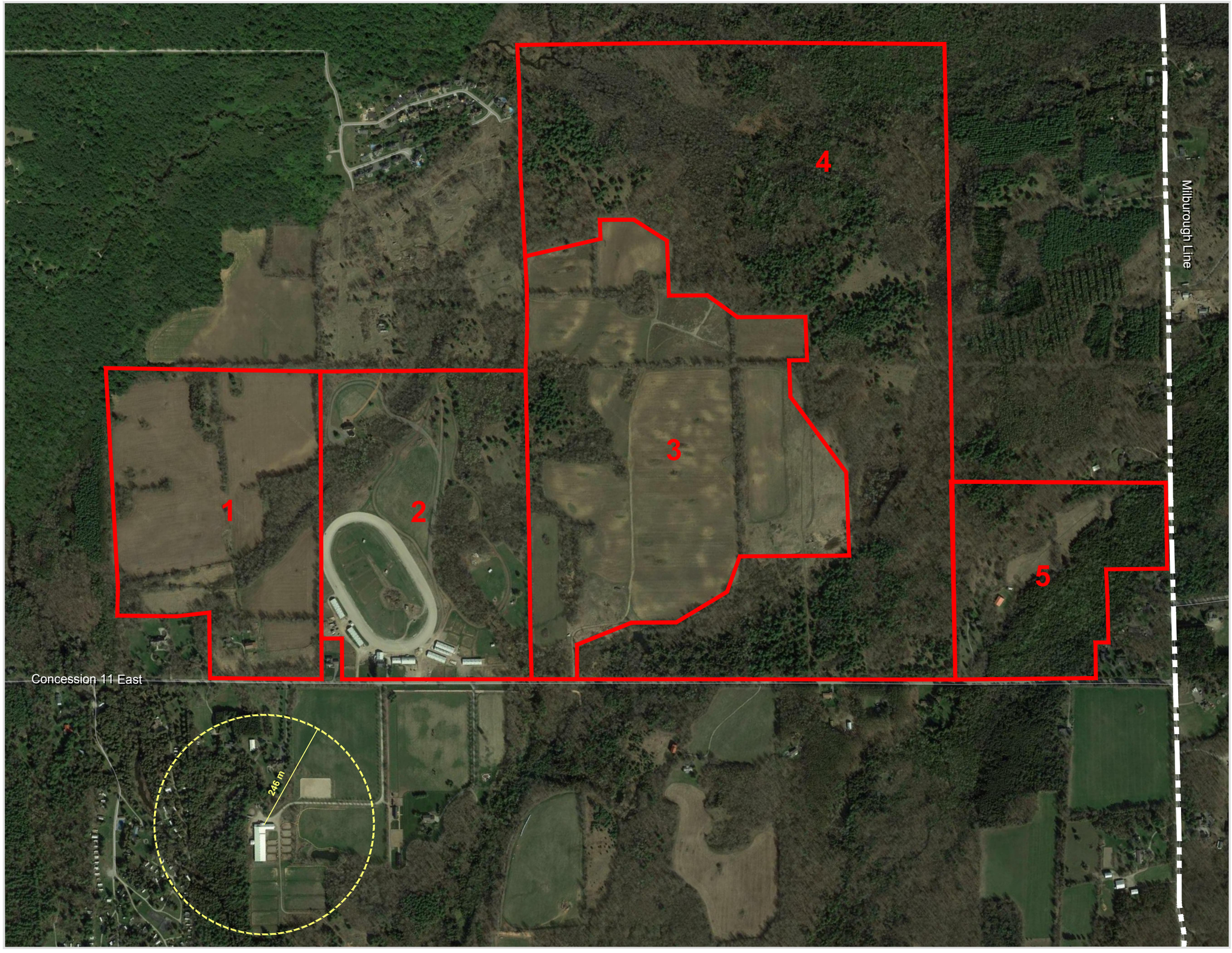

Figure 6
Minimum Distance Separation I Calculation

353, 385, 412, 475, & 515 Concession Rd 11 E
City of Hamilton

LEGEND

- Subject Lands/Proposed Lots
- Municipal Boundary
- Minimum Distance Separation (MDS) I Setbacks

Source: City of Hamilton Open Data
Google Satellite Imagery
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*Location is approximate

Date: January 30, 2020

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1. *the new lot will be limited to a minimum size needed to accommodate the use and appropriate sewage and water services; and*
2. *the planning authority ensures that new residential dwellings are prohibited on any remnant parcel of farmland crated by the severance. The approach used to ensure that no new residential dwellings are permitted on the remnant parcel may be recommended by the Province, or based on municipal approaches which achieve the same objective; and,*

d) *infrastructure, where the facility or corridor cannot be accommodated through the use of easements or rights-of-way.*

Although not applicable to Rural Areas, Section 2.3.4.1 (a) of the PPS does contemplate lot creation for agricultural uses provided the lots are of a size appropriate for the type of agricultural use(s) common in the area and are sufficiently large to maintain flexibility for future changes in the type or size of agricultural operations. Additional discussion on the appropriate size is included in section 5.1 of this report.

In summary, the subject lands are designated Rural and considered to be within a Rural Area, as defined by the PPS. The prime agricultural policies of the PPS do not apply. On rural lands, a broad range of recreational, resource, residential and agricultural uses are permitted and opportunities to diversify the rural economy are promoted. Existing agricultural uses on the subject lands are being maintained and will be protected. No new livestock facilities are being proposed and the proposed lots comply with MDS I setbacks. As a result, the proposed severances are consistent with the PPS.

4.1.2 A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)

The Growth Plan for the Greater Golden Horseshoe ('Growth Plan') is the Government of Ontario's initiative to plan for growth and development in a way that supports economic prosperity, protect the environment, and help communities achieve a high quality of life. *A Place to Grow: Growth Plan for the Greater Golden Horseshoe* was approved under the Places to Grow Act, 2005, with a recent amendment approved on May 16, 2019 and is applicable to the subject lands. Any planning decision made for lands in the Greater Golden Horseshoe growth plan area must conform to the policies of the Growth Plan.

The Growth Plan includes a vision to protect agricultural lands in the Golden Horseshoe Region, and reads:

Vision for the GGH (Section 1.2):
"Natural areas and agricultural lands will provide a significant contribution to the region's resilience and our ability to adapt to a changing climate. Unique and high quality agricultural lands will be

protected for the provision of healthy, local food for future generations. Farming will be productive, diverse and sustainable."

In order to support high quality agricultural lands, one of the guiding principles of the Growth Plan is to support the protection of prime agricultural land. Section 1.2.1 reads as follows:

"Support and enhance the long-term viability and productivity of agriculture by protecting prime agricultural areas and the agri-food network."

Furthermore, in order to protect productive farmland, the Growth Plan provides for the identification and protection of an *Agricultural System*. Section 4.2.6 of the Growth Plan requires that the Province identify an Agricultural System for the Greater Golden Horseshoe. The Agricultural System includes rural lands and is defined as:

> *The system mapped and issued by the Province in accordance with this Plan, comprised of a group of inter-connected elements that collectively create a viable thriving agricultural sector. It has two components: 1. An agricultural land based comprised of prime agricultural areas, including specialty crop areas, and* ***rural lands*** *that together create a continuous productive land base for agriculture; 2. An agri-food network which includes infrastructure, services, and assets important to the viability of the agri-food sector.*

Rural lands are part of the Agricultural System, and therefore, subject to the relevant Agricultural Systems policies from the Growth Plan (Section 4.2.6), including the following:

(4.2.6.5) *The retention of existing lots of record for agricultural uses is encouraged, and the use for these lots for non-agricultural uses is discouraged.*

The Growth Plan primarily focuses on protecting prime agricultural areas for long-term use for agriculture, however the agricultural systems approach recognizes the importance of retaining existing lots of record for agricultural uses. It is noted that the Growth Plan does not contemplate a minimum lot size in agricultural or rural lands.

Consistent with the Rural designation in the City's Official Plan, the subject lands **are not designated as Specialty Crop Area, Prime Agricultural Area or Candidate Area in the provincial Agricultural Land Base mapping (**see **Figure 7**). Furthermore, the Canada Land Inventory Soil Capability for the subject lands includes a range of soil classes, including Class 2, 4, 5 and 6, with no specialty crop areas (see **Figure 8**). While Class 2 soils are considered appropriate for prime agricultural production (which includes Class 1-3 soils), class 4 – 7 are considered lands less capable of agricultural production. The Class 6 soils comprise of the wooded area of the lands.

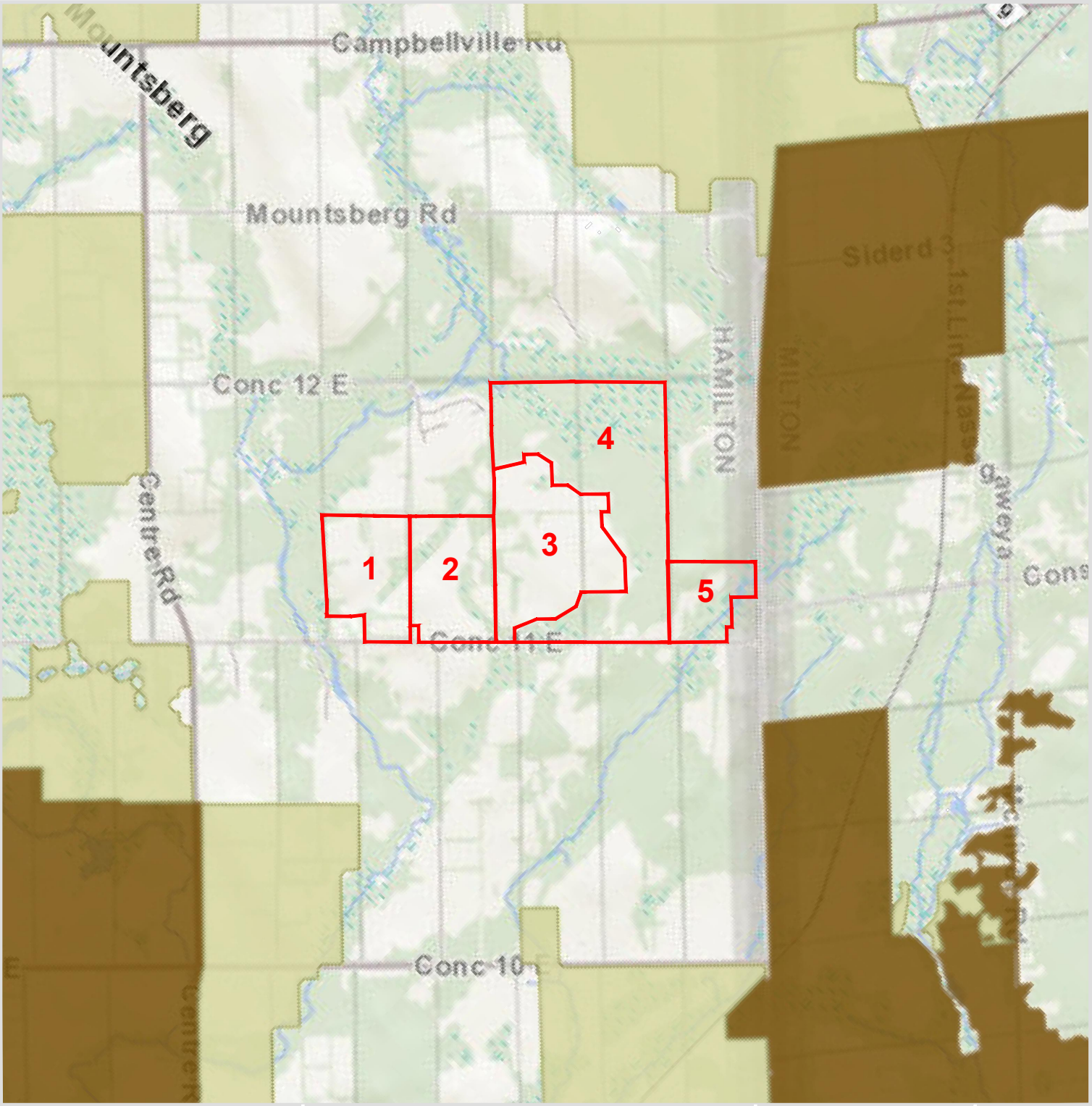

Figure 7

Agricultural Land Base for the Greater Golden Horseshoe

Province of Ontario Agricultural System Portal

353, 385, 412, 475, & 515
Concession Rd 11 E
City of Hamilton

LEGEND

- Subject Lands/Proposed Lots
- Candidate Area
- Prime Agricultural Area

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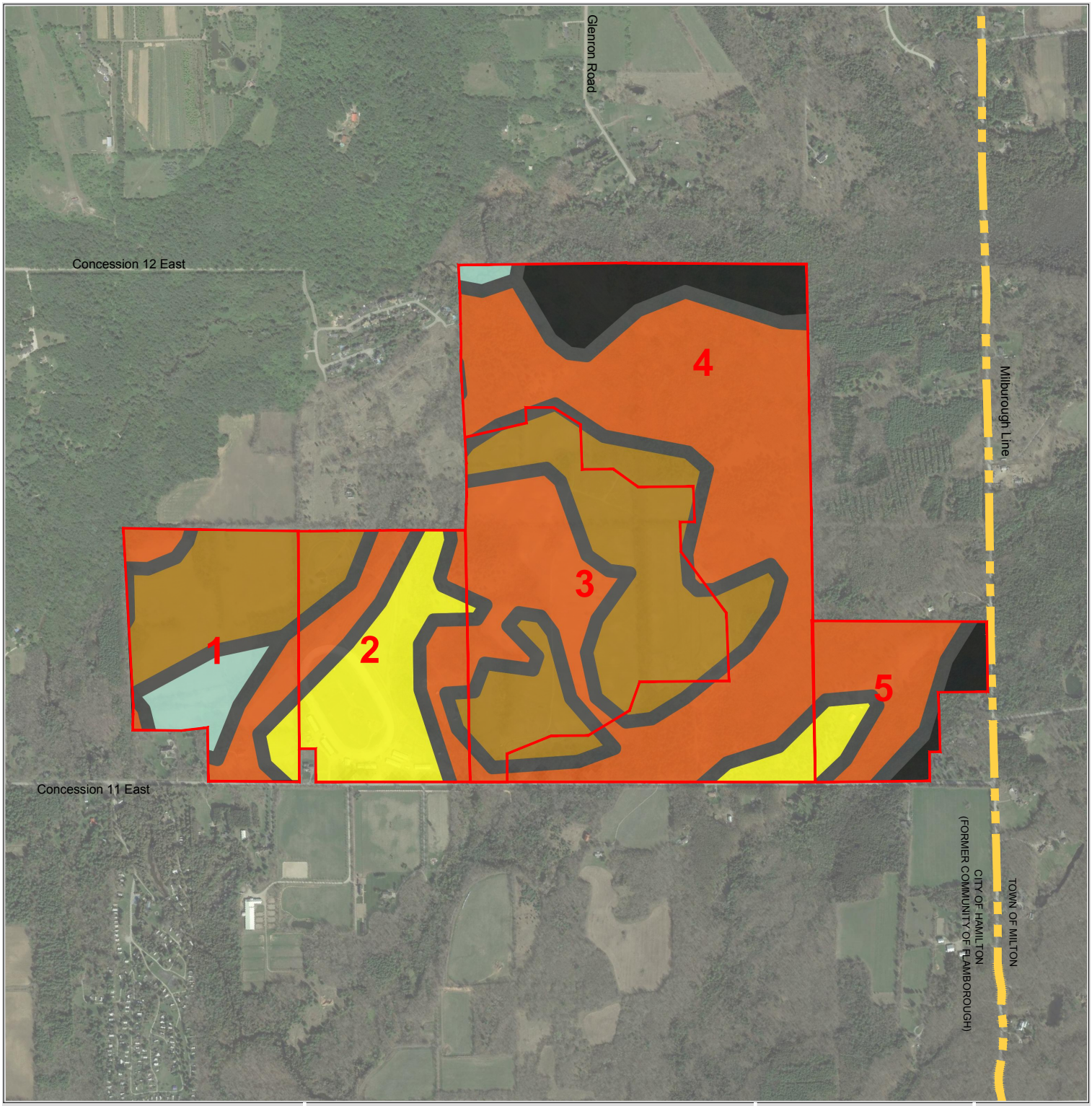

Figure 8

Canada Land Inventory Soil Capability

Province of Ontario Agricultural System Portal

353, 385, 412, 475, & 515
Concession Rd 11 E
City of Hamilton

LEGEND

- Subject Lands/Proposed Lots
- Municipal Boundary

Soil Class

- Class 2
- Class 4
- Class 5
- Class 6
- Organic Soil

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In summary, the subject lands are located on Rural designated lands, and are not identified by the province as specialty crop area, prime agricultural area or candidate area. The proposed severances will retain the existing agricultural uses, including cash crop production and an equestrian operation, and do not result in urban growth and/or expansion of non-farm related uses into prime agricultural lands. In accordance with the Growth Plan, the proposed lot sizes will continue to permit a broad range of agricultural uses, which will contribute to the long-term viability of the agricultural system. As a result, the proposed severances conform with the policies of the Growth Plan.

4.1.3 Greenbelt Plan (2017)

The Greenbelt Plan was prepared and approved under the *Greenbelt Act, 2005* which took effect on December 16, 2004. The Plan was updated in 2017 through an amendment, which came into effect on July 1, 2017.

The Greenbelt Plan identifies where urbanization should not occur in order to provide permanent protection to the agricultural land base and the ecological features and functions occurring on this landscape. While providing permanent agricultural and environmental protection, the Greenbelt also contains important natural resources and supports a wide range of recreational and tourism uses, areas and opportunities together with a vibrant and evolving agricultural and rural economy. The agricultural land base is an important component of the Agricultural System.

Section 3.1.1 of the Greenbelt Plan (2017) provides the following description of an agricultural system:

3.1.1 "*The Protected Countryside contains an Agricultural System that provides a continuous, productive and permanent agricultural land base and a complementary agri-food network that together enable the agri-food sector to thrive."*

This systems approach recognizes the importance of protecting prime agricultural lands, specialty crop areas and rural lands as well as the agri-food network (infrastructure, services and assets) to ensure the viability of the agri-food sector. Similar to the PPS, section 3.1.1 of the Greenbelt Plan defines Rural Lands as "*those lands outside of settlement areas which are not prime agricultural areas and which are generally designated as rural or open space within official plans.*"

As shown in **Figure 9**, the lands are located within the Protected Countryside and Natural Heritage System of the Greenbelt (Map 97). The following Rural Land Policies are applicable to the proposed severance:

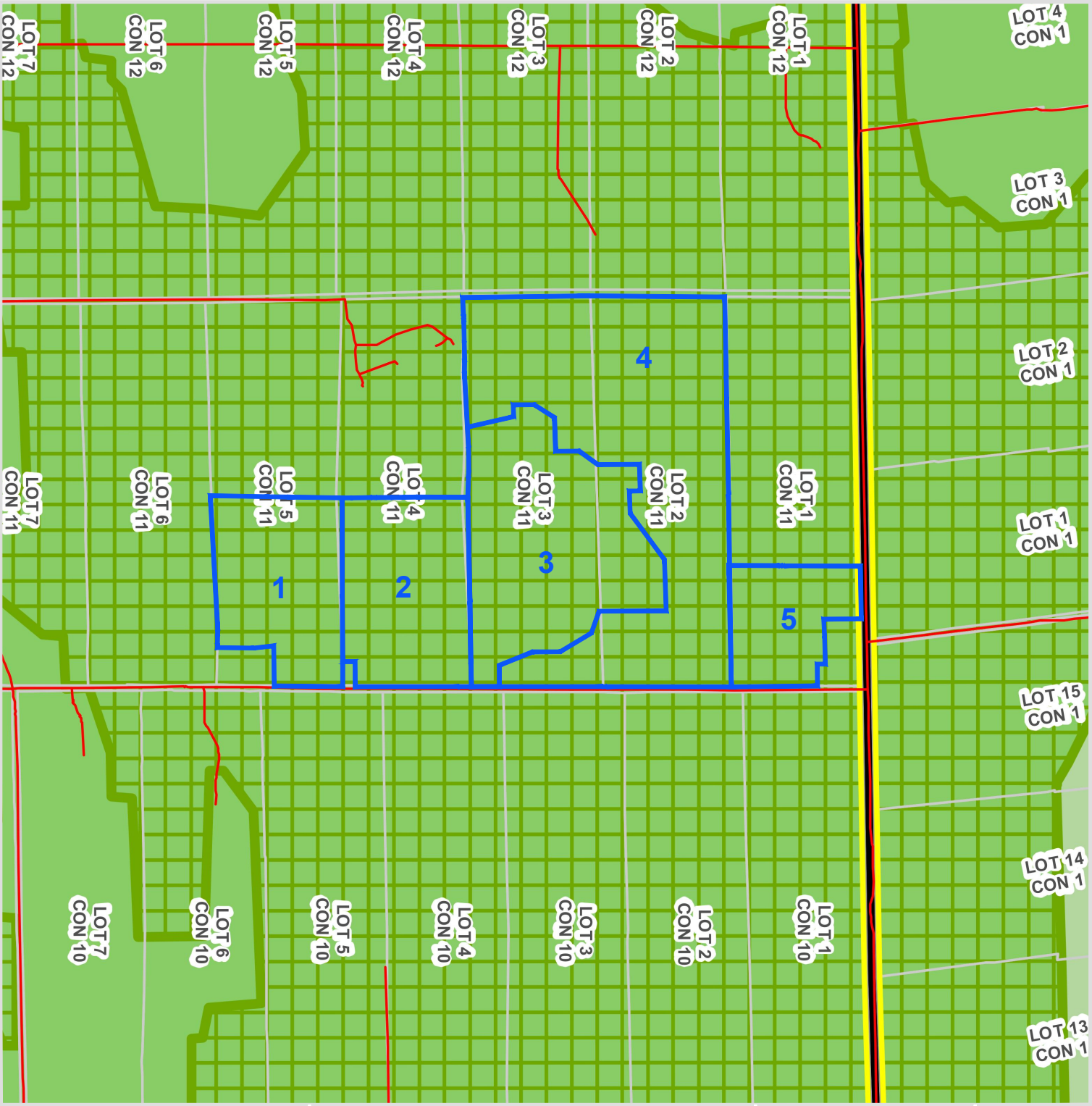

Figure 9

Greenbelt Plan (Map 97)

Map 97 - Greenbelt Plan, map division and enlargement. Province of Ontario, 2017

353, 385, 412, 475, & 515
Concession Rd 11 E
City of Hamilton

LEGEND

- Subject Lands/Proposed Lots
- Greenbelt Area*
- Protected Countryside
- Natural Heritage System
- Upper Tier Municipal Boundaries
- Lower & Single Tier Municipal Boundaries
- Lots and Concessions
- Major Road or Highway
- Minor Road

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Rural Land Policies (Section 3.1.4)

(3.1.4.2) Rural lands may contain existing agricultural operations and provide important linkages between prime agricultural areas as part of the overall Agricultural System. Normal farm practices and ***a full range of agricultural uses, agriculture-related uses and on-farm diversified uses are supported and permitted****. Proposed agriculture-related uses and on-farm diversified uses should be compatible with and should not hinder surrounding agricultural operations.*

(3.1.4.6) New land uses, including the creation of lots (as permitted by the policies of this Plan), and new or expanding livestock facilities, shall comply with the minimum distance separation formulae.
In response to the policies above, the severances would return a majority of the lands to their original parcel structure, which provides for a full range of agricultural uses including cash crop production, livestock, and forestry. This is consistent with the range of agricultural uses that are promoted in the Protected Countryside area of the Greenbelt. While the proposed severances do not result in a new land use, Minimum Distance Separation (MDS) has been reviewed for the lands in respect to the existing livestock facility south of the subject lands. Through an MDS analysis (see above), it is confirmed that the proposed severances comply with MDS.

In terms of lot creation with the Protected Countryside, the following policies apply:

Lot Creation (Section 4.6.1)

Lot creation is discouraged and may only be permitted for:
a) Outside prime agricultural areas, including specialty crop areas, the range of permitted uses by the policies of this Plan;…

d) Facilitating conveyances to public bodies or non-profit entities for natural heritage conservation, provided it does not create a separate lot for a residential dwelling in prime agricultural areas, including specialty crop area;

In response to policies a) and d) above, it is noted that the lands are located outside of the provincially and municipally designated prime agricultural areas. As such, the proposed severances are considered to be permitted in the Greenbelt. Additionally, the largest parcel (identified as Lot 4) could potentially be conveyed to the City of Hamilton, Conservation Halton or another party to bet side as environmental protection lands.

In terms of minimum lot size, the Greenbelt Plan is the only Provincial plan that provides for minimum lot size (Section 4.6.1 (b)): 16 hectares for specialty crop areas; and 40 hectares for prime agricultural areas. Again, the minimum lot size requirements do not apply to the subject lands as the lands are designated as Rural in the City of Hamilton Official Plan, and are not

designated as prime agricultural area or specialty crop area in the Province's draft agricultural system's mapping. Based on the forgoing, the proposed severances conform to the policies of the Greenbelt Plan.

4.1.4 Provincial Policy Summary

In summary, the proposed severance is consistent with polices set out in the Provincial Policy Statement and conform to the Growth Plan and Greenbelt Plan. The severances result in the creation of five lots with existing agricultural uses that continue to be compatible with surrounding uses and promote and preserve farmland that is reflective of surrounding uses. Given the forgoing, the proposed severances comply with the Provincial Policy Statement and applicable Provincial plans.

4.2 Municipal Policy Framework

4.2.1 Rural Hamilton Official Plan (2017)

The Rural Hamilton Official Plan was approved by the Minister of Municipal Affairs and Housing December 24, 2006 and further amended and approved on March 7, 2012. The Rural Hamilton Official Plan applies to the lands in the rural area of the City, outside of the built-up urban areas.

The City of Hamilton Rural System includes both Agricultural and Rural designated lands. The primary intent of the Agriculture designation is to protect prime agricultural areas for agricultural uses, while providing a wide range of farm types (Section D.2.0). The Rural designation identifies lands that are characterized as having lower capability for agriculture due to a range of factors. One of the objectives of the Official Plan is to protect and maintain agricultural uses as the primary and predominant land use and to protect farm operations from incompatible forms of development, including those in rural lands.

The subject lands are designated as Rural in the Rural Hamilton Official Plan (see **Figure 5**). Section D.4.1 of the Official Plan contemplates the permitted uses in the Rural designation, which include:

- Agricultural uses;
- Agriculture-related commercial and agriculture-related industrial uses;
- On-farm secondary uses, as set out in Section D.2.1.3;
- Resource-based commercial and resource-based industrial (provided the conditions of Policy D.4.1.1 are met);
- Institutional uses serving the rural community; and,
- Agricultural fairgrounds (provided the tests in Section D.4.1.1. c) to e) are met.

The City's Rural Official Plan does not regulate minimum farm size in Rural designated lands. This is consistent with Provincial policy, in that prime agricultural lands in the Protected Countryside of the Greenbelt are the only lands regulated for minimum farm size.

Severances that create new lots in the Rural designation may be considered for agricultural uses, agriculture-related uses, existing rural resource-based commercial uses, existing rural resource-based industrial uses, and existing rural institutional uses, provided conditions are met (Section F.1.14.2.3 and D.4.1).

This report has been prepared in accordance with Section F.1.14.2.3 (a) of the Rural Hamilton Official Plan. It is our opinion that the proposed agricultural lots are of a sufficient size and nature to be reasonably expected to:

> i) *Sustain a commercially viable farm operation;*
>
> *ii) Allow farm operators the flexibility to change the existing and proposed farm operation in the event of business failure; and,*
>
> *iii) Allow farm operators the flexibility to diversify and intensify the production of agricultural commodities in response to changing economic conditions and trends in agriculture.*

In response to section F.1.14.2.3, a number of resources have been reviewed to ensure the farm parcel sizes are sufficient to sustain a viable farm operation, while allowing flexibility to change/adapt the operation in response to changing trends in agriculture.

To confirm the proposed severance and associated parcel configuration can sustain a commercially viable farm operation, a parcel size and pattern analysis was undertaken (see **Figure 10**)[3]. The lot sizes for all rural designated parcels in the surrounding area (previously the Township of Flamborough) were assessed based on their lot size. The analysis confirms a majority of parcels in the previous Township of Flamborough that have a similar Rural designation are less than 20 hectares in size (88.6%); followed by 7.2% of parcels within the 21 – 39 hectare range; and only 4.2% of parcels greater than 40 hectares. Based on our observations through a site visit, the area surrounding the subject lands is comprised of a range of agricultural and non-agricultural uses, including hobby-sized equestrian operations, tree nurseries, rural and estate residential uses, and open space/recreational uses (RV park). Cropped lands generally consisted of hay, pasture and smaller cash crop (corn, soybean) parcels. The smaller lot sizes and

[3] Analysis assumption: Parcels were selected if greater than 50% of the parcel was designated as Rural (using Schedule D, Rural Hamilton Official Plan).

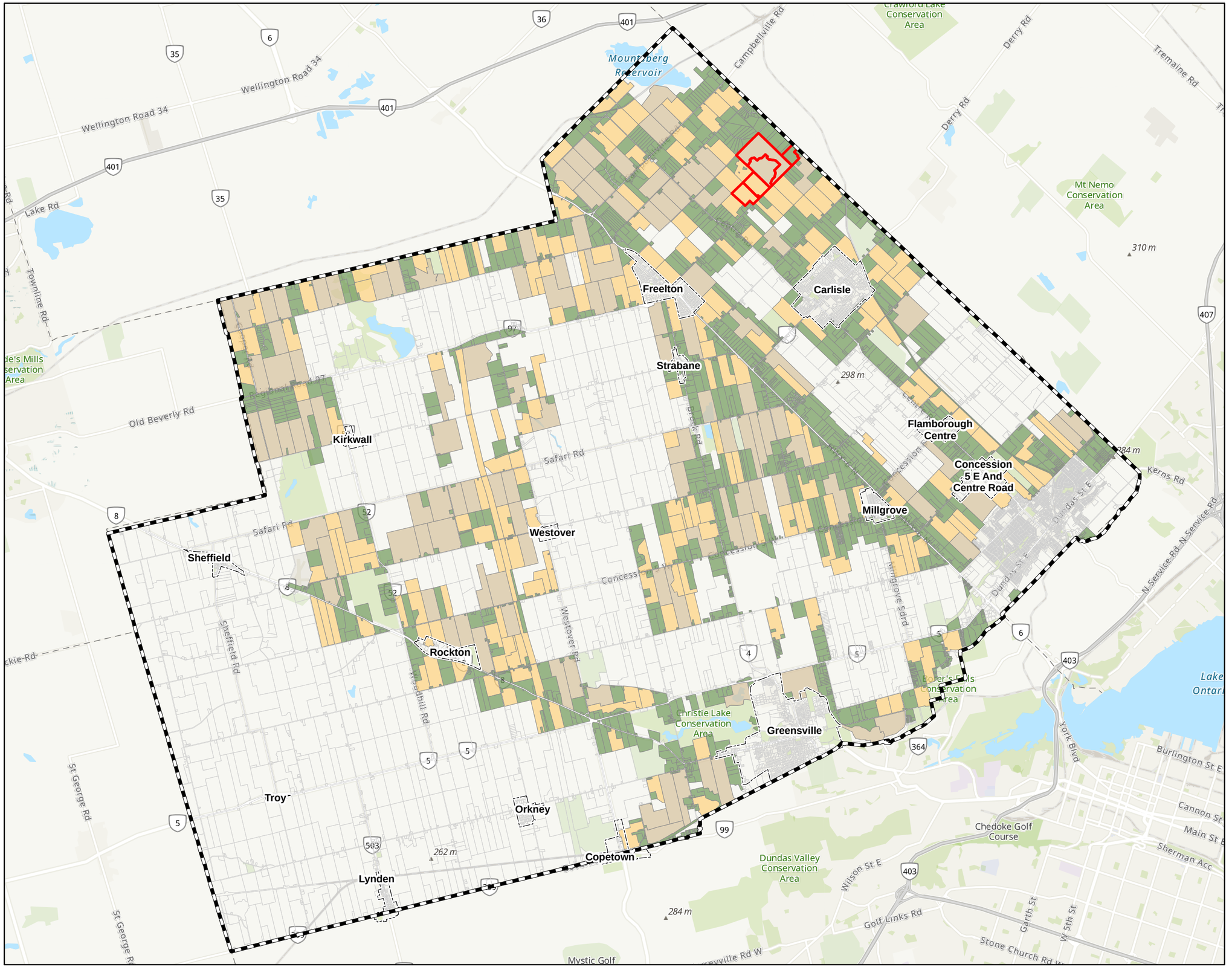

Figure 10
Parcel Size Analysis

353, 385, 412, 475, & 515
Concession Rd 11 E
City of Hamilton

Legend

- Subject Lands/Proposed Lots
- Community of Flamborough
- Settlement Areas
- Parcel Fabric*

Parcels designated "Rural" as per Rural Hamilton Official Plan Schedule D*

(>50 % of the parcel designated)

- 0-20 ha (88.6 %)
- 21-39 ha (7.2 %)
- 40+ ha (4.2 %)

Average Parcel Size: 6.56 ha

Notes

* Location is approximate
- Some data retrieved from City of Hamilton Open Data
- Basemap: Esri World Topographic Map

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diversity of uses is reflective of the flexibility in permitted uses for the City's rural designated areas.

As defined by Provincial and municipal policy, agricultural uses include a range of agricultural activities. The rural designated lands provide flexibility in terms of the types of agricultural activities taking place, including a high concentration of smaller agricultural operations and numerous agriculture-related or non-farm uses. As discussed further below, equestrian operations typically comprise of smaller parcels than conventional livestock and cash crop operations. Given the results of the parcel size analysis and larger concentration of smaller hobby-sized and equestrian operations, the proposed severance is returning a majority of the lands to the previous lots of record which will continue to allow the flexibility to change existing operations, and also provide for the ability to diversify and intensify as the lots are larger than the average lot size in the Flamborough area.

4.2.2 City of Hamilton Zoning By-law 05-200 (2005)

The subject lands are zoned in the City of Hamilton Zoning By-law (05-200) as Rural (A2), Conservation/Hazard Land – Rural (P6, P7 and P8), with special provisions 257 and 258.

Permitted uses in the By-law's Rural (A2) Zone relate primarily to agriculture, but permit more uses than the Agriculture (A1) zone. The City's Agriculture (A1) zone implements provisions for the lands designated as Agriculture in the City's Rural Official Plan, whereas the Rural (A2) zone implements the Rural designation. Permitted uses for each of the applicable zones are summarized in Table 1, below. The zoning of the properties is illustrated on **Figure 4,** attached.

Table 1: Summary of Applicable Zones and Permitted Uses

Zone	Purpose	Permitted Uses
Rural Zone (A2)	To implement Official Plan's *Rural* designation	• Abattoir • Agriculture • Agricultural Processing Establishment – Stand alone • Agricultural Storage Establishment • Farm Product Supply Dealer • Kennel • Livestock Assembly Point • Residential Care Facility • Secondary Uses to Agriculture • Single Detached Dwelling • Veterinary Service – Farm Animal •

Conservation/ Hazard Land Rural (P6)	Applies to all lands identified as Environmentally Significant Area or Earth Science ANSI in Rural Hamilton OP	• Agriculture • Conservation • Flood and Erosion Control Facilities • Recreation, passive • Secondary Uses to Agriculture • Single Detached Dwelling
Conservation/ Hazard Land Rural (P7)	Applies to all lands identified as Key Hydrologic Feature, with the exception of Provincially Significant Wetlands, in the Rural Hamilton OP	• Agriculture • Conservation • Existing Single Detached Dwelling • Flood and Erosion Control Facilities • Recreation, passive
Conservation/ Hazard Land Rural (P8)	Applies to all lands identified as Provincially Significant Wetland in the Rural Hamilton OP.	• Agriculture • Conservation • Existing Single Detached Dwelling • Flood and Erosion Control Facilities • Recreation, passive
Site Specific Provision No.		**Purpose**
257		a) The following use shall be prohibited: Mineral Aggregate Operation b) The following regulations shall apply: No new buildings or structures shall be permitted
258		a) The following use shall be prohibited: Mineral Aggregate Operation

Agriculture is permitted in all the zoning categories applicable to the subject lands. Agriculture is defined as follows in the City's zoning by-law:

> *Shall mean the growing of crops, including Nursery and horticultural crops; raising of livestock; raising, boarding and training of horses; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; aquaponics; apiaries; agro-forestry; maple syrup production; greenhouse operations; Cannabis Growing and Harvesting Facilities; hydroponics; and other such accessory uses as are customarily and normally associated with agriculture, including limited value retention uses required to make a commodity grown primarily as part of the farm operation salable, such as, but not limited to, grain drying, washing, sorting, grading, treating, storing, packing and packaging, feed mill, or grain mill, and selling of agricultural products primarily grown as part of the farm operation,*

and associated on-farm buildings and structures, including one Single Detached farm dwelling and a Farm Labour Residence.

This definition is similar to the PPS and as previously noted, an agricultural use can be comprised of many types and forms of activities.

In addition, accessory uses are permitted in the A2 zone, including uses such as agri-tourism operations, home industries, landscape contracting establishment and agricultural brewery/cidery/winery (Section 12.2.3.2). Section 12.2.3.1 of the by-law regulates minimum lot area of agricultural uses as 40.4 hectares (99.8 acres), which the proposed severance does not meet. This is the same minimum lot size as the Agriculture (A1) zone.

While the minimum lot area of agricultural uses is not met for three of the five lots, it is noted that the severances are returning a majority of the lands to their original parcel pattern. The zoning permits agriculture and accessory uses, which can take on many forms of activity and intensity that is not dependent on large acreage. As discussed further in this report, the proposed severances result in the creation of parcels that can sustain a range of agricultural uses, consistent with the surrounding agricultural uses.

As part of the pre-consultation process, the City of Hamilton confirmed that the 3 undersized lots would require a minor variance. The minor variance is addressed in the Planning Justification Report prepared by MHBC Planning under separate cover.

5.0 AGRICULTURAL TRENDS

This section will make reference to current agricultural production and parcel size trends in the surrounding area and viability of farm sizes, with consideration of farmland preservation and alternate farm operations. This section will review the merit of farmland size, changes to modern farm operations, and their viability and function into the future given the increased awareness and prevalence of local food production and food security.

5.1 Census of Agriculture Review (2016)

Statistics Canada produces a regular Census of Agriculture depicting variables including: number and type of farm crop; crop and land use area; management practices; number of livestock; machinery; farm capital and gross farm receipts.

To evaluate viable farm size, the following section includes an evaluation of farmland statistics, common farm sizes, and average farm size in Canada, the Province and the City of Hamilton in particular. A discussion of the general economic impacts associated with agricultural production is also included.

Some key definitions from the 2016 Census of Agriculture are included below:

Census Farm:
Refers to a farm, ranch or other agricultural operation that produces at least one of the following products intended for sale: crops, livestock, poultry, animal products, greenhouse or nursery products, Christmas trees, mushrooms, sod, honey or bees, and maple syrup products. Also included are feedlots, greenhouses, mushroom houses and nurseries; farms producing Christmas trees, fur, game (animals and birds), sod, maple syrup, or fruit and berries; beekeeping and poultry hatchery operations; operations with alternative livestock (bison, deer, elk, llamas, alpacas, wild boars, etc.) or alternative poultry (ostriches, emus, etc.), when the animal or derived products are intended for sale; backyard gardens if agricultural products are intended for sale; and operations involved in boarding horses, riding stables, and stables for housing or training horses, even if no agricultural products are sold. Sales in the previous 12 months are not required, but there must be the intention to sell.

Farm Operator:
Refers to those persons responsible for the management decisions in operating an agricultural operation. These can be owners, tenants or hired managers of the agricultural operation, including those responsible for management decisions pertinent to particular aspects of the farm—planting, harvesting, raising animals, marketing and sales, and making capital purchases and other financial decisions. Not included are accountants, lawyers, veterinarians, crop advisors, herbicide consultants, and others who make recommendations affecting the agricultural operation but are not ultimately responsible for management decisions.

Net Farm Income:
Net income (gross receipts minus cost of operation and capital cost allowance) received during the reference period from self-employment activities, either on own account or in partnership. In the case of partnerships, only the person's share of income is included. Net partnership income of a limited or non-active partner is excluded.

Farming income is the only included source in the farm income component defined here. It excludes fishing income and income from non-farm business or professional practice. Commission income for a self-employed commission salesperson and royalties from a work or invention with expenses associated are also excluded from this farm component.

5.1.1 Farmland Statistics

Canada

The 2016 Statistics Canada Census of Agriculture reported a total of 193,492 census farms in Canada, representing a decrease of 5.95% (~ 12,238 farms) since the previous 2011 Census of Agriculture. However, while farm numbers have declined, the average area per farm has increased from 779 acres in 2011 to an average of 820 acres in 2016, representing a 6.9% increase.

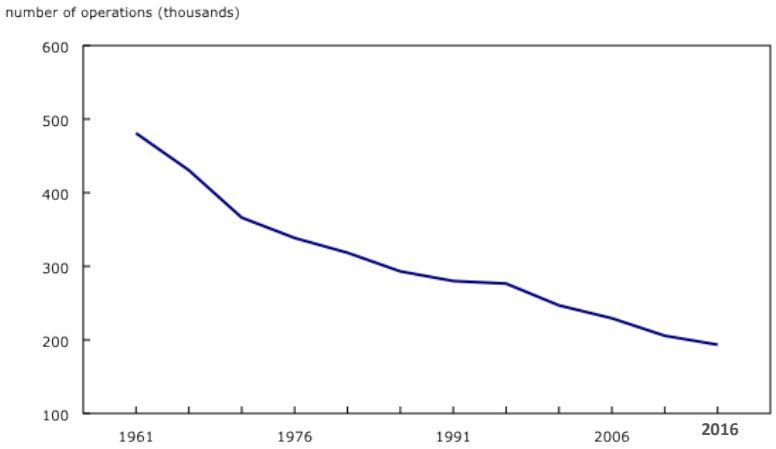

Table 2: Number of Farms, Canada (1961-2016) Source: Statistics Canada, Number of Farms, Canada, 1961 - 2016

Table 2 above illustrates that farm numbers are decreasing across Canada. This is likely attributed to a number of factors, including the consolidation of farm operations, lack of succession planning, lack of skilled labour and/or cost of land, equipment, inputs/resources, etc. As a result, fewer farm operators are producing food and fibre on relatively the same amount of land base for a growing domestic and global food market. Consequently, every effort to increase farm operations, no matter the size, should be promoted in order to maintain a sustainable agricultural system. The proposed severances can result in the continued use of the land for agriculture, agriculture related or on-farm diversified uses.

Despite the decrease in the number of farms and total farm area in Canada, the sales earned by farms are increasing. The number of farms in Canada reporting sales of $1 million or more increased by 8.2% from 2011 to 2016[4]. This is indicative of the general trend in which farmers are applying innovative technologies to increase productivity. Farmers invest in their lands and infrastructure to aid gains in efficiency and productivity, which positively impacts economic returns. Examples of such investments include improvement in storage facilities, installation of tile drainage, and precision planting technology. Advances in plant genetics, seeding technology and improved livestock health management also contribute to increased productivity and revenue. A summary of annual farm cash receipts for Canadian farms is included, below[5]:

Table 3: Farm Cash Receipts, Canada 2014-2018

YEAR	2014	2015	2016	2017	2018
Total Farm Cash Receipts	$58,285,425	$60,022,247	$60,615,017	$62,200,833	$62,418,129

Source: Statistics Canada. Table 32-10-0045-01 Farm cash receipts, annual (x 1,000)

[4] The Business of Agriculture, Census of Agriculture Fact Sheet (June 14, 2017).

[5] Farm cash receipts measure the gross revenue of farm businesses, including the sales of crops and livestock products and program payments.

Table 3 illustrates an increase of nearly 7% in farm cash receipts across Canada from 2014 to 2018, despite fewer farms across Canada.

Smaller farms are also implementing innovation and efficiency measures to decrease their operating expenses. Census data demonstrates that farmers with fewer cash receipts have reduced operating expenses per dollar of gross farm receipts compared to 2010[6]. The ratio becomes more favorable for farms with less than $250,000 in receipts.

Farm statistics are also collected provincially, regionally/municipally. A review of the 2016 Census of Agriculture for the Province of Ontario and City of Hamilton was undertaken (see below) in order to provide an overview of agricultural production patterns and parcel size. This helps to confirm if current farming practices within the Study Area are characteristic of the broader agricultural area and broader Provincial trends.

Table 4: Farms Classified by Total Area, Canada and Ontario, 2011 vs. 2016

	Canada			Ontario		
Total Farms	**2011**	**2016**	**% Change**	**2011**	**2016**	**% Change**
Total number of farms	205730	193492	-6.3	51950	49600	-4.7
Farms under 10 acres	12991	13193	1.5	2741	3051	10.2
10 -69 acres	32705	32036	-2.1	12,681	12625	-0.4
70 -129 acres	24205	22494	-7.6	11,779	10742	-9.7
130 -179 acres	21705	20148	-7.7	4969	4592	-8.2
180-239 acres	11719	10644	-10.1	4801	4282	-12.1
240 – 399 acres	24974	22986	-8.7	6460	6008	-7.5
400 – 559 acres	15053	13645	-10.3	3359	3093	-8.6
560 – 759 acres	11781	10792	-9.2	2026	1990	-1.8
760 – 1119 acres	13413	12143	-10.5	1587	1593	0.4
1120 - 1599 acres	10831	9640	-12.4	788	801	1.6
1600 – 2239 acres	9222	8335	-10.6	436	457	4.6
2240 – 2879 acres	5230	4982	-5.0	152	168	9.5
2880 – 3519 acres	3482	3365	-3.5	79	88	10.2
3520 acres and over	8419	9089	7.4	92	110	16.4

[6] Ibid.

Ontario

Ontario accounts for approximately 25.6% of all Canadian farm area, with a total of 49,600 farms reported in 2016, a 4.5% decrease since 2011. **Table 4** illustrates farm size in Ontario, compared to Canada, by acreage for 2011 to 2016. Statistically, farms in Ontario and Canada are predominately between 10 acres and 129 acres, with 10-69 acres representing the strongest group in Ontario at 24% in 2011 and 26% in 2016, respectively.

Statistically, the average farm size in Ontario is below the required 40.4 hectares (100 acres) as regulated in the City of Hamilton Zoning By-law, signifying that smaller farm sizes are prevalent throughout Ontario, and are a viable size for a farm operation. The provincial average also signifies that most operating farms do not meet standard requirements as set out in many regional and municipal official plans and by-laws.

While the number of farms is typically declining, the majority of farm sizes are predominantly below the 40 hectare requirements found in the City's zoning by-law. It is also worth noting that Ontario experienced a significant increase in the number of farms less than 10 acres from 2011 to 2016 when compared to Canada (10.2% vs. 1.5%, respectively). This speaks to the trends around smaller scale agriculture (e.g. market vegetable production), which is discussed further below.

Ontario farmers are experiencing continued economic revenues. **Table 5** below illustrates total farm cash receipts for Ontario farmers[7].

Table 5: Farm Cash Receipts, Ontario 2014-2018

YEAR	2014	2015	2016	2017	2018
Total Farm Cash Receipts	$12,929,951	$12,955,642	$13,261,340	$13,375,037	$13,994,809

Source: Statistics Canada. Table 32-10-0045-01 Farm cash receipts, annual (x 1,000)

While Ontario is experiencing some growth in farm operations (predominantly larger parcel sizes - 760 acres and up), the province is experiencing similar trends seen across Canada: there are fewer farm operators and farms, a general trend towards declining farm parcel sizes, but total farm revenue continues to rise.

City of Hamilton

The total number of farms in the City of Hamilton is 810, which has declined 8.5% since 2011[8]. In terms of parcel size, the majority of farms (41%) in the City are within the 10-69 acre farm size,

[7] Farm cash receipts measure the gross revenue of farm businesses, including the sales of crops and livestock products and program payments.

[8] Census of Agriculture, 2016. Farms classified by farm type: Table 32-10-0403-01.

followed by 18.3% of farms falling in the 70-129 acre range[9]. This represents a significantly larger share of operations when compared to the percentage of Ontario farms within the 10-69 hectares range (25%), indicating a relatively smaller agricultural parcel size for farm operations in Hamilton. This is further indicative of traditional farm parcel size that is characteristic for the City's non-urban area. In addition, the amount of lands in crop production has declined slightly from 42,339 hectares to 42,142 hectares representing a decline in crop land of 0.5%[10].

Table 6: Farms Classified by Total Area, City of Hamilton, 2016

	Ontario		Hamilton	
Total Farms	**2011**	**2016**	**2011**	**2016**
Total number of farms	51950	49600	885	810
Farms under 10 acres	2741	3051	104	119
10 -69 acres	12,681	12625	375	334
70 -129 acres	11,779	10742	182	148
130 -179 acres	4969	4592	66	64
180-239 acres	4801	4282	47	37
240 – 399 acres	6460	6008	52	46
400 – 559 acres	3359	3093	10	17
560 – 759 acres	2026	1990	17	12
760 – 1119 acres	1587	1593	15	13
1120 - 1599 acres	788	801	3	8
1600 – 2239 acres	436	457	9	7
2240 – 2879 acres	152	168	2	1
2880 – 3519 acres	79	88	0	1
3520 acres and over	92	110	3	3

As described above, a parcel size analysis was undertaken to confirm the average parcel size for rural designated lands in the City of Hamilton (see **Figure 10**). Analysis shows that the average parcel size of Rural designated lands in the City of Hamilton is approximately 6.0 hectares (14 acres). Furthermore, 88.6% of rural designated parcels are less than 20 hectares in size. This analysis further illustrates that rural lands in the City of Hamilton are smaller in average than the City's zoning by-law requirement of 40 hectares for agricultural parcels. The proposed severances are significantly larger than the average parcel size in the City of Hamilton's Rural lands designation.

Based on the evaluation of the surrounding landscape fabric, the proposed severances would be reflective of surrounding farms and would therefore prove to create parcels that provide a viable size for a farm operation.

[9] Census of Agriculture, 2016. Farms classified by total farm area: Table 32-10-0404-01
[10] Census of Agriculture, 2016. Farms classified by land use: Table 32-10-0406-01

In addition to farm size, the Statistics Canada Census of Agriculture also reports farm operation by type. A majority of farm uses in Hamilton consist of Oilseed and Grain Farming (25.9%), which primarily includes soybean farming (38.6% of 'oilseed and grain farming') and other grain farming (29.5%). Other Animal Production (17.8%) and greenhouse, nursery and floriculture production (15.1%) also comprises a large proportion of the City's agricultural production. In the City of Hamilton, "Other Animal Production" contains a large amount of horse and other equine production farms (77.8% of 'other animal production' is equine). This indicates that equestrian makes up a majority of animal production in Hamilton. Other Crop Farming (11.1%) and cattle ranching and farming (8.5%) contribute to a smaller portion of the total agricultural production compared to oilseed and grain farming in the City of Hamilton. These results are not surprising given that the soil and topographic conditions of certain parts of the City make it less conducive to growing traditional field crops.

In terms of farm cash receipts, the value of agricultural sales in Hamilton has increased by $15,691,937 (or 6.4%) between 2011 and 2016. This represents an increase of 8% from 2011 to 2016 in gross farm receipts per acre, which continues the trend of farmland producing greater value per acre over time[11]. The farm types to experience the largest increase in gross farm receipts were (ranked in order by generated income): Greenhouse, nursery and floriculture production (9% increase); oilseed and grain farming (4% increase); poultry and egg production (3% increase); cattle ranching and farming (9% increase); and other animal production, including equestrian (30% increase). Greenhouse, nursery and floriculture production represents approximately 50% of the value of all agricultural gross farm receipts. The significant increase in 'other animal production' in 2016 is illustrative of an increase in sheep and goat farming in the City of Hamilton[12].

Primary agriculture remains a significant economic provider in Hamilton and the broader Golden Horseshoe region. Despite the City's location in an area with the largest concentration of urban development in Canada, Hamilton and the broader Golden Horseshoe are home to farms that generate substantial annual economic impact. The economic value of agriculture has continued to increase between 2011 and 2016, despite the decline in the number of farms. The economic impact of agriculture in Hamilton (2016) is summarized below[13]:

- $259,909,162 in gross farm receipts
- $950,574,095 in gross output impact
- $437,134,749 in gross domestic product impact
- 6,168 jobs

[11] Hamilton Agriculture Profile & Economic Impact Report, City of Hamilton.
[12] Ibid.
[13] Ibid.

All of the above are increases from 2011.

The agricultural uses surrounding the subject lands do not include a large amount of conventional cash crop production or larger-scale livestock production. Agricultural operations within the area include a higher concentration of equestrian operations, with some nursery production. It is worth noting that the subject lands are located within close proximity to key horse racing facilities, including Flamboro Downs and Woodbine Mohawk Park, which are components of the broader agricultural system for the region (see **Figure 11** illustrating proximity to racing facilities). Training facilities and barns are common in the areas surrounding both racetracks, and do not require large parcels of land to provide equestrian amenities. A number of equestrian facilities in the surrounding area, including the training centre within the subject lands, market themselves to training for the Region's racing industry.

The Ontario equine industry is comprised of a broad range of racing, sport, recreation and breed interests. There is both a thriving harness horse racing industry and a thoroughbred racing industry, as well as an emerging quarter horse racing interest. The equestrian sports of show-jumping, dressage and eventing are well represented in Ontario as well as hunters, western riding, driving, heavy horses, endurance riding and pleasure riding. It is important to acknowledge the prevalence of equestrian operations within and surrounding the subject lands. While there is limited literature available on the equestrian industry in Ontario, a 2009 study authored by Caldwell and Wilton provides insights to the economic impact on Ontario's equine industry[14].

While their report does not include an analysis of census data for the City of Hamilton, adjacent municipalities such as Wellington County and Waterloo Region are reviewed. The 2009 study indicates that **23% of reporting equestrian farms are within 0-10 acres, with 14% of farms between 41 and 50 acres.** Only 11.5% of the farms reports are larger than 100 acres. This illustrates that smaller areas of land are typically needed to support equine farms compared to other conventional agricultural operations (cash crop production and livestock such as beef/dairy production). Again, this supports the rationale of this report that the proposed severance and resulting parcel size can support a range of agricultural activities, included equine operations (including the existing Baycairn Training Centre).

5.1.2 Beyond the City of Hamilton

The province of Ontario does not mandate minimum farm size in the Growth Plan for the Greater Golden Horseshoe, but makes reference that each municipality or township will be responsible for determining the identification and protection of prime agricultural areas and related policies. Similar emphasis on prime agricultural areas is reflected in the PPS, which

[14] Wilton & Caldwell: Rural Ontario's 'Hidden' Sector: The Economic Importance of the Horse Industry (2009).

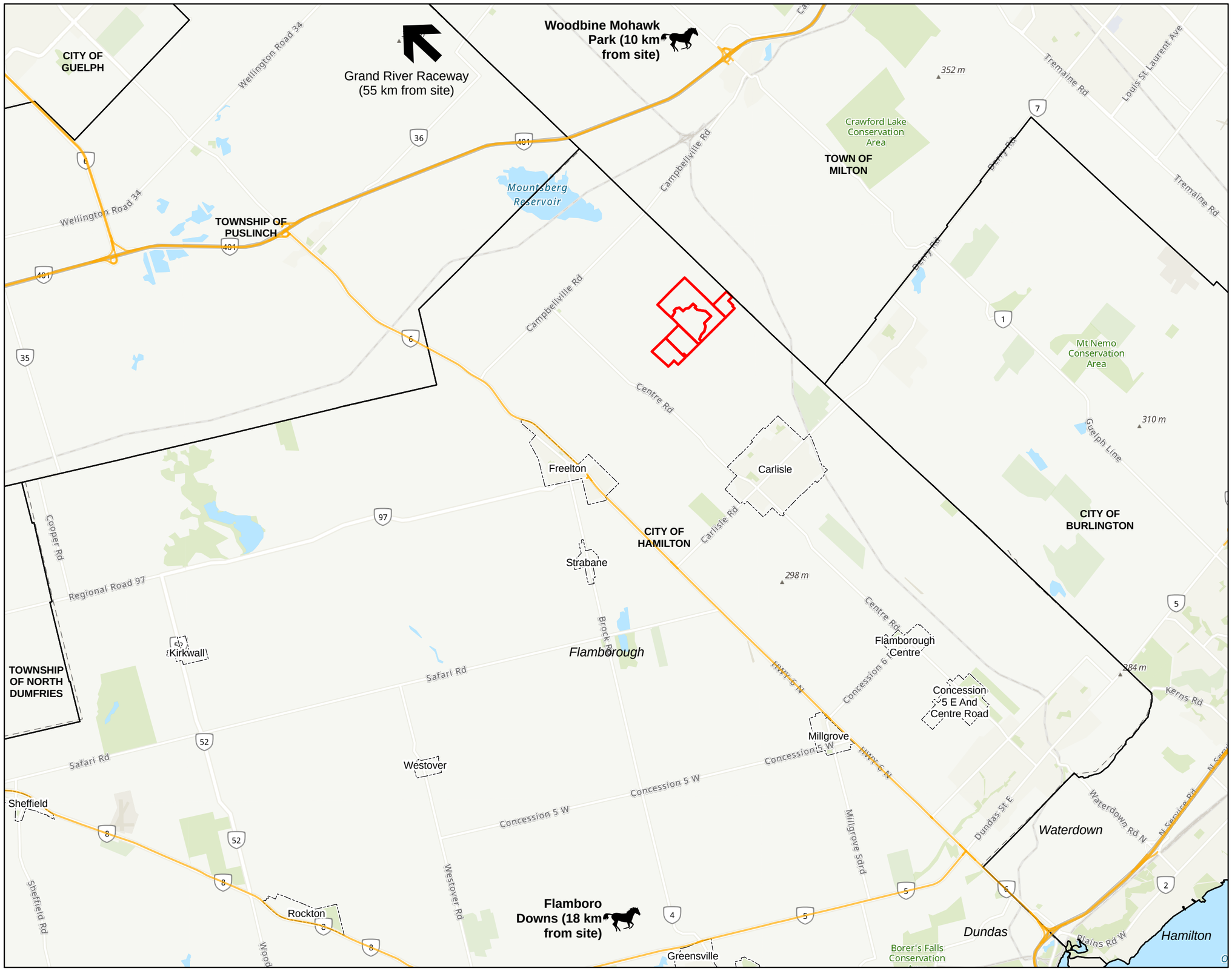

Figure 11
Broader Context Plan

353, 385, 412, 475, & 515
Concession Rd 11 E
City of Hamilton

Legend

- Subject Lands/Proposed Lots
- Municipal Boundaries
- Settlement Areas
- Major Roads
- Horse Racing

Distance to Urban Centres

Waterdown - 15 km
Burlington - 30 km
Milton - 19 km
Hamilton - 26 km
Guelph - 28 km

Notes

- Some data retrieved from City of Hamilton Open Data
- Basemap: Esri World Topographic Map
- Contains information licensed under the Open Government Licence - Ontario.

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mandates that all types, sizes and intensities of agricultural uses and farm practices will be promoted and protected in prime agricultural areas. As discussed above, a range of uses (including agriculture) are permitted in rural areas, which contribute to the broader agricultural system.

Through a background review of other municipal zoning by-laws, it is evident that there is a diverse range of minimum lot size requirements for Rural/secondary agricultural lands. **Table 7** below illustrates the range of minimum lot sizes across some municipalities in Ontario.

Table 7: Municipal ZBL Comparison of Rural and Agricultural Minimum Lot Size

Municipality	Zoning	Minimum Lot Size
Prince Edward County	Rural 1 (Agriculture)	10 ha (24.7 ac)
	Rural 2 (Agriculture)	20 ha (50 ac)
	Rural 3 (Agriculture)	34 ha (84 ac)
Town of Ajax	Permanent Countryside	40 ha
	Agricultural	0.8 ha
King Township	Rural General (RU1)	10 ha
	Rural Intensive (RU2)	2 ha (agricultural use) 1.9 ha (farm residential)
	Rural Specialized (RU3)	4 ha
Niagara Falls	Rural	0.4 ha
	Agricultural	16 ha
Fort Erie	Agricultural	20 ha
	Rural	6 ha
Owen Sound	Rural	1 ha
	Agricultural	10 ha
Georgian Bay	Rural	10 ha
Puslinch	Agricultural	4 ha
North Dumfries	Zone 1 (Agricultural)	35 ha
Halton Hills	Agricultural	4 ha
Leamington	Agricultural	10 ha

While **Table 7** does not represent an exhaustive review of minimum lot size across Ontario municipalities, it illustrates that there is a range of minimum lot sizes for both rural and agricultural parcels across the Province. This further indicates that agricultural activities can successfully and feasibly operate on a range of parcel size, from very small (2.0 hectares) to larger parcels, such as 40 hectares. Examples of farm operations that can operate on smaller parcels of land include, but are not limited to:

- Horticulture production

- Beekeeping
- Market vegetable production (field/greenhouse)
- Equestrian
- Poultry/turkey

In reality, an agricultural system is made up of a variety of parcel sizes. Just because a farm operation has large acreage, it does not necessarily mean that it is considered to be financially viable. It is worth noting that many farms receive subsidies/grants in order to remain viable. Many farm families have off-farm jobs in order to support or provide a stable source of income. Other operators may also engage in accessory on-farm uses to supplement income. Given these economic realities, the province was motivated to introduce on-farm diversified uses in the PPS as a potential opportunity to supplement on-farm income, which in the end will ensure that agricultural land remains productive regardless of its size or scale.

Given the forgoing analysis, the proposed severance does acknowledge surrounding average farm size, and is considered appropriate based on a review of other municipalities. The proposed parcel sizes can provide for a range of agricultural activities, while providing the flexibility for farmers to adapt or intensify. Municipalities outside of the City of Hamilton have determined that farm sizes below 40 hectares/100 acres are viable, and are common throughout Ontario.

The following section provides an overview of key trends including farmland preservation, local food movement and challenges for new entrants to farmers.

5.2 Farmland Preservation

> *Farmland Preservation is "about protecting a biophysical resource through various land use planning policies" that ensure the protection of farmland as a public interest for food production, food security, economic value, stewardship and a resource for future generations.* (Caldwell, Hilts & Wilton, 2007)[15]

Farmland preservation is an evolving theory and range of polices used to protect existing farmland and agricultural resources from competing land uses. The challenge of keeping farmland in agricultural production requires addressing both the protection of farmland from conversion, as well as ensuring that farming on such lands remains viable.

[15] Farmland Preservation, second edition: Land for Future Generations, Wayne J. Caldwell (Editor), Stew Hilts (Editor), Bronwynne Wilton (Editor), 2017

Ontario has a diverse and active agricultural industry, and contains approximately 52% of Canada's Class 1 land soils in high quality farmland area. Provincial and local policies are in place to protect these lands from incompatible development, urban sprawl, and loss of prime agricultural land. Farmland preservation often focuses largely on preserving large farmland areas at the expense of small scale flexible farm operations like the lands proposed. Often, these small farm operations are more profitable and can provide greater crop production, allow for crop diversity which reduces monoculture, is more reactive to changes in crop production and changing economic conditions, and promotes local food production and availability. (Britten et. al., 2009)

In essence, the proposed severances will maintain the existing farm operations and does not propose non-farm related uses. The proposed severances will ensure farmland is preserved, and does not allow for expansion of the urban boundary or urban area and built environment into lands of agricultural significance.

5.3 Local Food Movement / Farm to Table

In responding to the emerging importance of healthy and accessible food, the "Local Food", "Buy Local" or "Creative Food Economy" movements have emerged with the theory of promoting locally grown goods, pick-your-own, farmers markets and local farms and farmer stalls. This phenomenon emerged in the early 2000s and has now grown into a wide-scale phenomenon and trend. The following section pertains to this theory and application in the Ontario rural and agricultural market.

Based on a series of "push and pull factors," people generally feel locally grown food is of better quality and flavor, free from harmful pesticides and chemicals, less damaging on the environment, reduces greenhouse gas emissions, supports local economy and farm operations, and is generally safer than mass produced and imported foods as the source/origin and processing is known[16]. The local food/buy local market has grown at a rate of 15% to 25% over the last decade as compared to the traditional agriculture sector with reported growth of 2% to 3%. Specifically, the number of farmers markets in operation has more than doubled compared to the number in operation in the 1980s, largely in part that consumers "value the care and nurturing farmers put into their operations and want to support local farm production." By promoting local food and buying local, consumers are helping to alter food production in a positive way, and may influence increased prevalence and opportunities for rural land use in Ontario.

[16] Metcalf Foundation: In Every Community a Place for Food: The role of the community food centre in building a local, sustainable and just food system (2010).

This emerging trend also benefits the environment, economy and social aspects of farming and agriculture. Specifically, if goods are produced locally, this reduces travel distance to transport goods between producer and consumer, which dramatically reduces vehicle use and related greenhouse gas consumption. Environmental benefits also include reduced use of pesticides, increased crop diversity etc., while socially, consumers understand the value of food, know it is local, and are willing to spend extra money to support the local community.

Further, farm market sales are a direct indication of farm viability and success of agriculture. More than 7,000 farms in Ontario engage in direct sales with consumers, a majority of which are located in the Greater Toronto-Hamilton Area[17]. These types of operations are supported through Provincial programs such as Ontario Farm Fresh Marketing Association and Farmers' Markets Ontario. Often these farm operations are small country stores, roadside stands, and fruit farms that operate on small parcels of land similar to the proposed farm severances. Due to local availability, consumers are more likely to travel to purchase from, and support local farmers.

A number of smaller farm-to-table and community shared agriculture (CSA) operations have proven to be very successful in the Hamilton area. Examples include Earth to Table Farm (Pearl Hospitality), Manorun Farms, Plan B Organic Farms, Chickabee Farm and Simpler Thyme Organic Farm. Several of these farms are supported by local residents through a CSA approach in which shares are purchased in advance of the season to support producers. Many operations also participate in local farmers markets, providing further support to the local food market. While these operations may not all be considered to be large in acreage (some of which ranging in size from 3 to 10 hectares), they can provide healthy local food to the area without requiring large amounts of land.

It can also be argued that smaller farms have a greater potential to contribute to the environment, reduce the growing built up area, and encourage farmer-buyer relationships and promote local level markets. Smaller farm sizes can also prove beneficial during economic hardship, through food security and local markets with the threat at border crossings, or food recalls. Building on this notion, food security is an important theme given the emerging threats from climate change, increasing fuel costs, and water scarcity, which can all be lessened through the local supply and availability of food resources.

Food security has become a central theme of the local food movement as a result of the economic strain on farmers, challenges posed by climate change, lack of adequate and available healthy food, and the general process of exporting food out of the country. 1 in 8 households in

[17] News Release: Ontario supports famers with farmers' market and on-farm sales. October 10, 2019 (Ministry of Agriculture, Food and Rural Affairs).

Canada is food insecure, amounting to over 4 million Canadians[18]. From 2016 to 2017, emergency food bank usage in the City of Hamilton increased for both adults and children by 9.5% and 10%, respectively[19].

The proposed severances represent an opportunity to implement agricultural uses in a small scale manner that can promote the potential for local food production in proximity to larger urban centres. The lands will remain in agriculture and can provide an opportunity to increase public access to safe and high quality food in the future. Agricultural uses that operate under the buy local buy fresh theory are smaller in size, similar to the land area and agricultural operation proposed, but are advancing and increasing in farm income, and economic contribution to the community. It can be proven that larger farm sizes are not needed to be economically viable, and that people are willing to support small scale, local, and accessible food opportunities, which are fully capable of operating on smaller parcels.

5.4 Emergence into Farm Industry

In addition to restrictions and limitations on farm size and operation, rising prices of land are also limiting the ease of emergence into the market for new farmers and/or smaller farm operations. In 2016, the average value of land and buildings in Canada was $2,696 per acre, which is an increase of 38.8% from 2011[20]. Starting or growing an agricultural operation requires a significant investment, and choosing to rent lands can be a more flexible and less capital intensive way for farmers to establish their operations[21]. The total land rented in Canada increased by 0.4% from 2011 to 2016. Agricultural operations by those aged 70 and older were more likely to rent out some of their farmland to younger operators.

Given the shift from farm production to technology, and increased demand on land for non-agricultural uses (e.g. residential), farm operations have decreased dramatically. Often, lands near urban areas are reserved for development, and associated costs reflect the value of developing land for urban/built environment as opposed to farming it.

A recent review of farmland prices in Ontario further illustrates this point, with the increase in bidding wars and higher priced land. Many farms are passed down through generations therefore limiting the available land on the market. Also limiting, is the number of farmers nearing retirement, who would normally sell the land, understand the value and choose to rent it out. This further limits available land resources for purchase. Although increased farm prices can be seen as a positive for the economy, this limits options for farmland expansion, and or

[18] Household Food Insecurity in Canada: Proof, Food Insecurity Policy Research (February 22, 2018).
[19] E. O'Rourke, Hungry for Change: The Silhouette (February 2018).
[20] Farm & Farm Operator Data: A Portrait of a 21st Century Agricultural Operation, Census of Agriculture (May 17, 2017).
[21] Farm and Farm Operator Data: Farmers are adapting to evolving market, Census of Agriculture (June 14, 2017).

emergence into the farm industry. Barriers, including social, economic, and lack of interest by the next generation often leave current farming operations struggling to plan for succession. This results in decreased quality of land and resources, and general lack of interest to continue to farm an operation. Often, these areas of land are left beyond suitable quality and sold to developers, or through private sale, therefore further limiting access for those who intend to farm the land[22].

For these reasons it is critical that options remain to allow small scale farm operations to emerge in an increasing competitive market. The proposed severances, although smaller than regulated minimums, will allow for increased opportunity to maintain these lands for the production of food or fibre. The proposed severances provide the ability for a new farmer(s) to start production and an opportunity to benefit the area socially, economically, and environmentally.

[22] Farms Forever Discussion Paper, OMAFRA: 2016

6.0
SUMMARY

The intent of the proposal is to permit the severance of 214 hectares of land into five (5) separate farm parcels. The purpose of the severance is to generally return the lands to their previous parcel fabric. Local official plans and policies have been implemented to help regulate farm size, and ensure agricultural and farm operations are viable both economically, and for farm function. Based on the analysis included in this report, the proposed severances are considered good planning for reasons outlined below:

- Ontario's policy framework provides for more flexibility on Rural designated lands in comparison to prime agricultural lands. The subject lands are designated as Rural in the City of Hamilton Rural Official Plan, and are not included in the Province's Agricultural Systems Mapping as prime agricultural lands.
- The proposed severances would generally return the lands to their existing lots of record, which is encouraged through the 2019 Growth Plan.
- In comparison to existing farm parcels in the surrounding area, existing farm sizes throughout Ontario, and specifically within the City of Hamilton rural area, are below this minimum regulated farm size. The average parcel size in the City's Rural designation of the surrounding lands is 6 hectares, which is significantly smaller than the 40.4 hectare requirement for agricultural parcels. A number of surrounding farm operations are operating on less than 40 hectares.
- Minimum distance separation setbacks can be met with the proposed severance.
- Smaller farms have significant benefits, as seen through the emergence of the local and sustainable food movements that promote small scale farms that serve the immediate area while also promoting locally grown products. There is a need for all types and scales of agricultural production in order to support demand for local and available healthy food.
- Equine operations, which are a predominant agricultural use in and around the subject lands, are typically comprised of smaller lot sizes.
- Farm viability is not dependent on the size of the farm, rather the intended use and/or function of the farm operation.
- A farm can function on a smaller sized lot, and can be considered viable in the agricultural market.

Based on the forgoing, the proposed severances should be permitted as the resultant parcels are reflective of surrounding farm sizes, provides opportunity for alternative farm function, promotes local small scale agricultural production, and will provide continued growth and economic prosperity in the agricultural system.

Respectfully submitted,

MHBC

Pierre J. Chauvin, BSc (Agr.), MA, MCIP, RPP
Partner

APPENDIX A: MDS I Calculations

Minimum Distance Separation I

Worksheet 1
Prepared By: Pierre Chauvin, Planner, MHBC Planning

Description: Concession 11 East Severance Application

Application Date: Wednesday, January 22, 2020

Municipal File Number:

Proposed Application: Lot creation for an agricultural use (e.g. farm split)
Type A Land Use

Applicant Contact Information

Pierre Chauvin
MHBC Planning
540 Bingemans Drive
Suite 200
Kitchener , ON, Canada N2B 3X9
Phone #1: 519-576-3650
Email: pchauvin@mhbcplan.com

Location of Subject Lands

City of Hamilton
EAST FLAMBOROUGH, Concession: 11

Roll Number: 2518

Calculation Name: ***362 Con 11 E***

Description: Horse Farm at 362 Concession 11 East

Farm Contact Information

Pierre Chauvin

Location of existing livestock facility or anaerobic digester

City of Hamilton
EAST FLAMBOROUGH, Concession: 11

Roll Number: 2518

Total Lot Size: 40 ha

The barn area is an estimate only and is intended to provide users with an indication of whether the number of livestock entered is reasonable.

Manure Type	Type of Livestock/Manure	Existing Maximum Number	Existing Maximum Number (NU)	Estimated Livestock Barn Area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	95	95.0	2,207 m²

The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Existing Manure Storage: V4. Solid, outside, no cover, 18-30% DM, with covered liquid runoff storage

Design Capacity (NU): 95.0

Potential Design Capacity (NU): 285.0

Factor A (Odour Potential)		Factor B (Size)		Factor D (Manure Type)		Factor E (Encroaching Land Use)		Building Base Distance F' (minimum distance from livestock barn)	(actual distance from livestock barn)
0.7	**X**	**455.55**	**X**	**0.7**	**X**	**1.1**	**=**	**246 m (806 ft)**	**322 m (1056 ft)**

Storage Base Distance 'S' (minimum distance from manure storage)	(actual distance from manure storage)
246 m (806 ft)	**596 m (1955 ft)**

Preparer Information

Pierre Chauvin
Planner
MHBC Planning
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Suite 200
Kitchener, ON, Canada N2B 3X9
Phone #1: 519-576-3650
Email: pchauvin@mhbcplan.com

Signature of Preparer: Pierre Chauvin, Planner

Date: January 22, 2020

Environmental Impact Study for the St. Marys Flamborough Lands, Hamilton, Ontario

FINAL REPORT

March 26, 2020

Prepared for:

St. Marys Cement Inc. (Canada)
55 Industrial Street
Toronto, ON M4G 3W9

Prepared by:
Stantec Consulting Ltd.
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160961347

Sign-off Sheet

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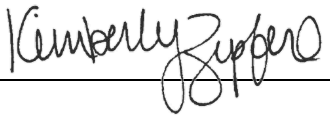
Prepared by 

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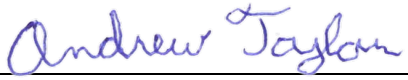
Kimberly Zupfer, M.Sc.
Ecologist

Reviewed by 

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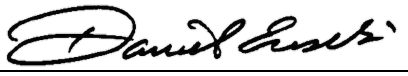
Reviewed by 

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1.0 INTRODUCTION

1.1 PROJECT OVERVIEW

Stantec Consulting Ltd. was retained by St. Marys Cement Inc. (Canada) ("St. Marys") to complete an Environmental Impact Study (EIS) for the proposed land severance of its lands along Concession 11 East, in Flamborough, City of Hamilton. The EIS is intended to satisfy requirements of the City of Hamilton (the City) and Conservation Halton (CH).

The Subject Lands were assembled by St. Marys for their formerly proposed Flamborough Quarry. This resulted in the lands being merged into one parcel. St. Marys is proposing to re-establish five lots. Four of the lots with existing residential and/or agricultural land uses would be retained by St. Marys for re-sale, while one parcel, containing natural heritage features, could potentially be conveyed to the City, CH or another party to be set aside as environmental protection lands.

This report characterizes the significance and sensitivity of the natural features in the Study Area, identifies potential impacts of the proposed severance, and provides recommendations on the number, configuration and boundaries of the proposed lots.

1.2 STUDY AREA

The Subject Lands is comprised of 214 hectares of land and consists of five municipal addresses: 353, 385, 412, 475 and 515 Concession 11 East, City of Hamilton. For the purposes of discussion in this report, the five municipal addresses have been labeled as Lots 1, 2, 3, 4 and 5, as shown in **Figure 1, Appendix A**. The Study Area includes the Subject Lands (all five lots) and a surrounding 120 m area of investigation.

1.3 PREVIOUS FIELD INVESTIGATION

As part of the previous aggregate application, comprehensive natural heritage field investigations were completed over a five-year period between 2003 and 2007. The field investigations focused on Lots 3, 4 and 5 (**Figure 1, Appendix A**). The field investigations included mapping vegetation communities, wetland and woodland delineation, vascular plant inventory, wildlife surveys and fisheries and aquatic habitat surveys of watercourses in the Study Area. The methods and results of the field investigations are provided in this report.

1.4 AGENCY CONSULTATION

St. Marys has undertaken pre-consultation with the City and CH. In an email dated October 3, 2019, the City recommended submitting a scoped EIS, using the results of the previously collected field investigations, to guide the boundaries and number of lots of the proposed severance. In their letter, dated October 8, 2019, CH provided background information on the presence of natural heritage features and constraints, as well as guidance on completing an EIS. In their conclusion, CH states they have no outstanding concerns for the re-establishment of Lots 1, 2 and 5. They recommended the boundary between Lots 3 and 4 be configured to provide hazard and natural heritage features on a single lot to avoid fragmenting such features.

This EIS considers the guidance and recommendations received by the City and CH during pre-consultation.

2.0 NATURAL HERITAGE POLICY CONTEXT

The following sections provide the policy context for the EIS, including discussion of the natural heritage constraints to development (lot severance), feature specific considerations for vegetation protection zones, permitting, and other authorization requirements.

2.1 THE PLANNING ACT / PROVINCIAL POLICY STATEMENT

The Provincial Policy Statement (PPS; MMAH 2020) was issued under Section 3 of the *Planning Act*, 1990 (PA) and came into effect in 1996, with the most recent revision in March 2020. The PA requires that decisions made by planning authorities are consistent with the policy statements, such as the PPS, which includes policies on development and land use patterns, resources and public health and safety. Section 2.1 of the PPS deals with natural heritage and requires that natural heritage systems are identified in certain ecoregions. This includes Ecoregion 6E, where the Subject Lands are located.

According to Section 2.1.5 of the PPS, development and site alteration are not permitted in the following features, unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions:

- Significant Wetlands
- Significant Woodlands
- Significant Valleylands
- Significant Wildlife Habitat
- Significant Areas of Natural and Scientific Interest

Development and site alteration are not permitted in the following features, except in accordance with provincial and federal requirements:

- Significant habitat of endangered or threatened species
- Fish habitat

Development and site alteration are not permitted on lands that are adjacent to the natural heritage features and areas identified above unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

2.2 GREENBELT ACT

The *Greenbelt Act*, 2005 (GA) authorizes the provincial government to designate and create a Greenbelt Plan (MMAH 2017) to protect environmentally sensitive and agricultural land in the Golden Horseshoe from urban development. The GA sets out the main elements and objectives for the Greenbelt and requires planning decisions to conform to the Greenbelt Plan (MMAH 2017). The Greenbelt Plan incorporates and builds on other provincial plans, including the PPS and the Growth Plan for the Greater Golden Horseshoe.

The Study Area occurs within lands designated by the Greenbelt Plan as Protected Countryside (MMAH 2017). The Protected Countryside lands are "intended to enhance the spatial extent of agriculturally and environmentally protected lands" (MMAH 2017).

The Protected Countryside contains a natural heritage system that provides a continuous area of protected natural heritage and hydrologic and/or landform features, which "provide essential ecosystems services, including water storage and filtration, cleaner air, habitat, support for pollinators, carbon storage and resilience to climate change" (MMAH 2017). The natural heritage system includes core areas and linkage areas of the Protected Countryside with the highest concentration of the most sensitive and/or significant natural features and functions. Any new development and site alteration in the natural heritage system must demonstrate that there will be no negative effects on key natural heritage features (KNHFs) or key hydrologic features (KHFs) or their functions. As per Section 3.2.5 of the Greenbelt Plan, KNHFs and KHFs are defined as:

- KNHFs:
  - Habitat of endangered species and threatened species
  - Fish habitat
  - Wetlands
  - Life Science Areas of Natural and Scientific Interest (ANSIs);
  - Significant Valleylands
  - Significant Woodlands
  - Significant Wildlife Habitat (including habitat of special concern species)
  - Sand barrens, savannahs, and tallgrass prairies
  - Alvars

- KHFs:
  - Permanent and intermittent streams
  - Lakes (and their littoral zones)
  - Seepage areas and springs
  - Wetlands

Other policies are also in place to protect and enhance connectivity with the natural heritage system and other natural features, and to limit the disturbed area, total development area and impervious surfaces.

2.3 RURAL HAMILTON OFFICIAL PLAN

The Rural Hamilton Official Plan (OP) consolidates Greenbelt and municipal planning objectives in a Natural Heritage System and provides policy directives to protect and restore natural features and functions. Schedule B of the OP designates the areas of the Natural Heritage System including land identified as Core Areas and Linkages. Core Areas include KNHFs, KHFs, associated vegetation protection zones, and provincially significant and Local Natural Areas. According to Chapter G of the OP, the KNHF and KHF are the same as those listed for the Greenbelt Act.

Schedule B of the OP designates lands in the Study Area as Core Area and Linkage including Significant Woodlands, Significant Wetlands, Streams, Lake and Littoral Zone, and Local Natural Area – Environmentally Significant Area.

New development and vegetation protection zones in the Greenbelt Protect Countryside designation are addressed in part in Sections 2.4.6 and 2.4.11. Section 2.4.6 states:

> *New development or site alteration…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.*
>
> *d) The disturbed area of a site shall not exceed 25 percent of the total developable area, except for golf courses, where permitted, for which the disturbed area shall not exceed 40 percent of the site. Impervious surfaces to be established in such disturbed areas shall not exceed 10 percent of the total developable area.*

Section 2.4.11 provides the following guidance will respect to minimum vegetation protection zones:

> *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 woodlands edge.*
>
> *e) Significant Woodlands: a minimum 30-metre vegetation protection zone measured from the drip line of trees at the woodlands edge.*

2.4 CONSERVATION AUTHORITIES ACT

Pursuant to Ontario Regulation 162/06 (Development, Interference with Wetlands and Alterations to Shorelines and Watercourses), prior permission is required from Conservation Halton for any development within a floodplain, valleyland, wetland, or other hazardous land. Permission is also required from Conservation Halton for any alteration to a river, creek, stream or watercourse or any interference with the hydrological function of a wetland, including development within 120 m of a Provincially Significant Wetland (PSW), and within 30 m of other wetlands or waterbodies. Most of the Subject Lands is within Conservation Halton's regulation limit because of the wetlands and watercourses associated with the Study Area.

2.5 ENDANGERED SPECIES ACT, 2007

The provincial *Endangered Species Act, 2007* (ESA) protects species that are Threatened, Endangered, or Extirpated in Ontario by prohibiting anyone from killing, harming, harassing, or possessing protected species, and by prohibiting any damage or destruction to the habitat of the listed species. All protected species are provided with general habitat protection under the ESA, with the goal of protecting areas that species depend on to carry out their life processes (e.g., reproduction, rearing, hibernation, migration or feeding). Some species have detailed habitat regulations that define the extent and characteristics of protected habitats.

2.6 FISH AND WILDLIFE CONSERVATION ACT, 1997

The provincial *Fish and Wildlife Conservation Act, 1997* (FWCA) provides protection of wildlife in Ontario including fish, furbearing mammals, game wildlife and specially protected wildlife through regulations for hunting, trapping, and fishing practices. Game and specially protected mammals, birds, reptiles, amphibians and invertebrates are listed on Schedules 1-11 of the FWCA. Definitions provided for hunting including capturing or harassing wildlife (Section 5) and would include activities that collect or handle wildlife for inventories or other scientific purposes, or to relocate wildlife out of harm's way (e.g., during construction activities), including individuals and eggs. Sections 7 and 8 also provide protection for nest and eggs of specified bird species including raptors, and dens of bears and furbearing animals, and beaver damns. Under the FWCA, the Minister has the authority to authorize activities that would otherwise be prohibited such as the safe capture of wildlife and removal of nests, dens and dams, and impose conditions on an authorization.

2.7 MIGRATORY BIRDS CONVENTION ACT

The *Migratory Birds Convention Act* (MBCA) *1994* prohibits the killing or capturing of migratory birds, as well as any damage, destruction, removal or disturbance of active nests. The main tool used to avoid contravention of this Act is to restrict vegetation removal during the potential nesting period, generally April 1 through August 31. Should vegetation removal during this timeframe be unavoidable, a breeding bird search of the area that is scheduled for vegetation clearing or removal will be undertaken by qualified avian biologists to assess the risk to active nests covered by the MBCA 1994.

3.0 METHODS

Natural features that may pose a constraint to development on the Subject Lands are identified in this report using the relevant provincial and municipal policies and guidance documents described above. Comprehensive field investigations were undertaken between 2003 and 2007, as part of the previous aggregate application. The previous field investigations focused on Lots 3, 4, and 5 (**Figure 3, Appendix A**). For Lots 1 and 2, desktop review and aerial photograph interpretation were used to identify natural heritage features and a conservative approach was taken in determining those features to be considered significant.

3.1 BACKGROUND REVIEW

A variety of background documents and information sources were reviewed during the preparation of this report. These data sources were reviewed to identify known natural heritage features within or near the Study Area, including Designated Natural Areas and other natural features, and records of species at risk (SAR) and species of conservation concern (SOCC). These data sources included:

- Natural Heritage Information Centre (NHIC) database (MNRF 2019a)
- MNRF Land Information Ontario (LIO) digital mapping of significant natural heritage features, watercourses (including attributes) and constructed drains (MNRF 2019b)
- Species at Risk in Ontario (SARO) List (MNRF 2019c)
- Species at Risk Act (SARA), Schedule 1 (Government of Canada 2019)
- Conservation Halton Regulation and Hazards Mapping (Conservation Halton 2019)
- Ontario Breeding Bird Atlas (Cadman et al. 2007)
- Ontario Mammal Atlas (Dobbyn 1994)
- Fisheries and Oceans Canada Aquatic Species at Risk Online Mapping Tool (DFO 2019)
- Agricultural and Surficial Soil Report (Stovel and Associates 2004)
- Surficial Soils and Microdrainage (Stovel and Associates 2006)
- Draft Hydrogeological Level 2 Report Volumes 1-3 (Gartner Lee Ltd. 2005)
- Geological Investigation (JEGEL 2004)
- Hydrological Report (Stantec Consulting Ltd. 2006)
- EIS and Level 2 natural Environmental Report: Proposed Mountsberg Quarry

The results of these searches were used to identify potential SAR and SOCC that have the potential to overlap with the Study Area. These resources do not provide the exact locations of a species occurrence, with accuracy ranging from 1 km² (NHIC) to 10 km² (wildlife atlases), to municipal boundaries or watersheds. As such, they are used as an indicator of potential occurrence in the Study Area.

3.1.1 Species at Risk

For the purpose of this assessment, SAR are species classified as threatened or endangered by the Committee on the Status of Species at Risk in Ontario (COSSARO). The Ontario *Endangered Species Act, 2007* (ESA) prohibits harm or harassment to threatened or endangered species, and damage or disturbance to their habitat. The ESA applies on all private and Crown owned lands in Ontario. Habitat protection under the ESA typically includes all habitats that directly or indirectly support SAR.

Federally protected endangered, threatened, and special concern species are classified by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and listed in Schedule 1 of the *Species at Risk Act*, 2002 (SARA). SARA applies to aquatic species (fish and mussels) throughout Canada and to all other species where they occur on federally owned lands.

3.1.2 Species of Conservation Concern

SOCC are considered at a number of levels, including globally, nationally, and provincially. For this report, SOCC includes species that are provincially rare (with a Provincial S-rank of S1 to S3), listed as special concern on the Species at Risk in Ontario list (SARO), or listed on Schedule 1 of SARA but not included on the SARO list.

Provincial ranks (S-ranks) are used by the NHIC to set protection priorities for rare species and vegetation communities. They are based on the number of factors such as abundance, distribution, population trends and threats in Ontario and are not legal designations. By comparing the global and provincial ranks, the status, rarity, and the urgency of conservation needs can be determined. Species with provincial ranks of S1 to S3, and those tracked by the MNRF, are considered SOCC. Provincial S-ranks are defined as follows:

- S1: Critically imperiled; usually fewer than 5 occurrences
- S2: Imperiled; usually fewer than 20 occurrences
- S3: Vulnerable; usually fewer than 100 occurrences
- S4: Apparently secure; uncommon but not rare, usually more than 100 occurrences
- S5: Secure, common, widespread and abundant

S-rank followed by a “?” indicates the rank is still uncertain.

3.2 FIELD INVESTIGATIONS

Field investigations were conducted to document natural heritage features within the Study Area. Studies consisted of vegetation surveys, wetland delineation, winter wildlife surveys, amphibian and reptile surveys, breeding bird surveys, butterfly and odonata surveys, wildlife habitat assessments, surface water monitoring, fish habitat assessments and benthic invertebrate sampling. A full list of survey dates is provided in **Table 3.1, Appendix B**.

3.2.1 Vegetation Surveys

Field investigations for this project were conducted to confirm and assess the character of existing conditions. The work included Ecological Land Classification (ELC) of vegetation communities and a floristic survey of the Subject Lands and immediate vicinity. Stantec completed vegetation surveys through three seasons, spanning the period from October 2003 to July 2005:

- Spring (May 13 and 14, 2004)
- Summer (June 13 and 20, July 15 and 18, 2005; July 19, 2004)
- Autumn (September 10, 2004; October 16 and 23, 2003)

Vegetation communities were delineated on aerial photographs (November 2003, 1:20,000) and checked in the field; community characterizations (ecosites and ecotypes) were then based on the Ecological Land Classification for Southern Ontario (ELC) (Lee *et al.*, 1998).

Natural heritage information collected from the Subject Lands was evaluated to determine potential significance at a number of different levels. Provincial significance of vegetation communities was based on the draft rankings assigned by the Natural Heritage Information Centre (MNRF 2019a). Local significance of plants was determined from Goodban (2003). Identification of potentially sensitive plant species is based on assignment of a coefficient of conservatism (CC) to each native species in southern Ontario (MNRF 2019a). The value of CC, ranging from 0 (low) to 10 (high), is based on a species' tolerance of disturbance and fidelity to a specific natural habitat.

3.2.2 Butternut Health Assessment

The Subject Lands were investigated for butternut on July 20, 2005. The purpose of this investigation was to determine the presence, abundance and locations of butternut on-site, as well as the general health of identified specimens. Measurements of each tree included diameter-at-breast-height (DBH), and an assessment of health, which noted the presence or absence as well as the severity of any cankers. Photographs were taken of most of the butternut trees to record health and placement of cankers.

A second investigation was conducted on January 10, 2006. The purpose of this visit was to collect more in-depth measurements that could be used in assessing the trees' health and determining which trees were candidates to be used in the recovery team's propagation program. The weather conditions for conducting the assessment were good. Trees were identified using mapping and GPS data from the previous field visit. A series of measurements was taken for each tree including the tree's % live crown, vigor (as defined by North American Maple Decline Program), symptoms of canker on the trunk and branches, % of trunk cankered, phenotype of bark and the presence of callusing of new tissue over cankers.

3.2.3 Wetland Boundary Delineation

Wetland communities were examined and delineated in 2005 and 2006. The process used is consistent with the current Southern Manual of the Ontario Wetland Evaluation System (MNRF 2013). Boundaries were flagged and marked with a Global Positioning System in the field on June 15 and 27, July 12 and 26, August 31, September 7, and October 7, 2005. Subsequently, boundaries were compared and refined based on detailed soils work provided by Stovel and Associates (2006). Wetland boundaries were verified in the field with MNRF (Art Timmerman) on October 15, 2006.

3.2.4 Wildlife Surveys

3.2.4.1 Winter Wildlife Surveys

Winter surveys were conducted on February 27, March 1, March 4, 2004 and February 11, 2005. The primary goal of the survey was to determine the suitability of these areas as deer wintering habitat. In order to assess the function of the deer wintering area and its importance to the local population an intensive survey was completed.

The survey methodology consisted of walking transects through the wooded portions of the site at designated intervals. Transects were walked in a northwest and southeast fashion throughout the MNRF designated deer wintering area on the main portion of the site. Each transect was walked by two observers at 50-80 metre intervals. Six transects were walked in total. The following site-specific details were noted on each transect:

- Severity of deer browse (deciduous)
- Evidence of deer tracks and movement trails
- Scat evidence
- Number of deer beds
- Availability of cover (coniferous)
- Ecological Land Classification (ELC) vegetation communities

These factors contribute to the determination of the quality of a deer wintering area and the degree of importance of this area to the local population.

3.2.4.2 Amphibians

Salamanders

Salamander surveys were completed for this site in 2004, 2005, 2006 and 2007. The 2004 and 2005 surveys consisted of a wandering transect method to inspect all vernal pools for the presence of amphibian egg masses. A Scientific Collectors Permit for the collection of egg masses, was issued by the MNRF.

The 2006 surveys consisted of collecting salamander egg masses in addition to adults. During the first survey in 2006, salamander egg masses were collected from vernal pools within the Subject Lands. The masses were then transferred to the University of Guelph where Dr. Bogart analyzed them. After analysis, the remaining salamander larvae were carefully returned to their natural pond. During the second survey, adult salamanders were targeted for tissue samples. Six un-baited minnow traps (#1 – #6) were placed in the vernal pool associated with the dug pond in the northeast corner of the property. Each trap was marked with a UTM co-ordinate and well-marked with flagging tape. The traps were set in the evening of April 19, 2006 in the vicinity of existing salamander egg masses and retrieved the next morning. Adults were measured for length and a small tail sample was removed from each salamander with dissection scissors. The adults were released back into the pond and the tail sample was sent to Dr. Bogart at the University of Guelph for analysis.

The 2007 surveys consisted of using drift fencing and pitfall traps to capture salamanders, as shown in **Figure 3, Appendix A.** The drift fencing is designed to funnel the movement of salamanders as they move from their upland wintering habitat to the ponds in which they breed. The fences were constructed of heavy plastic, stapled to stakes driven firmly in the ground. The plastic was buried in the ground approximately 10 cm to prevent the salamanders from burrowing under it. Soil and leaf detritus were placed around the fence and stakes. Salamanders get stopped by the fence and are forced to seek a way around either end of the barrier and become captured in pit traps. Pit traps consisted of large plastic containers that were sunk into the ground flush with the soil surface. Pit traps were placed approximately every 20-30 metres along the drift fencing line. Each trap had drainage holes to prevent water logging and were lined with leaf detritus to maintain moisture. The opening was partially covered with rocks and/or woody debris. Traps were opened on selective evenings, when salamander movement was expected to be high (i.e. during warm and wet weather) and checked the following morning. The number of nights of sampling depended on weather conditions (i.e. the number of nights with appropriate weather). On nights when sampling did not take place, the pit traps were covered, and sections of the fence were taken down to allow salamanders to cross more easily.

Frogs

In 2004, four amphibian call count stations were established within the Subject Lands (Stations A through D), an additional four were established in 2005 (Stations E through H) and in 2007, an additional five stations were established (Stations I through M). Station locations corresponded to areas identified as either wetland or watercourse/pond (**Figure 3, Appendix A**). Frog call surveys were completed for this site on April 14, May 12 and June 16, 2004, April 21, May 24, and June 14, 2005, and April 24, May 16

and June 9, 2007. Four locations were visited on each evening survey during 2004, eight were visited in 2005 and five were visited in 2007.

The survey followed the protocol outline in the Marsh Monitoring Program manual (Bird Studies Canada (BSC) 2005). Each survey station area consisted of a 100 m radius semicircle. Calling toads and frogs detected within the semicircle were identified and recorded over a three-minute time period. Call levels were described using values of 1, 2, or 3. Level 1 indicated that individuals could be counted, and calls were not simultaneous. Level 2 indicated that calls were distinguishable with some simultaneous calling. Level 3 indicated a full chorus where calls were continuous and overlapping (BSC 2005). Calling toad or frog species from outside of the survey station, or those heard off property, were recorded separately.

3.2.4.3 Reptiles

A survey was conducted on April 14, 2005 to detect snakes emerging from hibernacula. Fence lines were walked and closely searched for snakes. As well, a small foundation near the western road entrance, the barn in the southeast, Tributary A near the northwest corner of the site, and some of the wetland areas in the northern and southeastern portions of the subject lands were checked. Additionally, incidental observations were recorded during all site visits, with particular attention to flipping logs and examining rock piles during the butterfly surveys on May 12 and July 13, 2005 and during the forestry surveys on August 16 and 29, 2005.

3.2.4.4 Breeding Bird Surveys

An owl call survey was completed on the night of April 14, 2004 at two locations on the Subject Lands. The taped callback method is effective for large areas of forest and was therefore completed in the southeast and northern portions of the property.

Red-shouldered Hawk surveys were completed for this site on May 12, 2004 and April 26, 2005. A tape-recorded call, developed by Bird Studies Canada for the purpose of surveying for Red-shouldered Hawks, was played at eight stations located in the wooded portions of the site. Trees were surveyed for the presence of stick nests that might support breeding woodland raptors.

Breeding bird surveys were conducted on June 2, 4, 21 and 23, 2005 and July 1 and 2, 2004. Surveys were initiated between 05:45 and 06:15 and were completed by 10:00 or whenever bird activity song significantly slowed, whichever was earlier. All surveys were conducted during suitable weather conditions, with winds either calm or very light (Beaufort scale 1), cool temperatures ranging from 12 – 19°C and generally clear skies, with overcast skies on June 4, 2005 and July 2, 2004.

Each survey consisted of an ecologist surveying the entire site in a systematic manner recording any bird species that were either seen or heard. A conservative approach to determining breeding status was taken; birds seen or heard in appropriate habitat during the breeding season were assumed to be breeding.

3.2.4.5 Butterflies and Odonates

In 2005, butterfly surveys were conducted on the Subject Lands on May 12 and July 14. In 2006, they were conducted on April 13, April 18, May 9, May 30, July 24 and September 20. The earlier spring surveys were timed to coincide with peak potential West Virginia White activity, and the later surveys were intended to capture the flight seasons of the locally significant butterflies noted in the Natural Areas Inventory report (Hamilton Naturalists Club 2003).

In 2005, the early surveys focused on potential West Virginia White habitat, while the during the later surveys, the Pollard Walk (Pollard 1977) was used to survey for general abundance. Three line transects of 900 metres, 700 metres and 550 metres were established, running northwest to southeast through the site, spaced approximately 300 meters apart. All butterflies observed within 2.5 metres on either side of and 5 metres above the transect were counted. Significance of species in Ontario was determined from the NHIC and in the City of Hamilton from Wormington and Lamond (2003).

In 2006, butterfly and odonata surveys were conducted by using area searches along a predetermined route. The route was designed to pass through all habitat types were butterflies or odonates were expected to occur. Emphasis was placed on woodland clearings and edges where butterflies and odonates are most likely to concentrate. Ponds were also visited as a concentration feature for odonata. The route was altered during the survey to incorporate observed features were odonates or butterflies may concentrate (i.e. a shrub in bloom). Density of insects within a set area is difficult to determine accurately, however, tallies of butterfly and odonate species were recorded for a rough comparison of species abundance.

3.2.5 Aquatic Resources

A review of available background information for Flamboro Creek and Mountsberg Creek within the vicinity of the Subject Lands was completed. Information sources included data obtained from the MNRF, the Bronte Creek Watershed Study (Conservation Halton 2002), the LIO database (MNRF 2019b), the NHIC database (MNRF 2019a), and DFO Aquatic Species at Risk maps (DFO 2019).

The following field investigations were completed by Stantec for the surface water features located on and adjacent to the Subject Lands (also see **Table 3.2, Appendix B**):

- Fish community sampling – June 15, 17, 18, 2004; June 1, 2005; August 16, 2006
- Fish habitat assessments – October 30, 2003; June 15, 17, 18, 2004
- Trout redd survey – November 25, 2003

The fish communities were sampled at stations established on Flamboro Creek and the tributaries of Mountsberg Creek (**Figure 5, Appendix A** and **Table 3.2, Appendix B**). Fish were collected using a Smith-Root Model 12 backpack electrofisher (single pass) to sample a diversity of habitat types. Gill nets and minnow traps were also used in the pond located on the property (Station D3).

The aquatic habitat assessments documented the following characteristics and attributes:

- In-stream cover (type and percentage)
- Bank stability
- Substrate type
- Stream dimensions and morphology
- Riparian vegetation
- Canopy cover
- Adjacent land use

In addition to these habitat characteristics, the following information was recorded at each station:

- Descriptive location
- UTM coordinates
- Water and air temperature
- Time
- Recent weather conditions
- Length of stream surveyed

4.0 REGIONAL CONTEXT – OVERVIEW OF NATURAL FEATURES

4.1 LANDSCAPE SETTING

4.1.1 Geology

A complete characterization of the site geology is provided by John Emery Geotechnical Engineering Ltd. (JEGEL) (2004). The site is located near the eastern edge of a major geological structure, the Michigan Basin. The boundary of this feature to the east is the Niagara Escarpment. An average overburden thickness of 2.4m (ranging in depth from 0-7.9 metres) overlies the high-quality Gasport Formation (formally known as the Amabel Formation) dolostone, which ranges in thickness from 27-40 metres (JEGEL 2004)". On a regional basis, the bedrock surface slopes gently to the southwest at a rate of approximately 2-3 m/km (Gartner Lee Ltd. 2005). Land surface topography and present-day drainage features generally follow the bedrock topography.

4.1.2 Surficial Geology and Soils

The area surrounding and including the subject lands is located within the Flamborough Plain physiographic region (Chapman and Putnam, 1984). It is predominantly bouldery till with bedrock ridge outcrops. To the west, there are large areas of dolomite at the surface. Generally, where bedrock is covered, the overlying material is outwash gravel. Agriculture is a dominant land-use in the physiographic region but much of the land within a three-kilometer radius is forested. There are also local wetlands with pockets of peat and muck.

4.1.3 Hydrology

The Subject Lands are located in the Bronte Creek watershed. The headwater areas of Bronte Creek near Morriston contain a significant number of wetland areas that, along with the physiography and soil types, are the determining factors for stream flow response. In addition to these wetlands, a number of man-made ponds and reservoirs, including the Mountsberg Reservoir, affect streamflow in Bronte Creek. The headwaters of Mountsberg Creek originate within the Badenoch-Moffat Swamp complex PSW and ESA. Summer creek temperatures upstream of the Mountsberg Reservoir suggest a mix of marginal coolwater/warmwater temperatures from the headwaters downstream to Moffat (Conservation Halton 2002). Flows in this reach (upstream of Mountsberg Reservoir), can become intermittent during drought conditions. West of Moffat, there are five tributaries between Town Line and Watson Road. These tributaries contribute permanent baseflow, and, where unimpeded by on-line ponds, contribute cold water to the main branch of Mountsberg Creek (Conservation Halton 2002).

Headwaters of the Flamboro Creek subwatershed originate in the Carlisle North Wetland complex/ESA of the Flamborough Plain and flow into Bronte Creek downstream of Progreston. Downstream of the wetland system, the creek becomes deeply incised within the Bronte Creek Escarpment Valley and extends downstream to Bronte Creek. Summer temperatures in Flamboro Creek suggest coolwater and marginal coolwater/warmwater habitats (Conservation Halton 2002). Groundwater discharge contributes

to coolwater conditions in the headwaters, while a large, on-line pond associated with the Carlisle Golf and Country Club results in downstream warming, which is mitigated by considerable groundwater discharge within the Bronte Creek valley (Conservation Halton 2002).

4.1.4 Hydrogeology

The Gasport Formation is a regionally significant aquifer extending from north Hamilton to the Bruce Peninsula. The thickness of the Gasport Formation ranges from 27 metres in the eastern portion of the Subject Lands to over 40 metres in the west. The permeability of the aquifer is primarily due to the dissolution of dolomite along fractures and bedding planes. Fracture patterns can be highly variable, and, therefore, hydraulic conductivity can vary greatly. This information is being updated and will be revised in reporting, which is expected to be issued later in 2006.

4.1.5 Vegetation

The site is located within the Bronte Creek Watershed, above the Niagara Escarpment in Site District 6E-1. This area of the watershed is dominated by sugar maple forests. White ash, beech, ironwood, black maple and red oak are occasional co-dominants (Conservation Halton 2002). Other less dominant elements include white oak, black cherry, bitternut hickory and basswood. Successional areas may be dominated by white birch, trembling aspen or large-toothed aspen. Dominant shrub cover consists of prickly gooseberry, chokecherry, purple-flowering raspberry and alternate-leaved dogwood.

4.2 DESIGNATED FEATURES

An assessment of regional features was conducted for a one-kilometer radius area surrounding the Subject Lands. This assessment identified local natural features that create the environmental setting for the site, such as significant woodlots, wetlands and specialized habitat for supporting wildlife or fish populations. Designated natural features in this zone, including Environmentally Significant Areas, Provincially Significant Wetlands, Areas of Natural and Scientific Interest (ANSIs) and deer wintering areas identified by the MNR, are shown on **Figure 2, Appendix A.**

4.2.1 Provincially and Locally Significant Wetlands

A PSW, the Lower Mountsberg Creek Wetland Complex, occupies the headwaters of tributaries to Mountsberg Creek, and Flamborough Creek, at the north and east portions of the Subject Lands (**Figure 2, Appendix A**). This wetland complex totals over 285 hectares in wetland area and is 95% swamp (MNR, 1998). Although no significant species or other special features were confirmed in the wetland evaluation, it supports locally significant winter cover for deer and other wildlife.

The locally significant Carlisle Wetland Complex is situated approximately one kilometer to the south of the Subject Lands (**Figure 2, Appendix A**). This non-provincially significant wetland runs along Mountsberg Creek, downstream of the Subject Lands.

4.2.2 Environmentally Significant Areas

Environmentally Significant Areas are identified by the City of Hamilton, as shown in Schedule B6 of the Rural OP. Two Environmentally Significant Areas overlap with the Subject Lands (**Figure 2, Appendix A**). The Mountsberg Wetlands and Wildlife Centre overlaps with the northwest portion of the Subject Lands. Covering as area of 838 hectares in size, it contained aquatic, wetland and terrestrial communities, extending north towards the Mountsberg reservoir. The Carlisle North Forests overlaps with the southeastern portion of the Subject Lands. It is a natural area situated on rocky soils with many outcrops and boulders of Gasport geologic formation dolostone, 350 hectares in size. The upland forest is composed mainly of deciduous trees with a few provincially and regionally significant species and many regionally uncommon species.

4.3 SPECIES AT RISK AND PROVINCIALLY RARE SPECIES

Results of the background review of NHIC and wildlife atlas identified ten terrestrial SAR within reported occurrences in proximity to the Subject Lands: within the 1 km² (NHIC) or 10 km² (wildlife atlases) of the various sources. This includes five bird species, four mammals (all bats) and one tree (**Table 4.1, Appendix B**). No aquatic SAR records were identified within the Subject Lands (MNRF 2019a; DFO 2019).

The background review also identified seven terrestrial SOCC with reported occurrences in proximity to the Subject Lands: five birds, one insect and one reptile (**Table 4.1, Appendix B**).

The presence of these species within the Study Area is further examined through the results of the field program, below.

5.0 EXISITING CONDITIONS

5.1 SURFICIAL GEOLOGY AND SOILS

The shallow overburden on-site is comprised of sandy gravel and sandy silt till (JEGEL 2004). Most soils on the Subject Lands have developed from a stony, morainal till deposit. Some outwash deposits, lacustrine deposition and organic soils were also identified (Stovel and Associates, 2004). The Subject Lands contain Class 2-7 soils, with only 12 hectares of Class 2 or 3 soils, with the remainder of the site (approximately 91%) in Class 4-7 and organic soils. Seven soil series were present on the site (Dumfries, Killean, Lily, Burford, Toledo, Farmington and Muck). The well-drained Dumfries series occupies the majority of the site. Imperfectly to poorly drained soils and muck are located on wetter parts of the property (Stovel and Associates, 2004).

The northern and eastern portions of the site, extending off-site to the north east, is an area of north-trending ridges, where the bedrock is at, or near the surface. This area is covered with a veneer of cobbly, silty sand till or deposits of organic material. This type of terrain is unsuitable for agriculture; as a result, these areas have remained uncultivated and generally support woodlands and wetlands.

The area in the cultivated center of the Subject Lands and immediately to the west is characterized by glaciofluvial outwash deposits of variable thickness and historically was cleared for crops or pasture.

To the west of the Subject Lands, are areas characterized by a densely packed, heterogeneous mix of silt, sands and stones with occasional boulders and smaller amounts of clay. Most of these areas are in crops or pasture (Gartner, pers. comm. 2005).

5.2 HYDROGEOLOGY

The north and east portions of the site where the bedrock is at or near the surface, shallow groundwater flows provide base flow for the drainage (Gartner Lee, per. Comm. 2005). The cultivated center of the Subject Lands has a high recharge potential and acts to enhance recharge to the underlying Gasport aquifer. The shallow groundwater table in both units is expected to fluctuate seasonally (Gartner Lee, pers. comm. 2005).

Hydrogeological investigation suggests that the PSW and streams on the north and southeastern portions of the property are directly connected to the water table, because the water levels in the wetland closely match the ground water table elevations (Gartner Lee Ltd., 2005).

5.3 TERRESTRIAL RESOURCES

5.3.1 Vegetation Communities

The Subject Lands are located in the Niagara Section of the Deciduous Forest Region (Rowe 1972). The vegetation communities identified on the site, based on the Ecological Land Classification (ELC) system (Lee *et al.* 1988), are shown on **Figure 4, Appendix A**. The Subject Lands are generally comprised of the agricultural lands in the center and west, with forest and wetland communities in the north and east. The agricultural lands are divided in many places by treed hedgerows. Description of the vegetation communities are provided in **Table 5.1, Appendix B.**

The wetland boundaries delineated during the field investigation are provided in **Figure 6, Appendix A**.

5.3.2 Vascular Plant Species

Three-hundred-and-sixty-eight (368) species of vascular plants were recorded from the Study Area during the botanical inventories. Of these species, 250 (70%) are native species and 106 (30%), are non-native. The amount of non-native species reflects the anthropogenic nature of the past and present land use and ongoing disturbances, in the form of access, use for agriculture, crop field abandonment and subsequent succession to cultural old field meadows. Most of the native species (286, or 74%) occur in the deciduous and mixed forests and swamps, as well as meadow marshes. A full list of plant species observed, and their status, can be found in **Appendix C.**

Two-hundred-and-eight (208) native species are ranked “S5”, i.e. very common in Ontario, and 23 species are “S4”, i.e. common in Ontario. The average Co-efficient of Conservatism (CC) of the plants observed on-site was 4.3 out of 10. No plant species of highest sensitivity (CC 9 to 10) were observed on the Subject Lands. The majority of the plants with CC values of 7 to 8 have affinities for wetlands, or mature woodland communities and were observed in these communities.

Eight locally rare plant species were observed (Goodban 2003). Twinflower was uncommon, with Naked Mitrewort and Aquatic Sedge being common in the swamp communities in the northeast portion (Lot 4). Small's Spike-rush was abundant in the SWT in the extreme southwest corner of Lot 4. A single Wood Lily was also observed in Lot 4, in the FOD5-1 along the northern boundary of the Subject Lands. Round-leaved Sundew and Three-seeded Sedge was uncommon and Tall Leafy Green Orchis was Scattered in Flamboro Creek Wetland (Lot 5). One additional plant SOCC, Black Ash, has been identified as threatened by COSEWIC, but not yet on a schedule of the federal Species at Risk Act. It was observed in the SWD2-1 community that spans Lots 2 and 3.

A single plant SAR was identified within the Study Area, Butternut. SAR are discussed further in **Section 5.5** below.

5.3.3 Wildlife

A complete list of the wildlife observed is provided in **Appendix D**. Eleven species of amphibians, two reptiles, 78 birds (71 breeding species), 39 butterflies, 19 odonata and 16 mammals were recorded from the site. Results are discussed in detail in the following sections.

5.3.3.1 Amphibians

Salamanders

Salamander egg mass surveys were conducted within the Subject Lands. In 2004, several frog egg masses were noted and only one salamander egg mass was encountered during the survey of all vernal pools. The salamander egg mass was collected from the site and raised at the University of Guelph, with the result of no viable larvae.

In 2005, one live salamander egg mass was observed. There were 4 or 5 viable larvae within the egg mass, but most of the eggs were non-viable. This egg mass had thick gelatin around it, typical of a spotted salamander egg mass, and was not collected. An additional 67 dead egg masses of spotted salamanders were observed in the main pond.

During the egg mass surveys in 2006, a total of five egg masses were collected and sent to Dr. Bogart at the University of Guelph. An additional two adult salamanders were captured during the adult minnow trap surveys and tail samples were sent to the University of Guelph. Correspondence with Dr. Bogart regarding the egg masses and tail samples left in his care confirm that all samples collected were classified as “LLJ” (*Lateralae-Lateralae-Jeffersonianum*), the Unisexual Ambystoma Blue-spotted Dependent. As the Unisexual Ambystoma Blue-spotted Dependent was confirmed, it is assumed the Blue-spotted Salamander was also present.

Frogs and Toads

During the 2004 and 2005 amphibian call count surveys, eight species of anurans were recorded, including Wood Frog, Spring Peeper, Grey Treefrog, Pickerel Frog, Leopard Frog, American Toad, Western Chorus Frog and Green Frog. Frog calling activity was observed at all survey locations. In the 2005 survey, all locations had high activity of Spring Peeper during the April survey. The May survey had little to no calls at locations B, C, D and E, but Spring Peeper activity was still recorded at A, F, G and H. Northern Leopard Frog and Green Frog activity was recorded during the June survey at locations C, F and G.

The 2007 amphibian call count surveys recorded seven anuran species, including Wood Frog, Spring Peeper, Grey Treefrog, Northern Leopard Frog, American Toad, Western Chorus Frog and Green Frog. Frog calling activity was observed at all locations.

Generally, wetlands on the Subject Lands contained moderate to high activity of calling anurans, with a good representation of species and most calling in full chorus. All frog species observed are ranked S5, secure in Ontario, except the Pickerel Frog (2005) and Western Chorus Frog (2004, 2005 and 2007), which are ranked S4, apparently secure in Ontario. The Pickerel Frog is considered to be locally rare in the Hamilton area (Hamilton Natural Areas Inventory, 2003). Pickerel Frog calls were heard during the April 21, 2005 call count at location E. The Western Chorus Frog is considered federally threatened under the *Species at Risk Act*. It was heard calling in low numbers (1 to 3 individuals) at locations C and E.

A complete list of amphibians observed within the Subject Lands is found in **Appendix D**.

5.3.3.2 Reptiles

Through the extensive field program, two species of reptiles were observed; specifically, Common Gartersnake, ranked S5, secure in Ontario, and Snapping Turtle, ranked S4, apparently secure in Ontario. Snapping Turtle is listed as a species of Special Concern on the SARO list. It was observed in the wetland associated with Mountsberg Creek.

5.3.3.3 Breeding Birds

Seventy-eight species of birds were observed, with 71 species likely breeding within the Subject Lands. All the species are ranked S5, very common and demonstrably secure in Ontario, or S4, common and apparently secure, with the exception of Rock Pigeon, European Starling and House Finch, which are ranked SNA (status not applicable). A conservative approach to determining breeding status was taken; all birds seen or heard in appropriate habitat during the breeding season were assumed to be breeding. A complete list of the birds observed is found in **Appendix D**.

Two SAR were observed during the field surveys; specifically, Bobolink and Eastern Whip-poor-will. They are discussed further in **Section 5.5** below. Eight SOCC birds were observed during breeding bird surveys. Three of which, Eastern Wood-Pewee, Rusty Blackbird and Wood Thrush, are species of special concern on the SARO List. Eastern Wood-Pewee and Wood Thrush were observed breeding in the forested habitats in Lot 4 of the Subject Lands. Rusty Blackbird was a migrate and not breeding on the Subject Lands. The remaining five bird SOCC are considered to be locally significant (“rare”, with 20 or fewer estimated breeding pairs in the City of Hamilton) (Curry, 2003): Broad-winged Hawk, Yellow-bellied Sapsucker, Ovenbird, Magnolia Warbler and Black-throated Green Warbler. Each of these species were observed breeding in the forested habitats in Lots 4 and 5 of the Subject Lands.

5.3.3.4 Butterflies and Odonates

In total, 39 butterfly species were observed within the Subject Lands, generally concentrated in cultural meadows and woodland trails in the northern portion of the site (Lot 4). Most species observed are ranked S5, secure in Ontario, or S4, apparently secure in Ontario. A complete list of species observed, and their status can be found in **Appendix D.**

Seven SOCC butterfly species were observed during the field investigations. The Hickory Hairstreak and Giant Swallowtail are ranked S3, vulnerable in Ontario. Two species, Monarch and West Virginia White, listed as special concern on the SARO List. The remaining three butterfly species are considered locally rare, including Leonard's Skipper, Silvery Blue and Milbert's Tortoiseshell.

During all surveys, two West Virginia White were observed in Lot 4, seven Hickory Hairstreak were observed primarily along the border of Lot 3 and Lot 4 near the FOD5-4 community, and five Giant Swallowtail were observed primarily along the border of Lot 3 and Lot 4, near the FOD5-1 community. An additional 45 Monarch were observed throughout the Subject Lands. The locally rare Leonard's Skipper and Silvery Blue were observed in woodland edge and clearing habitats in Lots 4 and 5. A single Milbert's tortoiseshell was observed in the southwestern portion of the Subject Lands in a fallow agricultural field (Lot 3). Hamilton Natural Areas Inventory (2003) reports that this species is not a permanent resident in the Hamilton area, but periodically irrupts from the north to establish temporary populations.

In total, 19 odonata species were observed within the Subject Lands, generally concentrated in agricultural fields, cultural meadows, along woodland trails or next to Tributary A primarily in Lot 4. The majority of the species observed are likely to be breeding on site in the agricultural pond in the southwest corner of Lot 3 or in the portion of Mountsberg Creeks and surrounding marsh in the northwestern portion of Lot 4. All species observed are ranked S5, secure in Ontario, or S4, apparently secure in Ontario. No SAR or SOCC odanates were observed within the Subject Lands. A complete list of species observed, and their status can be found in **Appendix D.**

5.3.3.5 Mammals

In total, 16 mammal species were observed within the Subject Lands. All species observed are ranked S5, secure in Ontario, or S4, apparently secure in Ontario. A complete list of species observed, and their status can be found in **Appendix D**.

A review of the background information indicates that the Subject Lands contain portions of locally significant deer wintering areas (**Figure 3, Appendix A**). In the winter deer must subsist on low quality food. The major food source at this time of year includes the woody twigs and buds of deciduous trees and shrubs and conifer leaves such as eastern white cedar and hemlock. The winter wildlife surveys observed a good mix of coniferous and deciduous forage within the Study Area. Deer browse of the deciduous cover was noted throughout the deciduous swamps and upland forest areas and consisted mainly of red osier dogwood and leatherwood. Through the number of beds noted, scat counted, and trails crossed in 2004 it is likely that the deer wintering area surveyed supported a population of between 10 and 20 deer. This approximate number is for a mild winter, in which other less suitable areas were probably also in use in the surrounding landscape. It is likely that deer off site also use the deer wintering areas in varying seasonal conditions.

Two mammal SOCC were observed, Snowshoe Hare and Ermine, both of which are considered locally rare (Hamilton Natural Areas Inventory 2003). The Snowshoe Hare was observed in the northern portion of the Subject Lands (Lot 4), where as Ermine tracks were observed along Flamboro Creek (Lot 5).

A single mammal SAR was observed, Little Brown Myotis, which is discussed further in **Section 5.5**.

5.4 AQUATIC RESOURCES

The locations of and fish and fish habitat stations are provided in **Figure 5, Appendix A**. A summary of available background data and Stantec's field data is provided below. Fish species captured at each station are summarized in **Appendix F** with the background fish community data.

5.4.1 Flamboro Creek

The headwaters of Flamboro Creek between the CPR tracks and Concession 10 East are supported by significant groundwater discharge and provide suitable coldwater habitat for Brook Trout (Conservation Halton 2002). There are no sampling records for Brook Trout in this reach; however, anecdotal reports from local anglers suggest they are present in the headwater area. Just upstream of Carlisle Road (south of the Subject Lands) the creek flows into a large on-line pond within a golf course.

Within the Subject Lands, the thermal regime of Flamboro Creek is coldwater (MNRF 2019b); however, it was 'unclassified' with respect to fish habitat type in the Bronte Creek Wathershed Study (Conservation Halton 2002). Conservation Halton (2002) found that, with the exception of a warmwater fish community below the Carlisle Golf and Country Club pond, coldwater fish community and temperature regimes throughout most of the Flamboro Creek subwatershed are consistent with the expectations for first and second order streams on the limestone plain and glacial spillway features. Downstream of the Subject Lands at Concession 10 East, Conservation Halton (2002) has designated Flamboro Creek as marginal coolwater habitat and the health of the aquatic ecosystem is ranked as 'high'.

The Flamboro Creek headwaters located on the Subject Lands (Station F4) support limited fish habitat. Upstream of Concession 11 East, the watercourse was diffuse and few fish (Blacknose Dace) were captured. There was groundwater seepage in this area that likely provides baseflow to the creek.

The reach downstream of Concession 11 East (Station F3) had a more defined channel. Blacknose Dace and Brook Stickleback were captured in this reach, which appeared to be permanently flowing; however, most of the captured fish were collected from just below the Concession 11 East culvert where flow was more concentrated.

Excellent habitat conditions were present farther downstream of Concession 11 East (Station F2); however, low numbers of fish (Blacknose Dace and Brook Stickleback) were collected. The low numbers of fish found throughout this reach (F2) may be due to the presence of a barrier (water falls) between Station F2 and the on-line pond (as per field staff communication with local residents). Local residents also indicated that Brook Trout occur in the pond.

Downstream of Concession 10 East, the channel Flamboro Creek lacked a well-defined channel and the flow regime was more characteristic of an intermittent stream. Conservation Halton (2002) classified this branch of Flamboro Creek at Concession 10 East as warmwater forage fish habitat. The potential for fish habitat at Concession 10 East was limited and no fish were captured during the Stantec fish sampling at Station F1.

Stantec concluded that the watercourse at Stations F2 and F3 provided fish habitat. Flamboro Creek, the reaches associated with Stations F1 to F3 may contribute coldwater base flow to downstream sections of Flamboro Creek; however, the presence of an on-line pond between Concession 10 and 11 may influence flow downstream at Concession 10 East.

5.4.2 Mountsberg Creek and Tributaries

Mountsberg Creek supports a diverse fish community. Within the vicinity of the Subject Lands, Mountsberg Creek has a warmwater thermal regime (MNRF 2019b) and is classified as warmwater sportfish habitat (Conservation Halton 2002). A single Brown Trout was captured by Conservation Halton, in 1999, at the Concession 11 East road crossing and anecdotal reports indicated that small pockets of Brook Trout and Brown Trout might persist (Conservation Halton 2002).

The Bronte Creek Watershed Report indicates that groundwater is added to the system throughout this section (i.e., downstream of the Mountsberg Reservoir) resulting in a marginal cooling of Mountsberg Creek, which is classified as warmwater as it leaves Mountsberg Reservoir (Conservation Halton 2002).

Results of the background data and field investigations for Mountsberg Creek are discussed from upstream to downstream, followed by information for Tributaries B, C and D.

Tributary A was identified in the field and does not appear on base maps available from LIO (MNRF 2019b). The tributary originates in the Lower Mountsberg Creek Wetland Complex at the north end of the Subject Lands as diffuse flow through the wetland. It becomes a more defined watercourse as it crosses the Subject Lands (**Figure 5, Appendix A**). There is a fish spawning area (Northern Pike) associated with the area around the confluence of Tributary A and Mountsberg Creek (MNRF 2019b).Groundwater seeps were observed which provide seasonal contribution to the wetlands on the Subject Lands surrounding Tributary A (**Figure 5, Appendix A**). The fish community was dominated by fish species tolerant of low oxygen, (i.e., Pearl Dace and Central Mudminnow). Juvenile White Suckers were caught near the confluence with Mountsberg Creek. The tributary contributes base flow (potentially coldwater) and food/nutrients to Mountsberg Creek.

The confluence of Tributary A with the main branch of Mountsberg Creek is located in the northwest corner of the Subject Lands. In the northwest portion of the Subject Lands Mountsberg Creek at Station M4 was a deep, narrow (2 m wide) channel within a sedge and cattail wetland. There was little overhead canopy for stream shading; however, there was a diversity of instream cover (undercut banks, organic debris, aquatic vegetation), substrates, and stream morphology, providing habitat diversity. Immediately downstream of the Subject Lands (Station M3), the creek was wider (5 m to 20 m) and shallower, with increased overhead canopy coarse substrates and diverse morphology.

Downstream of Concession 11 East (Station M2), the average stream width was approximately 7 m. Habitat diversity was high, with instream cover provided by deep pools, organic debris, boulders and cobble.

Among the fish sampling stations in the main branch of Mountsberg Creek (Stations M1, M2 and M3), twenty fish species were captured during Stantec's 2004 fish community sampling (**Appendix E**). Stantec concluded that the assessed reaches of the main channel of Mountsberg Creek (M1 to M5) provided diverse fish habitat and supported a diverse warmwater fish community (**Appendix E**).

No trout spawning redds were observed during the red survey on November 25, 2003 at Stations M2 to M5.

The remaining watercourses assessed on and adjacent to the subject lands are more diffuse with poorly defined channels and seasonal flows.

Tributary B was identified in the field and does not appear on base maps available from LIO (MNRF 2019b). During field investigations, there was no water at Stations B2 and B3; therefore, fish sampling was limited to Station B1 (immediately upstream of Concession 11 East). Water was shallow at Station B1 and no fish were captured or observed in this tributary. Stantec concluded that the flow regime of Tributary B was intermittent and that the tributary contributed water and nutrient inputs to habitat located downstream in Mountsberg Creek.

Tributary C was identified in the field and does not appear on base maps available from LIO (MNRF 2019b). No fish were captured in Tributary C. The two culverts that convey flow under Concession 11 East were dry at the time of the 2005 field investigations. Stantec concluded that the flow regime of Tributary C was intermittent and that the tributary contributed water and nutrient inputs to habitat located downstream in Mountsberg Creek.

Tributary D was identified in the field and does not appear on base maps available from LIO (MNRF 2019b). Brook Stickleback were captured on the south side of Concession 11 East (Station D1) and in the pond within the Subject Lands (Station D3). There was no visible channel upstream of the Pond. Stantec concluded that the pond likely functioned as a refuge for fish during periods of low water. The fish community in Tributary D was limited to Brook Stickleback, which are tolerant of a range of habitat conditions. The flow regime of Tributary D was assessed as intermittent with small pools of water observed below the Concession 11 East culvert during fish collections and flowing water during spring and summer storm events.

5.5 HABITAT FOR THREATENED OR ENDANGERED SPECIES

Threatened or endangered species are listed on the SARO List. Individuals of the species, as well as their habitats, are protected by the ESA. Through the field surveys, four species at risk were identified within the Subject Lands; Butternut, Bobolink, Eastern Whip-poor-will and Little Brown Myotis.

Butternut was observed in the hedgerows of Lots 2 and 3 during the vegetation surveys. A total of 99 trees of various sizes were identified during the 2005 and 2006 surveys, 63 of which were found to be retainable. However, it should be noted that the butternut health assessment process has been updated since the time of the 2006 health assessment. It is also anticipated that the number of live Butternut trees on the Subject Lands has likely changed since that time. As such, this report takes the approach of

identifying the vegetation community within which Butternut was observed (**Figure 6, Appendix A**), as opposed to individual trees. It is also noted that a vascular plant inventory of Lots 1 and 2 was not undertaken, as such additional butternuts could be present on these lots.

Bobolink was observed within the Subject Lands during breeding bird surveys conducted in 2005 and 2006. At the time of surveys Bobolink was not a SAR, therefore the exact location of observations within the Subject Lands were not recorded. Suitable habitat for the species, large areas of cultural meadow, fallow fields or hay fields, did not occur in Lots 3, 4 or 5. It is Stantec understanding that those field have remained in agricultural production and therefore continue to be unsuitable for Bobolink. However, suitable fields, such as hay or pasture fields, may occur in Lots 1 or 2.

Eastern Whip-poor-will was observed within the Subject Lands during breeding bird surveys conducted in 2004, in the wooded upland and lowland habitat associated with Tributary A in Lot 4. Suitable habitat for this species is present within the Subject Lands.

Little Brown Myotis was incidentally observed during amphibian surveys. As the field surveys pre-dated Little Brown Myotis being added to the SARO List, targeted bat surveys were not undertaken, nor was the incidental observation verified through acoustic analysis of the bat calls. Regardless, it is reasonable to assume that this species was present at the time of the surveys and likely remains present, although less abundant.

6.0 EVALUATION OF SIGNIFICANCE

This section addresses how features and functions on, and connected to, the Subject Lands should be treated in terms of the key components of the PPS and the City of Hamilton's OP:

- Significant Wetlands
- Habitat of Endangered and Threatened Species
- Areas of Natural and Scientific Interest (ANSIs)
- Fish Habitat
- Significant Woodlands
- Significant Wildlife Habitat
- Environmentally Significant Areas (ESAs)

6.1 SIGNIFICANT WETLANDS

A portion of the Provincially Significant Lower Mountsberg Creek Complex Wetland is located on the Subject Lands. The entire PSW, which extends some distance from the subject lands, totals more than 285 hectares, of which treed swamps cover the majority. Mapping from the MNR (1998) as well as the detailed boundary assessment completed by Stantec in 2005 are shown on **Figure 6, Appendix A**.

On-site, this PSW extends along the length of Tributary A of Mountsberg Creek, at the north end of the property. Another node of this wetland complex is located along a reach of Flamboro Creek within the southeast corner of the site. The detailed boundary assessment conducted by Stantec indicated that a narrow extension of wetland connects two pockets of wetland to the main Tributary A, earlier identified as isolated by the MNRF (**Figure 6, Appendix A**). Additionally, in the northwest corner of the site, work by Stantec extends the wetland boundary west of the MNRF's western limit, to the confluence of Tributary A with Mountsberg Creek (**Figure 6, Appendix A**). An additional wetland community was also noted along Concession 11 East (Tributary D) (Lot 4).

6.2 HABITAT OF ENDANGERED AND THREATENED SPECIES

Four species at risk were identified during the field investigations.

Butternut is a medium-sized tree that commonly found in a variety of habitats throughout Southern Ontario, including woodlands and hedgerows. Ideal habitat includes rich, moist, and well-drained soils often found along streams, but may also be found on well-drained gravel sites, particularly those made of limestone (COSEWIC 2003). Multiple Butternut are present within the Subject Lands, primarily throughout Lot 3 concentrated in the hedgerows. Additional butternuts may occur on Lots 1 and 2. At the time of the field investigations, genetic testing to confirm pure breed butternuts was not available. But for the purposes of this report, we have assumed the trees to be pure breeds protected under the ESA. The location of the butternut occurrence is show in **Figure 6, Appendix A**.

Bobolink primarily nests in forage crops with a mixture of grasses and broad-leaved forbs, predominantly hayfields and pastures. Preferred ground cover species include grasses such as Timothy and Kentucky bluegrass and forbs such as clover and dandelion (COSEWIC 2010). Suitable breeding habitat was not identified on Lots 3, 4 or 5. However, potential habitat, in particular pasture, occurs in Lots 1 and 2. As such, there is potential for Bobolink to be breeding on the Subject Lands. Although not observed during the field investigations, Eastern Meadowlark, another species at risk, has similar habitat preferences to Bobolink. As such, it also has potential to occur on Lots 1 and 2.

Eastern Whip-poor-will favour open woodlands with frequent clearings. Its preferred nesting sites contain shaded leaf litter or pine needles and generally occur along wooded edges or in clearings without any herbaceous growth (Cadman et al. 2007). This species is considered to be an area-sensitive bird, preferring 100 hectares of suitable habitat for breeding. Eastern Whip-poor-will was heard within the Subject Lands during an amphibian survey in 2004, in the wooded upland and lowland habitat associated with Tributary A in Lot 4. Potentially suitable habitat for the species occurs in the intermix of woodlands and cultural meadow in the northeastern portion of the site (Lot 4). However, the single observation over 5 years of field surveys suggests the species is likely not breeding on site.

While targeted surveys for Little Brown Myotis were not completed, the species is expected to occur on the Subject Lands. The Little Brown Myotis are gregarious species that can roosts in large numbers (Gerson, 1984). In natural settings, roosts may occur in tree cavities or under loose bark. Bat roosts are more likely to occur in older stands, than in younger stands (Crampton and Barclay 1998). Roosting bats prefer tall, large diameter trees with heart rot, which creates cavities that are large enough to house colonies and provide suitable temperatures (Olson and Barclay 2013, Jung et al. 1999, Jung et al. 2004). Such trees are most common in mature stands. Those areas in the Study Area identified as significant woodlands (**Figure 6, Appendix A**), provide the best quality habitat for the Little Brown Myotis. Other bat species at risk, such as Northern Myotis and Tricolored Bat, may also be present in the significant woodlands.

6.3 FISH HABITAT

Fish habitat is defined in subsection 2(1) of the *Fisheries Act* to include all waters frequented by fish and any other areas upon which fish depend directly or indirectly to carry out their life processes. The types of areas that can directly or indirectly support life processes include but are not limited to: spawning grounds and nursery, rearing, food supply and migration areas.

Fish habitat was identified on and adjacent to the Subject Lands as described below. Thermal regime (where available) and flow regime of the assessed watercourses are on **Figure 6, Appendix A**.

6.3.1 Flamboro Creek

Within the Subject Lands, Flamboro Creek has a permanent flow regime and provides fish habitat for a low diversity of forage species. The upstream extent of habitat was not confirmed. The creek also provides baseflow and supports habitat located downstream.

Flamboro Creek has a coldwater thermal regime (MNRF 2019b) but in the 2002 Bronte Creek Watershed Study, the creek was 'unclassified' with respect to the fish habitat (Conservation Halton 2002).

6.3.2 Mountsberg Creek and Tributaries

Tributary A has a permanent flow regime and provides fish habitat for forage fish species and the downstream area is a spawning for Northern Pike (MNRF 201b). It also contributes baseflow to Mountsberg Creek. Tributary A has not been classified with respect to thermal regime.

Mountsberg Creek has a permanent flow regime and provides fish habitat for a diverse fish community. In the northwest corner of the Subject Lands and west of the Subject Lands at the 11th Concession East, Mountsberg Creek has a warmwater thermal regime (MNRF 2019b) and supports a warmwater sport fish community (Conservation Halton 2002).

Tributary B has an intermittent flow regime and it contributes water and nutrient inputs to habitat located downstream in Mountsberg Creek. The lower reach (Station B1) may provide seasonal habitat but this was not confirmed by the field investigations.

Tributary C has an intermittent flow regime and it contributes water and nutrient inputs to habitat located downstream in Mountsberg Creek. Tributary C does not directly support fish habitat.

Tributary D has an intermittent flow regime downstream of the pond and it contributes water and nutrient inputs to habitat located downstream in Mountsberg Creek. Stations D1 and D2 provide seasonal habitat and the pond (Station D3) provides refuge habitat dependent on the pond water level. Upstream of the pond, Tributary D does not support fish habitat.

6.4 SIGNIFICANT WOODLANDS

The PPS (2020) and Greenbelt Plan (2017) definition was used to identify and delineate woodlands within the Subject Lands. In the PPS (2020), significant woodland is defined as: "an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history. These are to be identified using criteria established by the Ontario Ministry of Natural Resources and Forestry." Chapter G of the Rural Hamilton Official Plan provide criteria for assessing the significance of woodlands, including consideration of size, interior forest, connectivity, proximity to water, age and presence of rare species. The large woodland that surrounds and overlaps the Subject Lands meets each of these criteria. Furthermore, woodlands through the Subject Lands are generally interconnected. As such, this interconnected network of woodlands has been identified as significant woodland, as shown on **Figure 6, Appendix A**.

6.5 SIGNIFICANT VALLEYLANDS

No significant valley lands were identified on or within 120 metres of the Subject Lands. Any watercourses located within or adjacent to the Study Area are small tributaries without significant valley features associated with them. The more substantial local valley feature associated with Mountsberg Creek is to the west of the site, but falls outside of the 120 metres area of study, except for a small portion in the very northwest portion of the Subject Lands.

6.6 SIGNIFICANT WILDLIFE HABITAT

Results of the wildlife habitat assessment are summarized below for each of the four significant wildlife habitat categories described by the Ecoregion 6E Criteria Schedule (MNRF 2015).

6.6.1 Seasonal Concentration Areas

Seasonal concentration areas are those sites where large numbers of a species gather together at one time of the year, or where several species congregate. These areas include deer yards, turtle overwintering areas, snake and bat hibernacula, bat maternity colonies, waterfowl staging areas, raptor roosts, bird nesting colonies, shorebird staging areas, and passerine migration concentrations. Only the best examples of these concentration areas are usually designated as significant wildlife habitat. Areas that support a species at risk, or areas where a large proportion of the population may be lost if the habitat is destroyed, are examples of seasonal concentration areas which should be designated as significant (MNR 2000).

Two types of seasonal concentration areas have been identified within the Subject Lands. While targeted bat studies were not undertaken, suitable bat maternity habitat occurs within the mature woodlands on the Subject Lands. Suitable bat maternity habitat is encompassed within the identified significant woodlands (**Figure 6, Appendix A**).

MNRF has identified a deer wintering area that overlaps with the northeastern portion of the Subject Lands (Lots 4 and 5) (**Figure 3, Appendix A**). The deer wintering area is contained within the identified significant woodland (**Figure 6, Appendix A**).

6.6.2 Rare Vegetation Community or Specialized Habitat

Rare or specialized habitats are two separate components. Rare habitats are those with vegetation communities that are considered rare in the province. Specialized habitats are microhabitats that are critical to some wildlife species, including nesting habitat for waterfowl, woodland raptors, Bald Eagle and Osprey, turtles, woodland area-sensitive birds, as well as amphibian breeding habitat, and seeps and springs.

Four specialized habitats were identified on the Subject Lands. Specialized habitat in the form of ground water seeps were identified along Tributary A of Mountsberg Creek (Lot 4) (**Figure 6, Appendix A**).

The large forest patch which overlaps with the Subject Lands to the north, east and west, provides woodland raptor nesting habitat. One of the indicator species, Broad-winged Hawk, was observed breeding in this woodland. This large forest patch also provides woodland area-sensitive bird breeding habitat, with several indicator species observed; Yellow-bellied Sapsucker, Red-breasted Nuthatch, Veery, Black-throated Green Warbler, Scarlet Tanager, Ovenbird.

The PSW on the Subject Lands provided significant amphibian breeding habitat (woodland), with the presence of breeding salamanders, as well as concentration of calling frogs. The PSW occur on Lots 4 and 5 (**Figure 6, Appendix A**). There is also a small overlap of PSW on Lot 1, which is likely to provide significant amphibian breeding habitat.

6.6.3 Habitat for Species of Conservation Concern

Habitat for SOCC includes four types of species: (a) those that are rare, (b) those whose populations are significantly declining, (c) those that have been identified as being at risk to certain common activities, and (d) those with relatively large populations in Ontario compared to the remainder of the globe. This category also includes nesting habitats for marsh, open country, shrub/early successional birds as well as terrestrial crayfish.

Twenty-nine SOCC have been identified through the comprehensive field investigations. The eight locally rare plant species were all contained within the identified significant woodlands and PSW in Lots 4 and 5 (**Figure 6, Appendix A**). The ninth plant SOCC, Black Ash, is contained within the significant woodlands that span Lots 2 and 3.

Habitat for the two SOCC amphibians, Pickerel Frog and Western Chorus Frog, has been captured within the significant amphibian breeding habitat (discussed above), contained in the PSW.

Snapping Turtles inhabit ponds, sloughs, streams, rivers, and shallow bays that are characterized by slow moving water, aquatic vegetation, and soft bottoms. Females show strong nest site fidelity and nest in sand or gravel banks at waterway edges in late May or early June (COSEWIC 2008). Snapping Turtle was observed during surveys conducted in 2004, 2005 and 2006 along Mountsberg Creek and its Tributary D (**Figure 6, Appendix A**). The creek and associated PSW are considered habitat for the species.

The eight SOCC birds are all forest breeding species. Habitat for these species have been captured within the identified woodland raptor nesting habitat and woodland area-sensitive bird breeding habitat discussed above; which are both contained within the significant woodlands (**Figure 6, Appendix A**).

Each of the seven SOCC butterflies have the potential to be breeding within the Subject Lands, as the species larval host plants (the plants on which their caterpillars rely) are present. Host plants for Giant Swallowtail (Prickly-Ash) West Virginia White (Two-leaved Toothwort), Hickory Hairstreak (Bitternut Hickory) and Milbert's Tortoiseshell (nettles) occur in woodland habitat in the Subject Lands, contained within the identified significant woodlands (**Figure 6, Appendix A**). Host plants for Leonard's Skipper (bent grass), Silvery Blue (vetch and sweet clover) and Monarch (Common Milkweed, Swamp Milkweed) are edge species, which occurred in forest clearing, edges and hedgerows.

Habitat for the two mammal SOCC, Snowshoe Hare and Ermine, is contained within the significant woodlands (**Figure 6, Appendix A**).

6.6.4 Animal Movement Corridors

Migration corridors are areas that are traditionally used by wildlife to move from one habitat to another, typically to access different seasonal habitat requirements. Corridors requiring consideration in Ecoregion 6E include Amphibian and Deer Movement Corridors.

Significant wildlife habitat for amphibian breeding in the Study Area is intermixed with uplands forest habitats. As breeding and upland habitats are well connected, without landscape features likely to concentrate animal movement, no amphibian movement corridors have been identified. Similarly, the deer winters area is interconnected with other habitats in the landscape. As such deer movement corridors have not been identified.

6.7 ENVIRONMENTALLY SIGNIFICANT AREAS

Two environmentally significant areas overlap with the Subject Lands, the Mountsberg Wetlands and Wildlife Centre and the Carlisle North Forests. **Figure 6** (**Appendix A**), shows the boundaries of the environmentally significant areas as shown in Schedule B6 of the Rural OP. The boundaries of the environmentally significant areas general follow the boundaries of the significant woodland, with the exception of one small agricultural field in the northern corner of Lot 3, which has been mapped within the ESA. Inclusion of this agricultural field has been considered a mapping error, as the field does not provide the features or functions of an environmentally significant area.

6.8 SUMMARY OF KEY FEATURES

The following KNHFs and KHFs were identified during the background review and field investigations for the Study Area:

- Provincially Significant Lower Mountsberg Creek Complex Wetland
- Habitat for threatened or endangered species
  - Butternut (hedgerows in Lot 3) and potentially Lots 1 and 2
  - Little Brown Myotis (significant woodlands)
  - Potential for Bobolink and Eastern Meadowlark habitat (Lots 1 and 2)
- Fish habitat (Flamboro Creek and Mountsburg Creek and tributaries)
- Significant woodlands
- Significant wildlife habitat
  - Bat maternity habitat
  - Deer wintering area
  - Ground water seeps
  - Woodland raptor nesting habitat
  - Woodland area-sensitive bird breeding habitat
  - Amphibian breeding habitat (woodland

- Habitat for SOCC

KNHFs and KHFs are mapped on **Figure 6, Appendix A**. In generally, KNHFs and KHFs are associated with the boundaries of the wetland and woodland features on the Subject Lands. Significant wildlife habitats have not been mapped separately, but all are contained within PSW or significant woodlands, which the exception of some butterfly SOCC, which may also occur in hedgerows and forest edges. Habitat for Butternut also occurs in hedgerows, outside of the PSW or significant woodlands.

7.0 ASSESSMENT OF LOT CONFIGURATION

The proposed lot configuration, provided in **Figure 6, Appendix A**, takes into consideration the KNHFs and KHFs on the Subject Lands.

Proposed Lots 1, 2 and 5 will re-establish the previous lot lines for these properties. Each of these lots have existing residences, entrance ways, utilities and assessor buildings (including agricultural buildings). There are also existing fencerows and landscaping along the proposed lot lines. Re-establishment of the previous lot lines for Lots 1, 2 and 5 will provide the most functional properties to continue the existing land uses. During pre-consultation Conservation Halton confirmed they had no concern with the re-establishment of Lots 1, 2 and 5. The objective of the remaining two lots is to retain productive agricultural lands within Lot 3, while encompassing natural heritage features in Lot 4 to be conveyed to the City, CH or another party to be set aside as environmental protection lands. The proposed number of lots (in total five) is the minimum number of lots to achieve the proposed objectives of continuing existing lands use, with the conveyance of natural heritage features into environmental protection.

The proposed lot line between Lots 3 and 4 is intended to capture the KNHFs and KHFs within Lot 4. This lot line generally follows the well-defined boundary between the woodland and the agricultural fields. For the ease of surveyed property lines, the proposed lot line is comprised of straight lines that follow the woodland edge. Use of straight lines has not resulted in encroachment of Lot 3 into the woodland edge. This line retained the PSW, significant woodlands, significant wildlife habitat and fish habitat within Lot 4.

The proposed lot line between Lots 3 and 4 generally follows the boundaries of the Environmental Sensitive Area. The small overlaps of the lot line and the Environmental Sensitive Areas boundaries (**Figure 6, Appendix A**) is assumed to be due to mapping error. As the lot line follows the well-defined woodland edge, it is assumed to be outside of the environmental sensitive areas. One agricultural field in the northern corner of Lot 3 has been mapped within the environmental sensitive areas. This has also been considered a mapping error, as the agricultural field does not provide the features or functions of an environmentally significant area.

KNHFs retained within Lot 3 include habitat of an endangered species (Butternut), which occurs within the agricultural hedgerows, significant woodlands along the boundary of Lot 2, as well as potential significant wildlife habitat for butterfly SOCC in the hedgerows. The continued agricultural land use of Lot 3 is not anticipated to impact these KNHFs.

The proposed road frontage of Lot 3 along Concession 11 East has been reduced, to retain the PSW along Tributary D within Lot 4. The proposed road frontage of Lot 3 has taken advantage of the existing entrance. As such, no new entrance way into Lot 3, through the significant woodland, is required.

Overall, the proposed lot configuration is expected to meet the objectives of continuing existing lands use, while retaining the features and functions of KNHFs and KHFs in Lot 4, reducing fragmentation and allowing these features to be protected. Considering the land uses will remain the same, the lot severance is not anticipated to result in impacts to the KNHFs and KHFs.

8.0 SUMMARY AND CONCLUSIONS

This report was prepared for the proposed land severance of parcel of land along Concession 11 East, in Flamborough, City of Hamilton, owned by St. Marys. The intent of the land severance is to re-establish the former residential and agricultural lots. The goal of the land severance is to also retain significant natural heritage features on one lot, to be conveyed to agencies or third party for the purposes of environmental protection.

This report utilized background data and existing field investigation to identify natural heritage features within the Subject Lands, to inform the lot configuration, specifically the number, size and boundaries of the lots.

Identified KNHFs and KHFs in the Study Area included PSW, significant woodlands, significant wildlife habitat, fish habitat and environmental sensitive areas. The proposed lot configuration retains KNHFs and KHFs within Lot 4, to be conveyed for environmental protection. This configuration is expected to meet the objectives of continuing existing lands use, avoiding fragmentation of KNHFs and KHFs and allowing these features to be protected. Considering the land uses will remain the same, the lot severance is not anticipated to result in impacts to the KNHFs and KHFs.

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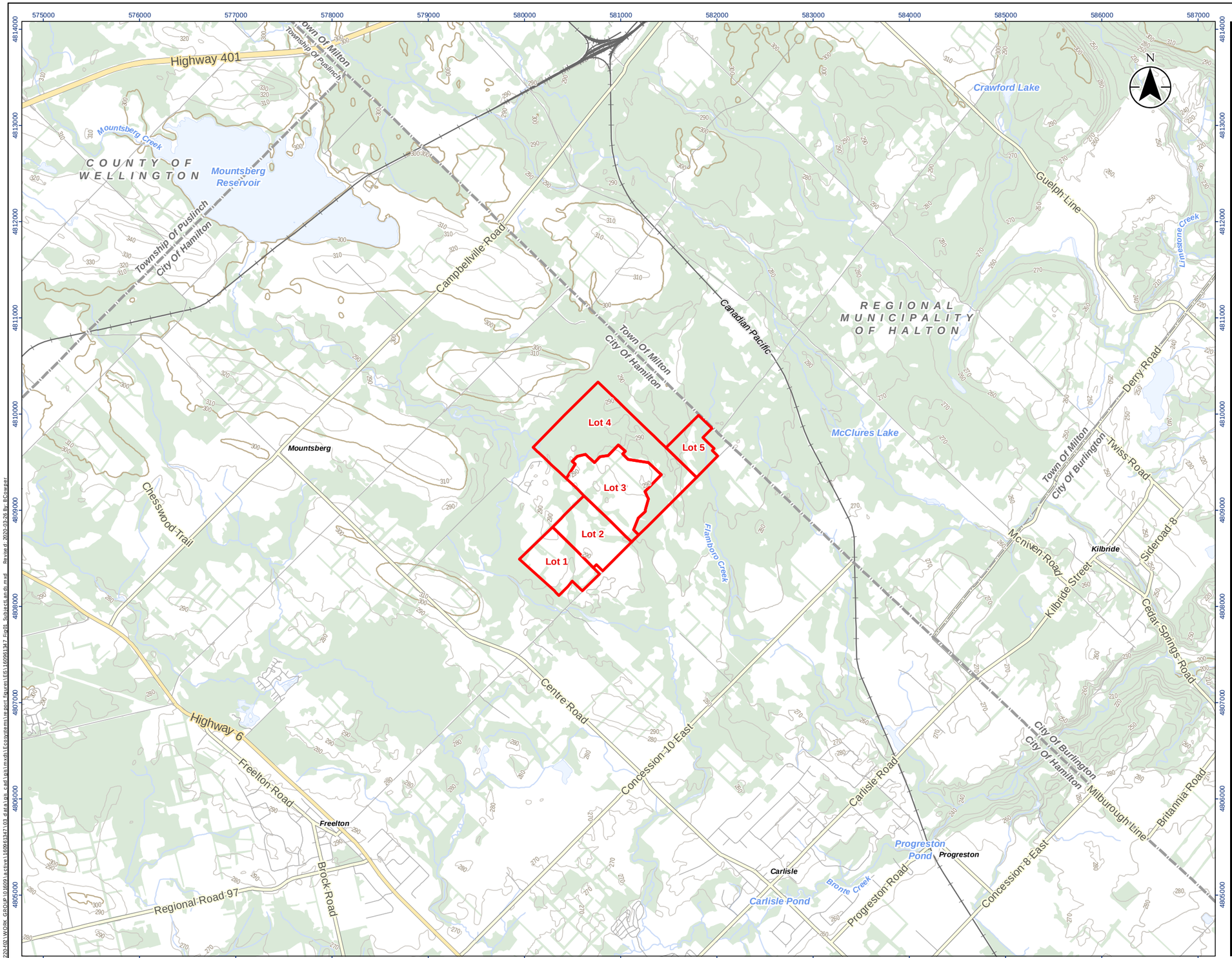
APPENDIX A
Figures



Stantec

Legend

- Subject Lands
- Contour
- Highway
- Major Road
- Railway
- Watercourse
- Municipal Boundary
- Municipal Boundary, Lower
- Waterbody
- Wooded Area

0 0.5 1 km

1:40,000 (At original document size of 11x17)

Notes

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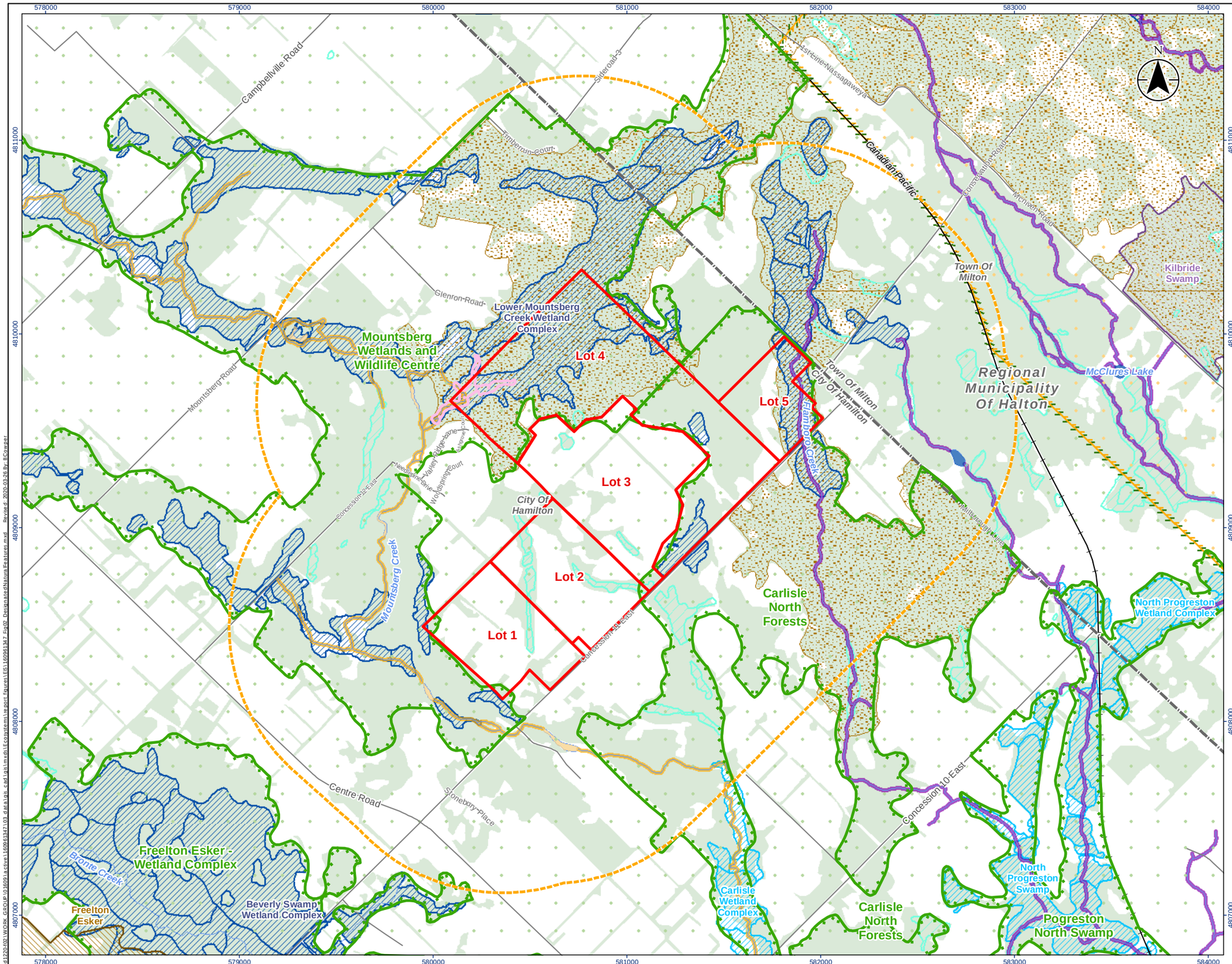
Project Location
City of Hamilton

160961347 REVA
Prepared by DH on 2020-03-26
Technical Review by AT on 2020-01-28

Client/Project
ST. MARYS CEMENT INC. (CANADA)
FLAMBOROUGH LANDS EIS

Figure No.
1

Title
Project Location



Stantec

Legend

🟥	Subject Lands
▭	1 km Buffer of Subject Lands
━	Thermal Regime, Cold
━	Thermal Regime, Warm
┼	Railway
- - -	Watercourse (Intermittent)
─	Watercourse (Permanent)
▨	ANSI, Earth Science
▨	ANSI, Life Science
▦	Deer Wintering Area
▭	Environmentally Sensitive Area (City of Hamilton)
▭	Greenbelt Natural Heritage System
▭	Niagara Escarpment Plan Boundary
▭	Municipal Boundary, Upper
▭	Municipal Boundary, Lower
▭	Spawning Area
■	Thermal Regime, Cold
■	Thermal Regime, Warm
□	Waterbody
▨	Wetland, Provincially Significant
▨	Wetland, Other Evaluated
▨	Wetland, Not evaluated per OWES
■	Wooded Area

0 0.5 1 km

1:20,000 (At original document size of 11x17)

Notes
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■	Niagara Escarpment Plan
■	Greenbelt Natural Heritage System

Project Location
City of Hamilton

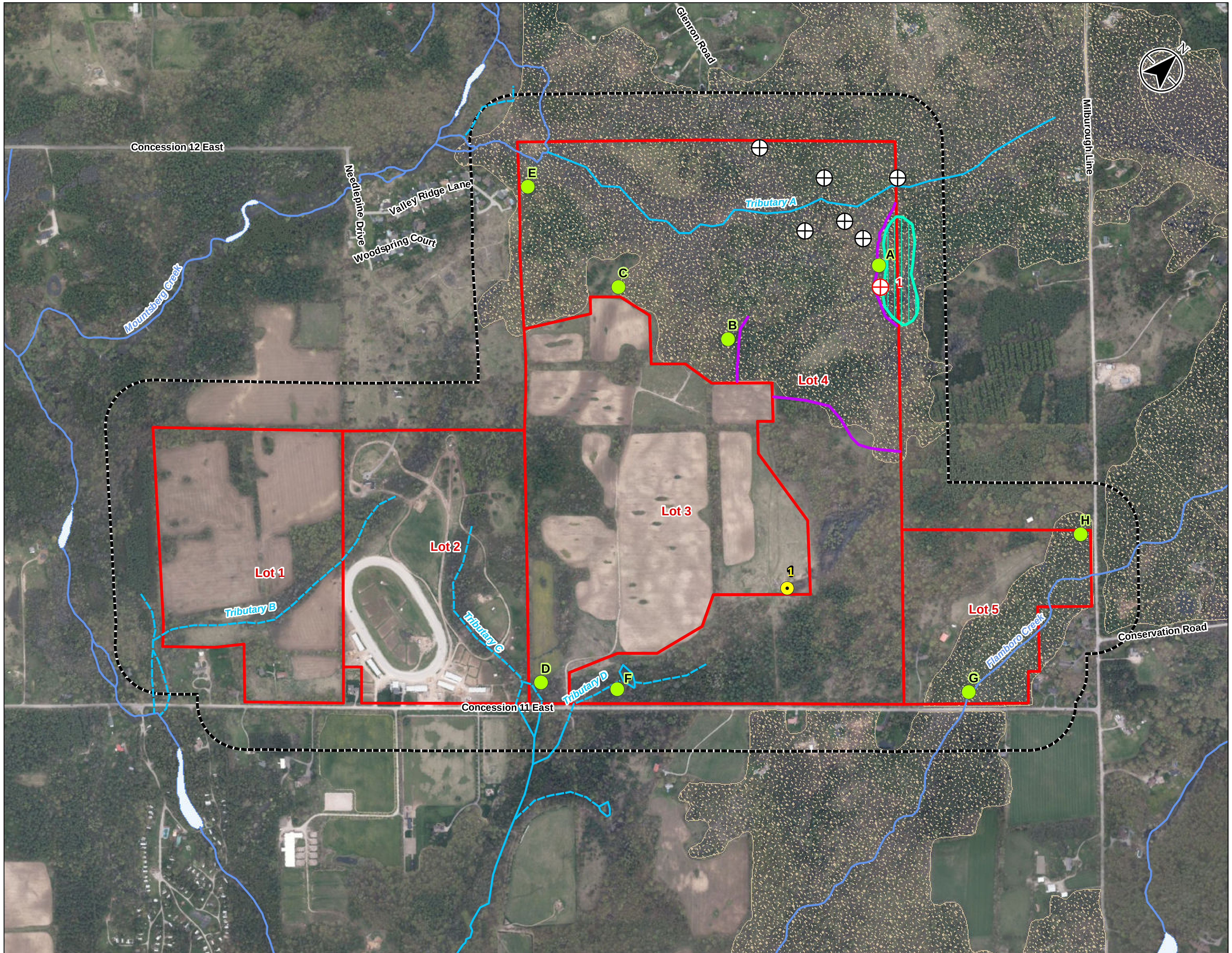
160961347 REV4
Prepared by DH on 2020-03-26
Technical Review by ABC on yyyy-mm-dd
Independent Review by ABC on yyyy-mm-dd

Client/Project
ST. MARYS CEMENT INC. (CANADA)
FLAMBOROUGH LANDS EIS

Figure No.
2

Title
Designated Natural Features

\\cd1220-f02\WORK_GROUP\01609\active\160961347\03_data\gis_cad\gis\mxds\Ecosystems\report\figures\EIS\160961347_Fig02_DesignatedNaturalFeatures.mxd Revised: 2020-03-26 By: BCowper



Stantec

Legend

- Study Area (120 m)
- Subject Lands
- Frog Call Count Station
- Owl Survey Location
- Salamander Sampling Location
- Salamander Survey Location
- Drift Fencing
- Salamander Pond
- Deer Wintering Area
- Waterbody

Watercourses (Stantec)*

- Watercourse (Intermittent)
- Watercourse (Permanent)

Watercourse (MNRF)

- Watercourse (Permanent)

0 250 500 metres

1:10,000 (At original document size of 11x17)

Notes

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* Stantec watercourse mapping is based on a combination of field investigations and air photo interpretation completed in 2004 and 2005.

Project Location
City of Hamilton

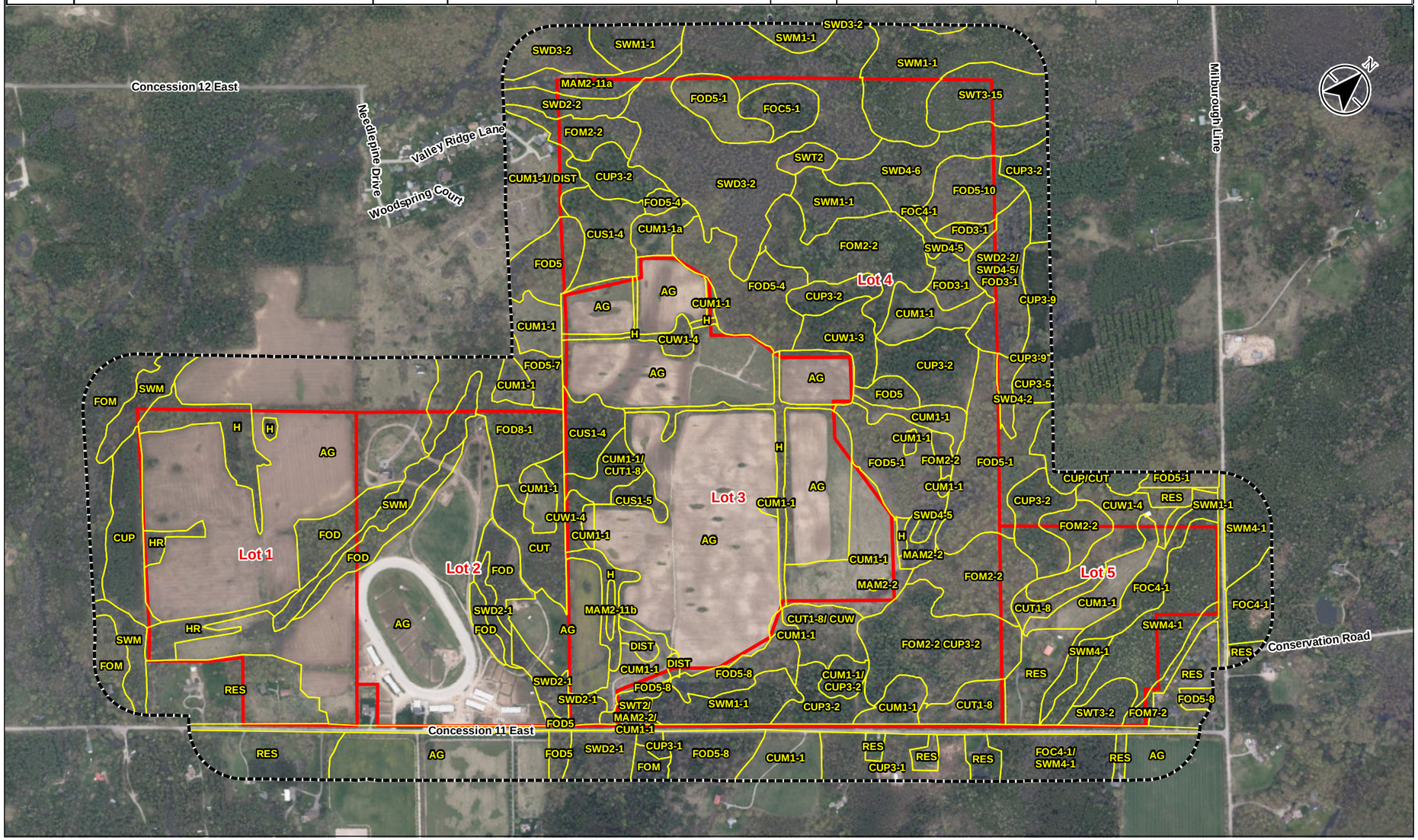
160961347 REVA
Prepared by DH on 2020-03-26
Technical Review by AT on 2020-01-29
Independent Review by ABC on yyyy-mm-dd

Client/Project
ST. MARYS CEMENT INC. (CANADA)
FLAMBOROUGH LANDS EIS

Figure No.
3

Title
Wildlife Survey Locations

Ecological Land Classification							
FOC4-1	Fresh – Moist White Cedar Coniferous Forest	FOD5-7	Fresh Sugar Maple–Black Cherry Deciduous Forest	*CUT1-8	Mixed Cultural Thicket	SWD4-2	White Elm Mineral Deciduous Swamp
*FOC5-1	Fresh – Moist White Pine Coniferous Forest	FOD5-8	Dry–Fresh Sugar Maple–White Ash Deciduous Forest	*CUS1-4	White Pine Cultural Savanna	*SWD4-5	Poplar Mineral Deciduous Swamp
FOM	Mixed Forest	FOD5-10	Dry–Fresh Sugar Maple–White Birch-Poplar Deciduous Forest	*CUS1-5	Deciduous Mineral Cultural Savanna	*SWD4-6	Poplar-Ash Mineral Deciduous Swamp
FOM2-2	Dry–Fresh White Pine–Sugar Maple Mixed Forest	FOD8-1	Fresh–Moist Poplar Deciduous Forest	*CUW1-3	White Pine Cultural Woodland	SWT2	Mineral Thicket Swamp
FOM7-2	Fresh-Moist White Cedar– Hardwood Mixed Forest	CUP3-1	Red Pine Coniferous Plantation	*CUW1-4	Deciduous Mineral Cultural Woodland	SWT3-2	Willow Organic Thicket Swamp
FOD	Deciduous Forest	CUP3-2	White Pine Coniferous Plantation	SWM1-1	White Cedar–Hardwood Mineral Mixed Swamp	*SWT3-15	Mixed Organic Thicket Swamp
FOD3-1	Dry–Fresh Poplar Deciduous Forest	CUP3-6	European Larch Coniferous Plantation	SWM4-1	White Cedar–Hardwood Organic Mixed Swamp	MAM2-2	Reed-canary Grass Mineral Meadow Marsh
FOD5	Dry–Fresh Sugar Maple Deciduous Forest	CUP3-9	Norway Spruce Coniferous Plantation	SWD2-1	Black Ash Mineral Deciduous Swamp	*MAM2-11a,b	Mixed Mineral Meadow Marsh
FOD5-1	Dry–Fresh Sugar Maple Deciduous Forest	CUM1-1	Dry–Moist Old Field Meadow (open)	SWD2-2	Green Ash Mineral Deciduous Swamp		
FOD5-4	Dry–Fresh Sugar Maple – Ironwood Deciduous Forest	CUM1-1a	Dry–Moist Old Field Meadow (with invading shrubs)	SWD3-2	Silver Maple Mineral Deciduous Swamp		



Stantec

Legend

- Study Area (120 m)
- Subject Lands
- ELC Community Boundary

0 250 500 metres

1:10,000 (At original document size of 11x17)

Notes

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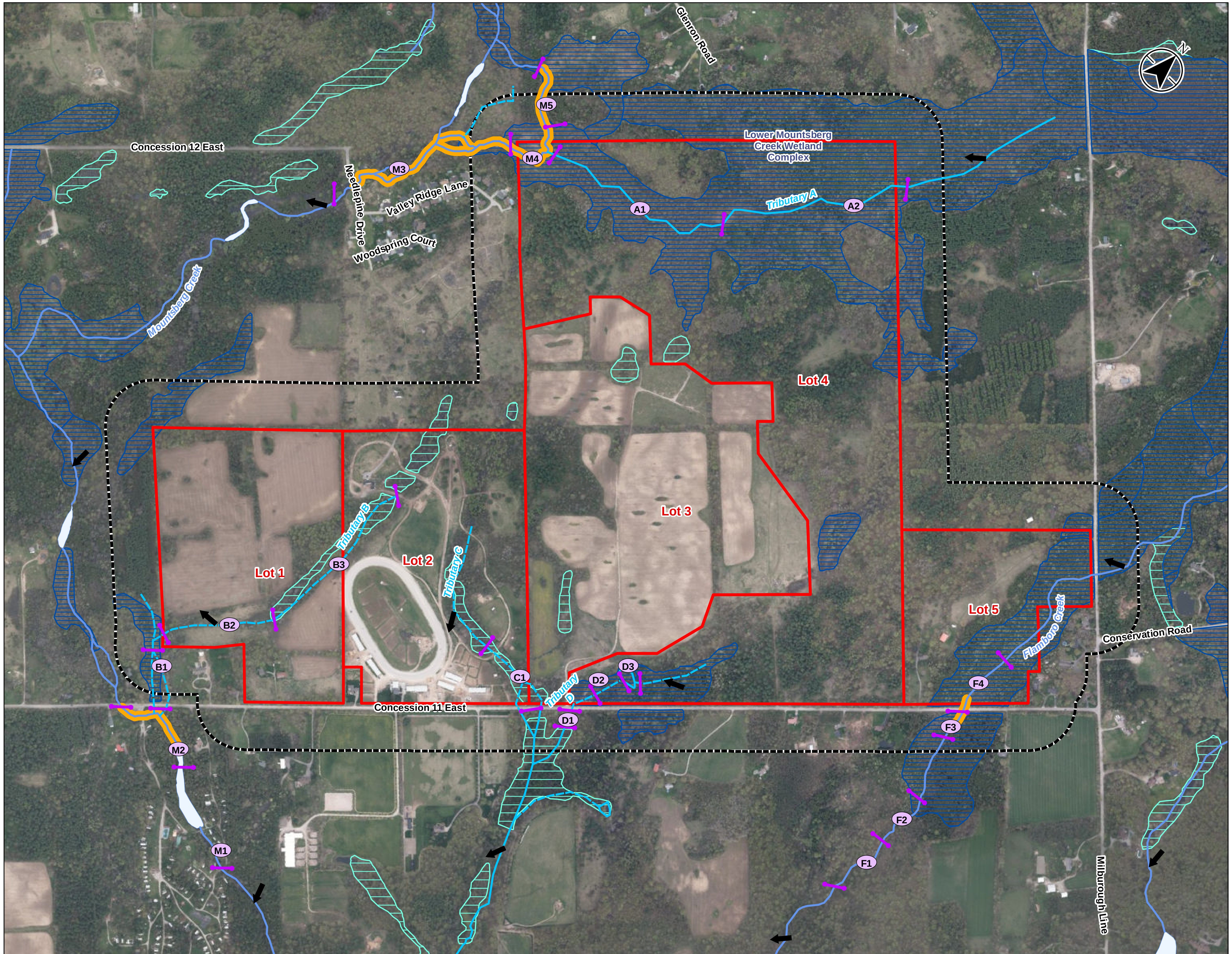
Project Location
City of Hamilton

160961347 REVA
Prepared by DH on 2020-03-26
Technical Review by AT on 2020-01-28

Client/Project
ST. MARYS CEMENT INC. (CANADA)
FLAMBOROUGH LANDS EIS

Figure No.
4

Title
Ecological Land Classification



Stantec

Legend

- Study Area (120 m)
- Subject Lands
- A1 Fish Inventory and/or Fisheries Habitat Assessment Reach
- Flow Direction
- Redd Survey
- Wetland, Provincially Significant
- Wetland, Not evaluated per OWES

Watercourses (Stantec)*

- Watercourse (Intermittent)
- Watercourse (Permanent)

Watercourse (MNRF)

- Watercourse (Permanent)

0 250 500 metres

1:10,000 (At original document size of 11x17)

Notes
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* Stantec watercourse mapping is based on a combination of field investigations and air photo interpretation completed in 2004 and 2005.

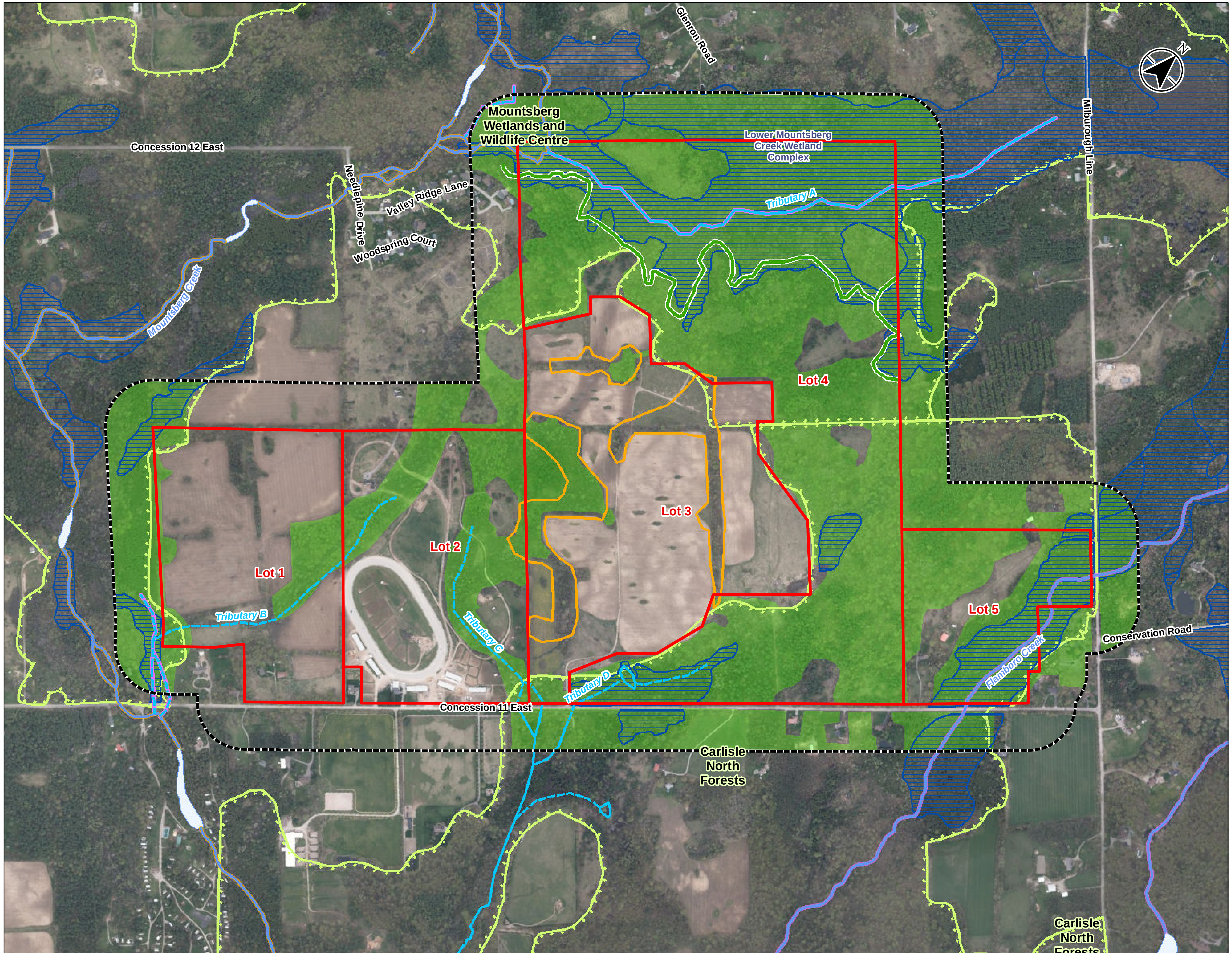
Project Location
City of Hamilton

160961347 REVA
Prepared by DH on 2020-03-26
Technical Review by AT on 2020-01-29
Independent Review by ABC on yyyy-mm-dd

Client/Project
ST. MARYS CEMENT INC. (CANADA)
FLAMBOROUGH LANDS EIS

Figure No.
5

Title
Aquatic Survey Station Locations



Stantec

Legend

- Study Area (120 m)
- Subject Lands
- Thermal Regime, Cold
- Thermal Regime, Warm
- Wetland Boundary (Stantec, 2006)
- Watercourse (Permanent)
- Area Containing Butternut
- Environmentally Sensitive Area (City of Hamilton)
- Significant Woodland (Stantec)
- Wetland, Provincially Significant

Watercourses (Stantec)*

- Watercourse (Intermittent)
- Watercourse (Permanent)

0 250 500 metres

1:10,000 (At original document size of 11x17)

Notes

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Project Location
City of Hamilton

160961347 REVA
Prepared by DH on 2020-03-26
Technical Review by ABC on yyyy-mm-dd
Independent Review by ABC on yyyy-mm-dd

Client/Project
ST. MARYS CEMENT INC. (CANADA)
FLAMBOROUGH LANDS EIS

Figure No.
6

Title
Environmental Constraints

APPENDIX B
Tables

Table 3.1: Field Work Program

Date of Field Work	Purpose of Field Work	Personnel
Feb 27, Mar 1, 4, 2004 Feb 11, 2005	Winter wildlife survey, deer yard assessment	Campbell Smith
Apr 14, 2004	Owl survey	Smith
Apr 14, 15, 2004 Apr 26, May 4, 2005 Apr 13, 18, 20, 2006 Mar 27, 28, Apr 2, 4, 17, 18, 2007	Salamander egg mass collection/analysis	Campbell Sandilands Taylor Weeks
Apr 14, May 12, Jun 16, 2004 Apr 29, May 24, Jun 15, 2005 Apr 24, May 16, Jun 9, 2006	Amphibian call counts	Campbell Smith Weeks Taylor
Apr 14, 2005 and all visits	Reptile surveys • hibernacula emergence • opportunistic observations during other surveys	Sandilands
May 12, 2004 Apr 26, 2005	Red-shouldered Hawk survey	Smith Wyatt
Jul 1, 2, 2004 Jun 2, 4, 21, 23, 2005	Breeding bird inventory	Kopysh Wyatt
May 12, Jul 13, 2005 and all visits 2005 Apr 13, 18, May 9, 30, Jul 24, Sep 20 2006	Insects (Lepidoptera) • Pollard transects • opportunistic observations during other surveys	Taylor Sandilands
Oct 16, 23, 2003 May 13, 14 Jul 19, Sep 10, 2004 Jun 13, 20, Jul 15, 18, 2005	Vegetation surveys • vegetation community survey • vascular plant survey	Zoladeski
Apr 31, Jun 15, 27, Jul 12, 26, 2005 Sep 7, Oct 7, 2005 Oct 15, 2006	Wetland Boundary Delineation	Charlton
Nov 25, Oct 30, 2003 Jun 15, 17, 18, 2004 Jun 1, 2005	Fish Inventories • habitat assessment • Redd survey • fish community inventories	Park Clarkin Weeks Pomeroy
Jun, 2004	Benthic invertebrate sampling	Park Clarkin
Nov, 2004 Feb, Jun, Sep, 2005	Surface water sampling	Park Clarkin Harttrup
Sep, Oct, Nov, 2005	Surface water level and temperature monitoring	Park Clarkin Harttrup

Table 3.2 Summary of Fish and Fish Habitat Field Investigations – St. Marys Flamborough Lands

	Flamboro Creek	Mountsberg Creek
Fish Habitat Assessments 2004 - June 15, 17, 18	F1, F2, F3, F4	M1, M2, M3, M4, M5 A1, A2 B1, B2, B3 C1 D1, D2, D3 (Pond)
Fish Community Sapling 2004 - June 15, 17, 18	F1, F2, F3, F4	M1, M2, M3 A1, A2 B1 C1, D1, D2, D3 (Pond)
2005 - June 1	F3, F4	B1, C1, D1
2006 - August 16	-	M2
Redd Survey 2003 - November 25	Not Applicable	M2, M3, M4, M5

Table 4.1: Background Review of SAR and SOCC in the Study Area

Species Category	Common Name	Latin Name	Provincial S-rank	COSSARO	SARA Schedule 1
Species at Risk	Bank Swallow	*Riparia riparia*	S4B	THR	THR
	Barn Swallow	*Hirundo rustica*	S4B	THR	THR
	Bobolink	*Dolichonyx oryzivorus*	S4B	THR	THR
	Chimney Swift	*Chaetura pelagica*	S4B, S4N	THR	THR
	Eastern Meadowlark	*Sturnella magna*	S4B	THR	THR
	Eastern Small-footed Myotis	*Myotis leibii*	S2S3	END	-
	Little Brown Myotis	*Myotis lucifugus*	S4	END	END
	Northern Myotis	*Myotis septentrionalis*	S3?	END	END
	Tri-coloured Bat	*Perimyotis subflavus*	S3?	END	END
	Butternut	*Juglans cinereal*	S3?	END	END
Species of Conservation Concern	Common Nighthawk	*Chordeiles minor*	S4B	SC	THR
	Eastern Wood-Pewee	*Contopus virens*	S4B	SC	SC
	Grasshopper Sparrow	*Ammodramus savannarum*	S4B	SC	SC
	Red-headed Woodpecker	*Melanerpes erythrocephalus*	S4B	SC	THR
	Wood Thrush	*Hylocichla mustelina*	S4B	SC	THR
	Monarch	*Danaus plexippus*	S4B, S2N	SC	SC
	Snapping Turtle	*Chelydra serpentina*	S3	SC	SC

Table 5.1: Ecological Land Classification Descriptions

ELC Type	Description
CONIFEROUS FOREST (FOC)	
FOC4-1 Fresh – Moist White Cedar Coniferous Forest	All the strata (tree canopy, reproduction and shrub layer) are almost exclusively composed of white cedar. Because of the density of the cedar, there are virtually no plants growing on the ground. These stands are still young, very dense and undergoing intensive self-thinning.
***FOC5-1** Fresh – Moist White Pine Coniferous Forest	A generally coniferous type dominated by white pine, with admixtures of white cedar, hemlock, green ash and sugar maple. In this, very likely, older pine plantation the trend towards a return of a deciduous community is indicated by the dominance of sugar maple in the shrub stratum. After the flush of vernal ephemerals, the ground herb cover becomes poor, with common speedwell, zigzag goldenrod and sedges.
MIXED FOREST (FOM)	
FOM Mixed Forest	This is a variably composed community, representing late-successional development on formerly agricultural lands. The tree canopy composition is variable with several species present in different proportions, e.g. white pine, white cedar, hemlock, sugar maple, trembling aspen, large-tooth aspen, black cherry, white birch, white and green ash, beech and bitternut hickory. Depending on the composition and density of the tree layer, understorey vegetation may be equally diverse.
FOM2-2 Dry–Fresh White Pine–Sugar Maple Mixed Forest	This is a middle-aged community composed of often large, open-grown white pine and the hardwood component represented by sugar maple (including very old and large specimens), trembling aspen, bitternut hickory and white birch. Sugar maple seedlings and saplings are abundant. The ground herb layer is generally poorly developed.
FOM7-2 Fresh-Moist White Cedar– Hardwood Mixed Forest	White ash and white cedar dominated the canopy in this community. A smaller proportion of trembling aspen extended above this canopy. Young white ash and white cedar formed the understory and the ground herb layer was generally poorly developed.
DECIDUOUS FOREST (FOD)	
FOD Deciduous Forest	Included here are diverse communities composed of several tree species growing in various combinations, for example trembling aspen, large-tooth aspen, white birch, sugar maple, white elm, white ash, ironwood and bitternut hickory. In the shrub layer grow black cherry and sugar maple saplings, while in the well-developed herb layer the major species are white avens, calico aster, zigzag goldenrod and wild ginger.
FOD3-1 Dry–Fresh Poplar Deciduous Forest	Large-toothed aspen dominates this mid-aged community, with sub-dominant trembling aspen, ironwood, elm and white ash. In the regeneration layer sugar maple is the main species, while in the shrub layer saplings of white ash and some choke cherry dominate. The herbaceous ground cover is well developed, with enchanter's nightshade, wild ginger, may-apple, running strawberry-bush, Jack-in-the-pulpit and several other species.
FOD5 Dry–Fresh Sugar Maple Deciduous Forest	A much disturbed community dominated by sugar maple, with variable amounts of black cherry, bur oak, basswood and aspen. Garlic mustard and periwinkle form the ground cover.

Table 5.1: Ecological Land Classification Descriptions

ELC Type	Description
FOD5-1 Dry–Fresh Sugar Maple Deciduous Forest	Sugar maple is the leading canopy species and the other hardwoods or softwoods (for example white ash, beech, hemlock) are present in small amounts. Maple and white ash saplings compose the well-developed shrub layer, where also occur blue beech, alternate-leaved dogwood, prickly gooseberry or, rarely, leatherwood. The fall floristic aspect is dominated by zig-zag goldenrod, enchanter's nightshade and running strawberry-bush, but the spring ephemerals are very abundant. These communities are usually mid-aged to mature.
FOD5-4 Dry–Fresh Sugar Maple – Ironwood Deciduous Forest	Sugar maple dominated stands, with admixtures of several species such as ironwood, green and white ash, beech, bur oak, white birch, black cherry and hemlock. The shrub layer is dominated by sugar maple and other hardwood saplings and seedlings, including black cherry and green ash, while true shrubs are represented by grey dogwood, prickly gooseberry and alternate-leaved dogwood. The herb layer displays distinct seasonality, with vernal ephemerals followed by late summer species—white avens, wild ginger, zig-zag goldenrod, enchanter's nightshade and running strawberry-bush. These are mid-aged to mature communities located on upland sites, usually on shallow mineral soil over bedrock.
FOD5-7 Fresh Sugar Maple–Black Cherry Deciduous Forest	Located in a small, slightly concave depression, on shallow soil over bedrock, this mid-aged community is dominated by sugar maple and black cherry, with a strong admixture of large-tooth aspen. Alternate-leaved dogwood is the main tall shrub species, followed by choke cherry, prickly gooseberry, and saplings of white ash and elm. Relatively few species form the ground cover, for example herb-Robert, running strawberry-bush, enchanter's nightshade and the introduced garden escape lily-of-the-valley.
FOD5-8 Dry–Fresh Sugar Maple–White Ash Deciduous Forest	Sugar maple and white ash are the principal tree species, followed by small amounts of other tree species. Choke cherry, red raspberry and white ash seedlings compose most of the shrub stratum. In the herb layer grow tall goldenrod, enchanter's nightshade, various sedges, herb-Robert, white avens, running strawberry-bush, zig-zag goldenrod and several other species.
FOD5-10 Dry–Fresh Sugar Maple–White Birch-Poplar Deciduous Forest	This type is composed of sugar maple, white birch, trembling aspen, with admixtures of white ash and bitternut hickory. The maple and ash dominate the sapling stratum, alongside true shrubs such as alternate-leaved dogwood, choke cherry and Alleghany blackberry. Ground herb cover is generally poorly developed, with white avens, enchanter's nightshade, Jack-in-the-pulpit and zig-zag goldenrod.
FOD8-1 Fresh–Moist Poplar Deciduous Forest	This unit is dominated by trembling aspen, with green ash present in the sub-canopy and shrub layers. Choke cherry, Virginia-creeper and poison ivy are the leading shrubs. The herb layer is well developed, with enchanter's nightshade, calico aster, white avens, red baneberry and several other species.
CULTURAL (CU)	
PLANTATION (CUP)	
CUP3-1 Red Pine Coniferous Plantation	An extensive patch of this type is found on the south side of Concession 11 East. The shrub and herb understories are very poorly developed.
CUP3-2 White Pine Coniferous Plantation	Older plantations on shallow soil over bedrock, still dominated by white pine, but with several hardwoods entering the community, most importantly sugar maple, white elm and white birch. Scattered remnant hawthorn is in decline. The understorey is poorly developed to non-existent.

Table 5.1: Ecological Land Classification Descriptions

ELC Type	Description
CUP3-6 European Larch Coniferous Plantation	A young, dense larch plantation, with some scattered presence of white pine and white ash. The herb layer is tall and dense, dominated by Canada goldenrod and numerous other old field meadow species.
CUP3-9 Norway Spruce Coniferous Plantation	This is an open, very young (10-12 yrs) plantation. Typical old field meadow herbaceous cover still prevails, with such species as Canada goldenrod, Canada blue grass, wild carrot, glaucus king devil, and many others.
CULTURAL MEADOW (CUM)	
CUM1-1 Dry–Moist Old Field Meadow (open)	A regenerating community of invasive native and introduced plants on formerly agricultural land. The main species include Canada goldenrod, New-England aster, timothy, red-top, wild basil, ribgrass, wild carrot, tufted vetch, red clover and white sweet clover. Although some shrubs and trees may be present, they are a minor component of this community type.
CUM1-1a Dry–Moist Old Field Meadow (with invading shrubs)	A similar type as the previous in terms of the composition of the herb layer, but with a better developed shrub and young tree stratum, where the following species may occur: white pine, hawthorn, elm, ash, Tartar Ian honeysuckle, red raspberry and grey dogwood.
CULTURAL THICKET (CUT)	
***CUT1-8** Mixed Cultural Thicket	This open thicket, regenerating open old fields is composed of scattered apple trees, hawthorn, and young trees of sugar maple, black cherry, white pine, white elm, white ash and bitternut hickory. The ground cover retains old field meadow characteristics, such abundance of Canada goldenrod, fescue, ox-eye daisy, and many others.
CULTURAL SAVANNA (CUS)	
***CUS1-4** White Pine Cultural Savanna	White pine is the principal species in this open community, where in the shrub layer are several tree saplings and true shrubs, including sugar maple, green ash, white elm, prickly ash, hawthorn, grey dogwood and Tartarian honeysuckle. Leading ground cover contains hart-leaved aster, glaucus king devil, wild marjoram, Canada goldenrod and timothy.
***CUS1-5** Deciduous Mineral Cultural Savanna	An open-canopy community, composed of scattered trees, such as balsam poplar, black cherry, white elm, basswood, black walnut and white birch. The herb layer is diverse, with Canada goldenrod , orchard grass, glaucus king devil, Canada bluegrass, awnless brome and many other species typical of old fields.
CULTURAL WOODLAND (CUW)	
***CUW1-3** White Pine Cultural Woodland	White pine is the main species in this community type, forming more or less dense patches, in which other coniferous or deciduous species can occur, for example white cedar, white birch, aspen, white ash and white elm. The development of shrub and herb understoreys is variable, often as patches of old field vegetation amongst groups of trees. The low-branched open growth habit of the pine indicates that these were once open communities (likely old fields) that were invaded by the conifers.
***CUW1-4** Deciduous Mineral Cultural Woodland	This type is represented by small isolated patches amongst the crop fields. The semi-open communities may be composed of the sugar maple, trembling aspen and other hardwood species, including white birch and black cherry. The herb cover is intermediate between old field meadow and woodland species and include enchanter's nightshade, herb-Robert, white avens, scarlet strawberry, Canada goldenrod, New-England aster, garlic mustard, kidney-leaf buttercup, and many others.

Table 5.1: Ecological Land Classification Descriptions

ELC Type	Description
MIXED SWAMP (SWM)	
SWM1-1 White Cedar–Hardwood Mineral Mixed Swamp	A swamp forest composed of white cedar and several possible associates, including trembling aspen, red or white ash, yellow birch, white elm, balsam fir and silver maple. White cedar saplings usually dominate the shrub layer, but other canopy species are also represented. True shrubs are represented by red osier dogwood, red raspberry, Virginia creeper, prickly gooseberry, alternate-leaved dogwood and riverbank grape. The development of the herb layer is variable, with such possible leading species as spotted touch-me-not, bulblet fern, bulblet bladder fern and enchanter's nightshade. Microtopography is hummocky, with mounds and pits, caused by tree windthrows. These, usually mature forests are typically associated with bottomland situations and creek floodplains.
SWM4-1 White Cedar–Hardwood Organic Mixed Swamp	Tree canopy is discontinuous and generally short (12-15 m). Trembling aspen forms the upper layer, with white cedar growing in the lower layer. Other common species are black ash and yellow birch. The shrub layer is composed of red-osier dogwood, common elderberry and young white cedar. The herb layer is rich, with such species as smaller forget-me-not, marsh fern, marsh marigold, spotted joe-pye-weed, mint and marsh bedstraw. This unit is associated with wide creek floodplains. Some areas within this ELC type included Sphagnum mounds and plants showing bog and fen affinity such as sedges (*Carex trisperma, Carex disperma)* and round-leaved sundew.
DECIDUOUS SWAMP (SWD)	
SWD2-1 Black Ash Mineral Deciduous Swamp	Black ash dominated this community with occasional white elm and balsam poplar. Red-osier dogwood was observed in the understory forming thicket is spots. This community was relatively young and occurred along Tributary D.
SWD2-2 Green Ash Mineral Deciduous Swamp	Green ash dominated the medium-height tree canopy, along with white elm and occasional balsam poplar. In the shrub layer grow red-osier dogwood, choke cherry, narrow-leaved meadow-sweet and Virginia creeper. The herb layer is very rich and includes rough goldenrod, tall goldenrod, Canada anemone, purple loosestrife and numerous other wetland species. The community is relatively young and occurs as a narrow zone of Tributary A.
SWD3-2 Silver Maple Mineral Deciduous Swamp	An extensive swamp occurring on the floodplain of Tributary A in the north-west end of the subject lands. Dominated by silver maple, with abundances of red maple, Freeman's maple (hybrid between red and silver maples), green ash, white birch and American elm. The tree canopy reaches 25 metres in height. The shrub layer is generally poorly developed, composed of saplings of elm and white cedar, along with red osier dogwood, alder-leaved buckthorn, and red raspberry. The herb layer is continuous and rich in species, such as sensitive fern, spotted joe-pye weed, bitter nightshade, and many other forbs, sedges and grasses. Flooding is a feature in this community as high water levels were observed both during the spring survey and the fall sampling.
SWD4-2 White Elm Mineral Deciduous Swamp	A young even aged community dominated by white elm in the overstorey and poison ivy in the understorey. An ephemeral wetland as evidenced by springtime observations and water strand lines on tree trunks approximately 20 – 30 cm above the hummocky ground surface. Dry at other times of the year, Located in proximity to the pond in the northeast portion of the site that also exhibits very large fluctuation s in water levels in the spring.

Table 5.1: Ecological Land Classification Descriptions

ELC Type	Description
***SWD4-5** Poplar Mineral Deciduous Swamp	Trembling aspen is the main canopy species, with a possible small admixture of elm or ash. The shrub layer may be composed of ash and aspen saplings, as well as round-leaved dogwood. The main herbaceous species is reed-canary grass.
***SWD4-6** Poplar-Ash Mineral Deciduous Swamp	Trembling aspen and green ash are leading tree canopy species, followed by elm and white birch. The shrub layer is relatively well developed, with round-leaved goldenrod, Virginia creeper, nannyberry, alternate-leaved dogwood, choke cherry and common buckthorn. The herb stratum, although sparse, can contain several species, such as Jack-in-the-pulpit, calico aster, enchanter's nightshade, white avens and fringed loosestrife. The unit appears to be extensively flooded in the spring.
THICKET SWAMP (SWT)	
SWT2 Mineral Thicket Swamp	This community is located in a small depression amongst the forests in the north-central portion of the lands. The site contains almost continuous open water, 25 cm or more deep. Scattered short red maple and elm trees are present, but the community is essentially composed of red-osier dogwood and cedar saplings. In more open places there are patches of reed-canary grass. Because of the lack of clearly defined dominants and uneven physiognomy, this unit could not be defined at the ecosite level.
SWT3-2 Willow Organic Thicket Swamp	A dense community composed of Bebb's willow, with abundances of red-osier dogwood and young white cedar. The main tall shrub layer is overtopped by tall saplings of white birch and trembling aspen. The organic substrate is water-saturated and spongy with many areas of water at surface. Small's spikerush, marsh fern, reed-canary grass, bristly sedge, smaller forget-me-not and a carpet of brown mosses form the rich ground cover.
***SWT3-15** Mixed Organic Thicket Swamp	An open-canopy community dominated by young, short (10 m) white elm trees, along with other species such as white birch, red maple and trembling aspen. Red-osier dogwood, round-leaved dogwood, alder-leaved buckthorn, common elderberry and white cedar compose the medium layer. The herb layer is very rich, with dwarf raspberry, false mitrewort, marsh fern, rough goldenrod and many other species. Windthrows are common throughout the patch. Fallen, decomposing tree trunks are cover by abundant mosses.
MEADOW MARSH (MAM)	
MAM2-2 Reed-canary Grass Mineral Meadow Marsh	These dense meadows are graminoid monocultures dominated by reed-canary grass, with only small amounts of localized red-top and tall white aster or sensitive fern.
***MAM2-11a,b** Mixed Mineral Meadow Marsh	Wet meadows composed of varying mixtures of graminoid and forb species. Based on the dominant plants, the unit could be divided into sub-types "a" and "b". Sub-type "a" is located along Tributary A's floodplain in the north-west corner of the subject lands. The main species are bluejoint, reed-canary grass, red-top, perfoliate thoroughwort, spotted joe-pye weed, spotted touch-me-not, sensitive fern, American stinging nettle, tall white aster and Canada thistle. Sub-type "b" is found in a narrow depression between hedgerows in the south-west corner of the subject lands, where the leading species are reed-canary grass, awnless brome, tall white aster and purple-stemmed aster.

APPENDIX C
Plant Species List

Appendix C - Plant Species List

Scientific Name	Common Name	Family	Establishment Means	Coefficient of Conservatism	Wetness Index	Wetland Plant Species	Weediness Index	Provincial Status	SARO Status	COSEWIC Status	Global Status
Athyrium filix-femina angustum	northeastern lady fern	Athyriaceae	native	4	0	T		-?			-?
Cystopteris bulbifera	bulblet bladder fern	Cystopteridaceae	native	5	-2	T		S5			G5
Pteridium aquilinum latiusculum	eastern bracken fern	Dennstaedtiaceae	native	2	3			S5			G5
Dryopteris carthusiana	spinulose wood fern	Dryopteridaceae	native	5	-2	T		S5			G5
Dryopteris cristata	crested wood fern	Dryopteridaceae	native	7	-5	I		S5			G5
Dryopteris marginalis	marginal wood fern	Dryopteridaceae	native	5	3			S5			G5
Polystichum acrostichoides	Christmas fern	Dryopteridaceae	native	5	5			S5			G5
Equisetum arvense	field horsetail	Equisetaceae	native	0	0	T		S5			G5
Equisetum hyemale affine	common scouring-rush	Equisetaceae	native	2	-2	T		S5			G5
Equisetum pratense	meadow horsetail	Equisetaceae	native	8	-3			S5			G5
Matteuccia struthiopteris pensylvanica	ostrich fern	Onocleaceae	native	5	-3	T		S5			G5
Onoclea sensibilis	sensitive fern	Onocleaceae	native	4	-3	I		S5			G5
Osmundastrum cinnamomeum	cinnamon fern	Osmundaceae	native	7	-3	I		S5			G5
Adiantum pedatum	northern maidenhair fern	Pteridaceae	native	7	1			S5			G5
Thelypteris palustris pubescens	eastern marsh fern	Thelypteridaceae	native	5	-4	I		S5			G5
Thuja occidentalis	eastern white cedar	Cupressaceae	native	4	-3	T		S5			G5
Abies balsamea	balsam fir	Pinaceae	native	5	-3	T		S5			G5
Larix decidua	European larch	Pinaceae	introduced		5		-1	SE2			G5
Larix laricina	tamarack	Pinaceae	native	7	-3	I		S5			G5
Pinus resinosa	red pine	Pinaceae	native	8	3			S5			G5
Pinus strobus	eastern white pine	Pinaceae	native	4	3	T		S5			G5
Pinus sylvestris sylvestris	Scotch pine	Pinaceae	introduced		5		-3	SE5			GNR
Tsuga canadensis	eastern hemlock	Pinaceae	native	7	3	T		S5			G5
Sambucus canadensis	common elderberry	Adoxaceae	native	5	-2	T		S5			G5T5
Sambucus racemosa pubens	red elderberry	Adoxaceae	native	5	2			S5			G5
Viburnum lentago	nannyberry	Adoxaceae	native	4	-1	T		S5			G5
Viburnum sp.		Adoxaceae									
Amaranthus albus	white amaranth	Amaranthaceae	introduced		3		-1	SE5			GNR
Amaranthus retroflexus	redroot amaranth	Amaranthaceae	introduced		2		-1	SE5			GNR
Chenopodium album	common lamb's-quarters	Amaranthaceae	introduced	-?	-?	-?	-?	SE5			G5
Rhus typhina	staghorn sumac	Anacardiaceae	native	1	5			S5			G5
Toxicodendron radicans radicans	eastern poison ivy	Anacardiaceae	native	5	-1	T		S5			G5
Toxicodendron radicans rydbergii	western poison ivy	Anacardiaceae	native	5	-1	T		S5			G5
Cicuta bulbifera	bulbous water-hemlock	Apiaceae	native	5	-5	I		S5			G5
Cicuta maculata maculata	spotted water-hemlock	Apiaceae	native	6	-5	I		-?			-?
Daucus carota	wild carrot	Apiaceae	introduced		5		-2	SE5			GNR
Osmorhiza claytonii	hairy sweet cicely	Apiaceae	native	5	4			S5			G5
Sium suave	common water-parsnip	Apiaceae	native	4	-5	I		S5			G5
Asclepias incarnata incarnata	swamp milkweed	Apocynaceae	native	6	-5	I		S5			G5
Asclepias syriaca	common milkweed	Apocynaceae	native	0	5			S5			G5
Vinca minor	lesser periwinkle	Apocynaceae	introduced		5		-2	SE5			GNR
Ilex verticillata	common winterberry	Aquifoliaceae	native	-?	-?	-?	-?	S5			G5
Aralia nudicaulis	wild sarsaparilla	Araliaceae	native	4	3			S5			G5
Aralia racemosa racemosa	American spikenard	Araliaceae	native	7	5			S5			G4G5
Hydrocotyle americana	American water pennywort	Araliaceae	native	7	-5	I		S5			G5
Asarum canadense	Canada wild ginger	Aristolochiaceae	native	6	5			S5			G5
Achillea millefolium	common yarrow	Asteraceae	introduced	0	3			SE			G5
Ageratina altissima altissima	common white snakeroot	Asteraceae	native	5	3	T		S5			G5
Arctium lappa	great burdock	Asteraceae	introduced		-?			SE5			GNR
Arctium minus	common burdock	Asteraceae	introduced		5		-2	SE5			GNR
Artemisia biennis	biennial wormwood	Asteraceae	introduced		-2		-1	SE5			G5
Bidens cernua	nodding beggarticks	Asteraceae	native	2	-5	I		S5			G5
Bidens frondosa	devil's beggarticks	Asteraceae	native	3	-3	I		S5			G5
Bidens vulgata	tall beggarticks	Asteraceae	native	5	-3	T		S5			G5
Carduus acanthoides acanthoides	spiny plumeless thistle	Asteraceae	introduced		5		-1	SE5			GNR
Carduus nutans nutans	nodding thistle	Asteraceae	introduced		5		-1	SNA			-?
Centaurea nigra	black knapweed	Asteraceae	introduced		-?			SE5?			GNR
Cirsium arvense	Canada thistle	Asteraceae	introduced		3		-1	SE5			GNR
Cirsium vulgare	bull thistle	Asteraceae	introduced		4		-1	SE5			GNR
Erigeron canadensis	Canada horseweed	Asteraceae	native	-?	-?	-?	-?	S5			G5
Erigeron strigosus strigosus	rough fleabane	Asteraceae	native	0	1			S5			G5
Eupatorium perfoliatum	common boneset	Asteraceae	native	2	-4	I		S5			G5
Eurybia macrophylla	large-leaved aster	Asteraceae	native	5	5			S5			G5
Euthamia graminifolia	grass-leaved goldenrod	Asteraceae	native	2	-2			S5			G5
Eutrochium maculatum maculatum	spotted Joe Pye weed	Asteraceae	native	3	-5	I		-?			-?
Inula helenium	elecampane	Asteraceae	introduced		5	T	-2	SE5			GNR
Lactuca biennis	tall blue lettuce	Asteraceae	native	6	0			S5			G5
Lactuca serriola	prickly lettuce	Asteraceae	introduced		0		-1	SE5			GNR
Matricaria discoidea	pineappleweed	Asteraceae	introduced		-?			SE5			G5
Pilosella officinarum	mouse-ear hawkweed	Asteraceae	introduced		5		-1	SE5			GNR
Pilosella piloselloides praealta	king devil hawkweed	Asteraceae	introduced		-?			-?			-?
Pilosella sp.		Asteraceae									
Solidago altissima altissima	tall goldenrod	Asteraceae	native	1	3			-?			-?
Solidago caesia caesia	blue-stemmed goldenrod	Asteraceae	native	5	3			S5			G5
Solidago canadensis canadensis	Canada goldenrod	Asteraceae	native	1	3			-?			-?
Solidago flexicaulis	zigzag goldenrod	Asteraceae	native	6	3			S5			G5
Solidago nemoralis nemoralis	grey-stemmed goldenrod	Asteraceae	native	2	5			-?			-?
Solidago patula	rough-leaved goldenrod	Asteraceae	native	8	-5	I		S5			G5
Solidago rugosa rugosa	rough-stemmed goldenrod	Asteraceae	native	4	-1	T		-?			-?
Sonchus asper	prickly sow-thistle	Asteraceae	introduced		0		-1	SE5			GNR
Symphyotrichum cordifolium	heart-leaved aster	Asteraceae	native	5	5			S5			G5
Symphyotrichum ericoides ericoides	white heath aster	Asteraceae	native		-?			-?			-?
Symphyotrichum lanceolatum lanceolatum	white panicled aster	Asteraceae	native	3	-3	I		-?			-?
Symphyotrichum lateriflorum lateriflorum	calico aster	Asteraceae	native	3	-2	T		S5			G5
Symphyotrichum novae-angliae	New England aster	Asteraceae	native	2	-3			S5			G5
Symphyotrichum puniceum puniceum	purple-stemmed aster	Asteraceae	native	6	-5	I		S5			G5
Symphyotrichum urophyllum	arrow-leaved aster	Asteraceae	native	6	5			S4			G4G5
Taraxacum officinale	common dandelion	Asteraceae	introduced		3		-2	SE5			G5
Tragopogon dubius	yellow goatsbeard	Asteraceae	introduced		5		-1	SE5			GNR
Tragopogon pratensis	meadow goatsbeard	Asteraceae	introduced		5		-1	SE5			GNR
Tripleurospermum inodorum	scentless chamomile	Asteraceae	introduced		5		-1	SE			GNR
Tussilago farfara	coltsfoot	Asteraceae	introduced		3	T	-2	SE5			GNR
Impatiens capensis	spotted jewelweed	Balsaminaceae	native	4	-3	I		S5			G5
Berberis thunbergii	Japanese barberry	Berberidaceae	introduced		4		-3	SE5			GNR
Caulophyllum thalictroides	blue cohosh	Berberidaceae	native		-?			S5			G4G5
Podophyllum peltatum	May-apple	Berberidaceae	native	5	3			S5			G5
Alnus incana rugosa	speckled alder	Betulaceae	native	6	-5	I		S5			G5
Betula alleghaniensis	yellow birch	Betulaceae	native	6	0	T		S5			G5
Betula papyrifera	paper birch	Betulaceae	native		2	T		S5			G5
Carpinus caroliniana virginiana	blue-beech	Betulaceae	native	6	0	T		S5			G5
Ostrya virginiana	ironwood	Betulaceae	native	4	4			S5			G5
Echium vulgare	common viper's bugloss	Boraginaceae	introduced		5		-2	SE5			GNR
Hydrophyllum virginianum virginianum	Virginia waterleaf	Boraginaceae	native	6	-2			S5			G5
Myosotis laxa	small forget-me-not	Boraginaceae	native	6	-5	I		S5			G5
Alliaria petiolata	garlic mustard	Brassicaceae	introduced		0		-3	SE5			GNR
Barbarea vulgaris	bitter wintercress	Brassicaceae	introduced		0		-1	SE5			GNR
Capsella bursa-pastoris	common shepherd's purse	Brassicaceae	introduced		1		-1	SE5			GNR
Cardamine concatenata	cut-leaved toothwort	Brassicaceae	native	6	3			S5			G5
Cardamine diphylla	two-leaved toothwort	Brassicaceae	native	7	5			S5			G5
Erucastrum gallicum	common dog mustard	Brassicaceae	introduced		5		-1	SE5			G5
Erysimum cheiranthoides	wormseed wallflower	Brassicaceae	introduced	-?	-?	-?	-?	SE5			G5
Lepidium densiflorum	common peppergrass	Brassicaceae	introduced		0		-2	SE5			G5
Sisymbrium officinale	common tumble mustard	Brassicaceae	introduced		5		-1	SE5			GNR
Turritis glabra	tower mustard	Brassicaceae	native	4	5			S5			G5

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Scientific Name	Common Name	Family	Establishment Means	Coefficient of Conservatism	Wetness Index	Wetland Plant Species	Weediness Index	Provincial Status	SARO Status	COSEWIC Status	Global Status
Lobelia inflata	Indian tobacco	Campanulaceae	native	3	4			S5			G5
Dipsacus fullonum	common teasel	Caprifoliaceae	introduced		5		-1	SE5			GNR
Linnaea borealis longiflora	long-tube twinflower	Caprifoliaceae	native	7	0	T		S5			G5
Lonicera tatarica	Tartarian honeysuckle	Caprifoliaceae	introduced		3		-3	SE5			GNR
Triosteum aurantiacum aurantiacum	orange-fruit horse-gentian	Caprifoliaceae	native	7	5			S5			G5
Arenaria serpyllifolia serpyllifolia	thyme-leaved sandwort	Caryophyllaceae	introduced		0		-2	SE5			GNR
Cerastium fontanum vulgare	common mouse-ear chickweed	Caryophyllaceae	introduced		3		-1	SE5			GNR
Dianthus armeria armeria	Deptford pink	Caryophyllaceae	introduced		5		-1	SE5			GNR
Silene latifolia	white campion	Caryophyllaceae	introduced		-?			SE5			GNR
Silene vulgaris	bladder campion	Caryophyllaceae	introduced		-?			SE5			GNR
Stellaria graminea	grass-leaved starwort	Caryophyllaceae	introduced		5	T	-2	SE5			GNR
Stellaria media	common chickweed	Caryophyllaceae	introduced		3		-1	SE5			GNR
Euonymus obovatus	running strawberry bush	Celastraceae	native	-?	-?	-?	-?	S5			G5
Convolvulus arvensis	field bindweed	Convolvulaceae	introduced		5		-1	SE5			GNR
Cornus alternifolia	alternate-leaved dogwood	Cornaceae	native	6	5			S5			G5
Cornus obliqua	pale dogwood	Cornaceae	native	-?	-?	-?	-?	S5			-?
Cornus racemosa	grey dogwood	Cornaceae	native	-?	-?	-?	-?	S5			G5?
Cornus rugosa	round-leaved dogwood	Cornaceae	native	6	5			S5			G5
Cornus stolonifera	red-osier dogwood	Cornaceae	native	2	-3	I*		S5			G5
Echinocystis lobata	wild cucumber	Cucurbitaceae	native	3	-2	T		S5			G5
Elaeagnus angustifolia	Russian olive	Elaeagnaceae	introduced		4		-1	SE3			GNR
Acalypha rhomboidea	common three-seed mercury	Euphorbiaceae	native	0	3			S5			G5
Lotus corniculatus	garden bird's-foot trefoil	Fabaceae	introduced		1		-2	SE5			GNR
Medicago lupulina	black medick	Fabaceae	introduced		1		-1	SE5			GNR
Medicago sativa sativa	alfalfa	Fabaceae	introduced		5		-1	SE5			GNR
Melilotus albus	white sweet-clover	Fabaceae	introduced		3		-3	SE5			G5
Melilotus officinalis	yellow sweet-clover	Fabaceae	introduced		3		-1	SE5			GNR
Trifolium pratense	red clover	Fabaceae	introduced		2		-2	SE5			GNR
Vicia cracca	tufted vetch	Fabaceae	introduced		5		-1	SE5			GNR
Vicia tetrasperma	four-seed vetch	Fabaceae	introduced		5		-1	SE5			GNR
Fagus grandifolia	American beech	Fagaceae	native	6	3			S4			G5
Quercus alba	white oak	Fagaceae	native	6	3			S5			G5
Quercus macrocarpa	bur oak	Fagaceae	native	5	1	T		S5			G5
Gentiana andrewsii andrewsii	Andrews' gentian	Gentianaceae	native	6	-3	T		S4			G5?
Geranium robertianum	herb-Robert	Geraniaceae	native		5		-2	S5			G5
Ribes americanum	wild black currant	Grossulariaceae	native	4	-3	T		S5			G5
Ribes cynosbati	eastern prickly gooseberry	Grossulariaceae	native	4	5			S5			G5
Ribes triste	swamp red currant	Grossulariaceae	native	6	-5	I		S5			G5
Hypericum perforatum perforatum	common St. John's-wort	Hypericaceae	introduced		5		-3	SE5			GNR
Carya cordiformis	bitternut hickory	Juglandaceae	native	6	0			S5			G5
Juglans cinerea	butternut	Juglandaceae	native	6	2			S3?	END	END	G4
Juglans nigra	black walnut	Juglandaceae	native	5	3			S4			G5
Clinopodium vulgare	wild basil	Lamiaceae	native	4	5			S5			G5
Glechoma hederacea	ground-ivy	Lamiaceae	introduced		5		-2	SE5			GNR
Leonurus cardiaca cardiaca	common motherwort	Lamiaceae	introduced		5		-2	SE5			GNR
Lycopus americanus	American water-horehound	Lamiaceae	native	4	-5	I		S5			G5
Lycopus uniflorus	northern water-horehound	Lamiaceae	native	5	-5	I		S5			G5
Mentha sp.		Lamiaceae									
Origanum vulgare	wild marjoram	Lamiaceae	introduced		5		-2	SE5			GNR
Prunella vulgaris lanceolata	lance-leaved self-heal	Lamiaceae	native	5	5	T		-?			-?
Lindera benzoin	northern spicebush	Lauraceae	native	6	-2	T		S5			G5
Lindernia dubia	slender false pimpernel	Linderniaceae	native	-?	-?	-?	-?	-?			-?
Lythrum salicaria	purple loosestrife	Lythraceae	introduced		-5	I	-3	SE5			G5
Malva neglecta	dwarf mallow	Malvaceae	introduced		5		-1	SE5			GNR
Tilia americana	basswood	Malvaceae	native	4	3			S5			G5
Menispermum canadense	Canada moonseed	Menispermaceae	native	7	0	T		S4			G5
Fraxinus americana	white ash	Oleaceae	native	4	3			S4			G5
Fraxinus nigra	black ash	Oleaceae	native	7	-4	I		S4		THR-NS	G5
Fraxinus pennsylvanica	red ash	Oleaceae	native	3	-3	T		S4			G5
Syringa vulgaris	common lilac	Oleaceae	introduced		5		-2	SE5			GNR
Circaea alpina alpina	small enchanter's nightshade	Onagraceae	native	6	-3	I*		S5			G5
Circaea canadensis canadensis	Canada enchanter's nightshade	Onagraceae	native	3	3			S5			G5T5
Epilobium hirsutum	hairy willowherb	Onagraceae	introduced		-4	I	-2	SE5			GNR
Ludwigia palustris	marsh seedbox	Onagraceae	native	5	-5	I		S5			G5
Oenothera biennis	common evening primrose	Onagraceae	native	0	3			S5			G5
Oenothera parviflora	small-flowered evening primrose	Onagraceae	native	1	3			S5			G4?
Oxalis stricta	European wood-sorrel	Oxalidaceae	introduced	0	3			S5			G5
Dicentra canadensis	squirrel-corn	Papaveraceae	native	7	5			S5			G5
Sanguinaria canadensis	bloodroot	Papaveraceae	native	5	4			S5			G5
Penthorum sedoides	ditch stonecrop	Penthoraceae	native	4	-5	I		S5			G5
Mimulus ringens ringens	square-stemmed monkeyflower	Phrymaceae	native	6	-5	I		S5			G5
Phryma leptostachya leptostachya	slender-spiked lopseed	Phrymaceae	native	6	5			S4S5			G5
Chelone glabra	white turtlehead	Plantaginaceae	native	7	-5	I		S5			G5
Linaria vulgaris	butter-and-eggs	Plantaginaceae	introduced		5		-1	SE5			GNR
Penstemon digitalis	foxglove beardtongue	Plantaginaceae	introduced	6	1			S4S5			G5
Plantago lanceolata	English plantain	Plantaginaceae	introduced		0		-1	SE5			G5
Plantago rugelii	Rugel's plantain	Plantaginaceae	native	1	0			S5			G5
Veronica anagallis-aquatica	water speedwell	Plantaginaceae	introduced		-5	I	-1	SE5			G5
Veronica officinalis	common speedwell	Plantaginaceae	introduced		5		-2	SE5			G5
Veronica serpyllifolia	northern speedwell	Plantaginaceae	native	-?	-?	-?	-?	-?			-?
Phlox drummondii	Drummond's phlox	Polemoniaceae	introduced	-?	-?	-?	-?	SEH			G5
Fallopia convolvulus	Eurasian black bindweed	Polygonaceae	introduced		1		-1	SE5			GNR
Persicaria lapathifolia	pale smartweed	Polygonaceae	native	2	-4	T		S5			G5
Persicaria maculosa	spotted lady's-thumb	Polygonaceae	introduced		-3	T	-1	SE5			G3G5
Polygonum sp.		Polygonaceae									
Rumex crispus	curled dock	Polygonaceae	introduced	-?	-?	-?	-?	SE5			GNR
Lysimachia ciliata	fringed yellow loosestrife	Primulaceae	native	4	-3	T		S5			G5
Lysimachia nummularia	creeping yellow loosestrife	Primulaceae	introduced		-4		-3	SE5			GNR
Lysimachia thyrsiflora	tufted yellow loosestrife	Primulaceae	native	7	-5	I		S5			G5
Actaea pachypoda	white baneberry	Ranunculaceae	native	6	5			S5			G5
Anemone acutiloba	sharp-lobed hepatica	Ranunculaceae	native	6	5			S5			G5
Anemone canadensis	Canada anemone	Ranunculaceae	native	3	-3	T		S5			G5
Anemone cylindrica	long-headed anemone	Ranunculaceae	native	7	5			S4			G5
Anemone virginiana virginiana	Virginia anemone	Ranunculaceae	native	4	5			-?			-?
Aquilegia canadensis	red columbine	Ranunculaceae	native	5	1			S5			G5
Caltha palustris	yellow marsh marigold	Ranunculaceae	native	5	-5	I		S5			G5
Clematis virginiana	Virginia clematis	Ranunculaceae	native	3	0	T	0	S5			G5
Ranunculus abortivus	kidney-leaved buttercup	Ranunculaceae	native	2	-2			S5			G5
Ranunculus acris	common buttercup	Ranunculaceae	introduced		-?	T	-2	SE5			G5
Ranunculus recurvatus recurvatus	hooked buttercup	Ranunculaceae	native	4	-3			S5			G5
Thalictrum dioicum	early meadow-rue	Ranunculaceae	native	5	2			S5			G5
Thalictrum pubescens	tall meadow-rue	Ranunculaceae	native	5	-2	T		S5			G5
Rhamnus alnifolia	alder-leaved buckthorn	Rhamnaceae	native	7	-5	I		S5			G5
Rhamnus cathartica	European buckthorn	Rhamnaceae	introduced		3	T	-3	SE5			GNR
Agrimonia gryposepala	hooked agrimony	Rosaceae	native	2	2			S5			G5
Crataegus sp.		Rosaceae									
Fragaria vesca vesca	woodland strawberry	Rosaceae	introduced	4	4			S5			G5
Fragaria virginiana virginiana	wild strawberry	Rosaceae	native	2	1			S5			G5
Geum aleppicum	yellow avens	Rosaceae	native	2	-1	T		S5			G5
Geum canadense	white avens	Rosaceae	native	3	0	T		S5			G5
Geum fragarioides	barren strawberry	Rosaceae	native	5	5			S5			G5
Potentilla argentea	silvery cinquefoil	Rosaceae	introduced		3		-2	SE5			GNR
Potentilla norvegica	rough cinquefoil	Rosaceae	native	0	0	T		S5			G5
Potentilla recta	sulphur cinquefoil	Rosaceae	introduced		5		-2	SE5			GNR

Scientific Name	Common Name	Family	Establishment Means	Coefficient of Conservatism	Wetness Index	Wetland Plant Species	Weediness Index	Provincial Status	SARO Status	COSEWIC Status	Global Status
Prunus armeniaca	-?	Rosaceae	-?	0	0		0	SEH			G5
Prunus pensylvanica	pin cherry	Rosaceae	native	3	4			S5			G5
Prunus serotina serotina	black cherry	Rosaceae	native	3	3			S5			G5
Prunus virginiana virginiana	chokecherry	Rosaceae	native	2	1			S5			G5
Rubus allegheniensis	Alleghany blackberry	Rosaceae	native	2	2			S5			G5
Rubus idaeus idaeus	red raspberry	Rosaceae	introduced		-?			SNA			-?
Rubus occidentalis	black raspberry	Rosaceae	native	2	5			S5			G5
Rubus pubescens	dewberry	Rosaceae	native	4	-4	I*		S5			G5
Spiraea alba alba	white meadowsweet	Rosaceae	native	3	-4	I		S5			G5
Galium aparine	common bedstraw	Rubiaceae	native	4	3			S5			G5
Galium palustre	common marsh bedstraw	Rubiaceae	native	5	-5	I		S5			G5
Galium triflorum	three-flowered bedstraw	Rubiaceae	native	4	2			S5			G5
Zanthoxylum americanum	common prickly-ash	Rutaceae	native	3	5			S5			G5
Populus alba	white poplar	Salicaceae	introduced		5		-3	SE5			G5
Populus balsamifera	balsam poplar	Salicaceae	native	4	-3	T		S5			G5
Populus deltoides monilifera	plains cottonwood	Salicaceae	native		-?			-?			-?
Populus grandidentata	large-toothed aspen	Salicaceae	native	5	3			S5			G5
Populus tremuloides	trembling aspen	Salicaceae	native		0	T		S5			G5
Salix bebbiana	Bebb's willow	Salicaceae	native	-?	-?	-?	-?	S5			G5
Salix eriocephala	cottony willow	Salicaceae	native	-?	-?	-?	-?	S5			G5
Salix petiolaris	meadow willow	Salicaceae	native	-?	-?	-?	-?	S5			G5
Salix purpurea	purple willow	Salicaceae	introduced	-?	-?	-?	-?	SE4			G5
Salix sp.		Salicaceae									
Acer ×freemanii	Freeman maple	Sapindaceae	native	-?	-?	-?	-?	-?			-?
Acer nigrum	black maple	Sapindaceae	native	7	3			S4?			G5
Acer rubrum	red maple	Sapindaceae	native	4	0	T		S5			G5
Acer saccharinum	silver maple	Sapindaceae	native	5	-3	I		S5			G5
Acer saccharum	sugar maple	Sapindaceae	native	4	3			S5			G5
Acer tataricum ginnala	Amur maple	Sapindaceae	introduced		5		-2	SE1			GNR
Mitella diphylla	two-leaved mitrewort	Saxifragaceae	native	5	2	T		S5			G5
Mitella nuda	naked mitrewort	Saxifragaceae	native	6	-3	I*		S5			G5
Tiarella cordifolia	heart-leaved foamflower	Saxifragaceae	native	6	1	T		S5			G5
Verbascum thapsus thapsus	-?	Scrophulariaceae	introduced		5		-2	SE5			GNR
Physalis heterophylla	clammy ground-cherry	Solanaceae	native	3	5			S4			G5
Solanum dulcamara	bittersweet nightshade	Solanaceae	introduced		0	T	-2	SE5			GNR
Dirca palustris	eastern leatherwood	Thymelaeaceae	native	7	0			S4?			G4
Ulmus americana	white elm	Ulmaceae	native	3	-2	T		S5			G5?
Boehmeria cylindrica	small-spike false nettle	Urticaceae	native	4	-5	I		S5			G5
Laportea canadensis	Canada wood nettle	Urticaceae	native	6	-3	T		S5			G5
Urtica dioica gracilis	slender stinging nettle	Urticaceae	native	2	-1	T		-?			-?
Verbena hastata	blue vervain	Verbenaceae	native	4	-4	I		S5			G5
Verbena urticifolia	white vervain	Verbenaceae	native	4	-1	T		S5			G5
Viola arvensis	European field pansy	Violaceae	introduced		-?			SE4			GNR
Viola canadensis canadensis	Canada violet	Violaceae	native		-?			-?			-?
Viola pubescens pubescens	downy yellow violet	Violaceae	native		-?			-?			-?
Viola sororia	northern woodland violet	Violaceae	native		-?	T		S5			G5
Parthenocissus sp.		Vitaceae									
Vitis riparia	riverbank grape	Vitaceae	native	0	-2			S5			G5
Alisma sp.		Alismataceae									
Sagittaria latifolia	broad-leaved arrowhead	Alismataceae	native	4	-5	I		S5			G5
Allium tricoccum tricoccum	wild leek	Amaryllidaceae	native	7	2			-?			-?
Arisaema triphyllum triphyllum	Jack-in-the-pulpit	Araceae	native	5	-2	T		S5			G5
Lemna minor	small duckweed	Araceae	native	2	-5	I		S5			G5
Asparagus officinalis	garden asparagus	Asparagaceae	introduced		3		-1	SE5			G5?
Convallaria majalis majalis	European lily-of-the-valley	Asparagaceae	introduced		5		-2	SE5			G5
Maianthemum canadense canadense	wild lily-of-the-valley	Asparagaceae	native	5	0			S5			G5
Maianthemum racemosum racemosum	large false Solomon's seal	Asparagaceae	native	4	3			S5			G5
Maianthemum stellatum	star-flowered false Solomon's seal	Asparagaceae	native	6	1			S5			G5
Polygonatum pubescens	hairy Solomon's seal	Asparagaceae	native	8	3			S5			G5
Uvularia grandiflora	large-flowered bellwort	Colchicaceae	native	6	5			S5			G5
Carex aquatilis substricta	calcareous water sedge	Cyperaceae	native	0	0	I	0	-?			-?
Carex bebbii	Bebb's sedge	Cyperaceae	native	3	-5	I		S5			G5
Carex blanda	woodland sedge	Cyperaceae	native	3	0			S5			G5?
Carex comosa	bearded sedge	Cyperaceae	native	-?	-?	-?	-?	S5			G5
Carex crinita crinita	fringed sedge	Cyperaceae	native	6	-4	I		S5			G5
Carex deweyana deweyana	Dewey's sedge	Cyperaceae	native	6	4			S5			G5
Carex disperma	two-seeded sedge	Cyperaceae	native	-?	-?	-?	-?	S5			G5
Carex flava	yellow sedge	Cyperaceae	native	5	-5	I		S5			G5
Carex gracillima	graceful sedge	Cyperaceae	native	4	3	T		S5			G5
Carex granularis	limestone meadow sedge	Cyperaceae	native	-?	-?	-?	-?	S5			G5
Carex hystericina	porcupine sedge	Cyperaceae	native	5	-5	I		S5			G5
Carex intumescens	bladder sedge	Cyperaceae	native	6	-4	I		S5			G5
Carex lupulina	hop sedge	Cyperaceae	native	6	-5	I		S5			G5
Carex normalis	larger straw sedge	Cyperaceae	native	6	-3	T		S4			G5
Carex pedunculata	long-stalked sedge	Cyperaceae	native	5	5			S5			G5
Carex pensylvanica	Pennsylvania sedge	Cyperaceae	native	5	5			S5			G5
Carex plantaginea	plantain-leaved sedge	Cyperaceae	native	7	5			S5			G5
Carex radiata	eastern star sedge	Cyperaceae	native	-?	-?	-?	-?	S4			G4
Carex retrorsa	retrorse sedge	Cyperaceae	native	5	-5	I		S5			G5
Carex rosea	rosy sedge	Cyperaceae	native	-?	-?	-?	-?	S5			G5
Carex sp.		Cyperaceae									
Carex spicata	spiked sedge	Cyperaceae	introduced		5		-1	SE5			GNR
Carex stipata stipata	awl-fruited sedge	Cyperaceae	native	3	-5	I		S5			G5
Carex stricta	tussock sedge	Cyperaceae	native	4	-5	I		S5			G5
Carex tenera	tender sedge	Cyperaceae	native	-?	-?	-?	-?	S5			G5
Carex trisperma	three-seeded sedge	Cyperaceae	native		-?	I		S5			G5
Carex vulpinoidea	fox sedge	Cyperaceae	native	3	-5	I		S5			G5
Eleocharis acicularis	needle spikerush	Cyperaceae	native	5	-5	I		S5			G5
Eleocharis sp.		Cyperaceae									
Scirpus atrocinctus	black-girdled bulrush	Cyperaceae	native	0	0	I	0	S5			G5
Scirpus cyperinus	common woolly bulrush	Cyperaceae	native	4	-5	I		S5			G5
Scirpus pendulus	hanging bulrush	Cyperaceae	native	3	-5	I		S5			G5
Elodea canadensis	Canada waterweed	Hydrocharitaceae	native	4	-5	I		S5			G5
Iris versicolor	harlequin blue flag	Iridaceae	native	5	-5	I		S5			G5
Juncus bufonius	toad rush	Juncaceae	native	1	-4	T		S5			-?
Juncus dudleyi	Dudley's rush	Juncaceae	native	1	0	T		S5			G5
Juncus tenuis	path rush	Juncaceae	native	0	0			S5			G5
Erythronium americanum americanum	yellow trout lily	Liliaceae	native	5	5			S5			G5
Lilium philadelphicum	wood lily	Liliaceae	native	8	1			S5			G5
Trillium erectum	red trillium	Melanthiaceae	native	6	1			S5			G5
Trillium grandiflorum	white trillium	Melanthiaceae	native	5	5			S5			G5
Epipactis helleborine	broad-leaved helleborine	Orchidaceae	introduced		5		-2	SE5			GNR
Liparis loeselii	Loesel's twayblade	Orchidaceae	native	5	-4	I		S4S5			G5
Platanthera hyperborea	leafy northern green orchid	Orchidaceae	native	5	-?	I		S4S5			G5
Agrostis gigantea	redtop	Poaceae	introduced		-3	T		SE5			G4G5
Agrostis stolonifera	creeping bentgrass	Poaceae	introduced		-3	T		SE5			G5
Bromus inermis	smooth brome	Poaceae	introduced		5		-3	SE5			G5TNR
Calamagrostis canadensis canadensis	bluejoint reedgrass	Poaceae	native	4	-5	I		S5			G5
Cinna arundinacea	stout woodreed	Poaceae	native	7	-3	T		S4			G5
Dactylis glomerata	orchard grass	Poaceae	introduced		3		-1	SE5			GNR
Digitaria ischaemum	smooth crabgrass	Poaceae	introduced		3		-1	SE5			GNR
Digitaria sanguinalis	hairy crabgrass	Poaceae	introduced		3		-1	SE5			G5
Echinochloa crus-galli	large barnyard grass	Poaceae	introduced		-3	T	-1	SE5			GNR
Elymus hystrix	bottlebrush grass	Poaceae	native	5	5			S5			G5

Appendix C - Plant Species List

Scientific Name	Common Name	Family	Establishment Means	Coefficient of Conservatism	Wetness Index	Wetland Plant Species	Weediness Index	Provincial Status	SARO Status	COSEWIC Status	Global Status
Elymus repens	quackgrass	Poaceae	introduced		3		-3	SE5			GNR
Elymus virginicus virginicus	Virginia wildrye	Poaceae	native	5	-2	T		-?			-?
Eragrostis cilianensis	stinkgrass	Poaceae	introduced		3		-1	SE5			GNR
Festuca sp.		Poaceae									
Glyceria grandis grandis	common tall mannagrass	Poaceae	native	5	-5	I		S4S5			G5
Glyceria septentrionalis septentrionalis	eastern mannagrass	Poaceae	native	8	-5	I		S4			G5
Glyceria striata	ridged mannagrass	Poaceae	native	3	-5	I		S5			G5
Muhlenbergia mexicana mexicana	Mexican muhly	Poaceae	native	1	-3	T		S5			G5
Oryzopsis asperifolia	white-grained mountain rice	Poaceae	native	6	5			S5			G5
Panicum capillare	common panicgrass	Poaceae	native	0	0			S5			G5
Phalaris arundinacea arundinacea	reed canarygrass	Poaceae	native	0	-4	T		S5			G5
Phleum pratense pratense	common timothy	Poaceae	introduced		3		-1	SE5			GNR
Phragmites australis australis	European reed	Poaceae	introduced	0	0	T	0	-?			-?
Poa alsodes	grove bluegrass	Poaceae	native	7	-2			S4			G4G5
Poa compressa	Canada bluegrass	Poaceae	introduced	0	2			SE5			GNR
Poa palustris	fowl bluegrass	Poaceae	native	5	-4	I		S5			G5
Poa pratensis pratensis	Kentucky bluegrass	Poaceae	introduced	0	1			-?			-?
Schizachne purpurascens purpurascens	purple false melic	Poaceae	native	6	2			S5			G5
Setaria pumila pumila	yellow foxtail	Poaceae	introduced		0		-1	SE5			GNR
Setaria viridis viridis	green foxtail	Poaceae	introduced		-?		-1	SE5			GNR
Potamogeton natans	floating-leaved pondweed	Potamogetonaceae	native	5	-5	I		S5			G5
Smilax herbacea	herbaceous carrionflower	Smilacaceae	native	-?	-?	-?	-?	S4			G5
Sparganium emersum	green-fruited burreed	Typhaceae	native	5	-5	I		S5			G5
Sparganium eurycarpum	broad-fruited burreed	Typhaceae	native	3	-5	I		S5			G5
Typha angustifolia	narrow-leaved cattail	Typhaceae	introduced	3	-5	I		SE5			G5
Typha latifolia	broad-leaved cattail	Typhaceae	native	3	-5	I		S5			G5

Species Diversity			
Vascular Plants Listed:		368	
Identified to species or ssp/var		357	
Identified to Genus (not included in calculations below)		11	
Provincial Status		Total Number	Percentage
S1-S3 Species:	rare in Ontario	1	0.3%
S4 Species:	uncommon in Ontario	23	6.4%
S5 Species:	common in Ontario	208	58.3%
Other:		101	28.3%
Not listed:		0	0.0%
Not defined ("-?"):		24	6.7%
Means of Establishment			
Native Species:		250	70.0%
Introduced Species:		106	29.7%
Not listed:		0	0.0%
Not defined ("-?"):		1	0.3%
Co-efficient of Conservatism (C) and Floristic Quality Index(FQI)			
C 0 to 3	lowest sensitivity	70	19.6%
C 4 to 6	moderate sensitivity	132	37.0%
C 7 to 8	high sensitivity	29	8.1%
C 9 to 10	highest sensitivity	0	0.0%
Not listed:		103	28.9%
Not defined ("-?"):		23	6.4%
Average C		4.303030303	
FQI		135.6649305	
Presence of Weedy & Invasive Species			
weediness = 0	Not invasive	5	1.4%
weediness = -1	low potential invasiveness	45	12.6%
weediness = -2	moderate potential invasiveness	27	7.6%
weediness = -3	high potential invasiveness	12	3.4%
Not listed:		245	68.6%
Not defined ("-?"):		23	6.4%
Average weediness		-1.516853933	
Wetness Index			
upland	W of 5	74	20.7%
facultative upland	W of 4, 3 or 2	73	20.4%
facultative	W of 1, 0 or -1	56	15.7%
facultative wetland	W of -2, -3 or -4	63	17.6%
obligate wetland	W of -5	50	14.0%
Not listed:		0	0.0%
Not defined ("-?"):		41	11.5%
Average wetness value		0.5	
Presence of Wetland (W) Species			
Total Wetland Tolerant (T) Plant Species as identified in OWES Manual		68	19.0%
Total Wetland Indicator (I) Plant Species as identified in OWES Manual		75	21.0%
Not listed:		191	53.5%
Not defined ("-?"):		23	6.4%

APPENDIX D
Wildlife List

Appendix D - Wildlife List

COMMON NAME	*SCIENTIFIC NAME*	ONTARIO STATUS	GLOBAL STATUS	SARO	SARA	Local Status Hamilton
ODONATA						
Ebony Jewelwing	*Calopteryx maculata*	S5	G5			
Violet Dancer	*Argia fumipennis violacea*	S5	G5T5			
Powdered Dancer	*Argia moesta*	S5	G5			
Taiga Bluet	*Coenagrion resolutum*	S5	G5			
Familiar Bluet	*Enallagma civile*	S5	G5			
Lance-Tipped Darner	*Aeshna constricta*	S5	G5			
Black-Tipped Darner	*Aeshna tuberculifera*	S4	G4			
Common Green Darner	*Anax junius*	S5	G5			
Springtime Darner	*Basiaeschna janata*	S5	G5			
Common Baskettail	*Epitheca cynosura*	S5	G5			
Halloween Pennant	*Celithemis eponina*	S4	G5			
Eastern Pondhawk	*Erythemis simplicicollis*	S5	G5			
Frosted Whiteface	*Leucorrhinia frigida*	S5	G5			
Widow Skimmer	*Libellula luctuosa*	S5	G5			
Twelve-Spotted Skimmer	*Libellula pulchella*	S5	G5			
Common Whitetail	*Plathemis lydia*	S5	G5			
Cherry-faced Meadowhawk	*Sympetrum internum*	S5	G5			
White-faced Meadowhawk	*Sympetrum obtrusum*	S5	G5			
Black Saddlebags	*Tramea lacerata*	S4	G5			
BUTTERFLIES						
Dreamy Duskywing	*Erynnis icelus*	S5	G5			m
Juvenal's Duskywing	*Erynnis juvenalis*	S5	G5			
Least Skipper	*Ancyloxypha numitor*	S5	G5			
European Skipper	*Thymelicus lineola*	SNA	G5			
Leonard's Skipper	*Hesperia leonardus*	S4	G4			H
Crossline Skipper	*Polites origenes*	S4	G5			
Hobomok Skipper	*Poanes hobomok*	S5	G5			
Dun Skipper	*Euphyes vestris*	S5	G5			
Black Swallowtail	*Papilio polyxenes*	S5	G5			
Giant Swallowtail	*Papilio cresphontes*	S3	G5			m
Canadian Tiger Swallowtail	*Papilio canadensis*	S5	G5			
Eastern Tiger Swallowtail	*Papilio glaucus*	S5	G5			
West Virginia White	*Pieris virginiensis*	S3	G3G4	SC		m
Cabbage White	*Pieris rapae*	SNA	G5			
Clouded Sulphur	*Colias philodice*	S5	G5			
Orange Sulphur	*Colias eurytheme*	S5	G5			
Coral Hairstreak	*Harkenclenus titus*	S5	G5			m
Banded Hairstreak	*Satyrium calanus*	S4	G5			
Hickory Hairstreak	*Satyrium caryaevorum*	S3	G4			m
Striped Hairstreak	*Satyrium liparops*	S5	G5			
Eastern Tailed Blue	*Everes comyntas*	S5	G5			
Spring Azure	*Celastrina ladon*	S5	G5			
Silvery Blue	*Glaucopsyche lygdamus*	S5	G5			H
Great Spangled Fritillary	*Speyeria cybele*	S5	G5			
Pearl Crescent	*Phyciodes tharos*	S4	G5			
Northern Crescent	*Phycoides pascoensis*	S5	G5			
Question Mark	*Polygonia interrogationis*	S5	G5			
Eastern Comma	*Polygonia comma*	S5	G5			
Compton Tortoiseshell	*Nymphalis vaualbum*	S5	G5			m
Mourning Cloak	*Nymphalis antiopa*	S5	G5			
Milbert's Tortoiseshell	*Nymphalis milberti*	S5	G5			H
American Painted Lady	*Vanessa virginiensis*	S5	G5			
Red-spotted Purple	*Limenitis arthemis astyanax*	S5	G5T5			
Viceroy	*Limenitis archippus*	S5	G5			
Northern Pearly Eye	*Enodia anthedon*	S5	G5			
Little Wood-Satyr	*Megisto cymela*	S5	G5			
Common Ringlet	*Coenonympha tullia*	S5	G5			

Appendix D - Wildlife List

COMMON NAME	*SCIENTIFIC NAME*	ONTARIO STATUS	GLOBAL STATUS	SARO	SARA	Local Status Hamilton
Common Wood-Nymph	*Cercyonis pegala*	S5	G5			
Monarch	*Danaus plexippus*	S4B, S2N	G5	SC	SC	
AMPHIBIANS						
Blue-spotted Salamander	*Ambystoma laterale*	S4	G5			m
Unisexual Ambystoma Blue-spotted Dependent	*Ambystoma (2) laterale - jeffersonianum*	S4	G5	NAR	NAR	
Spotted Salamander	*Ambystoma maculatum*	S4	G5			m
American Toad	*Anaxyrus americanus*	S5	G5			
Tetraploid Gray Treefrog	*Hyla versicolor*	S5	G5			
Western Chorus Frog (Carolinian)	*Pseudacris triseriata*	S4	G5	NAR	NAR	
Spring Peeper	*Pseudacris crucifer*	S5	G5			
Northern Green Frog	*Lithobates clamitans*	S5	G5			
Pickerel Frog	*Lithobates palustris*	S4	G5	NAR	NAR	H
Wood Frog	*Lithobates sylvatica*	S5	G5			
Northern Leopard Frog	*Lithobates pipiens*	S5	G5	NAR	NAR	
REPTILES						
Snapping Turtle	*Chelydra serpentina*	S4	G5	SC	SC	
Eastern Gartersnake	*Thamnophis sirtalis*	S5	G5			
BIRDS						
Canada Goose	*Branta canadensis*	S5	G5			
Wood Duck	*Aix sponsa*	S5	G5			m
Mallard	*Anas platyrhynchos*	S5	G5			
Ruffed Grouse	*Bonasa umbellus*	S5	G5			m
Wild Turkey	*Meleagris gallopava*	S5	G5			
Rock Pigeon	*Columba livia*	SNA	G5			
Mourning Dove	*Zenaida macroura*	S5	G5			
Black-billed Cuckoo	*Coccyzus erythropthalmus*	S5B	G5			m
Eastern Whip-poor-will	*Antrostomus vociferus*	S4B	G5	THR	THR	H
Ruby-throated Hummingbird	*Archilochus colubris*	S5B	G5			m
Killdeer	*Charadrius vociferus*	S5B, S5N	G5			
American Woodcock	*Scolopax minor*	S4B	G5			
Herring Gull	*Larus argentatus*	S5B,S5N	G5			m
Turkey Vulture	*Cathartes aura*	S5B	G5			m
Broad-winged Hawk	*Buteo platypterus*	S5B	G5			H
Red-tailed Hawk	*Buteo jamaicensis*	S5	G5	NAR	NAR	
Eastern Screech-Owl	*Megascops asio*	S5	G5	NAR	NAR	m
Belted Kingfisher	*Megaceryle alcyon*	S4B	G5			m
Yellow-bellied Sapsucker	*Sphyrapicus varius*	S5B	G5			H
Downy Woodpecker	*Dryobates pubescens*	S5	G5			
Hairy Woodpecker	*Dryobates villosus*	S5	G5			m
Northern Flicker	*Colaptes auratus*	S4B	G5			
Pileated Woodpecker	*Dryocopus pileatus*	S5	G5			m
American Kestrel	*Falco sparverius*	S4	G5			m
Eastern Wood-Pewee	*Contopus virens*	S4B	G5	SC	SC	
Alder Flycatcher	*Empidonax alnorum*	S5B	G5			m
Willow Flycatcher	*Empidonax traillii*	S5B	G5			
Great Crested Flycatcher	*Myiarchus crinitus*	S4B	G5			
Eastern Kingbird	*Tyrannus tyrannus*	S4B	G5			
Warbling Vireo	*Vireo gilvus*	S5B	G5			
Red-eyed Vireo	*Vireo olivaceus*	S5B	G5			
Blue Jay	*Cyanocitta cristata*	S5	G5			
American Crow	*Corvus brachyrhynchos*	S5B	G5			
Horned Lark	*Eremophila alpestris*	S5B	G5			
Tree Swallow	*Tachycineta bicolor*	S4B	G5			
Black-capped Chickadee	*Poecile atricapillus*	S5	G5			
Red-breasted Nuthatch	*Sitta canadensis*	S5	G5			m
White-breasted Nuthatch	*Sitta carolinensis*	S5	G5			
House Wren	*Troglodytes aedon*	S5B	G5			
Eastern Bluebird	*Sialia sialis*	S5B	G5	NAR	NAR	m

Appendix D - Wildlife List

COMMON NAME	*SCIENTIFIC NAME*	ONTARIO STATUS	GLOBAL STATUS	SARO	SARA	Local Status Hamilton
Veery	*Catharus fuscescens*	S4B	G5			
Wood Thrush	*Hylocichla mustelina*	S4B	G5	SC	THR	
American Robin	*Turdus migratorius*	S5B	G5			
Gray Catbird	*Dumetella carolinensis*	S4B	G5			
European Starling	*Sturnus vulgaris*	SNA	G5			
Cedar Waxwing	*Bombycilla cedrorum*	S5B	G5			
House Finch	*Haemorhous mexicanus*	SNA	G5			
Pine Siskin	*Spinus pinus*	S4B	G5			
American Goldfinch	*Spinus tristis*	S5B	G5			
Chipping Sparrow	*Spizella passerina*	S5B	G5			
Field Sparrow	*Spizella pusilla*	S4B	G5			
Dark-eyed Junco	*Junco hyemalis*	S5B	G5			
Savannah Sparrow	*Passerculus sandwichensis*	S4B	G5			
Vesper Sparrow	*Pooecetes gramineus*	S4B	G5			m
Song Sparrow	*Melospiza melodia*	S5B	G5			
Swamp Sparrow	*Melospiza georgiana*	S5B	G5			
Eastern Towhee	*Pipilo erythrophthalmus*	S4B	G5			m
Bobolink	*Dolichonyx oryzivorus*	S4B	G5	THR	THR	
Baltimore Oriole	*Icterus galbula*	S4B	G5			
Red-winged Blackbird	*Agelaius phoeniceus*	S4	G5			
Brown-headed Cowbird	*Molothrus ater*	S4B	G5			
Rusty Blackbird	*Euphagus carolinus*	S4B	G5	SC	SC	
Common Grackle	*Quiscalus quiscula*	S5B	G5			
Ovenbird	*Seiurus aurocapilla*	S4B	G5			H
Northern Waterthrush	*Parkesia noveboracensis*	S5B	G5			
Blue-winged Warbler	*Vermivora cyanoptera*	S4B	G5			m
Black-and-white Warbler	*Mniotilta varia*	S5B	G5			m
Nashville Warbler	*Leiothlypis ruficapilla*	S5B	G5			m
Mourning Warbler	*Geothlypis philadelphia*	S4B	G5			m
Common Yellowthroat	*Geothlypis trichas*	S5B	G5			
Magnolia Warbler	*Setophaga magnolia*	S5B	G5			H
Yellow Warbler	*Setophaga petechia*	S5B	G5			
Chestnut-sided Warbler	*Setophaga pensylvanica*	S5B	G5			m
Black-throated Green Warbler	*Setophaga virens*	S5B	G5			H
Scarlet Tanager	*Piranga olivacea*	S4B	G5			m
Northern Cardinal	*Cardinalis cardinalis*	S5	G5			
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	S4B	G5			
Indigo Bunting	*Passerina cyanea*	S4B	G5			
MAMMALS						
Northern Short-tailed Shrew	*Blarina brevicauda*	S5	G5			
Little Brown Myotis	*Myotis lucifugus*	S4	G5	END	END	
Eastern Cottontail	*Sylvilagus floridanus*	S5	G5			
Snowshoe Hare	*Lepus americanus*	S5	G5			H
Eastern Chipmunk	*Tamias striatus*	S5	G5			
Grey Squirrel	*Sciurus carolinensis*	S5	G5			
Red Squirrel	*Tamiasciurus hudsonicus*	S5	G5			
White-footed Mouse	*Peromyscus leucopus*	S5	G5			
Meadow Vole	*Microtus pennsylvanicus*	S5	G5			
Porcupine	*Erethizon dorsatum*	S5	G5			
Red Fox	*Vulpes vulpes*	S5	G5			
Raccoon	*Procyon lotor*	S5	G5			
Ermine	*Mustela erminea*	S5	G5			H-m
Mink	*Mustela vison*	S4	G5			
Striped Skunk	*Mephitis mephitis*	S5	G5			
White-tailed Deer	*Odocoileus virginianus*	S5	G5			

H- highly significant in Hamilton Region (i.e. rare)
m- moderately significant in Hamilton Region (i.e. uncommon)

APPENDIX E
Fish Species List

Appendix E - Fish Species List

Tablel E1 - Fish species occurrences in Flamboro Creek and Mountsberg Creek

COMMON NAME	*SCIENTIFIC NAME*	Station and Data Source																				
		Stantec Data (2004, 2005)													Background Data							
		F1	F2	F3	F4	M1	M2*	M3	A1	A2	B1	C1	D1	D2	D3 (Pond 2)	BCWS M4[a]	BCWS M5[a]	BCWS M6[a]	HRCA 1998 F[b]	HRCA 1998 G[b]	HRCA 1999 Con 11[c]	HRCA 2000 Con 10[d]
TROUT FAMILY	**SALMONIDAE**																					
Brown Trout	*Salmo trutta*															☒					☒	
MUDMINNOW FAMILY	**UMBRIDAE**																					
Central Mudminnow	*Umbra limi*					☒	☒	☒	☒								☒		☒			
PIKE FAMILY	**ESCOCIDAE**																					
Northern Pike	*Esox lucius*						☒															
MINNOW FAMILY	**CYPRINIDAE**																					
Northern Redbelly Dace	*Phoxinus eos*						☒									☒		☒				
Brassy Minnow	*Hybognathus hankinsoni*						☒															
Hornyhead Chub	*Nocomis biguttatus*						☒	☒														
Common Shiner	*Luxilus cornutus*						☒	☒								☒	☒	☒				
Blacknose Shiner	*Notropis heterolepis*					☒										☒						
Rosyface Shiner	*Notropis rubellus*															☒						
Bluntnose Minnow	*Pimephales notatus*					☒	☒	☒									☒	☒				
Fathead Minnow	*Pimephales promelas*						☒									☒		☒	☒			
Blacknose Dace	*Rhinichthys atratulus*		☒	☒	☒	☒	☒	☒								☒	☒	☒		☒		
Longnose Dace	*Rhinichthys cataractae*						☒	☒								☒						
Creek Chub	*Semotilus atromaculatus*					☒	☒	☒								☒	☒	☒		☒		
Pearl Dace	*Margariscus margarita*						☒	☒	☒	☒												
SUCKER FAMILY	**CATOSTOMIDAE**																					
White Sucker	*Catostomus commersoni*					☒	☒	☒	☒							☒	☒	☒		☒		
Northern Hog Sucker	*Hypentelium nigricans*					☒	☒	☒								☒	☒			☒		
CATFISH FAMILY	**ICTALURIDAE**																					
Brown Bullhead	*Ameiurus nebulosus*						☒															
STICKLEBACK FAMILY	**GASTEROSTEIDAE**																					
Brook Stickleback	*Culaea inconstans*		☒	☒								☒		☒								
SUNFISH FAMILY	**CENTRARCHIDAE**																					
Rock Bass	*Ambloplites rupestris*					☒		☒									☒					☒
Pumpkinseed	*Lepomis gibbosus*					☒		☒									☒	☒	☒	☒		
Largemouth Bass	*Micropterus salmoides*																	☒				
PERCH FAMILY	**PERCIDAE**																					
Johnny Darter	*Etheostoma nigrum*					☒	☒	☒								☒	☒	☒				
Blackside Darter	*Percina maculata*					☒																
Total Species:		0	2	2	1	11	16	13	3	1	0	0	1	0	1	12	10	10	3	5	1	1

* additional fishing conducted at this Station in September 2006

[a] **Bronte Creek Watershed Study Appendix 2 Aquatic Habitat Inventory and Assessment (Conservation Halton 2002)**
M4: located in Mountsberg Creek at the 11th Concession crossing
M5: located in Mountsberg Creek at the Mountsberg Rd crossing
M6: located in Mountsberg Creek at the Campbellville Rd crossing

[b] **Flamboro Creek Instream Flow Study (Halton Region Conservation Authority, December 1998)**

[c] **Bronte Creek Fish Community Studies letter (Halton Region Conservation Authority, January 1999)**
Mountsberg Creek at the 11th Concession crossing

[d] **Bronte Creek Fisheries Community Studies letter (Conservation Halton, April 2000)**
Mountsberg Creek at the 10th Concession crossing