NATURAL HERITAGE CONSTRAINTS ASSESSMENT 4838 SHERKSTON ROAD, CITY OF PORT COLBORNE

Prepared for:

Mr. Hassan Kurabi

Prepared by:

Colville Consulting Inc.



TABLE OF CONTENTS

1.0	Introduction								
1.1	Backg	ground to Subject Property	1						
2.0	Study	Approach	1						
2.1	Backg	ground Review	1						
2.2	Field	Inventories and Methodology	4						
3.0	Study	Findings	4						
3.1	Botan	ical Inventories and Vegetation Mapping	4						
	3.1.1	Botanical Inventories	4						
	3.1.2	Vegetation Communities	4						
	3.2	Wildlife Observations	6						
4.0	Assess	sment of Significant Natural Heritage Features	6						
4.1	Specie	es at Risk Habitat	6						
	4.1.1	Significant Habitat of Endangered and Threatened Species	6						
	4.1.2	Species of Conservation Concern	7						
4.2	Signi	ficant Wildlife Habitat	8						
	4.2.1	Seasonal Concentration Areas of Animals	8						
	4.2.2	Rare Vegetation Communities	8						
	4.2.3	Specialized Habitats of Wildlife considered SWH	9						
	4.2.4	Habitats of Species of Conservation Concern considered SWH	9						
	4.2.5	Migration Corridors	9						
4.3	Signif	ficant Wetlands	9						
4.4	Signif	ficant and Other Woodlands	10						
5.0	Envir	onmental Policy	10						
5.1	Niaga	ara Region Official Plan	10						
5.2	City o	of Port Colborne	11						
5.3	Niaga	ara Peninsula Conservation Authority	11						
6.0	Const	raints Analysis	11						
7.0	Concl	usions and Recommendations	13						
8 N	Literature Cited								

COLVILLE CONSULTING INC.

LIST OF FIGURES

Figure 1:	Location of the Subject Property	2
Figure 2:	Mapped Extent of Vegetation Communities on the Subject Property	3
Figure 3:	Extent of Vegetation Communities on the Subject Property	5
Figure 4:	Refined Extent of Natural Heritage Features on the Subject Property	12

LIST OF APPENDICES

Appendix A: Site Photos

Appendix B: List of Plant Species

Appendix C: Species at Risk Screening

Appendix D: Significant Wildlife Habitat Screening

1.0 Introduction

Colville Consulting Inc. was retained by Mr. Hassan Kurabi to prepare a natural heritage constraints assessment for the property located at 4838 Sherkston Road, in the City of Port Colborne. This report is intended to describe the extent of currently mapped natural heritage features on the property, as well as provide a summary and description of current vegetative conditions on the Subject Lands. This report also serves to characterize potential natural heritage constraints on the property, to provide guidance on the extent of potential developable areas of this parcel.

1.1 Background to Subject Property

The Subject Property measures approximately 3.85ha (9.5 acres) in size and is irregularly shaped. The property has been assigned the municipal address of 4838 Sherkston Road, and is located north of Sherkston Road, west of Empire Road (see Figure 1). Adjacent land uses consist of hamlet residential, hobby agricultural and commercial.

A review of background information indicates that the property was in agricultural production in 1934, with the agricultural use on the north and west portions of the property extending until at least 2000. The residence on the southeast corner of the property appears to have been constructed in the late-1800's and was accessory to the previous agricultural use. Lands associated with the residence appear to have been historically mowed and planted in fruit or nut trees, but more recently planted with ornamental species.

Current vegetation conditions on the property consist of periodically mowed meadow on the northern portion of the property and a mix of mowed lawn and early successional vegetation on the southern portion of the property.

The Subject Property is generally flat. The northern and central portions of the lands appear to drain north towards the roadside ditching associated with Highway 3, while the southern portion of the lands drains south towards Sherkston Road. No surface watercourses are present on or adjacent to the property.

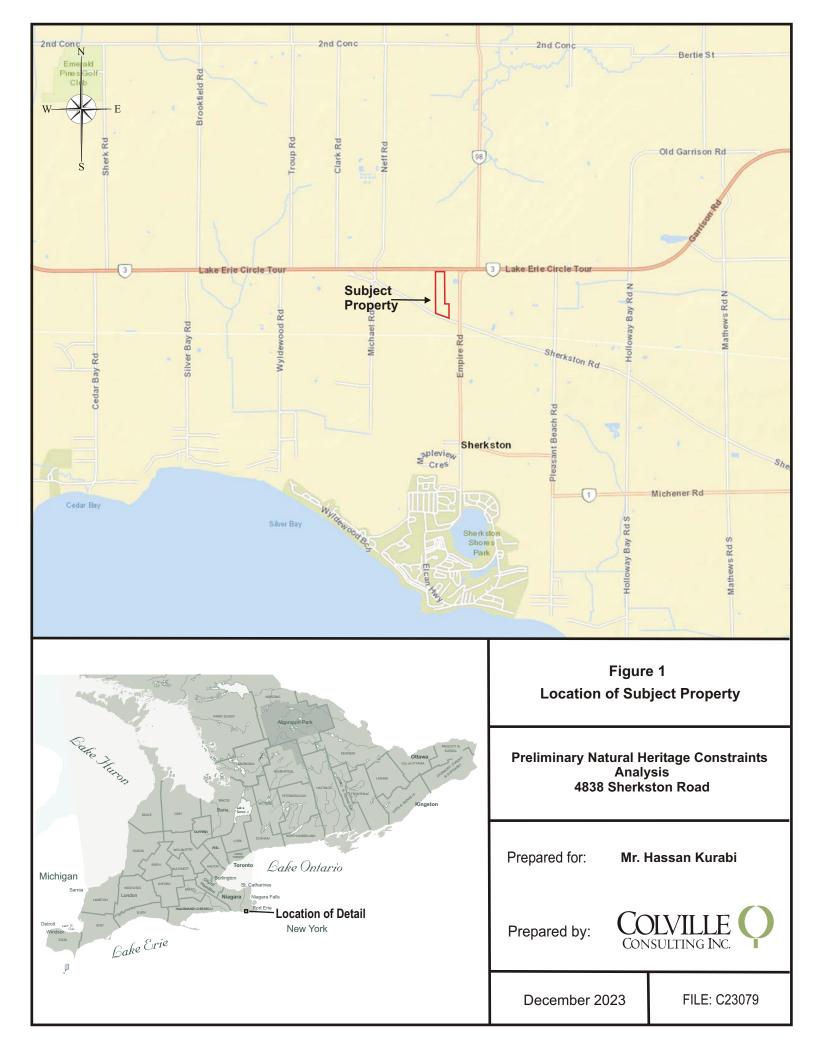
Based on our review of background mapping from the Niagara Region Official Plan, it is our understanding that mapped natural heritage features on the Subject Property are limited to an Other Wetland, which occurs on the southern portion of property around the residence. The Port Colborne Official Plan also identifies a Significant Woodland (Environmental Conservation Area) on and adjacent to the southern portion of the property. No portion of the lands are regulated by the Niagara Peninsula Conservation Authority (NPCA).

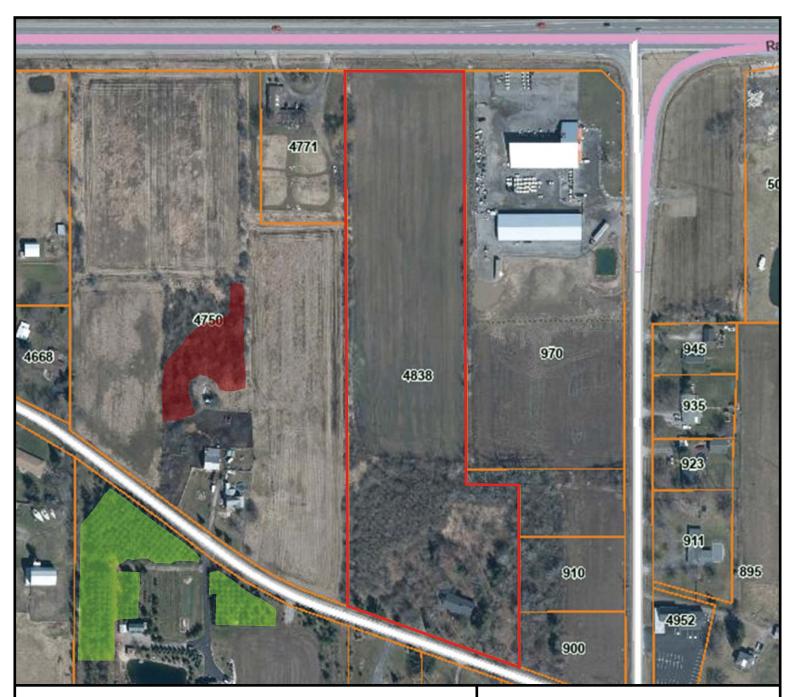
2.0 STUDY APPROACH

2.1 Background Review

As part of our assessment, a review of background material available for the Subject Property and surrounding area was conducted. Some of the background information reviewed included:

- City of Port Colborne Official Plan (2017);
- Niagara Region Official Plan (2022);
- Ontario Ministry of Natural Resources and Forestry Species at Risk List for the City of Port Colborne (MNRF 2018);





Legend

Subject Property

Other Welands

Other Woodlands

Environmental Conservation Areas (City of Port Colborne)

Figure 2
Mapped Extent of Natural Heritage
Features on the Subject Property

Natural Heritage Constraints Analysis 4838 Sherkston Road

Prepared for: Mr. Hassan Kurabi

Prepared by:

COLVILLE CONSULTING INC.

Notes: No portion of the Subject Lands identified as regulated area by NPCA.

December 2023

FILE: C23079

- Background data available from the NPCA and Ministry of Natural Resources and Forestry (MNRF); and
- Niagara Natural Areas Inventory (NPCA 2010).

2.2 Field Inventories and Methodology

To assess the extent of potential natural heritage constraints on the property, Colville Consulting Inc. conducted the following inventories and assessments:

- 1) Assessment and description of vegetation communities on the property using the Ecological Land Classification System for Southern Ontario (ELC);
- 2) Botanical inventory; and
- 3) Document incidental wildlife observations during site visits.

The methods employed for each of the above components are provided in the appropriate sections below.

3.0 STUDY FINDINGS

3.1 Botanical Inventories and Vegetation Mapping

Assessments of the property were conducted on August 10, September 3 and October 10, 2023. Vegetation communities (ELC units – following Lee et al. 1998) were mapped and described, and a vascular plant checklist was compiled. Species status was assessed for Ontario (Oldham and Brinker 2009) and the Niagara Region (Oldham 2010). Vegetation communities on the property are described below and mapped on Figure 3. Photos of the property are provided in Appendix A.

3.1.1 Botanical Inventories

One hundred and seven (107) plant species were documented on and adjacent to the Subject Property during our inventories. No species considered at risk in Ontario (Oldham and Brinker 2009) or locally rare or uncommon (Oldham 2010) were documented on the site. A list of botanical species documented on the property is provided as Appendix B.

3.1.2 Vegetation Communities

The southern portion of the property contains a historical red brick farmhouse, which is the only structure on the property. This house is surrounded by horticultural gardens, flower beds and mowed lawn. Numerous young to mature specimen trees are planted throughout the mowed lawn and extended into the back, front and side yard areas. Shrub hedgerows enclose all four sides of the yard area. Active agricultural lands border the shrub hedgerows on the property to the west and residences occur to the east. The north hedgerow separates the mowed yard area from a fallow agricultural field.

Mowed Lawn and Specimen Trees

The primary vegetation community on the southern portion of the property consists of mowed lawn with specimen trees. Most of the trees appear to be planted and some are likely escaped or naturalized. Many range from 30-50+cm dbh. Included in these specimen trees are two Ohio Buckeye trees, which are planted on the west side of the residence.

In addition to the specimen trees, there are also a few rows or remnants of an old, planted fruit tree orchard (mostly pears and a few apple trees) on the east side of the residence. A planted row of Norway Spruce trees also occurs east of the residence.



Legend

Subject Property

CUM1-1 Dry - Moist Old Field Meadow Type

THDM2 Dry - Fresh Deciduous Shrub Thicket Ecosite

THDM3 Dry - Fresh Deciduous Hedgerow Thicket Ecosite

THDM3-2 Native Shrub Deciduous Hedgerow Thicket Type

Figure 3
Extent of Vegetation Communities on the Subject Property

Natural Heritage Constraints Analysis 4838 Sherkston Road

Prepared for: Mr. Hassan Kurabi

Prepared by:

COLVILLE O

December 2023

FILE: C23079

Dry - Fresh Deciduous Shrub Thicket Ecosite (THDM2)

Located west of the residence are small stands or thickets dominated by an escaped and weedy non-native willow (Ashy Willow). These willows have colonized the former lawn and mowed areas west of the residence, along with a mix of Gray Dogwood, Silky Dogwood, Common Buckthorn and young and regenerating Green Ash trees and saplings. Scattered Poplar trees also occur within this community.

Native Shrub Deciduous Hedgerow Thicket Type (THDM3-2)

The hedgerows located along the north and west property boundaries were described as Native Shrub Deciduous Hedgerow Thicket Type (THDM3-2). Gray Dogwood, Silky Dogwood, Green Ash saplings and Common Buckthorn form a continuous cover of shrub hedgerow thicket in these areas.

Also occurring along the shrub hedgerow thicket are scattered young and naturalized Green Ash trees and numerous planted specimen trees. Tree species consist of young and naturalized Pin Oak, Ashy Willow and Apple trees, which together provide less than 25% cover in the 2 to 10m height layer.

Panicled Aster, New England Aster, Late Goldenrod and grasses such as Reed Canary Grass are abundant where the ground layer is not completely shaded by the dense shrub layer.

Dry - Fresh Deciduous Hedgerow Thicket (THDM3)

Located along Sherkston Road is a Common Privet shrub hedgerow, with a number of mature planted Horse Chestnut trees. This narrow band of vegetation is bordered by mowed lawn on the property.

Dry - Fresh Old Field Meadow (CUM1-1)

The northern portion of the property supports a regenerating agricultural field, which supports an old field meadow dominated by Aster species, Late Goldenrod and typical old field meadow cool season grasses.

3.2 Wildlife Observations

Incidental wildlife observations, including signs were recorded during the site visit. Species confirmed using the property were Grey Squirrel, Eastern Cottontail, Raccoon, American Goldfinch, American Robin, Black-capped Chickadee, Blue Jay, House Sparrow, Mourning Dove, Northern Cardinal and Song Sparrow.

4.0 Assessment of Significant Natural Heritage Features

4.1 Species at Risk Habitat

4.1.1 Significant Habitat of Endangered and Threatened Species

No Endangered or Threatened plant species were observed on the property during our observations.

As part of our assessment, we conducted a review of Natural Heritage Information Center (NHIC) data available for lands in the vicinity of the property. No Endangered species are known to occur in the vicinity of the property and potential habitat of Endangered species on or adjacent to the property is limited to potential bat roosting habitat associated with the residence on the property. A Species at Risk Screening is provided in Appendix C.

Threatened species known to occur in the vicinity of the property are limited to Bobolink and Eastern Meadowlark.

Bobolinks typically breed in open areas, preferring large fields (≥30 ha in size) with a mixture of grasses and broad-leaved plants and a high litter cover and high grass-to-legume ratio (Renfrew et al. 2020). Older fields are preferred over fields that have been cultivated in the previous 8 years (Renfrew et al. 2020).

Eastern Meadowlark is most common in native grasslands, pastures, and savannas, but will also utilize hay and alfalfa fields, weedy borders of croplands, roadsides, orchards, golf courses, reclaimed strip mines, airports, shrubby overgrown fields and other open areas (Jaster et al. 2022). This species also shows preference for habitats with good grass and litter cover (Jaster et al. 2022).

Potential breeding habitat for these species is present within the meadow on the northern portion of the property, although the patch size of this meadow is generally less than what would be typically used by Bobolink or Eastern Meadowlark and the periodically mowed vegetation is not considered ideal habitat for these species. Regardless, a majority of this meadow area is proposed to remain unchanged, and therefore any potential habitat of Eastern Meadowlark or Bobolink on this property will be maintained.

4.1.2 Species of Conservation Concern

Species of Conservation Concern previously documented in the vicinity of the property include Barn Swallow, Eastern Wood-pewee and Wood Thrush.

Barn Swallow

Breeding habitat for the Barn Swallow includes open areas (e.g., fields, meadows, wetlands) for foraging, a nest site that includes a vertical or horizontal substrate (often enclosed) with some type of roof or ceiling, and a body of water that provides mud for nest building (Brown and Brown 2020). Barn Swallows are found nesting in a wide variety of open habitats, including farmlands, riparian areas, lakes, grasslands, cities, and suburbs, and along highways.

Any potential nesting habitat for Barn Swallows on this property is limited to the residence, which is proposed to be retained on the property. Potential foraging habitat will also be retained in the meadow on the northern portion of the property.

Eastern Wood Pewee

The Eastern Wood-pewee is one of the most common and widespread songbirds associated with North America's eastern forests (COSEWIC 2012). This species breeds in virtually every type of wooded habitat, from urban shade trees, roadsides, woodlots, and orchards to mature forests (McCarty 1996), and is often found in association with forest edges and small clearings (COSEWIC 2012).

Eastern Wood-pewee are known to use woodlands in the area as nesting habitat, however as no woodlands are present on or adjacent to the property, potential significant breeding habitat for this species is not present on the property.

Wood Thrush

Wood Thrush typically breed in larger forested areas, however use of woodland fragments as small as 1ha is size have been reported, as well as semi-wooded residential areas and parks. Breeding territories are established in woodlands where this species will defend a territory of between 0.08-4.0 ha in size depending on quality of habitat (Evans et al. 2011). Nesting typically occurs in the interior of deciduous and mixed forests, and particularly woodlands containing attributes that include trees >16 m in height, a variety of deciduous tree species, moderate sub-canopy and shrub density, shade, fairly open forest floor, moist soil, and decaying leaf litter (Evans et al. 2011).

Similar to Eastern Wood-pewee, Wood Thrush are known to use woodlands in the area as breeding habitat, however potential breeding habitat for this species is not present on or adjacent to the property.

Based on our assessment, no portion of the proposed project will impact habitat of Special Concern species.

4.2 Significant Wildlife Habitat

4.2.1 Seasonal Concentration Areas of Animals

The Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E identifies 14 types of seasonal concentrations of animals that may be considered significant wildlife habitat. These include, but are not limited to:

- Waterfowl Stopover and Staging Areas (Aquatic and Terrestrial);
- Shorebird Migratory Stopover Area;
- Raptor Wintering Area;
- Bat Hibernacula;
- Bat Maternity Colonies;
- Turtle Wintering Areas;
- Reptile Hibernaculum;
- Colonially -Nesting Bird Breeding Habitat (Bank and Cliff);
- Colonially -Nesting Bird Breeding Habitat (Tree/Shrubs);
- Colonially -Nesting Bird Breeding Habitat (Ground);
- Migratory Butterfly Stopover Areas;
- · Landbird Migratory Stopover Areas; and
- Deer Winter Congregation Areas.

Seasonal concentration areas are typically designated as significant wildlife habitat if an area supports a species at risk or a large population may be lost if the habitat is destroyed.

Detailed wildlife assessments were not completed as part of this project, however potential significant habitat for seasonal concentrations of animals is not present on the property. A summary assessment is provided in Appendix D.

4.2.2 Rare Vegetation Communities

Rare vegetation communities often contain rare species, which depend on such habitats for their survival and cannot readily move to or find alternative habitats. Those areas that qualify as rare habitats are assigned an SRank of S1, S2 or S3 by the Natural Heritage Information Center.

The Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E identifies 7 specialized habitats that may be considered significant wildlife habitat. They are:

- Cliffs and Talus Slopes;
- Sand Barren;
- Alvar;
- Old Growth Forest;
- Savannah;
- Tallgrass Prairie; and
- Other Rare Vegetation Communities.

No rare vegetation communities are present on or adjacent to the Subject Property.

4.2.3 Specialized Habitats of Wildlife considered SWH

Some wildlife species require large areas of suitable habitat for their long-term survival and many wildlife species require substantial areas of suitable habitat for successful breeding. Their populations are at risk of decline when habitat becomes fragmented or reduced in size

Specialized habitats for wildlife include:

- Waterfowl Nesting Area;
- Bald Eagle and Osprey Nesting, Foraging and Perching Habitat;
- Woodland Raptor Nesting Habitat;
- Turtle Nesting Areas;
- Seeps and Springs;
- Amphibian Breeding Habitat (Woodland);
- Amphibian Breeding Habitat (Wetlands); and
- Woodland Area-Sensitive Bird Breeding Habitat.

Potential specialized wildlife habitat is not present on the Subject Property.

4.2.4 Habitats of Species of Conservation Concern considered SWH

Habitats of Species of Conservation Concern include wildlife species that are listed as Special Concern or rare, that are declining, or are featured species. Habitats of Species of Conservation Concern do not include habitats of Endangered or Threatened species as identified by the Endangered Species Act. The following habitats are considered candidate SWH:

- Marsh Breeding Bird Habitat;
- Open Country Bird Breeding Habitat;
- Shrub/Early Successional Bird Breeding Habitat;
- Terrestrial Crayfish; and
- Special Concern and Rare Wildlife Species.

Potential habitat for Special Concern species on this property is limited to Barn Swallow nesting opportunities associated with the residence on the property. The residence on this property is proposed to be retained, and therefore potential nesting opportunities for Barn Swallow will be maintained.

4.2.5 Migration Corridors

The SWHTG defines animal movement corridors as elongated, naturally vegetated parts of the landscape used by animals to move from one habitat to another. To qualify as significant wildlife habitat, these corridors should be a critical link between habitats that are regularly used by wildlife.

Based on our review of background mapping and information, no significant natural heritage features are located adjacent to the property, and therefore no portion of the property provides a significant wildlife migration function.

4.3 Significant Wetlands

Background mapping available from the Niagara Region indicates that a potential Other Wetland is located on the property. Based on our assessment, the area of the property identifies as Other Wetland consists primarily of mowed lawn and deciduous thicket. No wetland vegetation communities were

identified on the property during our assessments, and therefore no significant wetlands are located on or adjacent to the property.

4.4 Significant and Other Woodlands

Although the Port Colborne Official Plan identifies a portion of the property as Environmental Conservation Area (Significant Woodland in former Niagara Region Official Plan), no portion of the property contains tree cover sufficient to be considered woodland. Therefore, no portion of the Subject Property contains features consistent with Significant or Other Woodlands.

5.0 ENVIRONMENTAL POLICY

The intent of this assessment is to delineate the extent of potential natural heritage features on the property and define the extent of potential natural heritage constraints. Mapped natural heritage features on property are limited to an Other Wetland, however our assessment of the property indicates that no wetland vegetation communities are located on the property.

In order to define the nature of development constraints associated with the various natural heritage features on the property, the following is a list of policies that are relevant to the property and future development on the parcel.

5.1 Niagara Region Official Plan

Policies related to the management of the natural heritage system and specific natural heritage features are included in Chapter 3 of the Niagara Region Official Plan. The natural heritage system is made up of features such as wetlands, woodlands, valleylands, and wildlife habitat, as well as components such as linkages, buffers, supporting features and areas, and enhancement areas. The intent of the natural heritage system is to preserve and enhance the biodiversity, connectivity, and long-term ecological function of the natural systems in the region.

The water resource system is made up of both groundwater and surface water features and areas. The intent of the water resource system is to protect the ecological and hydrological integrity of water resources and the various watersheds in the region. The natural heritage and water resource systems are ecologically linked, rely on and support each other, and have many overlapping components. The establishment of these natural systems is required by Provincial policy. These systems have been integrated in this Plan and are known together as the Region's natural environment system.

Section 3.1.2.1 states that individual natural heritage features and areas, key natural heritage features, key hydrological features, and other individual components which are considered mapped features of the natural environment system are shown as an overlay on Schedule C2.

Section 3.1.2.2 states that the individual features and components of the natural environment system that are mapped on Schedule C2 include:

- a) significant woodlands;
- b) other woodlands;
- c) provincially significant wetlands;
- d) other wetlands and non-provincially significant wetlands;
- e) life science areas of natural and scientific interest;
- f) earth science areas of natural and scientific interest;
- g) permanent and intermittent streams;
- h) inland lakes; and

i) linkages.

Based on our assessment, no portion of the property contains features or components of the Niagara Region natural environment system.

5.2 City of Port Colborne

The City of Port Colborne's environmental policies are **included** within the Official Plan (OP) and are intended to be complimentary to Provincial and Regional policies. Through the implementation of policies within the OP, the City intends to participate in the protection and conservation of natural heritage features within the geographical jurisdiction of the **municipality**.

The City of Port Colborne's Natural Heritage Policies are **contained** within Section 4 of the OP and includes polices specific to lands designated as **Environmental Protection Area and** Environmental Conservation Area.

Environmental Protection Areas (EPA) include provincially significant wetlands, provincially significant Life Science ANSIs, and significant habitat of endangered and threatened species.

Environmental Conservation Areas (ECA) include significant woodlands, significant wildlife habitat, significant habitat of species of concern, regionally significant Life Science ANSIs, other evaluated wetlands, significant valleylands, savannahs and tallgrass prairies, alvars and publicly owned conservation lands.

As indicated above, Schedule B2 of the OP indicates that a portion of the Subject Property is designated as Significant Woodland (ECA). Our assessment indicates that no portion of the property contains a vegetation community consistent with a woodland or any other features considered to be ECA or EPA.

5.3 Niagara Peninsula Conservation Authority

To administer Ontario Regulation 155/06, the Niagara Peninsula Conservation Authority (NPCA) has created a document titled NPCA Policy Document: Policies for Planning and Development in the Watersheds of the Niagara Peninsula Conservation Authority (NPCA 2022). The purpose of the document is to provide guidance for development applications affecting natural heritage features and hazard lands.

NPCA mapping indicates that no portion of the Subject Property is regulated by the NPCA. Our assessment confirms that the property does not contain any wetlands, watercourses or features that would be consistent with an NPCA regulated area.

6.0 Constraints Analysis

The intent of this assessment is to determine the extent of any potential natural heritage features or constraints on the property. Based on our assessment, no portion of the Subject Lands contains a feature that would be considered a component of the Niagara Region natural environment system or meet the criteria of EPA or ECA listed in the City of Port Colborne Official Plan. As a result, no portion of the property is considered to be a natural heritage constraint.

As this assessment did not considered lands more than 30m from the property lines, the extent of mapped natural heritage features beyond the property boundaries remains unchanged (see Figure 4).

Our assessment also confirmed that no portion of the Subject Property contains areas or features regulated by the NPCA.



Legend

Subject Property

Conceptual Lot Boundaries

Other Woodlands (Niagara Region)

Environmental Conservation Areas (City of Port Colborne)

Figure 4
Refined Extent of Natural Heritage
Features on the Subject Property

Natural Heritage Constraints Analysis 4838 Sherkston Road

Prepared for: Mr. Hassan Kurabi

Prepared by:

COLVILLE CONSULTING INC.

Notes: No portion of the Subject Lands is considered to contain a natural heritage constraint.

December 2023

FILE: C23079

7.0 CONCLUSIONS AND RECOMMENDATIONS

Colville Consulting Inc. was retained to prepare a natural heritage constraints assessment for the property located at 4838 Sherkston Road, in the City of Port Colborne. Based on our assessment, no significant natural heritage features are located on of adjacent to the property. As a result, the proposed lot creations illustrated in Figure 4 will have no impact on natural heritage features.

As described above, several specimen trees have been planted or colonized on the property. To maintain tree cover in the hamlet, it is recommended that a Tree Preservation Plan be prepared as part of future building permit application to assist with maintaining trees on the property where possible.

Please do not hesitate to contact the undersigned should be require further clarification regarding this report.

Respectfully submitted by:

Ian Barrett, M.Sc.

Colville Consulting Inc.

8.0 LITERATURE CITED

- Brown, M. B. and C. R. Brown (2020). Barn Swallow (*Hirundo rustica*), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.barswa.01
- COSEWIC. 2012. COSEWIC assessment and status report on the Eastern Wood-pewee *Contopus virens* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 39 pp.
- Evans, M., E. Gow, R. R. Roth, M. S. Johnson, and T. J. Underwood (2011). Wood Thrush (*Hylocichla mustelina*), version 2.0. In The Birds of North America (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bna.246
- Jaster, L. A., W. E. Jensen, W. E. Lanyon, and S. G. Mlodinow. 2022. Eastern Meadowlark (Sturnella magna), version 1.1. In Birds of the World (P. Pyle and N. D. Sly, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.easmea.01.1
- Lee, H.T., W.D. Bakowsky, J.L. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Community Classification for Southern Ontario: First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.
- McCarty, J.P. 1996. Eastern Wood-pewee (Contopus virens). In A. Poole and F. Gill, editors, The Birds of North America, No. 245. Academy of Natural Sciences, Philadelphia, and American Ornithologists' Union, Washington, DC. 20 pp.
- Niagara Peninsula Conservation Authority. 2010. Niagara Natural Areas Inventory 2006-2009. 428pp.
- Niagara Peninsula Conservation Authority. 2022. NPCA Policy Document: Policies for Planning and Development in the Watersheds of the Niagara Peninsula Conservation Authority. 158pp.
- Ontario Ministry of Natural Resources and Forestry. 2017. Survey Protocol for Species at Risk Bats within Treed Habitats Little Brown Myotis, Northern Myotis & Tri-Colored Bat. Ontario Ministry of Natural Resources and Forestry Guelph District. 13pp.
- Ontario Ministry of Natural Resources and Forestry. 2018. City of Port Colborne SAR. Guelph, ON: Ontario Ministry of Natural Resources, Guelph District. 3 pp.
- Regional Municipality of Niagara. 2022. Niagara Region Official Plan.
- Renfrew, R., A. M. Strong, N. G. Perlut, S. G. Martin, and T. A. Gavin. 2020. Bobolink (*Dolichonyx oryzivorus*), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.boboli.01
- City of Port Colborne. 2017. City of Port Colborne Official Plan. City of Port Colborne. 221pp.

Appendix A

Site Photos



Photo 1. Example of vegetation conditions in the vicinity of the residence on the property. Photo from driveway facing east.



Photo 2. Example of vegetation conditions in the mowed lawn and hedgerow north of the residence on the property. Photo from behind residence facing north.



Photo 3. Example of vegetation conditions in former lawn and thicket west of the residence on the property. Photo from south center of property facing west.



Photo 4. Example of vegetation conditions in former lawn and thicket west of the residence on the property. Photo from south center of property facing northwest.



Photo 5. Example of vegetation conditions in former lawn and thicket in the northwest corner of the property. Photo from northwest corner of property facing northwest.



Photo 6. Example of vegetation conditions in the meadow on the northern portion of the property. Photo from south end of meadow facing northeast.

Appendix B

Plant List

Plant List for 4838 Sherkston Road, Port Colborne, ON.

Plant List for 4838 Sherkston Road, Port Colborne, ON.											
ScientificName	CommonNames	Coeff.Cons.	Coeff.Wet.	GRank	COSEWIC	COSSARO	SRank	Lrare	Hedgerows and lawn	Meadow	Notes
Acer negundo	Manitoba Maple	0	-2	G5			S5		X		naturalized trees in lawn and hedgerows
Acer platanoides	Norway Maple	0	5	G?			SE5		X		escaped and planted specimen trees
Acer platanoides 'Crimson King'	Norway Maple	0	5	G?			SE5		X		planted specimen trees on lawn area
Acer saccharinum	Silver Maple	5	-3	G5			S5		X		planted specimen trees
Acer saccharum ssp. saccharum	Sugar Maple	4	3	G5			S5		X		Rare in hedgerow
Acer X freemanii	Freeman's Maple			G?			S5		X		naturalized trees in lawn and hedgerows along property line
Aesculus glabra	Ohio Buckeye	10	-1	G5			S1		X		planted specimen trees on lawn area, west side of residence
Aesculus hippocastanum	Horse Chestnut	0	5	G?			SE2		X		planted specimen trees
Agrostis gigantea	Redtop Grass	0	0	G4G5			SE5		X	х	abundant in low areas of the lawn and yard
Agrostis stolonifera	Creeping Bent Grass	0	-3	G5			S5		X		abundant in low areas of the lawn and yard
Allium sp	Onion Species								X		
Ambrosia artemisiifolia	Common Ragweed	0	3	G5			S5			х	
Ambrosia trifida	Giant Ragweed	0	-1	G5			S5		X		
Apocynum sp	Dogbane Species								X		
Arctium minus ssp. minus	Common Burdock	0	5	G?			SE5		Х	х	
Aster lanceolatus ssp. lanceolatus	Panicled Aster	3	-3	G5			S5		X		abundant in low areas of the lawn and yard
Aster lateriflorus var. lateriflorus	One-sided Aster	3	-2	G5			S5		Х		abundant in low areas of the lawn and yard
Aster novae-angliae	New England Aster	2	-3	G5			S5		Х		occassional on lawn edges and along hedgerows
Aster pilosus var. pilosus	Hairy Aster	4	2	G5			S5		Х		occassional on lawn edges and along hedgerows
Carex bebbii	Bebb's Sedge	3	-5	G5			S5		Х		
Carex vulpinoidea	Fox Sedge	3	-5	G5			S5		х		
Carex spp	Sedge Species								Х		
Catalpa cf. speciosa	Northern Catalpa	0	3	G2G4			SE1		Х		planted specimen tree
Centaurea jacea	Brown Knapweed	0	5	G?			SE5		х		
Chamaecyparis nootkatensis 'Pendula				G/			SE?		х		planted specimen tree
Chelidonium majus	Celandine	0	5	G?			SE5		х		
Chenopodium album var. album	Lamb's Quarters	0	1	G5			SE5		х		
Chrysanthemum leucanthemum	Ox-eye Daisy	0	5	G?			SE5		Х		
Cichorium intybus	Chicory	0	5	G?			SE5		X	х	
Circaea lutetiana ssp. canadensis	Canada Enchanter's Nightshade	3	3	G5			S5		X		
Convallaria majalis	Lily-of-the-valley	0	5	G5			SE5		X		
Conyza canadensis	Horseweed	0	1	G5			S5		X		
Coreopsis lanceolata	Lance-leaved Coreopsis	5	3	G5			S4?		X		planted and escaped from flower beds, naturalized in front hedgerow
Cornus amomum ssp. obliqua	Silky Dogwood	5	-4	G5			S5		x		pranted and escaped from nover beas, naturalized in none neageron
Cornus foemina ssp. racemosa	Grey Dogwood	2	-2	G5			S5		X	х	
Dactylis glomerata	Orchard Grass	0	3	G?			SE5		x	X	
Daucus carota	Wild Carrot	0	5	G?			SE5		X	X	
Dipsacus fullonum ssp. sylvestris	Common Teasel	0	5	G?			SE5		Α	x	
Elymus repens	Quack Grass	0	3	G5			SE5		х	X	
Forsythia intermedia	Forsythia	Ť		G?			SE?		x		planted shrubs
Fraxinus pennsylvanica	Red Ash	3	-3	G5			S5		X		naturalized in hedgerows
Galium sp	Bedstraw Species	Ť	Ť				- 00		x	х	internalized in ricage one
Geranium robertianum	Herb Robert	0	5	G5			SE5		X	^	
Geum canadense	White Avens	3	0	G5			S5		X	х	
Geum laciniatum	Rough Avens	4	-3	G5			S4		x	X	
Glechoma hederacea	Ground Ivy	0	3	G?			SE5		x	^	
Hemerocallis fulva	Tawny Day-lily	0	5	G?			SE5		x		planted around house foundation and in flower beds
Hosta ventricosa	Hosta	-		G?		1	SE?		X		planted around house round the residence
Impatiens capensis	Spotted Touch-me-not	4	-3	G5		1	S5		x		promote me residence
Juglans nigra	Black Walnut	5	3	G5		1	S4		X		
Juncus dudleyi	Dudley's Rush	1	0	G5			S5		x		
Juncus effusus ssp. solutus	Soft Rush	4	-5	G5		1	S5		X		
Juncus tenuis	Path Rush	0	0	G5		 	S5		X		
Juniperus sp	Juniper Species	U	0	33		 	J		X X		horticultural shrubs planted around house foundation
Lactuca sp	Lettuce Species		-			 			X		northeastar as an abb planted around nouse roundation
Ligustrum vulgare	Common Privet	0	1	G?		 	SE5		X X		abundant and forming hedge along Sherkston Road
Lindera benzoin		6	-2	G5			SE5 S5		× .		assurable and forming neage along sherkstorr Rodu
Lonicera morrowii	Spicebush Morrow's Honeysuckle	0	5	G?			SE3		X X		
	Tartarian Honeysuckle	0	3	G?			SE5		X		
		0	-4	G?			SE5 SE5				
Lonicera tatarica	Moneywort								X		
Lysimachia nummularia	Durrale Leaseatrif:		-5	G5		-	SE5 SE5		X		
Lysimachia nummularia Lythrum salicaria	Purple Loosestrife	0		00			5=5		x	l	1
Lysimachia nummularia Lythrum salicaria Morus alba	White Mulberry	0	0	G?							
Lysimachia nummularia Lythrum salicaria Morus alba Panicum capillare	White Mulberry Witch Panic Grass	0	0	G5			S5		X	х	
Lysimachia nummularia Lythrum salicaria Morus alba Panicum capillare Parthenocissus inserta	White Mulberry Witch Panic Grass Thicket Creeper	0	0	G5 G5			S5 S5		Х	х	
Lysimachia nummularia Lythrum salicaria Morus alba Panicum capillare Parthenocissus inserta Parthenocissus tricuspidata	White Mulberry Witch Panic Grass Thicket Creeper Boston Ivy	0 0 3	0 0 3	G5 G5 G?			S5 S5 SE?		X X	х	planted and growing up brick walls in residence
Lysimachia nummularia Lythrum salicaria Morus alba Panicum capillare Parthenocissus inserta	White Mulberry Witch Panic Grass Thicket Creeper	0	0	G5 G5			S5 S5		Х	Х	planted and growing up brick walls in residence

ScientificName	CommonNames	Coeff.Cons.	Coeff.Wet.	GRank	COSEWIC	COSSARO	SRank	Lrare	Hedgerows and lawn	Meadow	Notes
Pinus nigra	Austrian Pine	0	-5	G?			SE2		X		planted hedgerows and specimen trees
Picea pungens	Blue Spruce			G?			SE?		Х		planted specimen tree along property line
Plantago lanceolata	Ribgrass	0	0	G5			SE5		Х	х	
Plantago major	Common Plantain	0	-1	G5			SE5		Х	х	
Platanus x acerifolia	London Plane Tree	0	5	GU			SE1		Х		planted specimen trees at corners of house (50 - 100cm dbh)
Poa pratensis ssp. pratensis	Kentucky Blue Grass	0	1	G?			S5		X	х	
Polygonum cuspidatum	Japanese Knotweed	0	3	G?			SE4		Х		
Polygonum sp	Smartweed Species								X		horticultural plants
Populus tremuloides	Trembling Aspen	2	0	G5			S5		X		
Populus sp	Poplar Species								X		hybrid poplar planted and naturalized
Pyrus communis	Common Pear	0	5	G5			SE4		X		
Pyrus calleryana	Callery Pear	0	5	G5?			SE?		X		
Prunus sp	Cherry Species								Х		horticultural variety
Quercus palustris	Pin Oak	9	-3	G5			S3		X		naturalized trees in back hedgerow
Quercus rubra	Red Oak	6	3	G5			S5		X		
Quercus robur	Englist Oak			G?			SE?		X		planted trees
Ranunculus acris	Tall Buttercup	0	-2	G5			SE5		X	х	
Rhamnus cathartica	Common Buckthorn	0	3	G?			SE5		X		
Rhus typhina	Staghorn Sumac	1	5	G5			S5		X		
Robinia pseudo-acacia	Black Locust	0	4	G5			SE5		X		
Rosa multiflora	Multiflora Rose	0	3	G?			SE4		X	х	
Rubus occidentalis	Black Raspberry	2	5	G5			S5		Х	х	
Rudbeckia triloba	Brown-eyed Coneflower	0	1	G4			SE4		X	х	planted in flower beds around the residence
Rumex sp	Dock Species								Х	х	
Salix cinerea	Ashy Willow	0	5	G5			SE2		X		patches of this non-native willow and red\green ash on west side of property
Setaria pumila	Yellow Foxtail	0	0	G?			SE5		Х	х	
Solidago altissima var. altissima	Tall Goldenrod	1	3	G?			S5			х	
Solidago juncea	Early Goldenrod	3	5	G5			S5			х	
Sonchus sp	Sow-thistle Species								X	х	
Syringa vulgaris	Common Lilac	0	5	G?			SE5		Х		
Taraxacum officinale	Common Dandelion	0	3	G5			SE5		X	х	
Taxus sp	Yew species	7	3	G5?			S5?		Х		Planted horticultural shrubs
Ulmus americana	White Elm	3	-2	G5?			S5		Х		
Urtica dioica ssp. gracilis	Slender Stinging Nettle	2	-1	G5T?			S5		X		
Verbascum thapsus	Common Mullein	0	5	G?			SE5			Х	
Viburnum opulus	European Highbush Cranberry	0	0	G5			SE4		Х		
Viburnum recognitum	Southern Arrow-wood	7	-2	G5			S4		Х		
Vinca minor	Periwinkle	0	5	G?			SE5		Х		
Viola sp	Violet Species								Х		
Vitis riparia	Riverbank Grape	0	-2	G5			S5		X		

Legend

CoeCons. - Coefficient of Conservatism. Scores for each species range from 0 (low conservatism) to 10 (high conservatism).

A conservatism value of 0 indicates species is widespread. A value of 8, 9 or 10 indicates that a species is a habitat specialist.

CoeWet. - Coefficient of Wetness

5 - Almost always occur in upland areas

4, 3, 2 - Usually occur in upland areas

1, 0, -1 - Found equally in upland and wetland areas

-2, -3, -4 Usually occur in wetlands

-5 Almost always occur in wetlands

Grank - Global Rank G1 - Critically Imperiled, G2 - Imperiled, G3 - Vulnerable, G4 - Apparently Secure, G5 - Secure

COSEWIC - Committee on the Status of Endangered Wildlife in Canada

COSSARO - Committee on the Status of Species at Risk in Ontario

Srank - Subnational Rank

S1 — Critically Imperiled - Critically imperiled in the province because of extreme rarity, (often 5 or fewer occurrences)

S2 — Imperiled - Imperiled in the province because of rarity due to very restricted range, very few populations (often 20 or fewer)

S3 — Vulnerable - Vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer)

S4 — Apparently Secure - Uncommon but not rare

S5 — Secure - Common, widespread, and abundant in the province

SE — Exotic

Appendix C

Species at Risk Screening

Port Colborne

Species At Risk Des	signations
ENDANGERED	
THREATENED	
SPECIAL CONCERN	
EXTIRPATED	

AMPHIBIANS		ESA Protection	Key Habitats Used By Species	Subject Property
Fowler's Toad (Anaxyrus fowleri)	Known to Occur	Species Protection and Habitat Regulation	Generally found in sand dunes and lakeshore habitats; found in shallow areas of permanent water bodies; only occurs on the shores of Lake Erie	Potential breeding and overwintering habitat not present on property.

Towlett	Occui	Regulation	Lake Erie	processis on property.
BIRDS		ESA Protection	Key Habitats Used By Species	Subject Property
Acadian Flycatcher (Empidonax virescens)	Known to Occur	Species and General Habitat Protection	Generally requires large areas of mature, undisturbed forest; avoids the forest edge; often found in well wooded swamps and ravines	Suitable breeding habitat not present on property.
Bank Swallow (<i>Riparia ripari</i> a)	Suspected to Occur	Species and General Habitat Protection	Prefers farmland; lake/river shorelines; wooded clearings; urban populated areas; rocky cliffs; and wetlands. They nest inside or outside buildings; under bridges and in road culverts; on rock faces and in caves etc.	Suitable breeding habitat not present on property.
Barn Owl (<i>Tyto alba</i>)	Known to Occur	Species Protection and Habitat Regulation	Generally prefer low-elevation, open country; often associated with agricultural lands, especially pasture. Nests are located in buildings, hollow trees and cavities in cliffs.	Suitable breeding habitat not present on property.
Barn Swallow (Hirundo rustica)	Known to Occur	Species and General Habitat Protection	Prefers farmland; lake/river shorelines; wooded clearings; urban populated areas; rocky cliffs; and wetlands. They nest inside or outside buildings; under bridges and in road culverts; on rock faces and in caves etc.	Suitable breeding habitat not present on property.
Black Tern (<i>Childonias niger</i>)	Known to Occur	N/A	Generally prefer freshwater marshes and wetlands; nest either on floating material in a marsh or on the ground very close to water	Suitable breeding habitat not present on property.
Bobolink (<i>Dolichonyx oryzivorus</i>)	Known to Occur	Species and General Habitat Protection	Generally prefers open grasslands and hay fields. In migration and in winter uses freshwater marshes and grasslands	Potential breeding habitat present in meadow portion of property. Potential breeding habitat will not be impacted by the proposed project.
Canada Warbler (Cardellina canadensis; formerly Wilsonia canadensis)	Known to Occur	N/A	Generally prefers wet coniferous, decediuous and mixed forest types, with a dense shrub layer. Nests on the ground, on logs or hummocks, and uses dense shrub layer to conceal the nest.	Suitable breeding habitat not present on property.
Chimney Swift (Chaetura pelagica) Know Occ		Species and General Habitat Protection	Historically found in deciduous and coniferous, usually wet forest types, all with a welldeveloped, dense shrub layer; now most are found in urban areas in large uncapped chimneys	Suitable breeding habitat not present on property.
Common Nighthawk (<i>Chordeiles minor</i>)	Known to Occur	N/A	Generally prefer open, vegetation-free habitats, including dunes, beaches, recently harvested forests, burnt-over areas, logged areas, rocky outcrops, rocky barrens, grasslands, pastures, peat bogs, marshes, lakeshores, and river banks. This species also inhabits mixed and coniferous forests. Can also be found in urban areas (nest on flat rooftops)	Suitable breeding habitat not present on property.
Eastern Meadowlark (<i>Sturnella Magna</i>)	Known to Occur	Species and General Habitat Protection	Generally prefers grassy pastures, meadows and hay fields. Nests are always on the ground and usually hidden in or under grass clumps.	Potential breeding habitat present in meadow portion of property. Potential breeding habitat will not be impacted by the proposed project.
Eastern Whip-poor-will (Caprimlugus vociferus)	Known to Occur	Species and General Habitat Protection	Generally prefer semi-open deciduous forests or patchy forests with clearings; areas with little ground cover are also preferred; In winter they occupy primarily mixed woods near open areas.	Suitable breeding habitat not present on property.
Eastern Wood-Pewee (Contopus virens)	Known to Occur	N/A	Associated with deciduous and mixed forests. Within mature and intermediate age stands it prefers areas with little understory vegetation as well as forest clearings and edges.	Suitable breeding habitat not present on property.

Henslow's Sparrow (Ammodramus henslowii)	Historically Known to Occur	Species and General Habitat Protection	Generally found in old fields, pastures and wet meadows. They prefer areas with dense, tall grasses, and thatch, or decaying plant material	Suitable breeding habitat not present on property.
Least Bittern (Ixobrychus exilis)	Known to Occur	Species and General Habitat Protection	Generally located near pools of open water in relatively large marshes and swamps that are dominated by cattail and other robust emergent plants	Suitable breeding habitat not present on property.
Northern Bobwhite (Colinus virginianus)	Historically Known to Occur	Species and General Habitat Protection	Generally inhabits a variety of edge and grassland type - habitats including nonintensively farmed agricultural lands.	Suitable breeding habitat not present on property.
Peregrine Falcon (Falco peregrinus)	Known to Occur	N/A	Generally nest on tall, steep cliff ledges adjacent to large waterbodies; some birds adapt to urban environments and nest on ledges of tall buildings, even in densely populated downtown areas.	Suitable breeding habitat not present on property.
Red-Headed Woodpecker (Melanerpes erythrocephalus)	Known to Occur	N/A	Generally prefer open oak and beech forests, grasslands, forest edges, orchards, pastures, riparian forests, roadsides, urban parks, golf courses, cemeteries, as well as along beaver ponds and brooks	Suitable breeding habitat not present on property.
Short-eared Owl (Asio flammeus)	Suspected to Occur	N/A	Generally prefers a wide variety of open habitats, including grasslands, peat bogs, marshes, sand-sage concentrations, old pastures and agricultural fields	Suitable breeding habitat not present on property.
Wood Thrush (<i>Hylocichla mustelina</i>)	Known to Occur	N/A	Nests mainly in second-growth and mature deciduous and mixed forests, with saplings and well-developed understory layers. Prefers large forest mosaics, but may also nest in small forest fragments.	Suitable breeding habitat not present on property.
Yellow-breasted Chat (Icteria virens)	Known to Occur	Species and General Habitat Protection	Generally prefer dense thickets around wood edges, riparian areas, and in overgrown clearings	Suitable breeding habitat not present on property.
INSECTS		ESA Protection	Key Habitats Used By Species Exist primarily wherever milkweed and	Subject Property
Monarch Butterfly (Danaus plexippus)	Known to Occur	N/A	wildflowers exist; abandoned farmland, along roadsides, and other open spaces	No Milkweed stems identified on the property.
			roducidos, dila stiloi opoli opasso	
Rusty-patched Bumble Bee (<i>Bombus affinis</i>)	Formerly Occurred and May Still Occur	Species and General Habitat Protection June 27, 2014	Generally inhabits a range of diverse habitats including mixed farmland, sand dunes, marshes, urban and wooded areas. It usually nests underground in abandoned rodent burrows	Suitable habitat not present on property.
	Occurred and May Still	General Habitat Protection June	Generally inhabits a range of diverse habitats including mixed farmland, sand dunes, marshes, urban and wooded areas. It usually nests underground in abandoned rodent	Suitable habitat not present on property. Suitable habitat not present on property.
(Bombus affinis) West Virginia White (Pieris	Occurred and May Still Occur	General Habitat Protection June 27, 2014	Generally inhabits a range of diverse habitats including mixed farmland, sand dunes, marshes, urban and wooded areas. It usually nests underground in abandoned rodent burrows Generally prefer moist, deciduous woodlands. The larvae feed only on the leaves of the two-leaved toothwort (Cardamine diphylla), which is a small, spring-blooming plant of the forest	
(Bombus affinis) West Virginia White (Pieris virginiensis)	Occurred and May Still Occur	General Habitat Protection June 27, 2014 N/A	Generally inhabits a range of diverse habitats including mixed farmland, sand dunes, marshes, urban and wooded areas. It usually nests underground in abandoned rodent burrows Generally prefer moist, deciduous woodlands. The larvae feed only on the leaves of the two-leaved toothwort (Cardamine diphylla), which is a small, spring-blooming plant of the forest floor.	Suitable habitat not present on property.
(Bombus affinis) West Virginia White (Pieris virginiensis) MAMMALS Eastern small-footed Myotis	Occurred and May Still Occur Known to Occur	General Habitat Protection June 27, 2014 N/A ESA Protection Species and General Habitat	Generally inhabits a range of diverse habitats including mixed farmland, sand dunes, marshes, urban and wooded areas. It usually nests underground in abandoned rodent burrows Generally prefer moist, deciduous woodlands. The larvae feed only on the leaves of the two-leaved toothwort (Cardamine diphylla), which is a small, spring-blooming plant of the forest floor. Key Habitats Used By Species Overwintering habitat: Caves and mines that remain above 0 degrees Celsius Maternal Roosts: primarily under loose rocks on exposed rock outcrops, crevices and cliffs, and occasionally in buildings, under bridges and highway overpasses and under tree bark. Overwintering habitat: Caves and mines that remain above 0. Maternal Roosts: Often associated with buildings (attics, barns etc.). Occasionally found in trees (25-44 cm dbh).	Suitable habitat not present on property. Subject Property Potential roosting or maternal habitat not present
(Bombus affinis) West Virginia White (Pieris virginiensis) MAMMALS Eastern small-footed Myotis (Myotis leibii)	Occurred and May Still Occur Known to Occur Suspected to Occur	General Habitat Protection June 27, 2014 N/A ESA Protection Species and General Habitat Protection Species and General Habitat	Generally inhabits a range of diverse habitats including mixed farmland, sand dunes, marshes, urban and wooded areas. It usually nests underground in abandoned rodent burrows Generally prefer moist, deciduous woodlands. The larvae feed only on the leaves of the two-leaved toothwort (Cardamine diphylla), which is a small, spring-blooming plant of the forest floor. Key Habitats Used By Species Overwintering habitat: Caves and mines that remain above 0 degrees Celsius Maternal Roosts: primarily under loose rocks on exposed rock outcrops, crevices and cliffs, and occasionally in buildings, under bridges and highway overpasses and under tree bark. Overwintering habitat: Caves and mines that remain above 0. Maternal Roosts: Often associated with buildings (attics, barns etc.). Occasionally found in trees (25-44 cm dbh). Overwintering habitat: Caves and mines that remain above 0 degrees Celsius Maternal Roosts: Often associated with cavities of large diameter trees (25-44 cm dbh). Occasionally found in structures (attics, barns etc.)	Suitable habitat not present on property. Subject Property Potential roosting or maternal habitat not present on property. Significant potential roosting or maternal habitat
(Bombus affinis) West Virginia White (Pieris virginiensis) MAMMALS Eastern small-footed Myotis (Myotis leibii) Little Brown Myotis (Myotis lucifugus)	Occurred and May Still Occur Known to Occur Suspected to Occur Suspected to Occur	General Habitat Protection June 27, 2014 N/A ESA Protection Species and General Habitat Protection Species and General Habitat Protection Species and General Habitat Protection	Generally inhabits a range of diverse habitats including mixed farmland, sand dunes, marshes, urban and wooded areas. It usually nests underground in abandoned rodent burrows Generally prefer moist, deciduous woodlands. The larvae feed only on the leaves of the two-leaved toothwort (Cardamine diphylla), which is a small, spring-blooming plant of the forest floor. Key Habitats Used By Species Overwintering habitat: Caves and mines that remain above 0 degrees Celsius Maternal Roosts: primarily under loose rocks on exposed rock outcrops, crevices and cliffs, and occasionally in buildings, under bridges and highway overpasses and under tree bark. Overwintering habitat: Caves and mines that remain above 0. Maternal Roosts: Often associated with buildings (attics, barns etc.). Occasionally found in trees (25-44 cm dbh). Overwintering habitat: Caves and mines that remain above 0 degrees Celsius Maternal Roosts: Often associated with cavities of large diameter trees (25-44 cm dbh). Occasionally found in structures (attics, barns	Suitable habitat not present on property. Subject Property Potential roosting or maternal habitat not present on property. Significant potential roosting or maternal habitat not present on the property.
(Bombus affinis) West Virginia White (Pieris virginiensis) MAMMALS Eastern small-footed Myotis (Myotis leibii) Little Brown Myotis (Myotis lucifugus) Northern Myotis (Myotis septentrionalis) Tri-colored Bat	Occurred and May Still Occur Known to Occur Suspected to Occur Suspected to Occur Suspected to Occur	General Habitat Protection June 27, 2014 N/A ESA Protection Species and General Habitat Protection	Generally inhabits a range of diverse habitats including mixed farmland, sand dunes, marshes, urban and wooded areas. It usually nests underground in abandoned rodent burrows Generally prefer moist, deciduous woodlands. The larvae feed only on the leaves of the two-leaved toothwort (Cardamine diphylla), which is a small, spring-blooming plant of the forest floor. Key Habitats Used By Species Overwintering habitat: Caves and mines that remain above 0 degrees Celsius Maternal Roosts: primarily under loose rocks on exposed rock outcrops, crevices and cliffs, and occasionally in buildings, under bridges and highway overpasses and under tree bark. Overwintering habitat: Caves and mines that remain above 0. Maternal Roosts: Often associated with buildings (attics, barns etc.). Occasionally found in trees (25-44 cm dbh). Overwintering habitat: Caves and mines that remain above 0 degrees Celsius Maternal Roosts: Often associated with cavities of large diameter trees (25-44 cm dbh). Occasionally found in structures (attics, barns etc.). Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: Can be in trees or dead clusters of leaves or arboreal lichens on trees. May also	Suitable habitat not present on property. Subject Property Potential roosting or maternal habitat not present on property. Significant potential roosting or maternal habitat not present on the property. Significant potential roosting or maternal habitat not present on the property.

PLANTS		ESA Protection	Key Habitats Used By Species	Subject Property
Butternut (<i>Juglans cinerea</i>)	Known to Occur	Species and General Habitat Protection	Generally grows in rich, moist, and well- drained soils often found along streams. It may also be found on well-drained gravel sites, especially those made up of limestone. It is also found, though seldomly, on dry, rocky and sterile soils. In Ontario, the Butternut generally grows alone or in small groups in deciduous forests as well as in hedgerows	Suitable habitat not present on property. Not detected during bontanical inventory.
Common Hoptree (Ptelea trifoliata)	Known to Occur	Species and General Habitat Protection	Generally grows in sandy soils in areas with a lot of natural disturbance - such as the outer edge of shoreline vegetation, sand spits, and sand points.	Suitable habitat not present on property. Not detected during bontanical inventory.
Eastern Flowering Dogwood (Cornus florida)	Known to Occur	Species Protection and Habitat Regulation	Generally grows in deciduous and mixed forests, in the drier areas of its habitat, although it is occasionally found in slightly moist environments; Also grows around edges and hedgerows	Suitable habitat not present on property. Not detected during bontanical inventory.
Swamp Rose-mallow (Hibiscus moscheutos)	Known to Occur	Species and General Habitat Protection	Generally grows in open, coastal marshes, but it is also sometimes found in open wet woods, thickets and drainage ditches	Suitable habitat not present on property. Not detected during bontanical inventory.
White Wood Aster (Eurybia divaricata)	Known to Occur	Species and General Habitat Protection	Generally grows in open, dry, deciduous forests. It has been suggested that it may benefit from some disturbance, as it often grows along trails.	Potential habitat not present on property.
REPTILES		ESA Protection	Key Habitats Used By Species	Subject Property
Blanding's Turtle (Emydonidea blandingii)	Known to Occur	Species and General Habitat Protection	Generally occur in freshwater lakes, permanent or temporary pools, slow-flowing streams, marshes and swamps. They prefer shallow water that is rich in nutrients, organic soil and dense vegetation. Adults are generally found in open or partially vegetated sites, and juveniles prefer areas that contain thick aquatic vegetation including sphagnum, water lilies and algae. They dig their nest in a variety of loose substrates, including sand, organic soil, gravel and cobblestone. Overwintering occurs in permanent pools that average about one metre in depth, or in slow-flowing streams.	Potential habitat not present on property.
Eastern Hog-nosed Snake (Heterodon platirhinos)	Historically Known to Occur	Species and General Habitat Protection	Generally prefer habitats with sandy, well- drained soil and open vegetative cover, such as open woods, brushland, fields, forest edges and disturbed sites. The species is often found near water.	Typical habitat not present on property.
Eastern Ribbonsnake (Thamnophis sauritus)	Suspected to Occur	N/A	Generally occur along the edges of shallow ponds, streams, marshes, swamps, or bogs bordered by dense vegetation that provides cover. Abundant exposure to sunlight is also required, and adjacent upland areas may be used for nesting.	Typical habitat not present on property.
Massassauga Rattlesnake (Sistrurus catenatus)	Known to Occur	Species and General Habitat Protection	Generally occur in habitats ranging from tall grass prairie to cedar bogs to shorelines. All habitats require canopies that are not too open, but they also require access to spots where they can get warm enough to effectively digest their food and reproduce. Sufficient moisuture is also required for them to survive the winter, so they are often associated with wetlands or small, wet depressions in the terrain. (Wainfleet Bog)	Typical habitat not present on property.
Snapping Turtle (Chelydra serpentina)	Known to Occur	N/A	Generally inhabit shallow waters where they can hide under the soft mud and leaf litter. Nesting sites usually occur on gravely or sandy areas along streams. Snapping Turtles often take advantage of man-made structures for nest sites, including roads (especially gravel shoulders), dams and aggregate pits.	Potential habitat not present on property.
Spotted Turtle (Clemmys guttata)	Known to Occur	Species and General Habitat Protection	Generally prefers the shallow, slow-moving and unpolluted water of ponds, bogs, marshes, ditches, vernal pools and sedge meadows. It can also be found in woodland streams and near the sheltered shores of shallow bays	Potential habitat not present on property.

Appendix D

Significant Wildlife Habitat Screening

Significant Wildlife Habitat Assessment – 4838 Sherkston Road property.

Significant Wildlife Habitat (SWH) Type	Known or Candidate SWH present/absent	Rationale
SEASONAL CONCENTRATION AREAS OF ANIMA	ALS	
Waterfowl Stopover and Staging Areas	Absent	Suitable habitat not present on Subject Property
Shorebird Migratory Stopover Area	Absent	Suitable habitat not present on Subject Property
Raptor Wintering Area	Absent	Suitable habitat not present on Subject Property
Bat Hibernacula	Absent	Suitable habitat not present on Subject Property
Bat Maternity Colonies	Absent	Significant potential roosting habitat not present on property.
Turtle Wintering Areas	Absent	Suitable overwintering habitat not present on Subject Property
Reptile Hibernaculum	Absent	No obvious hibernacula observed on property.
Colonially -Nesting Bird Breeding Habitat (Bank and Cliff)	Absent	Suitable habitat not present on Subject Property
Colonially -Nesting Bird Breeding Habitat (Tree/Shrubs)	Absent	Nest colonies not present on Subject Property
Colonially -Nesting Bird Breeding Habitat (Ground)	Absent	Nest colonies not present on Subject Property
Migratory Butterfly Stopover Areas	Absent	The Subject Property does not provide potential significant stopover habitat.
Landbird Migratory Stopover Areas	Absent	Significant potential stopover habitat not present on property.
Deer Winter Congregation Areas	Absent	Suitable habitat not present on property.
RARE VEGETATION COMMUNITIES		
Cliffs and Talus Slopes	Absent	Habitat type not present on Subject Property
Sand Barren	Absent	Habitat type not present on Subject Property
Alvar	Absent	Habitat type not present on Subject Property
Old Growth Forest	Absent	Habitat type not present on Subject Property
Savannah	Absent	Habitat type not present on Subject Property
Tallgrass Prairie	Absent	Habitat type not present on Subject Property
Other Rare Vegetation Communities	Absent	No rare vegetation communities present on Subject Property

SPECIALIZED HABITATS OF WILDLIFE CONSIDER	RED SWH	
Waterfowl Nesting Area	Absent	Suitable habitat not present on Subject Property
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	Absent	Suitable habitat not present on Subject Property
Woodland Raptor Nesting Habitat	Absent	Suitable habitat not present on Subject Property
Turtle Nesting Areas	Absent	Suitable habitat not present on Subject Property
Seeps and Springs	Absent	Suitable habitat not present on Subject Property
Amphibian Breeding Habitat (Woodland)	Absent	Potential habitat present not present on Subject Property.
Amphibian Breeding Habitat (Wetlands)	Absent	Potential habitat present in SWD3 community east of Subject Property.
Woodland Area-Sensitive Bird Breeding Habitat	Absent	Interior habitat not present on Subject Property.
HABITATS OF SPECIES OF CONSERVATION CON	ICERN CONSIDERED SWH	
Marsh Breeding Bird Habitat	Absent	Suitable habitat not present on Subject Property
Open Country Bird Breeding Habitat	Absent	Suitable habitat not present on Subject Property
Shrub/Early Successional Bird Breeding Habitat	Absent	Suitable habitat not present on Subject Property
Terrestrial Crayfish	Absent	Suitable habitat not present on Subject Property
Special Concern and Rare Wildlife Species	Absent	Suitable habitat for known special concern or rare wildlife species not present on Subject Property
ANIMAL MOVEMENT CORRIDORS		
Amphibian Movement Corridors	Absent	Suitable habitat not present on Subject Property
Bat Migratory Stopover Area	Absent	Suitable habitat not present on Subject Property

Please note the above SWH criteria are based on guidance provided by the Significant Wildlife Habitat Criteria Schedules For Ecoregion 7E and modified to be specific for the Subject Property.