

1630 6<sup>th</sup> Line in the Township of Selwyn

Version 1.1

May 2024

# Scoped Environmental Impact Study



Prepared For:  
Andrea (van Dompsele) Thompson and  
William Thompson

Prepared By:  
Sumac Environmental Consulting



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May 29, 2024

SEC 24-013

Andrea (van Dompsele) Thompson and William Thompson

c/o KMD Planning Inc.  
560 Romaine Street  
Peterborough, Ontario  
K9J 2E3

Re: **Scoped Environmental Impact Study at 1630 6<sup>th</sup> Line in the Township of Selwyn**

Dear Andrea (van Dompsele) Thompson and William Thompson,

Thank you for retaining Sumac Environmental Consulting to prepare an Environmental Impact Study, scoped to wetland, at 1630 6<sup>th</sup> Line in the Township of Selwyn.

The following report identifies the form and function of wetland located on or near the subject property and assesses the potential impacts to said feature with respect to a proposed development. Recommendations and mitigation strategies have been included. This report has been prepared for Andrea (van Dompsele) Thompson and William Thompson and the undersigned accepts no responsibility for future use by other parties.

We thank you for the opportunity to be part of this project and should you have any questions, please do not hesitate to contact the undersigned.

Sumac Environmental Consulting

A handwritten signature in black ink, appearing to read "C Fligg".

Cassandra Fligg, M.Sc.  
Environmental Consultant

A handwritten signature in black ink, appearing to read "Nathan Fligg".

Nathan Fligg, M.Sc.  
Environmental Consultant/GIS Technician

## Report Summary

Sumac Environmental Consulting has prepared a Scoped Environmental Impact Study at 1630 6<sup>th</sup> Line in the Township of Selwyn. It is our understanding that this report has been requested by the Township and Otonabee Region Conservation Authority in response to a zoning by-law amendment application that supports the establishment of a custom car workshop within the existing attached garage. A site visit was completed in spring of 2024 to examine wetland that has the potential of being impacted by a proposed development. Significant impacts to wetland are not anticipated, should the proponent adhere to the prescribed recommendations provided herein.

The recommendations provided in Section 8.2 are summarized as follows:

- A silt fence should be used during construction to protect wetland.
- A response plan should be prepared prior to the onset of site works and an emergency spill kit should be kept on-site during site activities.
- All machinery should be kept in a clean condition and free of fluid leaks.
- Washing, fueling and servicing machinery should not occur within 30 m of aquatic features.
- Stockpiling of fill and/or construction material should not occur within 30 m of aquatic features.
- Encountered wildlife should be allowed to exit the site on their own, via safe routes, or be removed/relocated by qualified wildlife service providers working in accordance with applicable laws.

## Key Staff

### *Environmental Consultant – Cassandra Fligg, M.Sc.*

Mrs. Fligg received a master's degree in science from Lakehead University in 2018. She is proficient in the preparation of natural heritage reports in southern and central Ontario, particularly those that include policy of the Lake Simcoe Protection Plan, Greenbelt Plan, Oak Ridges Moraine Conservation Plan and Niagara Escarpment Plan. Mrs. Fligg has prepared species at risk screenings to the satisfaction of the Ministry of Environment, Conservation and Parks and assisted proponents in demonstrating avoidance to the harm and/or destruction of species at risk and their habitat, and navigated proponents through the overall benefit permit process where complete avoidance was not possible. Mrs. Fligg is a certified arborist as recognized by the International Society of Arboriculture, certified butternut health assessor as recognized by the Ministry of Natural Resources and Forestry, certified level 2 backpack electrofisher (crew leader) and has completed a fish identification workshop, turtle identification and handling workshop, and diatom algae culture and isolation workshop.

### *Environmental Consultant – Nathan Fligg, M.Sc.*

Mr. Fligg is a well-versed ecologist with more than 15 years experience in both plant and wildlife identification. He is actively building on his identification skills and knowledge through the review of relevant flora literature and the undertaking of field studies for Sumac's natural heritage reports and species at risk screenings in southern and central Ontario. Mr. Fligg completed an undergraduate degree in Environmental Sustainability and further went on to receive a master's degree in science from Lakehead University. He is a provincially certified wetland evaluator, certified butternut health assessor, certified level 2 backpack electrofisher and is experienced in the safe handling and release of small mammals, fish, amphibians and reptiles.

## Table of Contents

1.0	Introduction .....	1
2.0	Planning Context .....	1
2.1.	Provincial.....	1
2.1.1.	Conservation Authorities Act .....	1
3.0	Characterizing the Natural Environment: Approach and Methodology.....	1
3.1.	Vegetation.....	1
3.1.1.	Botanical Inventory .....	1
3.1.2.	Vegetation Communities .....	1
3.2.	Wetland.....	2
3.3.	Wildlife Habitat .....	2
4.0	Data Analysis.....	2
4.1.	Vegetation.....	2
4.1.1.	Botanical Inventory .....	2
4.1.2.	Vegetation Communities .....	2
4.2.	Wetland.....	3
4.3.	Wildlife Habitat .....	3
5.0	Project Description .....	3
6.0	Impact Assessment .....	3
6.1.	Vegetation.....	3
6.2.	Wetland.....	3
6.3.	Wildlife Habitat .....	4
7.0	Conclusion and Recommendations .....	4
7.1.	Conclusion.....	4
7.2.	Recommendations .....	4
7.2.1.	Perimeter Control .....	4
7.2.2.	Preventing Entry of Deleterious Substances in Aquatic Feature(s) .....	4
7.2.3.	Wildlife Encounters.....	5
8.0	References .....	5

## **List of Figures**

- Figure 1: Subject Property
- Figure 2: Existing Conditions
- Figure 3: Proposed Development

## **List of Tables**

- Table 1: Vascular Plant Inventory

## **List of Appendices**

- Appendix A: Natural Heritage Areas Mapping
- Appendix B: ORCA Regulated Lands Mapping
- Appendix C: Terms of Reference Consultation

## **1.0 Introduction**

Sumac Environmental Consulting (Sumac) was retained to prepare an Environmental Impact Study (EIS), scoped to wetland, at 1630 6<sup>th</sup> Line in the Township of Selwyn (hereinafter referred to as the 'subject property'). It is our understanding that the landowner wishes to establish a custom car workshop within the existing attached garage.

The subject property is approximately 0.28 ha in size and contains a single-family dwelling, accessory structure, amenity space and natural cover (Figure 1). Background mapping suggests the presence of wetland on the subject property (Appendix A). The surrounding area is predominantly composed of agriculture fields and natural cover.

## **2.0 Planning Context**

### **2.1. Provincial**

#### **2.1.1. Conservation Authorities Act**

Regulated lands of the Otonabee Region Conservation Authority (ORCA) have been mapped on the subject property (Appendix B). As such, a work permit may be required for the purpose of the *Conservation Authorities Act*.

## **3.0 Characterizing the Natural Environment: Approach and Methodology**

The terms a reference was submitted to the Township and ORCA for review to better define the purpose and structure of the Scoped EIS (Appendix C). The field studies were scoped to a single-day site visit carried out on April 17, 2024.

### **3.1. Vegetation**

#### **3.1.1. Botanical Inventory**

A vascular plant inventory was completed on the subject property.

#### **3.1.2. Vegetation Communities**

Orthographic imagery of the subject property and adjacent lands was used for the basis of Ecological Land Classification (ELC) and further refined through a ground-truthing exercise. Vegetation communities were classified following protocol of the Ecological Land Classification (ELC) for Southern Ontario (Lee, H. et al., 1998) and associated Vegetation Type List (Lee, H., 2008), where applicable.

### **3.2. Wetland**

The subject property was screened for wetland feature(s) following the 50% vegetation rule as described in the Ontario Wetland Evaluation System Southern Manual (4<sup>th</sup> Edition). If present, wetland features were mapped and characterized. Orthographic imagery and digital elevation models were reviewed to assess for the presence of candidate wetland feature(s) on the adjacent lands.

### **3.3. Wildlife Habitat**

Incidental observations of wildlife and wildlife signs (e.g., scat, tracks, remains of food, claw marks on trees or shrubs, trails or corridors, stunted vegetation, stick nests, turned stones) on the subject property were noted during Sumac's field investigations.

## **4.0 Data Analysis**

### **4.1. Vegetation**

#### **4.1.1. Botanical Inventory**

A list of vascular plant species for the vegetation communities that extend onto the subject property has been provided for reference (Table 1).

#### **4.1.2. Vegetation Communities**

The subject property contained three (3) distinct communities (Figure 2):

1. CVR\_1 Low Density Residential: Approximately 2,665 m<sup>2</sup> of area consisted of the single-family dwelling, shed and amenity space.
2. FOCM5 Naturalized Coniferous Hedgerow Ecosite: A coniferous hedgerow occurred at the western edge of the subject property and bordered the road allowance. The community consisted almost entirely of Eastern white cedar with a shrub understory dominated by European buckthorn. The ground level was vegetated with forbs, graminoids and climbing woody vegetation (e.g., riverbank grape, Canada goldenrod, coltsfoot).
3. SWTM3 Willow Mineral Deciduous Thicket Swamp Ecosite: Approximately 114 m<sup>2</sup> of this community occurred along the western edge of the subject property and extended into the adjacent lands. A moderate to well vegetated shrub layer was dominated by willow species with European buckthorn and red-osier dogwood associates throughout. The ground level was vegetated with graminoids and forbs (e.g., Sensitive fern, grass-leaved goldenrod, reed canarygrass, narrow-leaved cattail).



## 4.2. Wetland

Background mapping from the Ministry of Natural Resources and Forestry (MNRF) illustrates an unevaluated wetland extending across much of the subject property and adjacent lands (Appendix A). A field investigation was completed on April 17, 2024 to refine the limits of wetland, where appropriate. Wetland was identified along the border of the subject property, extending into the adjacent lands (Figure 3). The wetland feature consisted of mixedwood and thicket swamp with mineral substrates. The wetland system is likely palustrine, draining to a tributary located approximately 140 m east of the subject property.

## 4.3. Wildlife Habitat

The following incidental wildlife observations were noted on the subject property during the field investigations:

- American robin (*Turdus migratorius*);
- Brown-headed cowbird (*Molothrus ater*);
- Killdeer (*Charadrius vociferus*);
- North American cardinal (*Cardinalis cardinalis*);
- Northern flicker (*Colaptes auratus*);
- Ruffed grouse (*Bonasa umbellus*).
- Song sparrow (*Melospiza melodia*); and
- Spring peeper (*Pseudacris crucifer*).

## 5.0 Project Description

The proposal is for a custom car workshop to be established within the existing attached garage as a home-based industry. No alteration to the existing structure is proposed. No outside storage or display areas are proposed. Three (3) parking spots are proposed along the western edge of the existing asphalt driveway (Figure 3).

## 6.0 Impact Assessment

### 6.1. Vegetation

Approximately 152 m<sup>2</sup> of the proposed development is located in the CVR\_1 community. Vegetation removal in this community is exclusive to mown lawn.

### 6.2. Wetland

The proposed development is not located in the SWT3 community and as such, no direct impacts to wetland are anticipated. A 30 m buffer to wetland is generally recommended to protect said feature and its functions by mitigating impacts of the proposed land use. The proposed

development is located 22 m from wetland at its closest point and in the amount of 80 m<sup>2</sup>. Areas with low native species diversity and fewer ecological functions, such as the portion of wetland buffer that extends onto the subject property, are generally less sensitive to impacts or stressors. The encroachment to wetland buffer as outlined above may be considered ‘minor’ in size (i.e., <1% of buffer area surrounding the wetland feature that extends across the greater landscape). Given this information, the proposed development is not anticipated to significantly impact the performance of the remaining portion of wetland buffer. Site specific measures are recommended to prevent the deposition of sediments and deleterious substances to wetland (Section 7.2.1 and 7.2.2).

### **6.3. Wildlife Habitat**

None of the identified wildlife are anticipated to be significantly impacted by the proposed development.

## **7.0 Conclusion and Recommendations**

### **7.1. Conclusion**

Should the proponent adhere to the proposed development plan and follow the prescribed recommendations as noted below (Section 8.2), negative impacts to the overall form and function of wetland are not anticipated. Furthermore, it is our understanding that the proposed development as described herein would not contravene applicable environmental policy and regulations as described in Section 2.0 of this report.

### **7.2. Recommendations**

#### **7.2.1. Perimeter Control**

A silt fence consisting of non-woven geotextile material wire looped to wooden/metal stakes installed at 2-m intervals for support should be erected prior to the onset of siteworks in the approximate location as depicted on Figure 3. The silt fence should remain in place for the duration of all construction activity. The silt fence should be buried into the ground a minimum 30 cm and compacted with native materials. We recommend diligent monitoring of said fence throughout the entirety of the development to ensure the integrity of the fence does not fail.

#### **7.2.2. Preventing Entry of Deleterious Substances in Aquatic Feature(s)**

Deleterious substances should never be deposited and/or enter aquatic features. A response plan should be prepared prior to the onset of site works and an emergency spill kit should be kept on-site during site activities. All machinery should be kept in a clean condition and free of fluid leaks. Washing, fueling and servicing machinery should not occur within 30 m of aquatic

features. Stockpiling of fill and/or construction material should not occur within 30 m of aquatic features.

### **7.2.3. Wildlife Encounters**

Any wildlife encountered during site clearing or subsequent construction activities should be allowed to exit the site on their own, via safe routes. Construction staff should not attempt to capture or handle most kinds of wildlife, unless an animal is in imminent peril or is injured and cannot wait for rescue by qualified personnel. Improper handling can result in injuries to both workers and wildlife, and may in some cases contravene provincial or federal legislation. Removal and relocation of mammals, in particular, should only be done by qualified wildlife service providers working in accordance with applicable laws (i.e., *Fish and Wildlife Conservation Act*). Observation records should include the observer's name, date and time, species, location (descriptive and georeferenced), photographs, and action taken.

## **8.0 References**

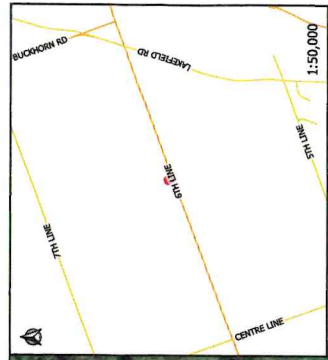
Lee, H., Bakowsky, W., Riley, J., Bowles, J., Puddister, M., Uhlig, P., McMurray, S., 1998. Ecological Land Classification for Southern Ontario: First Approximation and Its Application R.S.O. 1990, c C.27. Conservation Authorities Act.  
S.O. 1997, c. 41. Fish and Wildlife Conservation Act.

### **Limitations:**

This report was prepared using the most current site plan provided by the landowner to Sumac's office. The conclusion and recommendations provided herein may no longer be applicable should changes be made to site plan following submission of this report. The assessment provided herein is valid at the time of inspection.

### **Disclaimer:**

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Legend

- Subject Property
- Adjacent Lands

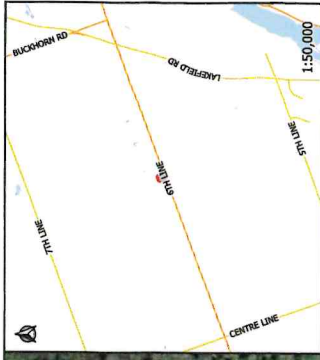
0 10 20 30 40 50 m

1:1,200

Figure 1: Subject Property

Designed by: N.R.  
 Date: 07/2024  
 Project: SEC 24-013  
 6th Line





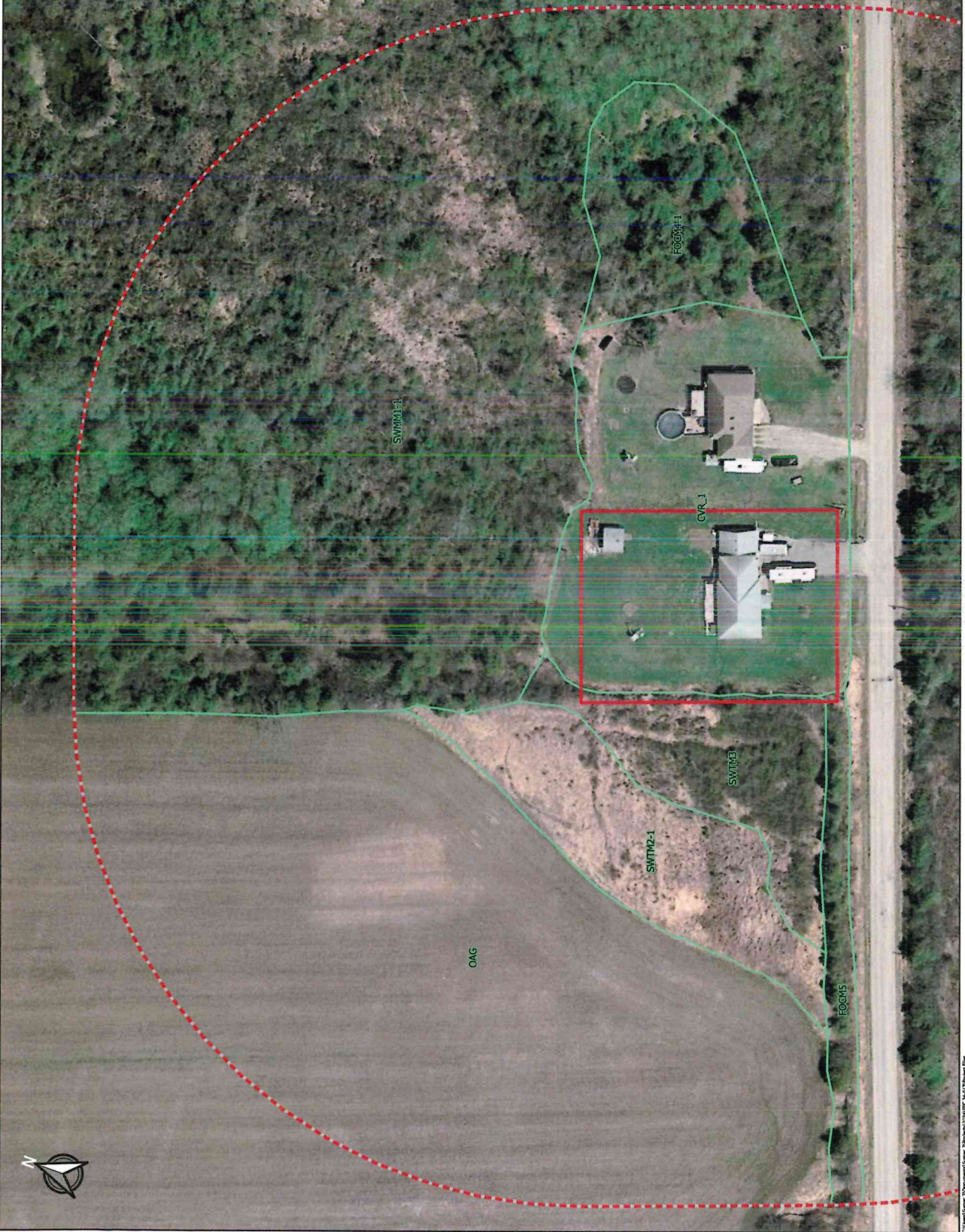
**Legend**

- Subject Property
- Adjacent Lands
- Watercourse
- ELC Vegetation Communities
- CVR\_1
- FOCM4-1
- FOCM5
- OAG
- SWMM1-1
- SWTM2-1
- SWTM3
- Low Density Residential
- Fresh-moist White Cedar Coniferous Forest Type
- Naturalized Coniferous Hedgerow Ecosite
- Open Agriculture
- White Cedar - Hardwood Mineral Mixed Swamp Type
- Red-oster Dogwood Mineral Deciduous Thicket Swamp Ecosite
- Willow Mineral Deciduous Thicket Swamp Ecosite

Scale: 0 10 20 30 40 m  
1:850

**Figure 2: Existing Conditions**

Designed by: N.F.  
Date: 05/28/2024  
Project: SBC 24-013



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Table 1: Vascular Plant Inventory

Scientific Name	Common Name	Vegetation Community <sup>A</sup>				S-Rank <sup>B</sup>	G-Rank <sup>C</sup>	Species at Risk Status		Non-native	Coefficient of Wetness
		FOCM5	SWTM3	SWMMI-1	CVR_1			Provincial <sup>D</sup>	Federal <sup>E</sup>		
<i>Acer negundo</i>	Manitoba Maple			✓		S5	G5				0
<i>Acer saccharinum</i>	Silver Maple				✓	S5	G5				-3
<i>Alliaria petiolata</i>	Garlic Mustard	✓		✓		SNA	GNR		✓		0
<i>Cirsium vulgare</i>	Bull Thistle	✓		✓		SNA	GNR		✓		3
<i>Cornus sericea</i>	Red-osier Dogwood		✓	✓		S5	G5				-3
<i>Daucus carota</i>	Wild Carrot	✓		✓		SNA	GNR		✓		5
<i>Equisetum arvense</i>	Field Horsetail	✓		✓		S5	G5				0
<i>Euthamia graminifolia</i>	Grass-Leaved Goldenrod		✓			S5	G5				0
<i>Fragaria virginiana</i>	Wild Strawberry	✓		✓		S5	G5				3
<i>Fraxinus nigra</i>	Black Ash	✓		✓		S4	G5	END			-3
<i>Galium mollugo</i>	Hedge Bedstraw	✓			✓	SNA	GNR		✓		5
<i>Lonicera tatarica</i>	Tatarian Honeysuckle	✓		✓		SNA	GNR		✓		3
<i>Onoclea sensibilis</i>	Sensitive Fern			✓		S5	G5				-3
<i>Parthenocissus quinquefolia</i>	Virginia Creeper	✓		✓		S4?	G5				3
<i>Phalaris arundinacea</i>	Reed Canarygrass	✓		✓		S5	G5				-3
<i>Plantago major</i>	Common Plantain				✓	SNA	G5		✓		3
<i>Poa pratensis</i>	Kentucky Bluegrass	✓		✓		S5	G5				3
<i>Populus tremuloides</i>	Trembling Aspen		✓			S5	G5				0
<i>Ranunculus recurvatus</i>	Hooked Buttercup			✓		S5	G5				-3
<i>Rhamnus cathartica</i>	European Buckthorn	✓		✓		SNA	GNR		✓		0
<i>Rubus idaeus</i>	Red Raspberry		✓		✓	S5	G5				3
<i>Salix bebbiana</i>	Bebb's Willow			✓		S5	G5				-3
<i>Salix discolor</i>	Pussy Willow	✓		✓		S5	G5				-3
<i>Salix petiolaris</i>	Meadow Willow			✓		S5	G5				-3
<i>Sanguinaria canadensis</i>	Bloodroot			✓		S5	G5				3
<i>Solidago altissima</i>	Tall Goldenrod		✓			S5	G5				3
<i>Solidago canadensis</i>	Canada Goldenrod	✓		✓		S5	G5				3
<i>Taraxacum officinale</i>	Common Dandelion	✓		✓		SNA	G5		✓		3
<i>Thuja occidentalis</i>	Eastern White Cedar	✓		✓		S5	G5				-3
<i>Tilia americana</i>	Basswood				✓	SNA	G5		✓		3
<i>Trifolium repens</i>	White Clover				✓	S5	G5				3
<i>Tussilago farfara</i>	Coltsfoot	✓		✓		SNA	GNR		✓		3
<i>Typha angustifolia</i>	Narrow-Leaved Cattail		✓			SNA	G5		✓		-5
<i>Ulmus americana</i>	White Elm	✓		✓		S5	G4				-3
<i>Vitis riparia</i>	Riverbank Grape	✓		✓		S5	G5				0

<sup>A</sup>Refer to Figure 2 for Ecological Land Classification descriptors.

<sup>B</sup>Provincial Ranking Status. Definitions of each S-Rank can be found at the following website: [https://caroliniancanada.ca/legacy/SpeciesHabitats\\_SRRank.htm](https://caroliniancanada.ca/legacy/SpeciesHabitats_SRRank.htm).

<sup>C</sup>Global Ranking Status. Definitions of each G-Rank can be found at the following website: [https://caroliniancanada.ca/legacy/SpeciesHabitats\\_GRank.htm](https://caroliniancanada.ca/legacy/SpeciesHabitats_GRank.htm).

<sup>D</sup>Species at Risk status as per the O. Reg. 230/08.

<sup>E</sup>Species at Risk status as per the *Species at Risk Act* (S.C. 2002, c.29).

## **List of Appendices**

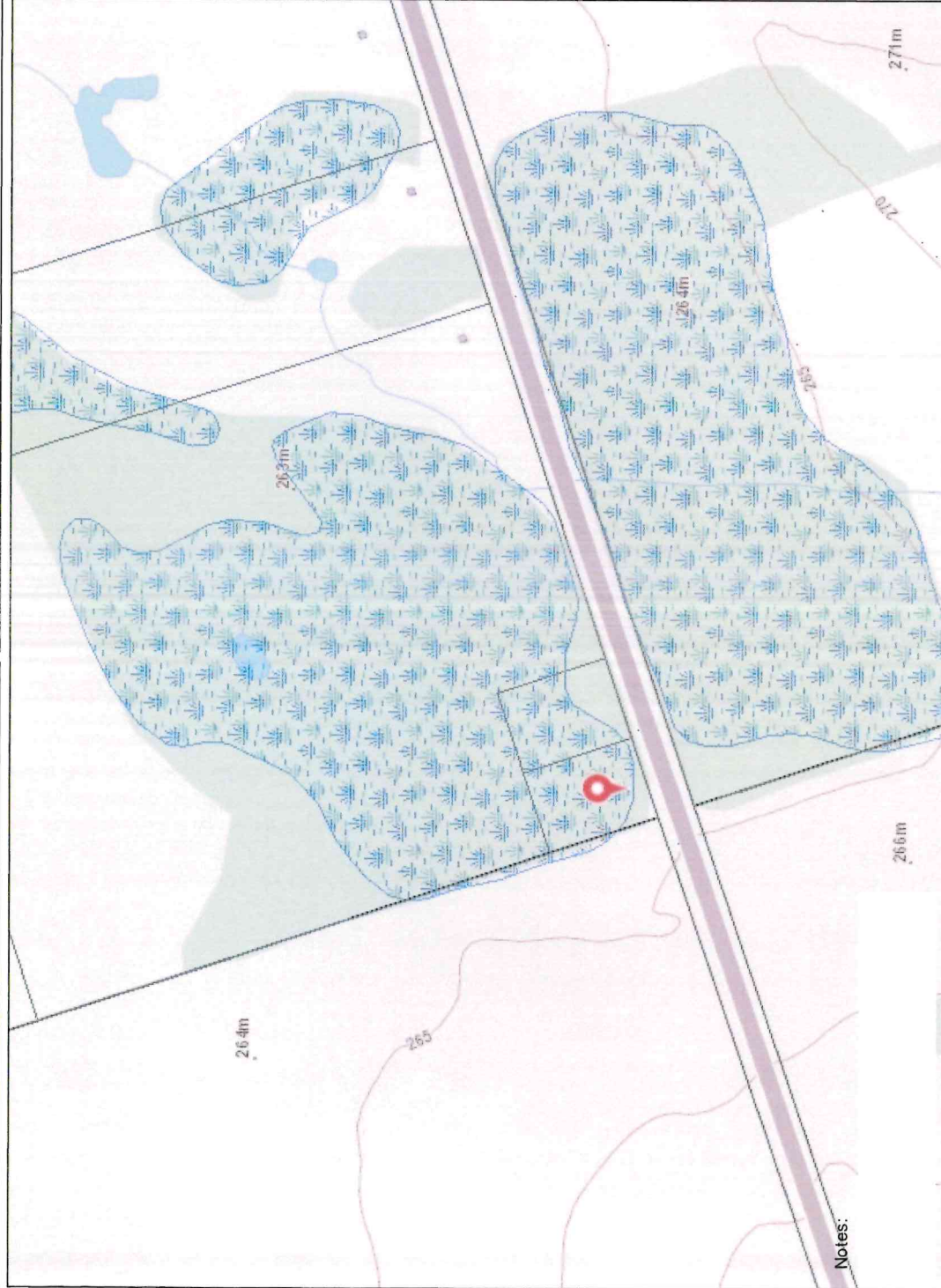
- Appendix A: Natural Heritage Areas Mapping
- Appendix B: ORCA Regulated Lands Mapping
- Appendix C: Terms of Reference Consultation



## **Appendix A: Natural Heritage Areas Mapping**

**Appendix A**

Map created: 5/23/2024



Notes:



This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources and Forestry (OMNRF) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.  
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**Legend**

- Assessment Parcel
- Evaluated Wetland
- Provincially Significant/considérée d'importance provinciale
- Non-Provincially Significant/non considérée d'importance provinciale
- Unevaluated Wetland



**Appendix B: ORCA Regulated Lands Mapping**