



74 Berkeley Street, Toronto, ON M5A 2W7  
Tel: 647-795-8153 | [www.pecg.ca](http://www.pecg.ca)

# **Environmental Impact Study (EIS), Francis Lake Georgian Bluffs, Grey County**

*Palmer Project #*  
2105701

*Prepared For*  
Allan Speer

September 29, 2022

September 29, 2022

Allan Speer  
17 Westgate Drive  
Port Elgin ON, N0H 2C1

Dear Allan Speer:

**Re: Environmental Impact Study (EIS), Francis Lake, Georgian Bluffs, Grey County**  
**Project #: 2105701**

---

Palmer is pleased to submit the following Environmental Impact Study (EIS) for the Subject Property located west of Grey Road 17, directly north of Concession 14 and south of Big Rock Road, and east of Francis Drive, in the Township of Georgian Bluffs. This EIS has been completed in support of a proposed residential development associated with a severance of the Subject Property.

The findings of our study are the result of a background review, field investigation and an analysis of data using the current scientific understanding of the ecology of the area, as well as current natural heritage policy requirements. The findings from the Wildland Fire Assessment (WFA) are also integrated into the text of the EIS, and mitigation measures are presented within the EIS. Based on the findings and recommendations of this study, it is our professional opinion that with the implementation of the mitigation measures as provided in this report, the proposed building envelopes are environmentally feasible.

Please let us know if you have question or comments on this submission.

Yours truly,

**Palmer™**

**Prepared By:**

*Regan Augustine*

---

Regan Augustine, B.Sc.  
Intermediate Ecologist

**Reviewed and  
Approved By:**

*Dirk Janas*

---

Dirk Janas, B.Sc.  
Principal Ecologist

# Table of Contents

---

Letter

<b>1.</b>	<b>Introduction .....</b>	<b>1</b>
<b>2.</b>	<b>Environmental Policy .....</b>	<b>3</b>
2.1	Migratory Birds Convention Act (1994) .....	3
2.2	Endangered Species Act (2007) .....	3
2.3	Provincial Policy Statement (2020) .....	3
2.4	Grey County OP (2019) .....	5
2.5	Township of Georgian Bluffs OP (2014) .....	6
2.6	Grey Sauble Conservation .....	8
<b>3.</b>	<b>Study Approach .....</b>	<b>8</b>
3.1	Background Review .....	8
3.2	Agency Consultation .....	9
3.2.1	Grey Sauble Conservation Authority .....	9
3.2.2	County of Grey .....	9
3.2.3	Township of Georgian Bluffs .....	9
3.3	Field Investigation Methods .....	10
3.3.1	Vegetation and Flora .....	10
3.3.2	Breeding Birds .....	10
3.3.3	Amphibian Breeding Survey .....	11
3.3.4	Incidental Wildlife .....	11
3.3.5	Species at Risk .....	11
3.3.6	Significant Wildlife Habitat .....	12
3.3.7	Wildland Fire Assessment (WFA) .....	12
<b>4.</b>	<b>Existing Conditions .....</b>	<b>13</b>
4.1	Physiography .....	13
4.2	Environmental Designations .....	13
4.3	Vegetation Communities .....	13
4.4	Flora .....	17
4.5	Breeding Birds .....	17
4.6	Amphibian Breeding Survey .....	18
4.7	Wildland Fire Assessment .....	18
4.7.1	MNRF Hazardous Forest Types .....	18
4.7.2	County of Grey OP .....	18
4.7.3	Wildfire Risk Assessment .....	21
4.7.3.1	Vegetation Communities – Wildfire Risk Assessment .....	22
4.7.4	Mitigation Principles .....	22
4.7.5	Mitigation Approaches and Techniques .....	23
4.7.5.1	Planning and Design .....	23

4.7.5.2	Vegetation/Fuel Management .....	23
4.7.5.3	Structural Mitigation and Techniques .....	24
4.8	Incidental Wildlife Observations .....	25
<b>5.</b>	<b>Assessment of Significance.....</b>	<b>25</b>
5.1	Species at Risk .....	25
5.2	Significant Wildlife Habitat.....	26
5.3	Significant Woodland .....	27
5.4	Summary .....	28
<b>6.</b>	<b>Proposed Development .....</b>	<b>28</b>
<b>7.</b>	<b>Impact and Mitigation Considerations .....</b>	<b>30</b>
7.1	Impacts .....	30
7.2	General Mitigation Measures .....	30
7.3	Specific Mitigation Measures.....	30
7.4	Significant Woodland .....	31
<b>8.</b>	<b>Policy Conformity.....</b>	<b>33</b>
<b>9.</b>	<b>Conclusion .....</b>	<b>34</b>
<b>10.</b>	<b>Certification .....</b>	<b>35</b>
<b>11.</b>	<b>References .....</b>	<b>36</b>

## List of Figures

---

Figure 1. Site Location .....	2
Figure 2. Existing Conditions .....	16
Figure 3. Wildfire Hazard Mapping .....	20
Figure 4. Proposed Severances and Development Areas.....	29

## List of Tables

---

Table 1. Ecological Field Surveys.....	10
Table 2. Natural Heritage Policy Conformity .....	33

## List of Appendices

---

Appendix A.	Vegetation Inventory
Appendix B.	Breeding Bird Inventory

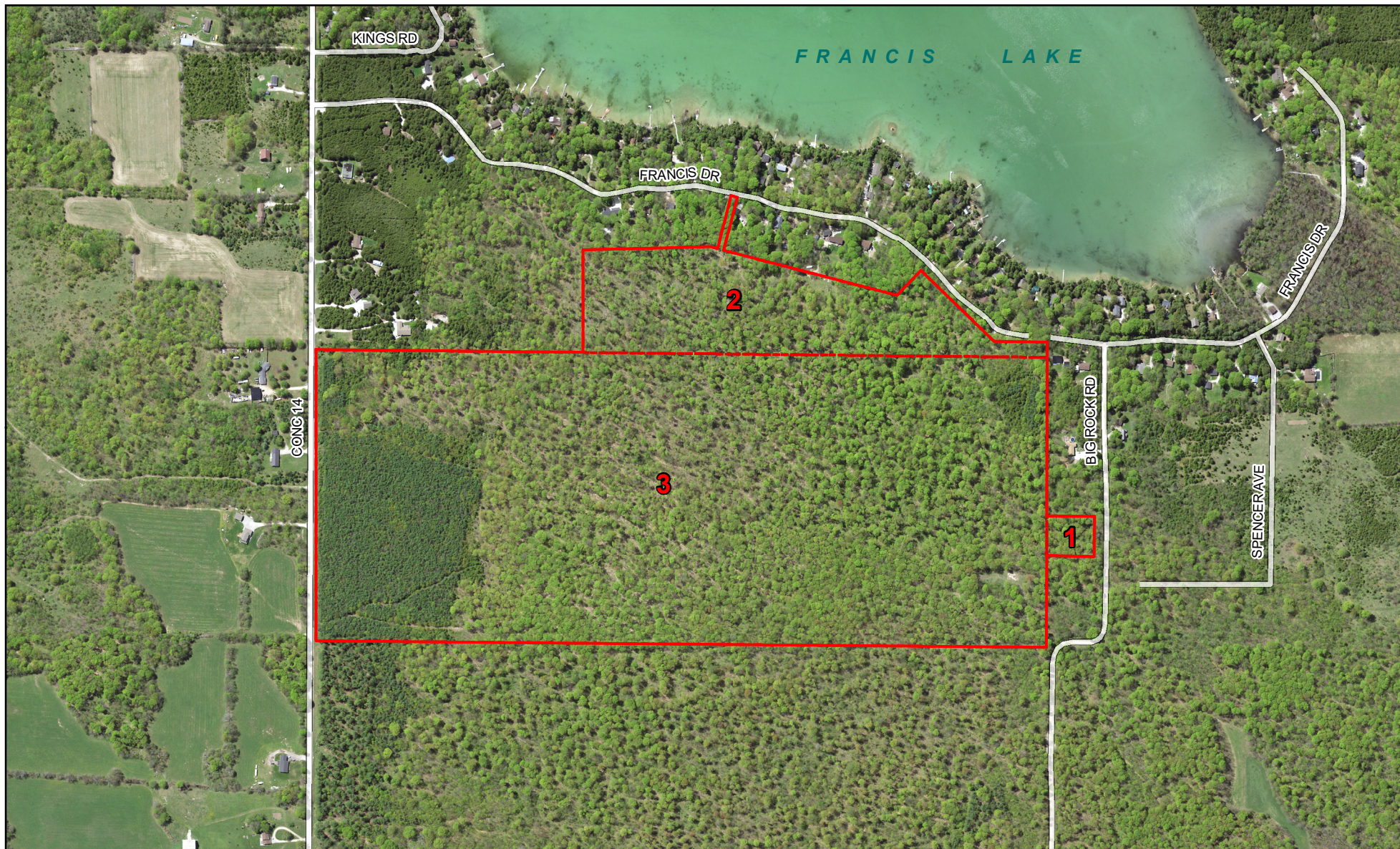
Appendix C.	Species At Risk Habitat Assessment
Appendix D.	Significant Wildlife Habitat Assessment
Appendix E.	Correspondence with GSCA

# 1. Introduction

Palmer has been retained by Allan Speer to complete an Environmental Impact Study (EIS) in support of severances for two rural residential development envelopes for the Subject Property (**Figure 1**). The Subject Property is comprised of three former lots which have been accidentally merged through a legal procedure. Thus, the proposed envelopes are:

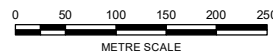
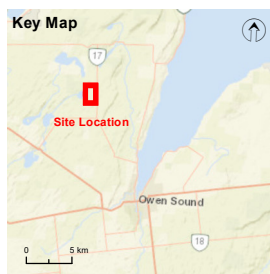
- Parcel 1: 0.36 hectares (ha) with 0.36 ha building envelope south of Big Rock Road;
- Parcel 2: 6.84 ha with 0.4 ha building envelope connected to Francis Drive; and
- Parcel 3: 40.84 ha with 0.4 ha building envelope proposed.

The Subject Property in total is 48.04 hectares (ha) in size. It is largely occupied by deciduous and coniferous forest as well as a cultural plantation at the southeast corner of the Subject Property. Residential lands and forest surround the north, east, and west property boundaries, while the southern property edges are residential lands and agricultural fields. Francis Lake is located west of the Subject Property west of Francis Drive. The EIS is focused on the general habitat in the three parcels proposed to be severed. This EIS is based on a natural heritage policy review, background data analysis, and field investigations.



LEGEND

- Subject Site
- Proposed Severance - with parcel number




North American Datum 1983  
Universal Transverse Mercator Projection Zone 17

Scale: 1:7,500  
Page Size: Letter (8.5 x 11 inches)

Drawn: BE  
Checked: ND  
Date: Jul 25, 2022

Source Notes:  
Imagery (2015) provided by County of Grey web map service.



CLIENT	Allan Speer	
PROJECT	Francis Lake EIS	
TITLE	Site Location	
	REF. NO.	2205701-1-3
	Figure 1	

## **2. Environmental Policy**

### **2.1 Migratory Birds Convention Act (1994)**

The Migratory Birds Convention Act, 1994 (MBCA) and Migratory Birds Regulations, 2014 (MBR) protect most species of migratory birds and their nests and eggs anywhere they are found in Canada (Government of Canada, 1994). General prohibitions under the MBCA and MBR protect migratory birds, their nests and eggs and prohibit the deposit of harmful substances in waters / areas frequented by them. The MBR includes an additional prohibition against incidental take, which is the inadvertent harming or destruction of birds, nests or eggs.

Compliance with the MBCA and MBR is best achieved through a due diligence approach, which identifies potential risk, based on a site-specific analysis in consideration of the Avoidance Guidelines and Best Management Practices information on the Environment Canada website (Government of Canada, 2018).

### **2.2 Endangered Species Act (2007)**

Species designated as Endangered or Threatened by the Committee on the Status of Species at Risk in Ontario (COSSARO) are listed as Species at Risk in Ontario (SARO). These species at risk (SAR) and their habitats (e.g., areas essential for breeding, rearing, feeding, hibernation and migration) are afforded legal protection under the Endangered Species Act, 2007 (ESA) (Government of Ontario, 2007). This Act is administered by the Ministry of Environment, Conservation and Parks (MECP).

The protection provisions for species and their habitat within the ESA apply only to those species listed as Endangered or Threatened on the SARO list, being Ontario Regulation 230/08 of the ESA. Species listed as Special Concern may be afforded protection through policy instruments respecting significant wildlife habitat (e.g., the Provincial Policy Statement (PPS)) as defined by the Province or other relevant authority, or other protections contained in Official Plan policies.

### **2.3 Provincial Policy Statement (2020)**

The *Provincial Policy Statement* (PPS) provides direction to regional and local municipalities regarding planning policies for the protection and management of natural heritage features and resources (Ontario Ministry of Municipal Affairs and Housing, 2020). The PPS defines eight types of Natural Heritage Features (NHF) and adjacent areas and provides planning policies for each. Of these NHF, development is not permitted in:

- Significant Coastal Wetlands;
- Significant Wetlands in Ecoregions 5E, 6E and 7E;
- Fish Habitat, except in accordance with provincial and federal requirements; or
- Habitat of species designated as Endangered and Threatened, except in accordance with provincial and federal requirements.

Additionally, unless it can be demonstrated through an Environmental Impact Study (EIS) that there will be no negative impacts on the natural features or their ecological functions, development and site alteration are also not permitted in:

- Significant Wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;
- Significant Woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River);
- Significant Valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River);
- Significant Wildlife Habitat;
- Significant Areas of Natural and Scientific Interest;
- Other Coastal Wetlands in Ecoregions 5E, 6E and 7E; and
- Lands defined as *Adjacent Lands* to all the above natural heritage features.

Each of these natural heritage features is afforded varying levels of protection subject to guidelines, and in some cases, regulations. The Subject Lands are located in Ecoregion 6E (Crins, Gray, Uhlig, & Wester, 2009). As depicted on the Ministry of Natural Resources and Forestry (MNRF) Natural Heritage Information Centre (NHIC) mapping the entire Subject Property is occupied by Woodland (**Map A**).

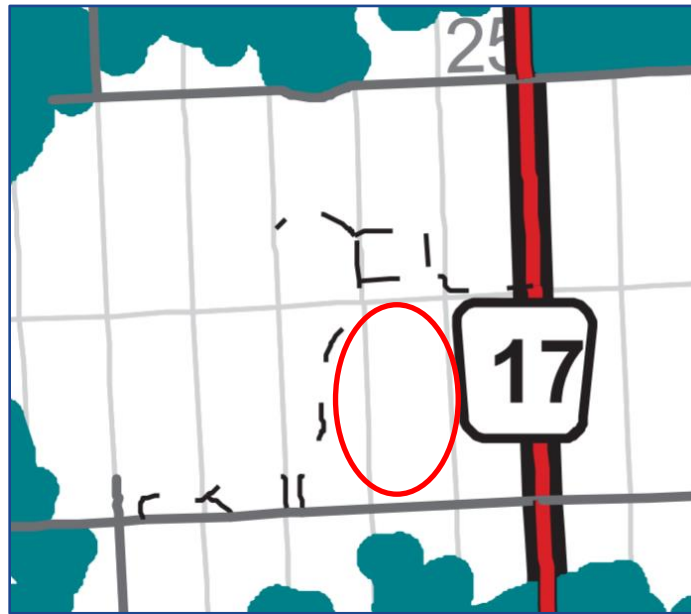


**Map A. Woodlands in Green and the Subject Property outlined in red (MNRF, 2021).**

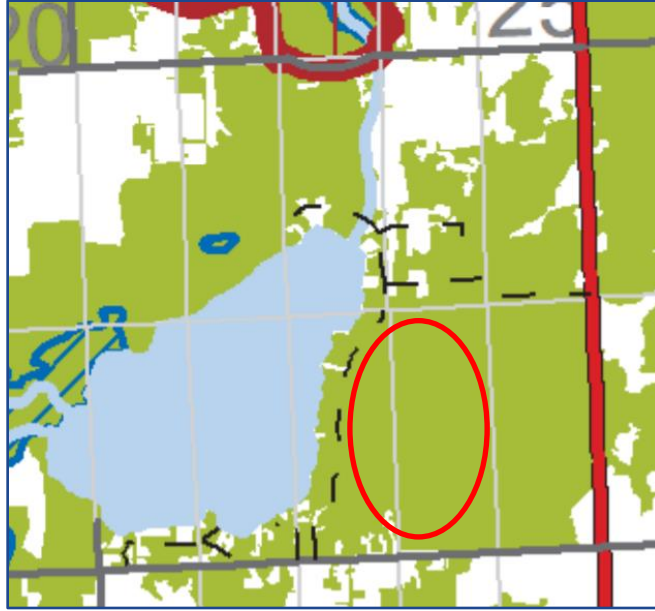
## 2.4 Grey County OP (2019)

The Grey County OP was adopted by Council on October 25, 2018, and approved by the Province on June 6, 2019. The OP provides general policies regarding the environment and requirements for an EIS.

Per the Grey County Official Plan (OP), the Subject Property is outside of Natural Heritage System Core Areas and Linkages and outside of the Niagara Escarpment Plan Area (Schedule C) (**Map B**). The Subject Property is completely occupied by Significant Woodland (Grey County Appendix B) (**Map C**). As stated in Section 7.4.1) “no development or site alteration may occur within a Significant Woodland or their adjacent lands unless it has been demonstrated through an EIS, ..., that there will be no negative impacts on the natural features or their ecological functions”.



*Map B. Natural Heritage System Core area in blue, red circle showing approximate Subject Property (Grey County Schedule C, 2019)*

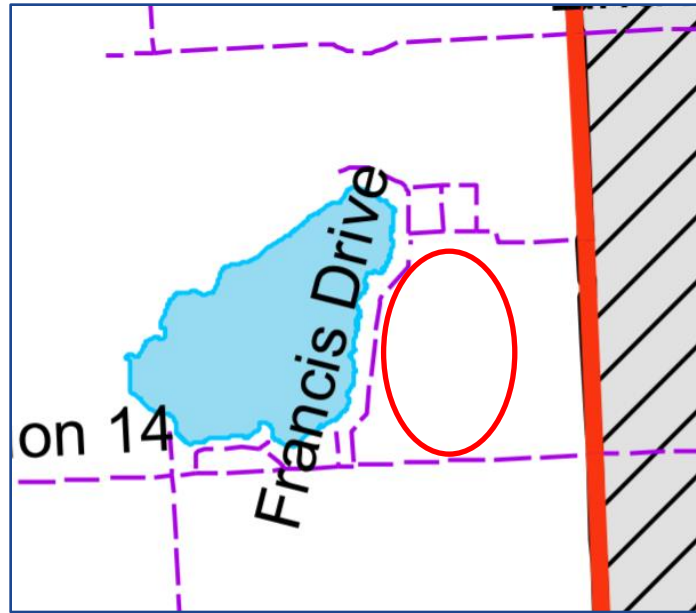


*Map C. Significant Woodlands area in green, red circle showing approximate Subject Property  
(Grey County Appendix B, 2019)*

## 2.5 Township of Georgian Bluffs OP (2014)

The Township of Georgian Bluffs OP was adopted by Council on August 8, 2012 and approved by the Ontario Municipal Board on February 24, 2014.

Per the Township of Georgian Bluffs OP, the Subject Property is outside of Settlement Area (Schedule A) (**Map D**). As stated in Section 2.4.3.3, “all development proposals within or adjacent to natural heritage features outlined in Section 2.4.3.1 and 2.4.3.2 shall articulate the extent of existing natural heritage features and indicate how development will not result in any impacts on the natural features or their ecological functions”.



**Map D. Niagara Escarpment Plan Area is in grey hashed area and the red circle showing the approximate Subject Property (Township of Georgian Bluffs Schedule A, 2014).**

As stated in Section 2.4 – Natural Heritage regarding Significant Woodlands:

#### Section 2.4.3.2

*For lands in and outside of the Township's settlement areas, natural features, such as Provincially Significant Wetlands, Areas of Natural and Scientific Interest, significant woodlands, and other recognized Wetlands have been identified and are shown on the Land Use Schedules and Appendices of the County of Grey Official Plan. Other features, such as significant ravines, valley, river and stream corridors, significant portions of threatened and endangered species habitat, fish habitat and significant wildlife habitats have not been specifically identified.*

*In the absence of mapping showing the various components of natural areas, this Plan will rely on environmental hazard mapping and wetland mapping provided in the County Official Plan and in consultation with relevant agencies.*

*2.4.3.3 All development proposals within or adjacent to natural heritage features outlined in Section 2.4.3.1 and 2.4.3.2 shall articulate the extent of existing natural heritage features and indicate how development will not result in any impacts on the natural features or their ecological functions. The Township may also utilize Site Plan Control under Section 41 of the Planning Act to ensure that adequate measures are implemented to protect those natural features identified on, or adjacent to, the site.*

In Section 3.4.6.1 General Policies for Natural Environment Areas, in regard to Significant Woodlands, the OP states:

*No development or site alteration shall be permitted within these areas and their adjacent lands unless it has been demonstrated through an acceptable EIS prepared by a qualified professional, in accordance with Section 5.4 of this Plan, that there will be no negative impacts on the natural*

*features or their ecological functions. Significant woodlands and ANSI mapping has been included in the Appendices to the County Official Plan.*

## 2.6 Grey Sauble Conservation

The Study Areas are within the jurisdiction of the Grey Sauble Conservation Authority (GSCA) however the Subject Property is not regulated by the GSCA (as shown on **Map E**), thus a permit under O. Reg. 151/06 will not be required. Nevertheless, the Township recommends that the study details be discussed with the Conservation Authority.



*Map E. GSCA regulated area in yellow (GSCA Regulations Mapping, 2022)*

## 3. Study Approach

### 3.1 Background Review

Palmer has reviewed relevant background material to provide a focus on field investigations and ensure compliance with applicable regulations and policies. Background information collection is guided by the *Natural Heritage Information Request Guide* (MNRF, 2018). Current direction from the Ministry of Natural Resources and Forestry (MNRF) and Ministry of Environment, Conservation and Parks (MECP) is to gather natural heritage information and species occurrence records from available sources; the Natural Heritage Information Centre (NHIC) Make Make-a-Map application being the main source of information and records from the Ministry itself (MNRF, 2021). Information gathered is recommended to be balanced and supplemented by a professional ecological review of potential habitats and characteristics of a project site.

The background review included the collection and review of relevant mapping and reports, including regulations and policies, Official Plans and the NHIC Make-a-Map application for species occurrences and designated area mapping. In addition to these sources, the following data sources were reviewed for the project:

- **Land Information Ontario (LIO):** certain data types including aquatic resource area (ARA) information is available through these publicly available data layers (Government of Ontario, 2021).
- **Ontario Breeding Birds Atlas (OBBA):** Referenced Square 17TPJ04 for breeding bird records in the general vicinity (Bird Studies Canada, 2021).

Note, as of April 2019, the MECP is responsible for issues regarding Species at Risk (SAR). Following the *Information Request Guide* (MNRF, 2018), MECP advice and direction should be solicited once SAR interactions or potential interactions are identified via field investigations and analysis.

## 3.2 Agency Consultation

### 3.2.1 Grey Sauble Conservation Authority

A Terms of Reference (TOR) was submitted to a Planner at GSCA, Olivia Sroka, on November 5, 2021. The TOR was submitted for GSCA to review and comment on the proposed EIS to ensure the TOR fulfills GSCA's requirements. GSCA generally accepted the TOR but provided comments regarding the timing the field investigations were conducted. GSCA requested on March 21, 2022 that a spring survey be completed and considered within the EIS. GSCA is of the opinion that this is necessary to capture spring vegetation emergence, breeding birds and potential woodland amphibian breeding as outlined in the Bruce County EIS Guidelines. With the inclusion of the spring survey, GSCA accepts the TOR (see full correspondence in **Appendix E**).

### 3.2.2 County of Grey

A Terms of Reference (TOR) was submitted to the Planning Department at the County of Grey, on March 9, 2022. The TOR was submitted for the County of Grey to review and comment on the proposed EIS to ensure the TOR fulfills the County of Grey's requirements. A response was received on March 21, 2022 and the County staff are generally satisfied with the scope of review outlined in the TOR. A comment was made that there is a mapped area of 'high risk' for wildland fire immediately to the west of the subject lands (outlined in Appendix A of the County OP). The County recommends it would be helpful if the EIS could provide some suggestions on how to adequately mitigate risks associated with wildfire. This is provided in **Section 4.7**.

### 3.2.3 Township of Georgian Bluffs

A TOR was also submitted to a planner at the Township of Georgian Bluffs as recommended by the County of Grey planning department on March 21, 2022. A response was received on March 25, 2022 and the Township is satisfied with the scope of the TOR.

### 3.3 Field Investigation Methods

Palmer ecologists undertook field investigations to inventory the flora and fauna of the site, assess physical terrain characteristics, and to provide an assessment of the ecological features and functions within the Subject Property. Specifically, ecological surveys included in-field data collection for vegetation communities, flora, breeding bird surveys, amphibian breeding survey and general wildlife observations (**Table 1**). Field surveys covered the entirety of the subject property except where noted below. A SAR habitat screening and Significant Wildlife Habitat (SWH) assessments were undertaken which were supplemented with field observations. Detailed methods are given below.

**Table 1. Ecological Field Surveys**

Date	Survey Type	Weather Conditions
June 24 <sup>th</sup> , 2021	Botanical Inventory 1	20°C, 60% cloud cover, 10-30 km/h wind
July 30 <sup>th</sup> , 2021	Botanical Inventory 2	16°C, 80% cloud cover, 16km/h wind
May 25, 2022	Spring Flora Botanical Inventory	8°C, 50% cloud cover, 8 km/h wind
June 24 <sup>th</sup> , 2021	Breeding Birds Survey 1	20°C, 60% cloud cover, 10-30km/h wind
July 6 <sup>th</sup> , 2021	Breeding Birds Survey 2	20°C, 100% cloud cover, 13 km/h wind
May 25, 2022	Breeding Birds Survey 3	8°C, 50% cloud cover, 8 km/h wind
April 25, 2022	Amphibian Breeding Survey and Vernal Pool Screening	9°C, 80% cloud cover, 7-11 km/h wind

#### 3.3.1 Vegetation and Flora

Botanical surveys were completed by traversing the Subject Property and recording species observed. Identified vascular plants were checked for their status at local, regional, and provincial levels. Provincial plant status was based on the Species at Risk in Ontario (SARO) (Ontario Ministry of Natural Resources and Forestry, 2018) and the NHIC.

Vegetation communities were mapped and described following the Ecological Land Classification (ELC) System for Southern Ontario (Lee *et al.* 1998). Vegetation community boundaries were delineated on field maps through the interpretation of recent aerial photographs and refined in the field. Information collected during ELC surveys includes dominant species cover, community structure, as well as level of disturbance, presence of indicator species, and other notable features.

#### 3.3.2 Breeding Birds

Breeding bird surveys were conducted using a roving survey method whereby the parts of the site where proposed development may occur were covered. Thus, these areas were surveyed: Area A - Parcel 1 and immediately adjacent area, Area B - Parcel 2 near the access from Francis Road and Area C the south end of Parcel 3, up to approximately 75 m along Concession 14). The site was walked such that the observer was within about 50 m or less of these parts of the site. Palmer conducted three breeding bird surveys, more than one week apart within the peak breeding season, on June 24<sup>th</sup> and July 6<sup>th</sup>, 2021, and May 25<sup>th</sup>, 2022. Surveys were conducted between 5:30 and 10:00 a.m. to coincide with the dawn chorus. Surveys

were conducted under suitable weather conditions. The surveyor used a site map to record all bird species and individuals seen and heard in the approximate location observed.

### **3.3.3 Amphibian Breeding Survey**

One early amphibian survey was completed at three stations, consisting of one station per parcel, during the breeding amphibian season (April). The amphibian breeding survey was completed on April 25, 2022, following the Environment Canada's Marsh Monitoring Program protocol for surveying amphibians (Bird Studies Canada, 2009). The survey method provides an indication of amphibian abundance during the breeding season. Species were identified by call, and an abundance code for each species heard calling was assessed by the following the Amphibian Monitoring protocol:

- Code 0: No calls heard.
- Code 1: Calls not overlapping or simultaneous, number of individual frogs can be counted
- Code 2: Calls overlapping or simultaneous, number of individuals can still be distinguished, number of individual frogs cannot be counted, but a reliable estimate of numbers can be made based on location and call voices
- Code 3: Full chorus, calls simultaneous and overlapping, numbers of calling males cannot be reasonably counted or estimate

A screening was also completed for vernal pool presence in the forested communities in each of the three parcels. Each parcel was traversed to determine the presence of vernal pools. The screening included recording the location, size, water depth and eggs masses for amphibians.

### **3.3.4 Incidental Wildlife**

Incidental observations of wildlife were made during all field investigations. Palmer ecologists traversed the site, noting any evidence of wildlife or sensitive habitat features (e.g., potential amphibian breeding habitat, stick nests) as well as gaining a general characterization of available habitat.

### **3.3.5 Species at Risk**

For the purposes of this report, SAR include species listed as Endangered, Threatened or Special Concern under Ontario's ESA. The protection provisions for species and their habitat within the ESA apply only to those species listed as Endangered or Threatened on the SARO list. Special Concern species may be afforded protection through policy instruments respecting significant wildlife habitat as defined by the Province or other relevant authority, or other protections contained in OP policies.

Prior to field work, existing SAR records were queried through the NHIC database. Habitat opportunities for SAR on the site were then assessed by comparing habitat preferences of species deemed to have potential to occur to current site conditions. The species noted during the NHIC search and others known through professional experience to have potential to occur in urban environments were considered in the assessment.

### 3.3.6 Significant Wildlife Habitat

A habitat suitability assessment for SWH characteristics was conducted as part of the field information gathering efforts in order to determine whether SWH is present, potentially present, or absent within or adjacent to the Subject Property.

### 3.3.7 Wildland Fire Assessment (WFA)

The document entitled Wildland Fire Assessment and Mitigation Reference Manual (MNRF 2017) outlines the process for completing a WFA. Accordingly, *“the manual represents the province’s recommended technical criteria and approaches for assessing risk, and in areas where hazardous forest types are present, assessing and determining the environmentally appropriate measures to mitigate those risks for proposed development”*. Based on Chapter 5 of the manual, a WFA is completed through the following two level of assessments:

#### Level 1 Assessment

This level involves completing background review to determine the presence of forest cover and identified hazardous forest types in the area. This includes reviewing online mapping tools and data, including aerial photography, MNRF Make-a-Map: Natural Heritage Areas mapping application, MNRF wildland fire hazard mapping, provincial Forest Resources inventory results and site inspections.

#### Level 2 Assessment

Should forest cover or hazardous forest types be identified at the site during the Level 1 Assessment, then the completion of a Level 2 Assessment is warranted. This assessment involves a field investigation (during appropriate conditions, i.e., snow-free) to characterize on-site forest communities and assessment of the fire hazard risks associated with them. Based on Section 5.3.2 of the manual, a Level 2 assessment should document and consider the following items for the site and surrounding lands during the site visit:

- *forest composition and predominant vegetation (fuel types), particularly those that are associated with high to extreme wildland fire;*
- *forest conditions (e.g., presence of disease, storm or insect damage);*
- *forest arrangement and density (i.e. trees close to each other);*
- *presence of ladder fuels (e.g., conifer species with branches within 2 m of the ground); and,*
- *ground fuel accumulation.*

Any proposed development within or adjacent to lands identified as being hazardous forest types should consider implementation of appropriate measures to mitigate (if possible) associated fire risk. Observations made during Palmer’s 2021 and 2022 field investigations and Ecological Land Classification were used to determine the wildland fire risk of on-site forest communities.

## 4. Existing Conditions

### 4.1 Physiography

The Subject Property is within the Bruce Peninsula physiography region. The soil is characterized as being very shallow with limestone outcrops.

### 4.2 Environmental Designations

The Subject Property does not include provincially designated features such as, significant wetland, Area of Natural and Scientific Interest (ANSI) or Environmentally Significant/Sensitive Area (ESA). However, based on Grey County designations, the Subject Property has been identified as Significant Woodland.

### 4.3 Vegetation Communities

Vegetation communities are shown on **Figure 2** and a summary of vegetation communities are provided below. Representative photos of vegetation communities are also included.

#### *Terrestrial*

##### Fresh - Dry Sugar Maple - White Ash Deciduous Forest (FOD5-8)

This community covers most of the property parcels. The canopy is dominated by Sugar Maple (*Acer saccharum*) and White Ash (*Fraxinus americana*) (**Photo 1 to 3**). The subcanopy is dominated by Ironwood (*Ostrya virginiana*), White Birch (*Betula papyrifera*) and American Beech (*Fagus grandifolia*). Ground cover species includes of Blue Cohosh (*Caulophyllum thalictroides*), Jack-in-the-pulpit (*Arisaema triphyllum*), Intermediate Wood Fern (*Dryopteris intermedia*), White Ash saplings and Red Raspberry (*Rubus idaeus*).



*Photo 1. FOD5-8 Fresh-Dry Sugar Maple - White Ash Deciduous Forest*



*Photo 2. FOD5-8 Fresh-Dry Sugar Maple – White Ash Deciduous Forest*



*Photo 3. FOD5-8 Fresh - Dry Sugar Maple – White Ash Deciduous Forest*

Dry-Fresh White Cedar Coniferous Forest (FOC2-2)

This community is in the southwest corner of the Subject Property. The canopy is dominated by Eastern White Cedar (*Thuja occidentalis*) (**Photo 4**). This community has sparse vegetation in the understory and ground cover, providing less than 10% cover. The ground is covered by leaf litter, fallen branches and rocks covered in moss.



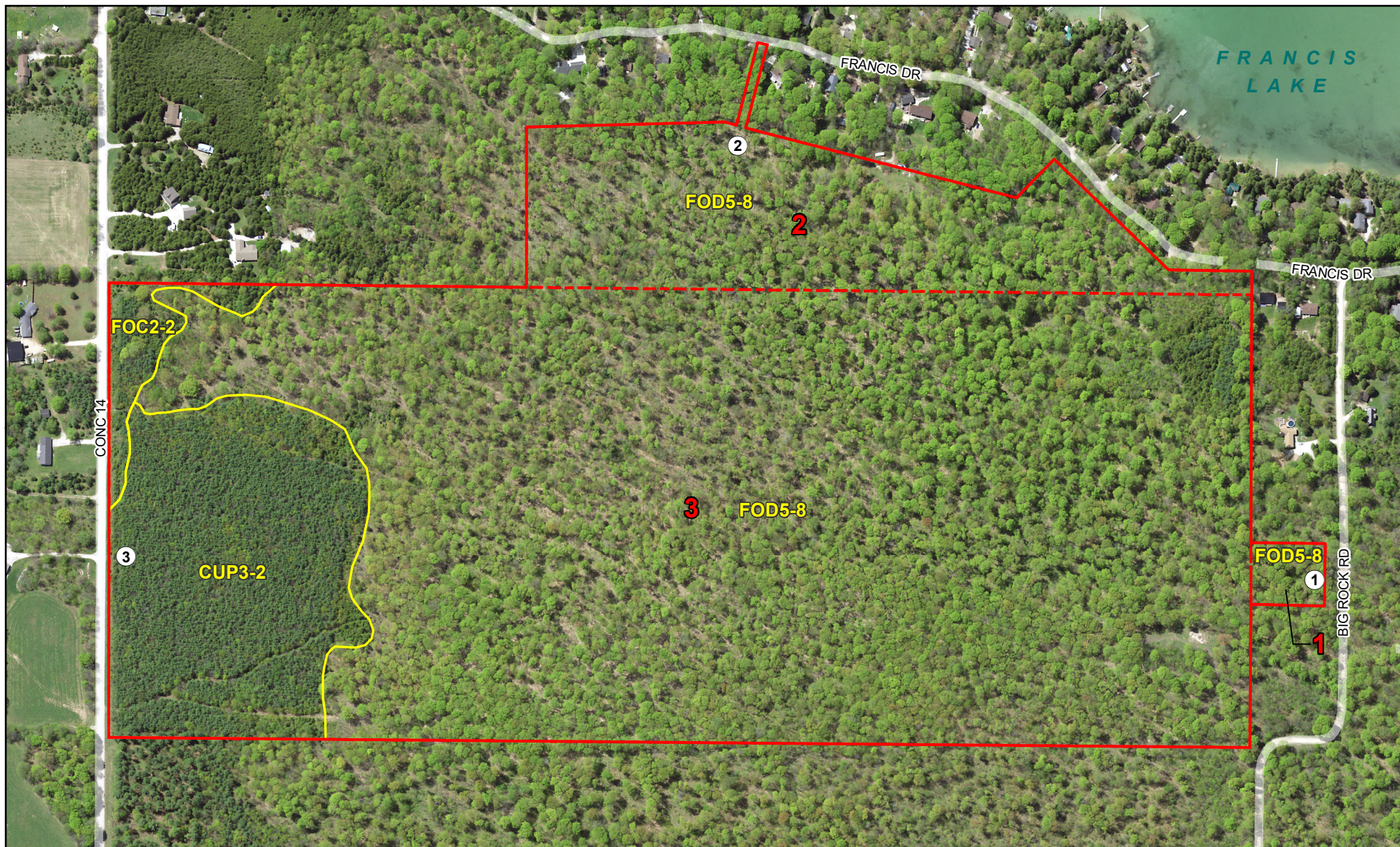
*Photo 4. FOC2-2 Dry-Fresh White Cedar Coniferous Forest*

White Pine Coniferous Plantation (CUP3-2)

This community is in the southwest corner of the Subject Property. The canopy is dominated by White Pine (*Pinus strobus*), which have been planted in rows and have diameter at breast height of 10-20 cm (**Photo 5**). The canopy also has Sugar Maple, White Ash and Eastern White Cedar, providing 20-25% cover. The groundcover is dominated by White Ash saplings and Helleborine (*Epipactis helleborine*).



*Photo 5. CUP3-2 White Pine Coniferous Plantation*



# LEGEND

○ Amphibian Monitoring Stations

□ Subject Site

⬭ ELC Community

⬭ Proposed Severance - with parcel number

## ELC Communities

FOD5-8: Dry-Fresh Sugar Maple – White Ash Deciduous Forest

CUP3-2: White Pine Coniferous Plantation

FOC2-2: Dry-Fresh White cedar Coniferous Forest



North American Datum 1983  
Universal Transverse Mercator Projection Zone 17

Scale: 1:4,800  
Page Size: Letter (8.5 x 11 inches)

Drawn: BE/SM  
Checked: ND  
Date: Jul 25, 2022



Source Notes:  
Imagery (2015) provided by County of Grey web map service.

CLIENT  
Allan Speer

PROJECT  
Francis Lake EIS

TITLE  
**Existing Conditions**

**Palmer™**

REF. NO. 2205701-2-4

**Figure 2**

## 4.4 Flora

A total of 68 species of vascular plants were recorded on and surrounding the Subject Property (**Appendix A**). About 69% of the species identified are native to Ontario. Nine exotic species were recorded on and surrounding the Subject Property and some include Broad-leaved Helleborine, Common Dandelion (*Taraxacum officinale*), European Buckthorn (*Rhamnus cathartica*), Norway Spruce, Blue Spruce, Scots Pine and Coltsfoot. All native plants are identified as S5 or S4 ranking, indicating that they are common within Ontario (MNRF, 2021). No Species at Risk plants were observed during the 2021 field investigations.

Two Northern Holly Fern (*Polystichum lonchitis*) individuals were observed in Parcel 2. This species is most often found in calcareous woodlands on the Bruce Peninsula and Lake Huron areas, and at 9, has a high Coefficient of Conservation. 'Higher values of the coefficients of conservatism, on the scale of 1–10, indicate species that are more "conservative" (or ecologically sensitive), including those least associated with anthropogenic disturbance, least aggressive, least able to spread, and most confined to particular natural habitat' (Catling 2013).

## 4.5 Breeding Birds

Twenty-nine species of birds were observed across the areas surveyed (**Appendix B**). Species observed in the parcels are also shown in the **Appendix B**. As expected, most species observed were forest associated species (for example Red-eyed Vireo [*Vireo olivaceus*], woodpeckers, thrush and warbler species), while a few are edge species (for example Cedar Waxwing [*Bombycilla cedrorum*] and Song Sparrow [*Melospiza melodia*]). Species observed in Area C included those that prefer or require conifers (e.g. Black-throated Green Warbler [*Setophaga virens*] and Black-and-White Warbler [*Mniotilta varia*]), while those of the other two parcels were dominated by species that prefer deciduous woodlands (e.g. Red-eyed Vireo etc.).

Area-sensitive bird species were recorded from the property and while not rare, such species are associated with higher quality habitats and generally require large areas of continuous habitat for breeding and foraging or are more productive in larger areas of habitat. The specific habitat requirements vary by species. Of the forest species observed, 10 were area-sensitive species: Pileated Woodpecker (*Dryocopus pileatus*), White-breasted Nuthatch (*Sitta carolinensis*), Scarlet Tanager (*Piranga olivacea*) two thrush species and five forest warblers, as listed below.

- Blackburnian Warbler (*Setophaga fusca*) – 1 territory, south parcel
- Black-and-white Warbler (*Mniotilta varia*) – 1, south parcel
- Black-throated Green Warbler (*Setophaga virens*) – 3 total, south and west parcels
- Hermit Thrush (*Catharus guttatus*) – 1, south parcel
- Ovenbird (*Seiurus aurocapillus*) – 5, across site
- Pileated Woodpecker (*Dryocopus pileatus*) – 1, south parcel
- Pine Warbler (*Setophaga pinus*) – 1, south parcel
- Scarlet Tanager (*Piranga olivacea*) – 1, north parcel
- Veery (*Catharus fuscescens*) – 1, west parcel
- White-breasted Nuthatch (*Sitta carolinensis*) – 1, north parcel

Small numbers of two provincial Special Concern species, Eastern Wood-Pewee and Wood Thrush were recorded in each parcel. Both of these species are relatively widespread and still common woodland birds. No additional avian Species at Risk were recorded. All bird species observed are provincially ranked as S4 and S5 – that is not S1 through S3 (Critically Imperiled through Vulnerable).

## 4.6 Amphibian Breeding Survey

During the amphibian survey in the forested communities in Parcel 1, 2 and 3, there were no amphibians heard at Station 1 to 3 (shown on **Figure 2**). There was a full chorus of Spring Peepers (*Pseudacris crucifer*) calling greater than 100 m away from Francis Lake to the west of the Subject Property. There were no vernal pools found in Parcel 1, 2 or 3, thus it was expected that no breeding amphibians would be recorded.

## 4.7 Wildland Fire Assessment

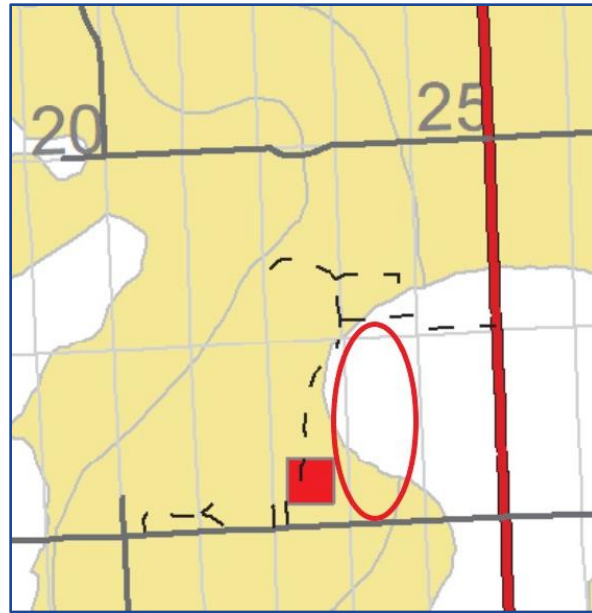
As part of this Environmental Impact Study, Palmer has completed a preliminary Wildland Fire Assessment. This WFA incorporates a background review of applicable data, incorporation of field data from the EIS and an analysis incorporating information contained within the *Wildland Fire Assessment and Mitigation Reference Manual in support of the Provincial Policy Statement, 2014* (MNRF, 2017).

### 4.7.1 MNRF Hazardous Forest Types

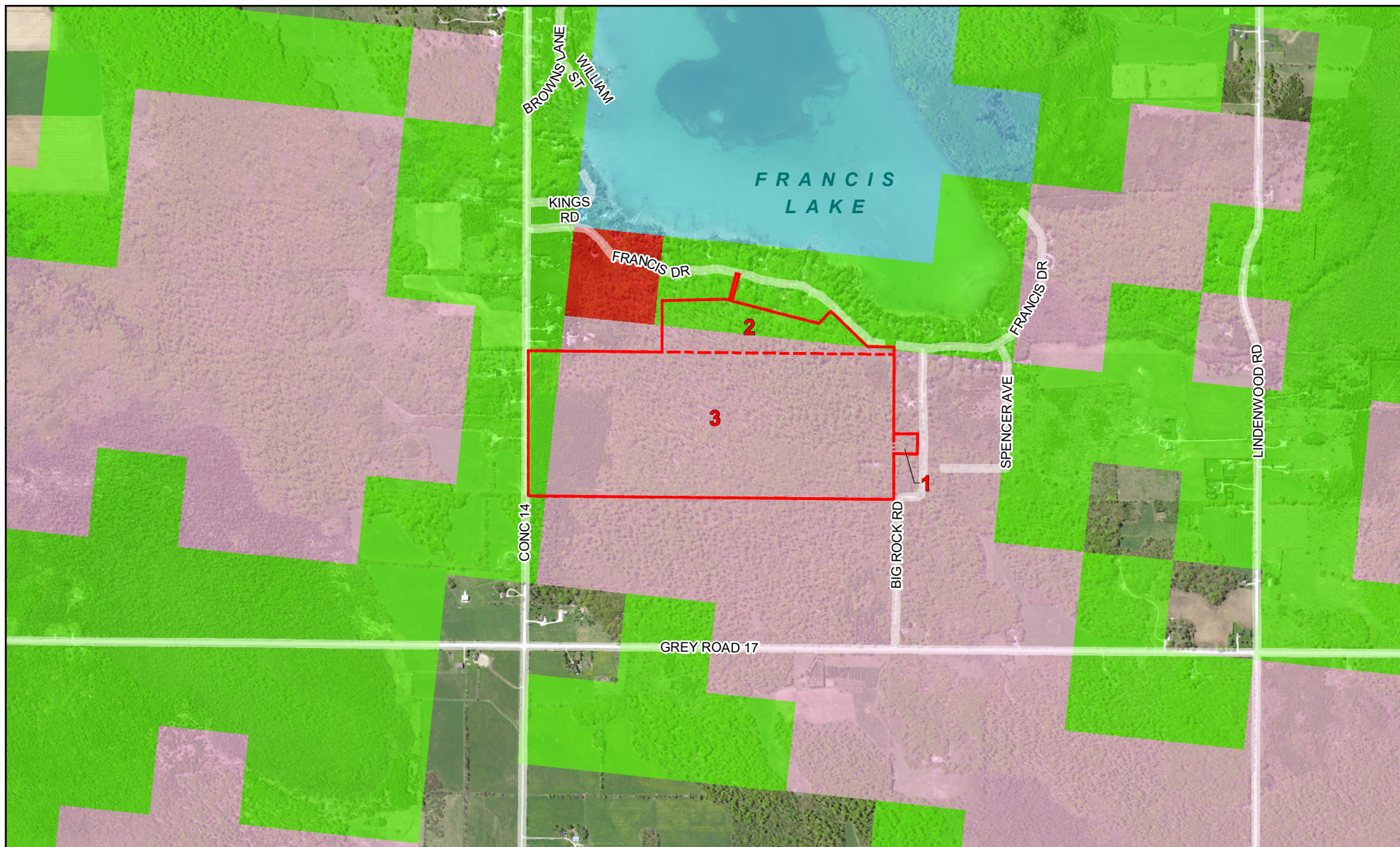
The MNRF provides a Potential Hazardous Forest Types database, which was viewed through GIS software and is shown on **Figure 3**. The database indicates the forests in the vicinity of the property contain lands with several classifications: Moderate (Green) and Low (Pink), and that on the property, most forests are considered Low Potential Hazard Fuel Type.

### 4.7.2 County of Grey OP

According to the County of Grey OP, in Appendix A Constraint Mapping – Map 1 the Subject Property is designated as Karst Area on the southern portion of Parcel 3 and a Hazardous Forest Types for Wildland Fires – Extreme has been identified to the west of the Subject Property (**Map F**).



***Map F. County of Grey Appendix A Constraint Mapping – Map 1 (yellow = karst area and red square = Hazardous Forest Types for Wildland Fires – Extreme)***



<div>LEGEND</div> <div><div><div></div><div>Subject Site</div></div><div><div></div><div>Proposed Severance - <i>with parcel number</i></div></div></div> <div><div>1 - MNRF</div></div>		<div>Potential Hazardous Fuel Types for Wildland Fires<sup>1</sup></div> <div><div><div></div><div>Extreme - C1, C2, C4</div></div><div><div></div><div>High - C3, M2&gt;50%, M4</div></div><div><div></div><div>Pine Needs Evalutaion - C5, C6</div></div><div><div></div><div>Low - D1, M2&lt;25%</div></div><div><div></div><div>Water</div></div><div><div></div><div>Moderate - M2 &gt;25% - &lt;50%</div></div></div>	<div><div><div><div>0100200300400500</div><div>METRE SCALE</div></div><div><div>North American Datum 1983</div><div>Universal Transverse Mercator Projection Zone 17</div></div><div><div>Scale: 1:15,000</div><div>Page Size: Letter (8.5 x 11 inches)</div></div><div><div>Drawn: BE/SM</div><div>Checked: ND</div><div>Date: Jul 25, 2022</div></div><div><div><div></div><div>NORTH</div></div></div></div><div><div>Source Notes:</div><div>Imagery (2015) provided by County of Grey web map service.</div></div></div>	<div><div><div>CLIENT</div><div>Allan Speer</div></div><div><div>PROJECT</div><div>Francis Lake EIS</div></div><div><div>TITLE</div><div>Wildfire Hazard Mapping</div></div><div><div><div><div>Palmer™</div></div><div><div>REF. NO.</div><div>2205701-3-2</div></div><div><div>Figure 3</div></div></div></div></div>
--	--	---	---	---

### 4.7.3 Wildfire Risk Assessment

The document entitled Wildland Fire Assessment and Mitigation Reference Manual outlines the process for completing a WFA. Accordingly, *“the manual represents the province’s recommended technical criteria and approaches for assessing risk, and in areas where hazardous forest types are present, assessing and determining the environmentally appropriate measures to mitigate those risks for proposed development”*. Based on Chapter 5 of the manual, a WFA is completed through the following two level of assessments:

#### Level 1 Assessment

This level involves completing background review to determine the presence of forest cover and identified hazardous forest types in the area. This includes reviewing online mapping tools and data, including aerial photography, Ministry of Natural Resources and Forestry (MNRF) Make-a-Map: Natural Heritage Areas mapping application, MNRF wildland fire hazard mapping, provincial Forest Resources inventory results and site inspections.

#### Level 2 Assessment

Should forest cover or hazardous forest types be identified at the site during the Level 1 Assessment, then the completion of a Level 2 Assessment is warranted. This assessment involves a field investigation (during appropriate conditions, i.e. snow-free) to characterize on-site forest communities and assessment of the fire hazard risks associated with them. Based on Section 5.3.2 of the manual, a Level 2 assessment should document and consider the following items for the site and surrounding lands during the site visit:

- *forest composition and predominant vegetation (fuel types), particularly those that are associated with high to extreme wildland fire;*
- *forest conditions (e.g., presence of disease, storm or insect damage);*
- *forest arrangement and density (i.e. trees close to each other);*
- *presence of ladder fuels (e.g., conifer species with branches within 2 m of the ground); and,*
- *ground fuel accumulation.*

Any proposed development within or adjacent to lands identified as being hazardous forest types should consider implementation of appropriate measures to mitigate (if possible) associated fire risk.

Table 4-1 of the WFA Guidelines document outlines the characteristics that typically define the following levels of Wildland Fire Risk:

- Extreme/High (i.e., Dominated by dense stand of conifer species such as Jack Pine, spruce, fir and pine. Often represented by natural conifer forests and unmanaged conifer plantations. Abundance of “fine fuels” (i.e., leaves, needles), downed woody debris, ladder branches (<2m from ground).
- Moderate to Low (i.e., Mixedwood forests, with low to moderate (25 – 50%) conifer cover, little accumulation of ladder fuels and downed woody debris, forest canopy with noticeable gaps).

The wildland fire risk levels of each of the identified on-site forest communities have been assessed based on the WFA Guidelines criteria.

The wildland fire risk levels of each of the identified on-site forest communities have been assessed based on the WFA Guidelines criteria, as outlined below:

#### 4.7.3.1 *Vegetation Communities – Wildfire Risk Assessment*

##### FOD5-8: Dry - Fresh Sugar Maple – White Ash Deciduous

- This community is dominated by Sugar Maple and White Ash and there is a limited production of fuel source in this community.
- This community is ranked as low risk due to the species composition being a hardwood/deciduous forests composed of maple and ash, etc.

##### CUP3-2: White Pine Coniferous Plantation

- This community is dominated by Eastern White Pine and is an unmanaged plantation. The canopy also has Sugar Maple, White Ash and Eastern White Cedar, providing 20-25% cover. The groundcover is scattered with deciduous saplings.
- This community is ranked as moderate to low due to the forest composition, deciduous understory, little accumulation of ladder fuels and downed woody debris, forest canopy with noticeable gaps and mature White Pine are usually low risk.

##### FOC2-2: Dry - Fresh White cedar Coniferous Forest

- This community is dominated by Eastern White Cedar.
- This majority of this community is ranked as moderate but there is also a small sliver of the community ranked as low risk on the west side. The community is ranked as low and moderate due to the species composition, little accumulation of ladder fuels and downed woody debris and the forest canopy with noticeable gaps. This community has sparse vegetation in the understory and ground cover, providing less than 10% cover.

#### 4.7.4 **Mitigation Principles**

Chapter 6 of the MNRF *Wildland Fire Assessment and Mitigation Reference Manual* provides five principles that demonstrate the recommended approach to wildland fire mitigation and the specific techniques that may apply. The overall principle is that the mitigation for wildland fires must be consistent with the Provincial Policy Statement (PPS, 2014). The five principles include the following:

- *Principle 1 – Environmentally appropriate mitigation measures*
  - Mitigation measures must be consistent with the protection of natural heritage features in the PPS.
- *Principle 2 – Mitigating future risk*
  - The planning authority can have the proponent implement mitigation measures prior to decisions on planning applications and initiate future mitigation actions, consistent with policy 3.1.8 of the PPS.

- *Principle 3 – Scales of mitigation*
  - There are three scales of mitigation including: neighborhood/community, site-scale and structural-mitigation. The mitigation measures of different scales should be used in combination to be the most effective in reducing wildland fire.
- *Principle 4 – Defensible space through vegetation management: priority zones for vegetation management*
  - Most effective mitigation at the site level is maintaining and establishing defensible space around structures with priority zones for vegetation management (promoted by the Ontario's Fire Smart Program). This involves encompassing a zone in lands up to 100 m for each structure and divide into the following three concentric priority zones.
    - Zone 1: area immediate adjacent to proposed structure to distance of 10 m
    - Zone 2: between 10 m and 30 m
    - Zone 3: Between 30 m and 100 m
- *Principle 5 – When risk cannot be mitigated*
  - If risk cannot be mitigated, it is recommended to direct development in another area.

#### 4.7.5 Mitigation Approaches and Techniques

This WFA has been completed as part of a development application, and as such the following mitigation approaches should be considered for all future development works at the parcels.

##### 4.7.5.1 Planning and Design

Following Section 6.2.1 of the *WFA Manual*, the preferred approach for the mitigation of wildland fire risk, where possible, is to position building envelopes in the forest types with the lowest hazard levels. If positioning development to low-risk areas is not an option, then application of other planning and design mitigation should be applied.

It is recommended the building footprint is small and placed within an open area of no trees. Surrounding trees should be maintained to suit the aesthetic and surrounding natural environment.

##### **Site-specific Mitigation**

- Ensure a defensible space is kept clear between all structures and Zone 1 (10m) from all treed communities.
- Consider the risk associated with high-risk forest types shown on **Figure 3** and listed in section 4.7.3.1 above, and apply larger defensible space setbacks (up to 30m).
- Maintain vegetation including coarse woody debris as described in Principle 4 above in Zone 2 (30m) from all structures.

##### 4.7.5.2 Vegetation/Fuel Management

Section 6.2.2 of the *WFA Manual* provides guidance on mitigation approaches related to management of vegetation and forest fuels. Such management aims to alter the structure of on-site forest communities in

order to “*reduce fuel accumulations available to burn in a wildland fire*”. Vegetation management techniques are recommended as most important to be applied within a distance of 30 m from all proposed structures (Priority Zones 1 and 2), which is known as the “Home Ignition Zone”. Vegetation management within Zone 1 is aimed to prevent fire from direct contact with building structures and to create a non-combustible or “Defensible Space”, whereas management within Zone 2 aims to reduce the amount of flammable vegetation to discourage the spread of fire. Recommended vegetation management techniques are described as follows.

#### Surface Fuel Reduction

Surface vegetation is present in a variety of forms including immature trees, grasses, small shrubs, dead and down woody debris (branches, logs and twigs). Reducing the arrangement and amount of surface dry fuels will reduce the spread, intensity and rate of wildland fires. Fine fuels such as needles, brush and cured grasses, pruning debris and twigs, should be targeted for surface fuel treatments. These treatments include keeping grass cut, burning, mulching and chipping. It is further recognized that coarse downed woody debris also provides nutrient and wildlife benefits, so retention of some should occur but is recommended that this material is deposited in a manner that does not contribute to fire (i.e. spread out, not in piles). Reduction of surface fuels is most important within the immediate vicinity of building structures.

#### Spacing and Thinning

Spacing as a management technique “*involves the partial or selected removal of conifer trees from a forested area*” in order to reduce overall crown material volume, and in turn minimizes fire spread between trees. The most common thinning technique for minimizing crown fire spread involves the removal of intermediate and suppressed trees. The WFA Manual recommends reducing the overall canopy closure to 40%, “*or inter-tree distances of 1.5 times the crown width*”. Due to their higher flammability, conifer species should be targeted for removals.

#### Site-specific Mitigation

- Parcel 2 and 3 are located northeast and east of extreme-risk fire type as identified by the County and MNR (Figure 3). If future building envelopes are proposed near extreme-risk forest types, surface fuel reduction and spacing and thinning activities in the forests within Zone 1 and 2 of the structures may be recommended. For those identified as moderate to low-risk White Pine Coniferous Plantation (CUP3-2), these activities are recommended.

#### **4.7.5.3 Structural Mitigation and Techniques**

Although the implementation of vegetation management techniques as described above are considered to be the most effective in minimizing overall wildland fire risk levels, supplemental fire reducing measures are also recommended to be incorporated into direct building structure designs. Such considerations may include:

- Building materials (including landscaping materials) to be of fire and ember-resistant types.
- Gutter designs that discourage accumulation of fine fuels such as leaf litter and needles.
- Exterior sprinkler system installation.

**Site-specific Mitigation**

- Consider the use of landscaping and house building materials that are fire resistant (i.e. Steel roof).
- During future site clearing and the ongoing use of the properties, continually manage the amount of brush and trees that accumulate. Large brush piles around houses and adjacent to building envelopes will present high fire risk.

**4.8 Incidental Wildlife Observations**

The following incidental wildlife was recorded during the 2021 field investigations:

- Green Frog (*Lithobates clamitans*) on July 30<sup>th</sup>, 2021

This individual is assumed to be moving through the property and not breeding on site since there is no breeding habitat present.

Mammals that might be expected to occur here include; Raccoon (*Procyon lotor*), weasel species (*Mustela* sp.), Grey Squirrel (*Sciurus carolinensis*), woodland mice (*Peromyscus* sp.) and others.

**5. Assessment of Significance****5.1 Species at Risk**

Prior to field investigations, a background review was completed for potential SAR habitat opportunities. The NHIC database, the Ontario Breeding Bird Atlas (OBBA), and the Ontario Reptile and Amphibian Atlas (ORAA), were screened for SAR records. Based on professional experience, it was determined that Butternut (*Juglans cinerea*) should be included in Southern Ontario as a potential species, and that mature trees may provide roosting habitat opportunities for SAR bat species.

Based on available background information and the early 2021 field investigations, the Subject Property was screened for potential SAR habitat opportunities. The assessment was conducted by comparing current site conditions against the habitat preferences for species deemed to have potential to occur. This SAR habitat assessment can be found in **Appendix C**, providing a detailed description of each species' habitat (including those deemed to not have potential habitat), as well as a discussion of habitat suitability on the Subject Property, potential impacts, and mitigation, where applicable. Based on the rationale provided in **Appendix C**, the following six SAR have been identified as having potential habitat or actual habitat within the Subject Property:

**Birds**

- Eastern Wood-Pewee (*Contopus virens*) – Special Concern
- Wood Thrush (*Hylocichla mustelina*) – Special Concern

**Mammals**

- Eastern Small-footed Myotis (*Myotis leibii*) – Endangered
- Little Brown Myotis (*Myotis lucifugus*) – Endangered
- Northern Myotis (*Myotis septentrionalis*) – Endangered

- Tri-colored Bat (*Perimyotis subflavus*) – Endangered

Two SAR bird species were recorded on this property, Wood Thrush was recorded in the south portion of Parcel 3, and Eastern Wood-peewee was recorded in Parcel 1 and 2.

Populations of several bat species have been in decline in recent years due to the spread of a fungal pathogen known as white nose syndrome. This includes several species in Ontario, including the Northern Myotis, Little Brown Myotis, Eastern Small-footed Myotis and Tri-Coloured Bat, which are all listed as Endangered under the *ESA*, and have general habitat protection. All forested vegetation communities within the Subject Property are considered as potential bat maternity roost habitat for Endangered bats. Summer maternal roosting habitat, representing one of the most sensitive life stages for bats, is generally the focus of protection efforts on the part of the MECP regarding the *ESA* requirements for these species. As noted in the appendix, MECP consultation regarding this group of mammals should occur before tree removal.

## 5.2 Significant Wildlife Habitat

Significant Wildlife Habitat (SWH) can be difficult to appropriately determine at the site-specific level, as the assessment must incorporate information from a wide geographic area and consider other factors such as regional resource patterns and landscape effects. To help with site level assessments, the MNRF has developed the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (Ontario Ministry of Natural Resources, 2015). The planning authorities have the responsibility to identify Significant Wildlife Habitat.

SWH is defined by the MNRF in the Significant Wildlife Habitat Technical Guide (OMNR, 2000) and Natural Heritage Reference Manual (MNRF, 2010) and includes the following categories:

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

Criteria giving guidance for the identification of these features are provided in the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (OMNRF, 2015). These were used to screen wildlife habitat within the Subject Property for potential SWH (see **Appendix D** for full assessment). Based on the ELC ecosite, habitat screening and field surveys, Palmer has determined that there is potential SWH habitat for:

- A. Specialized Habitats for Wildlife
  - a. Woodland Area-sensitive Bird Breeding Habitat
- B. Seasonal Concentrations of Wildlife
  - a. Bat Maternity Colonies (for non-SAR species)
- C. Specialized Habitats for Wildlife
  - a. Woodland Raptor Nesting Habitat

A) Section 4.4 indicated that 10 area-sensitive forest birds were observed during surveys (37% of all birds observed). As the whole of the subject property was not surveyed, this suggests that more species and individuals would be present across the large woodland, indicating that the whole of the property (and

woodland) is potential SWH for Woodland Area-Sensitive Breeding Birds (**Figure 4**). However, given that the region that this woodland is found within has a high forest cover, forest area-sensitive breeding birds are expected to be common and a region-wide study would determine which forests contain sufficiently high numbers of area-sensitive forest birds to be considered SWH. Thus, Palmer considers this habitat to be potential SWH only.

B) Palmer has not completed a tree cavity survey within the forest communities on the Subject Property. Therefore, given the absence of data to confirm whether the forest communities are occupied with greater than 10 large wildlife diameter trees per ha, it is assumed that Bat Maternity Colonies are potentially present. The presence/absence of SWH for Bat Maternity Colonies can be determined by conducting a tree cavity survey during the leaf-off season.

C) No woodland raptor nests were observed, nor were individuals of the woodland hawk species and Barred Owl that are listed under the SWH criteria observed. However, the possibility remains that one or more of these species is nesting in the property, as the habitat is suitable. As hawks do not sing, they are sometimes missed in breeding bird surveys and nocturnal owls are generally not covered by daytime surveys. Thus, Woodland Raptor Nesting Habitat SWH has been considered as potentially occurring on the property.

Both Eastern Wood-Pewee and Wood Thrush are provincially listed as Special Concern species. Both species were recorded on the property as noted in the previous section. Based on our professional experience, the presence of one or two of these species in a given area does not warrant SWH designation since the species are both still relatively widespread and common (despite their status).

### 5.3 Significant Woodland

Woodland vegetation covers the entirety of the Subject Property and woodland cover extends north, east and west of the Subject property. The County has mapped significant woodland features for the entire Subject Property on Appendix B of the OP and provides the following policies to apply for the protection of woodlands (Section 7.4):

- *“In order to be considered significant, a woodland shall be either greater than or equal to forty (40) hectares in size outside of settlement areas, or greater than or equal to four (4) hectares in size within settlement area boundaries. If a woodland fails to meet the size criteria outside a settlement area, a woodland can also be significant if it meets any two of the following three criteria:*
  - *Proximity to other woodlands i.e. if a woodland was within 30 metres of another significant woodland, or*
  - *Overlap with the boundaries of a Provincially Significant Wetland and Significant Coastal Wetlands, Core Area, Significant Valleylands, or a Significant Areas of Natural and Scientific Interest , or*
  - *Interior habitat of greater than or equal to eight (8) hectares, with a 100 metre interior buffer on all sides.”*

Also, Section 7.4.1 of the County OP outlined below:

*“No development or site alteration may occur within Significant Woodlands or their adjacent lands unless it has been demonstrated through an environmental impact study, as per Section 7.11 of this Plan, that there will be no negative impacts on the natural features or their ecological functions.”*

The Subject Property is not located in a settlement area and is in the Rural Area designation in the County OP. The woodland on the Subject Property meets the Significant Woodland Criteria for areas outside of settlement areas as the woodland is at a minimum 48 ha (the size of the property) and is likely hundreds of ha in size as it extends for some distance off site.

## 5.4 Summary

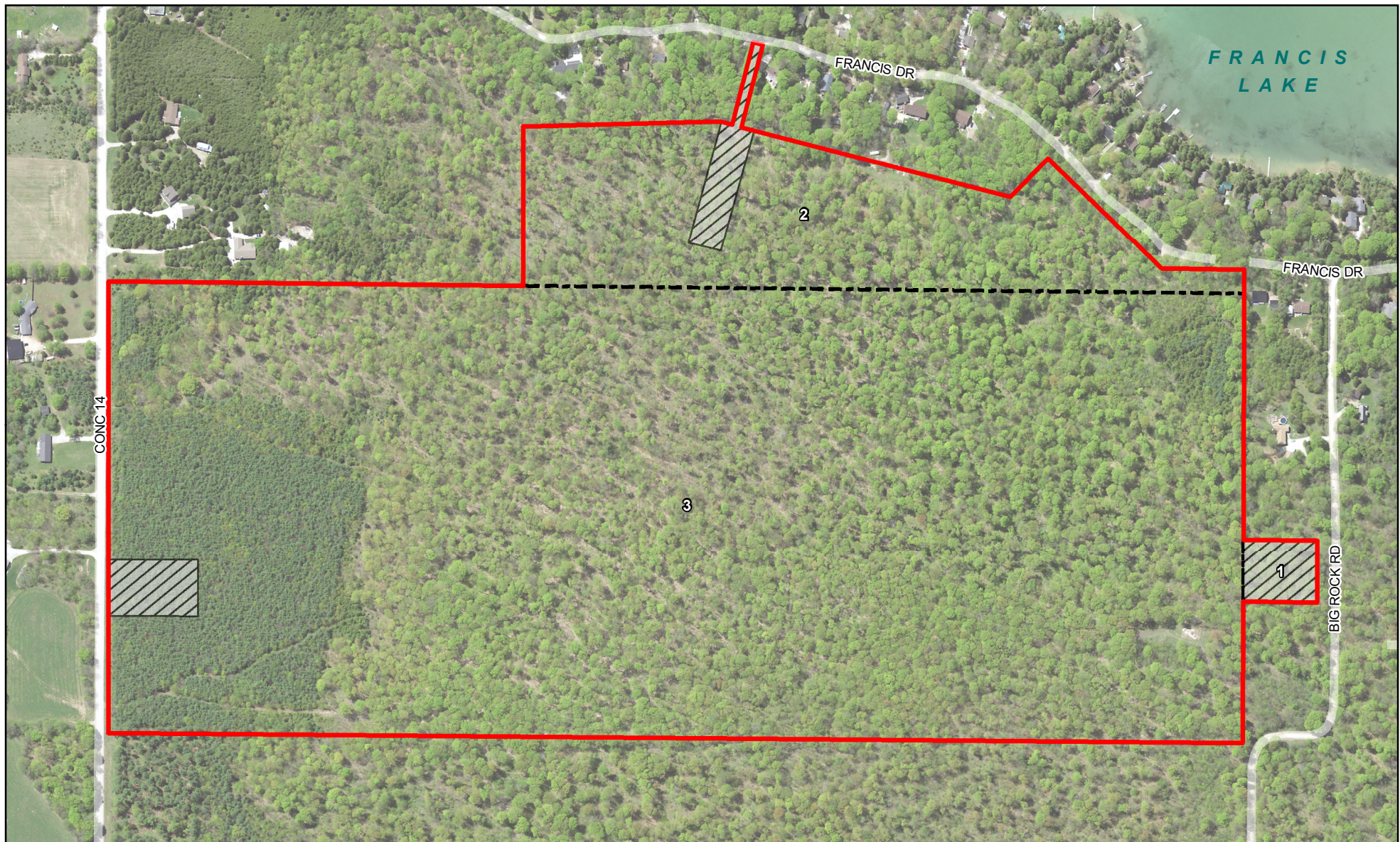
The assessment of significance includes the identification of environmental and physical constraints including natural heritage features and buffers.

- Species at Risk
  - Potential Maternity roosting habitat for Endangered bats (entire site – not mapped)
- Significant Wildlife Habitat
  - Potential SWH for Specialized Habitats for Wildlife for area-sensitive birds (entire site – not mapped)
  - Potential SWH for Seasonal Concentrations of Wildlife for Bat Maternity Colonies (entire site – not mapped)
  - Potential SWH for Specialized Habitats for Wildlife for Woodland Raptor Nesting Habitat (entire site – not mapped)
- Significant Woodland (entire site - not mapped)

## 6. Proposed Development

The Subject Property is comprised of three former lots which have been merged. The three parcels are proposed to be severed and one single family home is proposed per building envelope. The recommended building envelopes are shown on **Figure 4**. We have assumed the development areas are equivalent to the building envelopes. The vegetation clearing for a single family home is approximated to be up to 0.4 ha for Parcel 2 and 3. The vegetation clearing for Parcel 1 is approximated to be up to 0.36 ha. At this time, the client does not have development plans prepared for the envelopes on the Subject Property. There is potential for the Parcel 3 to be sold as one parcel or severed into two parcels and sold separately. If the 0.4 ha clearing on Parcel 2 and 3 is not immediately adjacent to the roads, a driveway of up to 4 metres in width may be permitted to access the building envelope.

This EIS report is required to support an application to re-sever the 3 parcels that were previously merged. The parcels on the Subject Property are being re-severed as Parcel 2 was conditionally sold before the client was aware the three parcels had been merged. The deal could not be closed without clear title and all three parcels were willed to different family members. It is required that all three parcels are severed to settle the estate.



<div>LEGEND</div> <div><div><div></div><div>Subject Site (48.04 ha)</div></div><div><div></div><div>Proposed Severance Line - <i>with parcel number</i></div></div><div><div></div><div>Building Envelope</div></div></div> <div><div><div>Significant Wildlife Habitat (Potential) - <i>entire site, see text for details</i></div><div>Potential SAR bat habitat (<i>entire site - 48.04 ha</i>)</div><div>Significant woodland (<i>entire site - 48.04 ha</i>)</div></div></div> <div><div><div><div><div>050100150200</div><div>METRE SCALE</div></div><div><div>North American Datum 1983</div><div>Universal Transverse Mercator Projection Zone 17</div><div>Scale: 1:4,800</div><div>Page Size: Letter (8.5 x 11 inches)</div><div>Drawn: BE</div><div>Checked: ND</div><div>Date: Sep 29, 2022</div></div><div><div><div></div><div>NORTH</div></div></div></div><div><div>Source Notes:</div><div>Imagery (2015) provided by County of Grey web map service.</div></div></div></div> <div><div><div><div>CLIENT</div><div>PROJECT</div><div>TITLE</div></div><div><div>Allan Speer</div><div>Francis Lake EIS</div><div><div>Proposed Severances and Development Areas</div><div><div><div>Palmer™</div><div>Figure 4</div></div></div></div></div><div><div>REF. NO.</div><div>2205701-4-6</div></div></div></div>	
---	--

## **7. Impact and Mitigation Considerations**

### **7.1 Impacts**

The proposed development will impact or has potential to impact the Subject Property through:

- Disturbance to wildlife, such as birds, during construction;
- Causing sediment loss during construction; and
- The removal of forest habitat.

The anticipated removal of vegetation communities, including part of a Significant Woodland will consist of the removal of approximately:

- Parcel 1: Forest (FOD5-8) – 0.36 ha
- Parcel 2: Forest (FOD5-8) – 0.4 ha
- Parcel 3: Forest (CUP 3-2) – 0.4 ha

Impacts and recommended mitigation measures associated with proposed tree removals are addressed below in Section 7.2.

### **7.2 General Mitigation Measures**

The following general mitigation measures are recommended to protect the ecological features and functions identified on and directly adjacent to the Subject Property:

- Removal of vegetation should be completed outside of the breeding bird season (April 1 – August 31) to ensure compliance with the MBCA. If vegetation removal during this period cannot be avoided, active nest searches may be conducted by a qualified biologist immediately prior to removal to ensure that no active nests of breeding birds are present.
- Tree removal should be conducted outside of the bat maternity roosting period (early April to Late October) to ensure compliance with the ESA, however discussion should occur with MECP prior to any tree removal to determine if additional SAR bat mitigation should occur. If tree removal during this period cannot be achieved, bat exit surveys using acoustic recording devices may be required. This will provide additional information regarding actual presence of bats, versus assumed presence, and can thus lead to more targeted mitigation measures, or none if not required. Any mitigation that is applied for potential SAR bat habitat, will also apply for potential SWH bat habitat.

### **7.3 Specific Mitigation Measures**

Prior to development, the Northern Holly Fern individuals in Parcel 2 can be transplanted to other undeveloped locations on the subject property at the appropriate time of year. A botanist should survey the site prior to development to locate any individuals.

Additionally, prior to final determination of the location of the 0.36 to 0.4 ha building envelopes, a raptor nest survey should occur to determine that no raptor nests are present in the building envelopes.

## 7.4 Significant Woodland

The proposed development plan intends to protect the Significant Woodland and develop on the relatively small, proposed building envelopes. The proposed development will ensure that there will be no negative impacts on the natural features or their ecological functions.

The Town and County OP's do not provide specific guidelines regarding compensation or buffers for Significant Woodlands. Based on the Grey County OP, the Subject Property is completely occupied by Significant Woodland (Grey County Appendix B) (**Map C**). As stated in Section 7.4 1) "*no development or site alteration may occur within a Significant Woodland or their adjacent lands unless it has been demonstrated through an EIS, ..., that there will be no negative impacts on the natural features or their ecological functions*". The Township OP does not map significant woodlands and relies on the mapping provided by the County.

For the proposed residential developments, portions of the Significant Woodland in the building envelopes are proposed to be removed. The Town OP states that: "*No development or site alteration shall be permitted within these areas and their adjacent lands unless it has been demonstrated through an acceptable EIS prepared by a qualified professional, in accordance with Section 5.4 of this Plan, that there will be no negative impacts on the natural features or their ecological functions.*"

To demonstrate consistency and conformity with the applicable natural heritage policies for the proposed removal of the woodland within the building envelopes on the Subject Property, an assessment of no negative impacts has been completed.

### **No Negative Impact Test**

The PPS states that "*development and site alteration shall not be permitted in ....b) significant woodlands south and east of the Canadian Shield;...unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.*"

Under the PPS, "negative impacts" means "*c) in regard to other natural features (including significant woodlands) and areas, **degradation** that threatens the **health** and **integrity** of the natural features or ecological functions for which an area is identified due to single, multiple or successive development or site alteration activities*".

Some general interpretations of the following terms are provided in the context of ecosystems.

*Degradation*: can be described as the deterioration of a natural feature through factors such as habitat loss/destruction, displacement of native species, or loss or reduction of habitat connectivity and key environmental functions.

*Health*: is the condition of the environment/natural feature that can change from the result of many human activities, flooding, fire, severe weather and other reasons; in healthy systems, natural processes and flora/fauna communities are maintained.

*Integrity*: is a synonym to describe the level to which a natural feature is intact, carrying out ecological functions, and integrated with other natural areas in the landscape.

The NHIC (OMNR 2010) under Section 13.2 provides guidance on “Determining Negative Impacts”.

*“To determine negative impacts on a significant natural heritage feature or area, the cumulative negative impacts from development or site alteration activities (e.g., impacts that adversely affect the stability of the feature and its ability to continue) must be considered against the integrity of the feature. The current and future ecological function of the natural feature or area as they relate to the surrounding natural heritage system (e.g., connectivity) must be considered as well. The PPS definition for “negative impacts” does not state that all impacts are negative, nor does it preclude the use of mitigation to prevent, modify or alleviate the impacts to the significant natural heritage feature or area. For example, demonstration of no negative impacts on a significant woodland through mitigation measures may be contemplated, provided that factors such as the successional status and replaceability of the woodland components and functions within a reasonable time frame (e.g., 20 years) are considered” (OMNR 2010; emphasis added).*

Applying the above to the “no negative impact” test for the proposed removal of a portion of the woodland within the building envelopes on the Subject Property, it can be determined under a scenario without the proposed mitigation that there will be no cumulative negative impacts because the existing features and functions of the woodland will remain intact.

The Subject Property is 48.04 ha and the Potential Development area is 1.16ha of the total area (**Figure 4**). Furthermore, the larger Significant Woodland within which the property is part of, is hundred of hectares in size. This is because the tree canopy gap is generally less than 20 m over local roads, and thus the woodland extends for several kilometers away from the property. Twenty metres is a standard distance for which a gap is considered small enough for woodlands on either side of a gap to be considered continuous. As small portions of these envelopes are proposed for single homes and will require minimal vegetation removal of the woodland (1.16 ha total), the rest of the woodland will retain its functions and features (i.e. landscape connectivity, wildlife habitat, species retention, natural process continuation etc.) and will be maintained despite the proposed removal of the portion of woodland in these building envelopes.

Based on the foregoing, it is our opinion that the “no negative impact” test for the removal of the woodland in the building envelopes on the Subject Property can be met, ensuring consistency with the *PPS* under Section 2.1.5b).

## 8. Policy Conformity

The policy conformity table below summarizes the applicable natural heritage policies and how the proposed development plan meets their requirements (**Table 2**).

**Table 2. Natural Heritage Policy Conformity**

Policy Document	Policy Intent/Objective	Implications and Policy Conformity
Migratory Birds Convention Act	<i>The Migratory Birds Convention Act</i> (MBCA), 1994 and Migratory Birds Regulations (MBR), 2014 protect most species of migratory birds and their nests and eggs anywhere they are found in Canada.	To ensure the protection of migratory birds, their eggs and their nests, vegetation removal should be completed outside of the breeding bird season (April 1 – August 31) or a site inspection for migratory bird activity should also be completed immediately prior to vegetation removal.
Endangered Species Act	Species designated as Endangered or Threatened by the Committee on the Status of Species at Risk in Ontario (COSSARO) are listed as Species at Risk in Ontario (SARO). These species at risk (SAR) and their habitats (e.g., areas essential for breeding, rearing, feeding, hibernation and migration) are afforded legal protection under the <i>Endangered Species Act</i> (ESA).	<u>Endangered bats</u> General avoidance measures (i.e., conducting tree removal outside of the active roosting period for bats) is proposed. Consultation with MECP should be undertaken to ensure that the suggested mitigation measures are sufficient to avoid a contravention of the ESA.
Provincial Policy Statement	The Provincial Policy Statement (PPS) provides direction to regional and local municipalities regarding planning policies for the protection and management of natural heritage features and resources (OMMAH, 2014). Section 2.1 of the PPS defines ten natural heritage features (NHF) and adjacent lands and provides planning policies for each.	Within the Subject Property, the following natural heritage features have been identified: <ul style="list-style-type: none"> <li>• Significant Woodlands</li> <li>• Potential Significant Wildlife Habitat</li> </ul> No impacts are anticipated to the features and functions of the Significant Woodland. Mitigation measures are provided in Section 7 for the potential SWH.
County of Grey Official Plan	Natural Heritage System Core Areas and Linkages are outlined on Schedule C and Significant Woodlands are outlined in Appendix B in the OP.	In accordance with policies of the OP, no development or site alteration may occur within a Significant Woodland or their adjacent lands unless it has been demonstrated through an EIS there will be no negative impacts to the natural features and functions.

Township of Georgian Bluffs Official Plan	The Township's OP outlines Natural Features on Schedule A. Schedule A identified that the Subject Property is located outside of the Settlement Area and there are no Natural Features mapped on the Subject Property.	In accordance with policies of the OP, all development proposals within natural heritage features shall articulate the extent of the existing natural heritage features and indicate how development will not result in any impacts on the natural features or their ecological functions.
Grey Sauble Conservation	Ontario Regulation 151/06 - <i>Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation</i> . Through this regulation, GSCA regulates activities in natural and hazardous areas (e.g., areas in and near rivers, streams, floodplains, wetlands, and slopes and shorelines).	The Study Areas are within the jurisdiction of the Grey Sauble Conservation Authority (GSCA) however the Subject Property is not regulated by the GSCA, thus a permit under O. Reg. 151/06 will not be required.

## 9. Conclusion

The findings of this study are the result of a background review and field surveys which characterized the features and their functions that are present within and directly adjacent to the Subject Property. An assessment of natural heritage significance was undertaken, and natural heritage policy requirements have been applied to determine the extent of environmental features. Potential environmental impacts have been addressed and recommended mitigation measures are provided to avoid or minimize the risk of impacts to the natural environment.

Based on the findings of our study, it is our professional opinion that the proposed development will not result in negative impacts to the identified natural heritage features, insofar that all significant features are protected as described and all recommended mitigation measures are applied.

## 10. Certification

This report was prepared, reviewed and approved by the undersigned:

**Prepared By:**



---

Regan Augustine, B.Sc.  
Intermediate Ecologist

**Reviewed and  
Approved By:**



---

Dirk Janas, B.Sc.  
Principal Ecologist

## 11. References

- Catling, Paul M. 2013. Using Coefficients of Conservatism and the Floristic Quality Index to assess the potential for serious and irreversible damage to plant communities. *Canadian Field-Naturalist* 127(3): 285–288.
- Crins, W. J., Gray, P. A., Uhlig, P. W., & Wester, M. C. 2009. *The Ecosystems of Ontario, Part 1: Ecozones and Ecoregions*. Peterborough, Ontario: Ontario Ministry of Natural Resources.
- Grey Sauble Conservation. 2022. Grey Sauble Conservation Authority Regulations Mapping. Retrieved from <https://www.greysauble.on.ca/mapping-gis/grey-sauble-conservation-authority-regulations-mapping/>.
- Government of Canada. 1994. *Migratory Birds Convention Act, 1994* (S.C. 1994, c. 22). Accessed at: <https://laws-lois.justice.gc.ca/eng/acts/m-7.01/>
- Government of Ontario. 2007. *Endangered Species Act, 2007*, S.O. 2007, c. 6. Accessed at: <https://www.ontario.ca/laws/statute/07e06>
- Grey County. 2019. *Recolour Grey County of Grey Official Plan*. Approved by the Province June 2019.
- Land Information Ontario. 2019. Retrieved from <https://www.ontario.ca/page/land-information-ontario>
- Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. *Ecological Land Classification for Southern Ontario: First Approximation and Its Application*. Ontario Ministry of Natural Resources. SCSS Field Guide FG-02. 225 pp.
- Ministry of Natural Resources and Forestry (MNRF). 2017. *Wildland Fire Risk Assessment and Mitigation Reference Manual*.
- Ministry of Natural Resources and Forestry (MNRF). 2021. *Natural Heritage Information Centre (NHIC). Make a Map application*. Peterborough. Retrieved from: <http://www.mnr.gov.on.ca/MNR/nhic/queries/nhic>
- Oldham, M. J., & Brinker, S. R. 2009. *Rare Vascular Plants of Ontario, Fourth Edition*. Peterborough, Ontario: Natural Heritage Information Centre, Ministry of Natural Resources.
- Ontario Ministry of Municipal Affairs and Housing (OMMAH). 2020. *Provincial Policy Statement*. Toronto, Ontario.
- Ontario Ministry of Natural Resources (OMNRF). 2000. *Significant Wildlife Habitat Technical Guide*. Peterborough: Queen's printer for Ontario. Retrieved from <https://www.ontario.ca/document/guide-significant-wildlife-habitat>

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2015. Significant Wildlife Habitat Criteria Schedules For Ecoregion 6E. Peterborough: Regional Operations Division, Southern Region Resources Section.

Township of Georgian Bluffs. 2014. Township of Georgian Bluffs Official Plan. Approved by the Province February 2014.

# **Appendix A**

## **Vegetation Inventory**

# Appendix A - Vegetation Inventory

Scientific Name	Common Name	Native/Exotic/Unranked	S Rank	Coefficient of Conservatism
<i>Acer saccharum</i>	Sugar Maple	N	S5	4
<i>Actaea pachypoda</i>	White Baneberry	N	S5	6
<i>Actaea rubra</i> ssp. <i>rubra</i>	Red Baneberry	N	S5	6
<i>Adiantum pedatum</i>	Northern Maidenhair Fern	N	S5	7
<i>Ageratina altissima</i>	White Snakeroot	N	S5	5
<i>Agrimonia gryposepala</i>	Hooked Agrimony	N	S5	2
<i>Allium tricoccum</i>	Wild Leek	N	S4	7
<i>Anemone acutiloba</i>	Sharp-lobed Hepatica			6
<i>Apocynum</i> sp.	Dogbane Species			
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit	N	S5	5
<i>Athyrium filix-femina</i>	Common Lady Fern	N	S5	4
<i>Betula papyrifera</i>	Paper Birch	N	S5	2
<i>Cardamine diphylla</i>	Two-leaved Toothwort	N	S5	7
<i>Carex plantaginea</i>	Plantain-leaved Sedge	N	S5	7
<i>Carex</i> sp.	Sedge Species			
<i>Caulophyllum thalictroides</i>	Blue Cohosh	N	S5	5
<i>Circaea alpina</i>	Small Enchanter's Nightshade	N	S5	6
<i>Clinopodium vulgare</i>	Wild Basil	N	S5	4
<i>Cornus alternifolia</i>	Alternate-leaved Dogwood	N	S5	6
<i>Cypripedium</i> sp.	Lady's-slipper Species			
<i>Dryopteris intermedia</i>	Evergreen Wood Fern	N	S5	5
<i>Dryopteris</i> sp.	Wood Fern Species			
<i>Epipactis helleborine</i>	Broad-leaved Helleborine	E	SNA	
<i>Erigeron annuus</i>	Annual Fleabane	N	S5	0
<i>Erythronium americanum</i> ssp. <i>americanum</i>	Yellow Trout-lily	N	S5	5
<i>Fagus grandifolia</i>	American Beech	N	S4	6

## Appendix A - Vegetation Inventory

<i>Fragaria sp.</i>	Strawberry Species			
<i>Fragaria vesca</i>	Woodland Strawberry	N	S5	4
<i>Fragaria virginiana</i>	Wild Strawberry	N	S5	2
<i>Fraxinus americana</i>	White Ash	N	S4	4
<i>Fraxinus pennsylvanica</i>	Red Ash	N	S4	3
<i>Geranium robertianum</i>	Herb-Robert	N	S5	2
<i>Geum urbanum</i>	Wood Avens	E	SNA	
<i>Hepatica acutiloba</i>	Sharp-lobed Hepatica	N	S5	8
<i>Hypericum sp.</i>	St. John's-wort Species			
<i>Maianthemum canadense</i>	Wild Lily-of-the-valley	N	S5	5
<i>Maianthemum racemosum</i>	Large False Solomon's Seal	N	S5	4
<i>Mentha sp.</i>	Mint Species			
<i>Onoclea sensibilis</i>	Sensitive Fern	N	S5	4
<i>Ostrya virginiana</i>	Eastern Hop-hornbeam	N	S5	4
<i>Picea abies</i>	Norway Spruce	E	SNA	
<i>Picea pungens</i>	Blue Spruce	E	SNA	
<i>Pinus strobus</i>	Eastern White Pine	N	S5	4
<i>Pinus sylvestris</i>	Scots Pine	E	SNA	
<i>Platanthera aquilonis</i>	Tall Northern Green Orchid	N	S5	5
<i>Polystichum acrostichoides</i>	Christmas Fern	N	S5	5
<i>Prunus serotina</i>	Black Cherry	N	S5	3
<i>Pteridium aquilinum</i>	Bracken Fern	N	S5	2
<i>Ranunculus recurvatus</i> var. <i>recurvatus</i>	Hooked Buttercup	N	S5	4
<i>Rhamnus cathartica</i>	European Buckthorn	E	SNA	
<i>Ribes cynosbati</i>	Eastern Prickly Gooseberry	N	S5	4
<i>Ribes sp.</i>	Currant Species			
<i>Rubus idaeus</i>	Red Raspberry	N	S5	2
<i>Rubus occidentalis</i>	Black Raspberry	N	S5	2

## Appendix A - Vegetation Inventory

<i>Sambucus racemosa</i>	Red Elderberry	N	S5	5
<i>Solidago sp.</i>	Goldenrod Species			
<i>Symphyotrichum novae-angliae</i>	New England Aster	N	S5	2
<i>Taraxacum officinale</i>	Common Dandelion	E	SNA	
<i>Thuja occidentalis</i>	Eastern White Cedar	N	S5	4
<i>Tilia americana</i>	Basswood	N	S5	4
<i>Toxicodendron radicans</i>	Poison Ivy	N	S5	2
<i>Trillium grandiflorum</i>	White Trillium	N	S5	5
<i>Trillium sp.</i>	Trillium Species			
<i>Tussilago farfara</i>	Coltsfoot	E	SNA	
<i>Verbascum thapsus</i>	Common Mullein	E	SNA	
<i>Viola pubescens</i>	Yellow Violet	N	S5	5
<i>Viola sp.</i>	Violet Species			
<i>Vitis riparia</i>	Riverbank Grape	N	S5	0

LEGEND	
SRANK	2018
S1 Critically Imperiled	Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.

## Appendix A - Vegetation Inventory

S2	Imperiled	Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
S3	Vulnerable	Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4	Apparently Secure	Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5	Secure	Common, widespread, and abundant in the nation or state/province.
SU	Unrankable	Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

## Appendix A - Vegetation Inventory

SNA Unranked	A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SX Presumed Extirpated	Species or community is believed to be extirpated from the nation or state/province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
SH Possibly Extirpated	Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.
SE# Exotic Status	
S#? Rank Uncertain	

# **Appendix B**

## **Breeding Bird Inventory**

## Breeding Birds of Francis Lake

Common Name	Scientific Name	Status				Number of Pairs/Territories		
		National Species at Risk COSEWIC <sup>a</sup>	Species at Risk in Ontario Listing <sup>a</sup>	Provincial breeding season SRANK <sup>b</sup>	Area-sensitive (OMNR) <sup>c</sup>	North Parcel	West Parcel	South Parcel
Mourning Dove	<i>Zenaida macroura</i>			S5			1	
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>			S			1	
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>			S4			1	1
Northern Flicker	<i>Colaptes auratus</i>			S4				1
Pileated Woodpecker	<i>Dryocopus pileatus</i>			S5	A			1
Eastern Wood-Pewee	<i>Contopus virens</i>	SC	SC	S4		1	2	
Eastern Phoebe	<i>Sayornis phoebe</i>			S5		1		
Blue Jay	<i>Cyanocitta cristata</i>			S5		2		2
American Crow	<i>Corvus brachyrhynchos</i>			S5				1
Black-capped Chickadee	<i>Poecile atricapillus</i>			S5				3
White-breasted Nuthatch	<i>Sitta carolinensis</i>			S5	A	1		
Veery	<i>Catharus fuscescens</i>			S4	A		1	
Hermit Thrush	<i>Catharus guttatus</i>			S5	A			1
Wood Thrush	<i>Hylocichla mustelina</i>	THR	SC	S4				1
American Robin	<i>Turdus migratorius</i>			S5		1		5
Cedar Waxwing	<i>Bombycilla cedrorum</i>			S5				1
Red-eyed Vireo	<i>Vireo olivaceus</i>			S5		5	4	3
Nashville Warbler	<i>Oreothlypis ruficapilla</i>			S5				1
Black-throated Green Warbler	<i>Setophaga virens</i>			S5	A		1	2
Blackburnian Warbler	<i>Setophaga fusca</i>			S5	A			1
Pine Warbler	<i>Setophaga pinus</i>			S5	A			1
Black-and-white Warbler	<i>Mniotilta varia</i>			S5	A			1
Ovenbird	<i>Seiurus aurocapillus</i>			S4	A	1	2	2
Scarlet Tanager	<i>Piranga olivacea</i>			S4	A	1		
Northern Cardinal	<i>Cardinalis cardinalis</i>			S5			1	1
Indigo Bunting	<i>Passerina cyanea</i>			S4				1
Chipping Sparrow	<i>Spizella passerina</i>			S5		1		1
Song Sparrow	<i>Melospiza melodia</i>			S5			1	
American Goldfinch	<i>Carduelis tristis</i>			S5			1	1

Field Work Conducted On:	Date	Temp (°C)	Wind Speed (km/h)	Cloud Cover (%)
Site visit 1	June 24th, 2021	20	16	60
Site visit 2	July 6th, 2021	20	10	100
Site visit 3	May 25th, 2022	8	8	50

Location 1 - North Parcel

Location 2 - West Parcel

Location 3 - South Parcel

Number of Species: 29

Number of (provincial and national) Species at Risk: 2

Number of S1 to S3 (provincially rare) Species: 0

Number of Regionally Rare Species: 0

Number of Area-sensitive Species: 10

Location 1: North Parcel

Number of Species: 9

Number of (provincial and national) Species at Risk: 1  
Number of S1 to S3 (provincially rare) Species: 0  
Number of Regionally Rare Species: 0  
Number of Area-sensitive Species: 3

Location 2: West Parcel

Number of Species: 11  
Number of (provincial and national) Species at Risk: 1  
Number of S1 to S3 (provincially rare) Species: 0  
Number of Regionally Rare Species: 0  
Number of Area-sensitive Species: 3

Location 3: South Parcel

Number of Species: 21  
Number of (provincial and national) Species at Risk: 1  
Number of S1 to S3 (provincially rare) Species: 0  
Number of Regionally Rare Species: 0  
Number of Area-sensitive Species: 7

KEY

a COSEWIC = Committee on the Status of Endangered Wildlife in Canada

a Species at Risk in Ontario List (as applies to ESA) as designated by COSSARO (Committee on the Status of Species at Risk in Ontario)

END = Endangered, THR = Threatened, SC = Special Concern

<sup>b</sup> SRANK (from Natural Heritage Information Centre) for breeding status if:

S1 (Critically Imperiled), S2 (Imperiled), S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure)

SZB (breeding migrants or vagrants) and SR (reported as breeding, but no persuasive documentation) .

SE (exotic, i.e. non-native)

c Ontario Ministry of Natural Resources (OMNR). 2000. Significant Wildlife Habitat Technical Guide (Appendix G). 151 p plus appendices.

# **Appendix C**

## **SAR Habitat Assessment**

Appendix C: Species at Risk Habitat Assessment

NAME	SARA STATUS	SARO	COSEWIC	SCHEDULE	S-RANK	HABITAT REQUIREMENTS	SOURCE OF RECORD	POTENTIAL or ACTUAL HABITAT PRESENT (Y/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
AVIFAUNA										
Bobolink ( <i>Dolichonyx oryzivorus</i> )	THR	THR	THR	1	S4B	The Bobolink is found in grasslands and hayfields, and feeds and nests on the ground. This species is widely distributed across most of Ontario; however, are designated at risk because of rapid population decline over the last 50 years (Ministry of Natural Resources and Forestry, 2014). The historical habitat of the bobolink was tallgrass prairie and other natural open and/or agricultural communities; however, as a result of the clearing of native prairies and the post-colonial increase in agriculture, bobolinks are now widely found in hayfields. Due to their reproductive cycle, nesting habits, and use of agricultural areas, bobolink nests and young are particularly vulnerable to loss as a result of common agricultural practices (i.e. first cut hay).	NHIC, OBBA Surveys,	N	No grasslands or hayfields present on or adjacent to the Subject Property	None
Eastern Meadowlark ( <i>Sturnella magna</i> )	THR	THR	THR	1	S4B	The Eastern Meadowlark is a bird that prefers pastures and hayfields, but is also found to breed in orchards, shrubby fields and human use areas such as airports and roadsides. Eastern meadowlarks can nest from early May to mid-August, in nests that are built on the ground and well-camouflaged with a roof woven from grasses. The decline in population of these species is thought to be at least partially related to habitat destruction and agricultural practices (Ministry of Natural Resources and Forestry, 2014).	NHIC, OBBA Surveys,	N	No pastures or hayfields present on or adjacent to the Subject Property	None
Eastern Wood-Pewee ( <i>Contopus virens</i> )	SC	SC	SC	1	S4B	The Eastern Wood-pewee is classified as a species of special concern by COSSARO. Their population has been gradually declining since the mid-1990's (The Cornell Lab of Ornithology, 2015). The Eastern Wood-pewee is a "flycatcher", a bird that eats flying insects, that lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It prefers intermediate-age forest stands with little understory vegetation. Threats to the population are largely unknown; however, causes may include loss of habitat due to urban development and decreases in the availability of flying insect prey (Ministry of Natural Resources and Forestry, 2014).	Breeding Bird Surveys, professional experience	Y	Recorded during breeding bird surveys	The primary mitigation is for the protection of nesting birds. With appropriate mitigation measures (e.g. conduct selective tree removals outside of breeding bird season), no impacts to individuals are anticipated. Tree removals along forest edge areas of the redevelopment shall occur between late August and late April, which is outside of the breeding and nesting season (note: restrictive windows for SAR bats apply)
Wood Thrush ( <i>Hylocichla mustelina</i> )	THR	SC	THR	1	S4B	The Wood Thrush is a species of Special Concern because of habitat degradation or destruction by anthropogenic development. The Wood Thrush is a medium-sized songbird, generally rusty-brown on the upper parts with white under parts and large blackish spots on the breast and sides, and about 20 cm long. The Wood Thrush forages for food in leaf litter or on semi-bare ground, including larval and adult insects as well as plant material. They seek moist stands of trees with well-developed undergrowth in large mature deciduous and mixed (conifer-deciduous) forests. The Wood Thrush flies south to Mexico and Central America for the winter (Ministry of Natural Resources and Forestry, 2014).	Breeding Bird Surveys, professional experience	Y	Recorded during breeding bird surveys	The primary mitigation is for the protection of nesting birds. With appropriate mitigation measures (e.g. conduct selective tree removals outside of breeding bird season), no impacts to individuals are anticipated. Tree removals along forest edge areas of the redevelopment shall occur between late August and late April, which is outside of the breeding and nesting season (note: restrictive windows for SAR bats apply)
VASCULAR PLANTS										
Butternut ( <i>Juglans cinerea</i> )	END	END	END	1	S2?	The butternut is designated as endangered by COSSARO and is tracked by the NHIC as a species at risk. The tree is federally regulated by the Species at Risk Act (2002). Butternut belongs to the walnut family and produces edible nuts which are a preferred food source for wildlife. The range of butternut trees is south of the Canadian Shield on soils derived from calcium rich limestone bedrock. Butternut trees, which at one time were much more common to the south extending to the northern aspect of zone 6E, have been declining due to factors including forest loss and disease. Butternut trees suffer from a highly transmissible fungal disease called butternut canker. Butternut canker is causing very rapid decline in this tree species across its native range. The fungal disease is easily transmitted by wind and is very difficult to prevent. Trees often die within a few years of infection by butternut canker (Ministry of Natural Resource and Forestry, 2014).	Professional experience	Y potential / N actual	No butternuts were observed on or directly adjacent to the Subject Property	None
HERPTILES										
Snapping Turtle ( <i>Chelydra serpentina</i> )	SC	SC	SC	1	S3	The snapping turtle is a species of special concern in Ontario due to the potential for the species to become threatened or endangered as a result of biological factors or other identified threats. While not presently protected by law, the snapping turtle has been recognized as a species of special concern by COSSARO. Snapping turtles spend the majority of their lives in water and travel slightly upland to gravel or sandy embankments or beaches to lay their eggs (Ontario Ministry of Natural Resources and Forestry, 2014).	NHIC	N	No suitable habitat present including wetland or watercourse on the Subject Property.	None
MAMMALS										
Tri-colored Bat (Eastern Pipistrelle) ( <i>Perimyotis subflavus</i> )	END	END	END	1	S3?	The eastern pipistrelle is a small bat that is widely distributed in eastern North America and whose range extends north to southern Ontario. The eastern pipistrelle is rare in this region of Ontario which is at the northernmost limit of the natural range for the species. These bats prefer to nest in foliage, tree cavities and woodpecker holes, and are occasionally found in buildings; though this is not their preferred habitat. Winter hibernation takes place in caves, mines and deep crevices. Eastern pipistrelles feed primarily on small insects and prefer an open forest habitat type in proximity to water (University of Michigan Museum of Zoology, 2004).	Professional experience	Y	Suitable forest habitat present	Low impacts expected. Mitigation: As SAR bats are typically active between early April and autumn and hibernate in caves outside of that period, tree removal should be carried out between September 30 and April 1. This will avoid harm or impacts to individuals. Additional mitigation measures such the installation of bat boxes may be needed. Consultation with MECP will be required.
Eastern Small-footed Myotis ( <i>Myotis leibii</i> )	No Status	END	No Status	No Schedule	S2S3	The eastern small-footed myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Eastern small-footed bat's fur has black roots and shiny light brown tips, giving it a yellowish-brown appearance. Its face mask, ears and wings are black, and its underside is grayish-brown, about 8 cm long in size and weighs 4-5 grams. In the spring and summer, eastern small-footed bats will roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. They change their roosting locations daily and hunt at night for insects to eat, including beetles, mosquitoes, moths, and flies. They hibernate in winter, often in caves and abandoned mines. They can be found from south of Georgian Bay to Lake Erie and east to the Pembroke area, and choose colder and drier sites (Ministry of Natural Resources and Forestry, 2014).	Professional experience	Y	Suitable forest habitat present	Low impacts expected. Mitigation: As SAR bats are typically active between early April and autumn and hibernate in caves outside of that period, tree removal should be carried out between September 30 and April 1. This will avoid harm or impacts to individuals. Additional mitigation measures such the installation of bat boxes may be needed. Consultation with MECP will be required.
Little Brown Myotis ( <i>Myotis lucifugus</i> )	END	END	END	1	S4	Little brown myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Little brown bats have glossy brown fur and usually weigh between four and 11 grams. Bats are nocturnal. During the day they roost in trees and buildings. They often select attics, abandoned buildings and barns for summer colonies where they can raise their young. Little brown bats hibernate from October or November to March or April, most often in caves or abandoned mines that are humid and remain above freezing – an ideal environment for the fungus to grow and flourish. The syndrome affects bats by disrupting their hibernation cycle, so that they use up body fat supplies before the spring when they can once again find food sources (Ministry of Natural Resources and Forestry, 2014).	Professional experience	Y	Suitable forest habitat present	Low impacts expected. Mitigation: As SAR bats are typically active between early April and autumn and hibernate in caves outside of that period, tree removal should be carried out between September 30 and April 1. This will avoid harm or impacts to individuals. Additional mitigation measures such the installation of bat boxes may be needed. Consultation with MECP will be required.
Northern Myotis ( <i>Myotis septentrionalis</i> )	END	END	END	1	S3	The northern long-eared myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Northern long-eared bats have dull yellow-brown fur with pale grey bellies. They are approximately eight cm long, with a wingspan of about 25 cm, and usually weigh six to nine grams. Northern long-eared bats can be found in boreal forests, roosting under loose bark and in the cavities of trees. These bats hibernate from October or November to March or April, most often in caves or abandoned mines (Ministry of Natural Resources and Forestry, 2014).	Professional experience	Y	Suitable forest habitat present	Low impacts expected. Mitigation: As SAR bats are typically active between early April and autumn and hibernate in caves outside of that period, tree removal should be carried out between September 30 and April 1. This will avoid harm or impacts to individuals. Additional mitigation measures such the installation of bat boxes may be needed. Consultation with MECP will be required.

Notes:  
SC - Special Concern  
THR - Threatened  
END - Endangered  
S1 - Extremely rare in Ontario  
S2 - Very rare in Ontario  
S3 - Rare to uncommon in Ontario  
S4 - Considered to be common in Ontario  
S5 - Species is widespread in Ontario  
SH - Possibly extirpated  
S4/S5 - Indicates insufficient information exists to assign a single rank.  
S4? - Indicates some uncertainty with the classification due to insufficient data.  
SH? - Non-breeding  
S4B - Breeding

# **Appendix D**

## **SWH Assessment**

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
<b>Seasonal Concentration Areas of Animals</b>					
Waterfowl Stopover and Staging Areas (Terrestrial)	Ducks	CUM + CUT ecosites	Fields with sheet-water flooding mid-March to May	N	Suitable habitat is not present on the Subject Property.
Waterfowl Stopover and Staging Area (Aquatic)	Ducks, Geese	Ponds, Lakes, Inlets, Marshes, Swamps, Shallow Water Ecosites	Sewage & SWM ponds <b>not</b> SWH. Reservoir managed as a large wetland or pond/lake qualifies.	N	Suitable habitat is not present on the Subject Property.
Shorebird Migratory Stopover Area	Shorebirds	Beaches, Dunes, Meadow Marshes	Shorelines. Sewage treatment ponds and storm water ponds <b>not</b> SWH.	N	Suitable habitat is not present on the Subject Property.
Raptor Wintering Area	Eagles, Hawks, Owls	<b>Hawks/Owls:</b> Combination of both Forest and Cultural Ecosites <b>Bald Eagle:</b> Forest or swamp near open water (hunting ground)	<b>Raptors:</b> >20ha, with a combo of forest and upland. Meadow (>15ha) with adjacent woodlands. <b>Eagles:</b> open water, large trees & snags for roosting.	N	Suitable habitat is not present on the Subject Property. The Subject Property is not on the shoreline of Francis Lake.
Bat Hibernacula	Big Brown Bat, Tri-coloured Bat	Caves, Crevices, mines, karsts	Buildings and active mine sites <b>not</b> SWH.	N	Suitable habitat is not present on the Subject Property.
Bat Maternity Colonies	Big Brown Bat, Silver-haired Bat	Deciduous or mixed forests and swamps.	Mature deciduous and mixed forests with >10/ha cavity trees >25 cm DBH.	Y	A bat cavity density survey has not been completed; therefore it is assumed that potential SWH for Bat maternity Colonies may be present as the habitat is suitable.
Turtle Wintering Area	<b>Turtles</b> (Midland, N. Map, Snapping)	SW, MA, OA, SA, FEO, BOO (requires open waters)	<b>Free water beneath ice.</b> Soft mud substrate. Permanent water bodies, large wetlands, bogs, fens with adequate DO.	N	Suitable habitat is not present on the Subject Property.
Reptile Hibernaculum	Snakes	<b>Snakes:</b> Any ecosite (esp. w/ rocky areas), other than very wet ones. <b>Five-lined Skink:</b> FOD and FOM, FOC1, FOC3 - with rock outcrops	<b>Access below frost line:</b> burrows; <b>rock</b> crevices, piles or slopes, <b>stone</b> fences or foundations. Conifer/shrubby swamps/swales, poor fens, depressions in bedrock w/ accumulations of sphagnum moss or sedge hummock ground cover.	N	Suitable habitat is not present on the Subject Property.
Colonially-nesting Bird Breeding Habitat (Bank and Cliff)	Cliff Swallow, N. Rough-winged Swallow	Banks, sandy hills/piles, pits, slopes, cliff faces, bridge abutments, silos, barns.	Exposed soil banks, <b>not</b> a licensed/permitted aggregate area or new man-made features (2 yrs).	N	Suitable habitat is not present on the Subject Property.
Colonially-nesting Bird Breeding Habitat (Tree/Shrubs)	Great Blue Heron, Black-crowned NightHeron, Great Egret, Green Heron	SWM2, SWM3, SWM5, SWM6, SWD1 to SWD7, FET1	Nests in live or dead standing trees in wetlands, lakes, islands and peninsulas. Shrubs and emergents may be used. Nests in trees are 11 - 15 m from ground, near tree tops.	N	Suitable habitat is not present on the Subject Property.
Colonially-nesting Bird Breeding Habitat (Ground)	Herring Gull, Great Black-backed Gull, Little Gull, Ring-billed Gull, Common Tern, Caspian Tern, Brewer's Blackbird	<b>Gulls/Terns:</b> Rocky island or peninsula in lake or river. <b>Brewer's Blackbird:</b> close to watercourses in open fields or pastures with scattered trees or shrubs.	<b>Gulls/Terns:</b> islands or peninsulas with open water or marshy areas. <b>Brewers Blackbird colonies:</b> on the ground in low bushes close to streams and irrigation ditches.	N	Suitable habitat is not present on the Subject Property.
Migratory Butterfly Stopover Area	Painted Lady, Red Admiral, <b>Special Concern:</b> Monarch	Combination of open (CU) and forested (FO) ecosites (need one from each).	≥10 ha, located within 5 km of Lake Ontario. Undisturbed sites, with preferred nectar species.	N	Suitable habitat is not present on the Subject Property.
Landbird Migratory Stopover Areas	All migratory songbirds. All migrant raptor species.	Forest (FO) and Swamp (SW) ecosites	Woodlots >10 ha within 5 km of Lake Ontario. If multiple woodlands are along the shoreline, those <2 km from L. Ontario are more significant.	N	Subject Property is greater than 5 km of Lake Ontario
Deer Yarding Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	Not identified by MNRF
Deer Winter Congregation Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	Not identified by MNRF
<b>Rare Vegetation Communities</b>					
Cliffs and Talus Slopes		TAO, TAS, CLO, CLS, TAT, CLT e.g., Niagara Escarpment (contact NEC)	<b>Cliff:</b> near vertical bedrock >3m <b>Talus Slope:</b> coarse rock rubble at the base of a cliff	N	Habitat is not present on the Subject Property in surveyed areas.
Sand Barren		SBO1, SBS1, SBT1	Sand Barrens >0.5 ha. Vegetation can vary from patchy and barren to tree covered, but <60%. <50% vegetation cover are exotic species.	N	Habitat is not present on the Subject Property in surveyed areas.
Alvar	<i>Carex crawei</i> , <i>Panicum philadelphicum</i> , <i>Eleocharis compressa</i> , <i>Scutellaria parvula</i> , <i>Trichostema brachiatum</i> , Loggerhead Shrike	ALO1, ALS1, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2	Alvar >0.5 ha. <b>Need 4 of the 5 Alvar Indicator Spp.</b> <50% vegetation cover are exotic species.	N	Habitat is not present on the Subject Property in surveyed areas.

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
Old Growth Forest	Trees >140 yrs; heavy mortality = gaps. Multi-layer canopy, lots of snags and downed logs	FOD, FOC, FOM, SWD, SWC, SWM	Woodland areas ≥30 ha with a ≥10 ha interior habitat, assuming a 100 m buffer at edge of forest.	N	Habitat is not present on the Subject Property in surveyed areas.
Savannah	Prairie Grasses w/ trees	TPS1, TPS2, TPW1, TPW2, CUS2	A Savannah is a <u>tallgrass prairie</u> habitat that has tree cover of 25 – 60%. <50% cover of <u>exotic species</u> .	N	Habitat is not present on the Subject Property in surveyed areas.
Tallgrass Prairie	Prairies Grasses dominate	TPO1, TPO2	An <u>open Tallgrass Prairie</u> habitat has < 25% tree cover. Less than 50% cover of exotic species.	N	Habitat is not present on the Subject Property in surveyed areas.
Other Rare Vegetation Communities		Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG.	Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps.	N	Habitat is not present on the Subject Property in surveyed areas.
<b>Specialized Habitat for Wildlife</b>					
Waterfowl Nesting Area	Ducks	Upland habitats adjacent to: MAS1 to MAS3, SAS1, SAM1, SAF1, MAM1 to MAM6, SWT1, SWT2, SWD1 to SWD4 (>0.5 ha open water wetlands, alone or collectively).	Extends 120 m from a wetland or wetland complex. Upland areas should be at least 120 m wide. Wood Ducks and Hooded Mergansers use cavity trees (>40 cm dbh).	N	Suitable habitat is not present on the Subject Property.
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat	Osprey, Bald Eagle	FOD, FOM, FOC, SWD, SWM, SWC directly adjacent to riparian areas	Nesting areas are associated with waterbodies along forested shorelines, islands, or on structures over water.	N	Suitable habitat is not present on the Subject Property.
Woodland Raptor Nesting Habitat	Barred Owl. <b>Hawks:</b> N. Goshawk, Cooper's, Sharp-shinned, Red-shouldered, Broad-winged.	Forests (FO), swamps (SW), and conifer plantations	>30 ha with > 10 ha interior habitat.	Y	No woodland raptor nests were observed, nor were individuals of the woodland hawk species and Barred Owl that are listed under the SWH criteria observed. However, the possibility remains that one or more of these species is nesting in the property, as the habitat is suitable.
Turtle Nesting Areas	Midland Painted Turtle <b>Special Concern:</b> Snapping Turtle, Northern Map Turtle	Exposed mineral soil (sand or gravel) areas adjacent (<100m) or within: MAS1 to MAS3, SAS1, SAM1, SAF1, BOO1	Nest sites within open sunny areas with soil suitable for digging. Sand and gravel beaches.	N	Suitable habitat is not present on the Subject Property.
Seeps and Springs	Wild Turkey, Ruffed Grouse, Spruce Grouse, White-tailed Deer, Salamander spp.	Seeps/Springs are areas where ground water comes to the surface.	Any forested area within the headwaters of a stream/river system. <b>(2 or more confirms SWH type).</b>	N	Suitable habitat is not present on the Subject Property.
Amphibian Breeding Habitat (Woodland)	Woodland Frogs and Salamanders	FOC, FOM, FOD, SWC, SWM, SWD	Open water wetlands, pond or woodland pool of >500 m <sup>2</sup> within or adjacent to wooded areas. Permanent ponds or holding water until mid-July preferred.	N	No suitable habitat in surveyed areas of Subject Property.
Amphibian Breeding Habitat (Wetlands)	Toads, Frogs, and Salamanders	SW, MA, FE, BO, OA and SA. Typically isolated (>120m) from woodland ecosites, however larger wetlands may be adjacent to woodlands.	Open water wetland ecosites >500m <sup>2</sup> isolated from woodland ecosites with high species diversity. Permanent water with abundant vegetation for bullfrogs.	N	Suitable habitat is not present on the Subject Property.
Woodland Area-Sensitive Bird Breeding Habitat	Birds (area-sensitive species)	FOC, FOM, FOD, SWC, SWM, SWD	Large mature (>60 years) forest stands/woodlots >30 ha. Interior forest habitat >200m from forest edge.	Y	10 area-sensitive forest birds were observed during breeding bird surveys across the threesurveyed area. In our professional opinion, given the prevalence of area-sensitive forest birds in the larger region, this does not with certainty indicate SWH in this category. Thus it is considered a potential SWH in the absence of region-wide information.
<b>Habitat of Species of Conservation Concern</b>					
Marsh Bird Breeding Habitat	Wetland Birds	MAM1 to MAM6, SAS1, SAM1, SAF1, FEO1, BOO1 <b>Green Heron:</b> SW, MA and CUM1	Wetlands with shallow water and emergent vegetation. Gr. Heron @ edges of these types w/ woody cover.	N	Suitable habitat is not present on the Subject Property.
Open Country Bird Breeding Habitat	Upland Sandpiper, Grasshopper Sparrow, Vesper Sparrow, N. Harrier, Savannah Sparrow, <b>Short-eared Owl (SC)</b>	CUM1, CUM2	Grassland/meadow >30 ha. Not being actively used for farming. Habitat established for 5 years or more.	N	Suitable habitat is not present on the Subject Property.
Shrub/Early Successional Bird Breeding Habitat	<b>Brown Thrasher + Clay-coloured Sparrow (indicators)</b> , Field Sparrow, Black-billed Cuckoo, E. Towhee, Willow Flycatcher, Yellow-breasted Chat, Golden-winged Warbler	CUT1, CUT2, CUS1, CUS2, CUW1, CUW2	Large field areas succeeding to shrub and thicket habitats > 10 ha. Areas not actively used for farming in the last 5 years.	N	Suitable habitat is not present on the Subject Property.
Terrestrial Crayfish	Chimney or Digger Crayfish; Devil Crayfish or Meadow Crayfish	MAM1 to MAM6, MAS1 to MAS3, SWD, SWT, SWM. CUM1 sites with inclusions of the aforementioned.	Wet meadow and edges of shallow marshes (no minimum size) should be surveyed for terrestrial crayfish (typc. protected by wetland setbacks).	N	Suitable habitat is not present on the Subject Property.

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
Special Concern and Rare Wildlife Species	Any species of concern or rare wildlife species	Any ELC code.	Presence of species of concern or rare wildlife species.	N	Both Eastern Wood-pewee and Wood Thrush were recorded during breeding bird surveys and they are provincially listed as Special Concern species. Numbers of individuals observed of both species are insufficient to consider the habitat SWH in this category given the relatively frequent occurrence of this species in the region.
<b>Animal Movement Corridors</b>					
Amphibians	Amphibians	all ecosites assoc. w/ water	When Breeding Habitat - wetland confirmed	N	Suitable habitat is not present on the Subject Property.
Deer Movement	White-tailed Deer	all forested ecosites	When Deer Wintering Habitat confirmed	N	Not applicable
<b>Exceptions for Ecoregion 6E</b>					
Mast Producing: 6E-14	Black Bear	Forested Ecosites	>30 ha w/ mast producing species: Cherry (berries), Oak, Beech (nuts).	N	Not applicable
Leks: 6E-17	Sharp-tailed Grouse	CUM, CUS, CUT	Grassland/meadow >15 ha adjacent to shrublands, >30 ha adjacent to woodlands. Low agricultural intensity.	N	Not applicable

# **Appendix E**

## **Correspondence with GSCA**

March 23, 2022

---

***Email Correspondence with Grey Sauble Conservation – Francis Lake EIS***

---

from: Regan Augustine <regan.augustine@pecg.ca>  
to: Olivia Sroka <o.sroka@greysauble.on.ca>  
cc: Natalie Dunn <natalie.dunn@pecg.ca>  
date: Nov 5, 2021, 8:35 AM  
subject: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Good Morning Olivia,

Palmer has been retained by the landowner to prepare an EIS for the proposed severance and development of three envelopes within the three parcels near Francis Lake. The address is located at West of Grey Road 17, directly north of Concession 14, south of Big Rock Road, and east of Francis Drive in the Township of Georgian Bluffs.

At this time we would like to provide a Terms of Reference (TOR) for the EIS report for your review and comment. I have attached the TOR to this email. Let me know if you have any questions.

Thank you,

Regan Augustine

--

**Regan Augustine, B.Sc.**  
**Intermediate Ecologist**

from: Olivia Sroka <o.sroka@greysauble.on.ca>  
to: Regan Augustine <regan.augustine@pecg.ca>  
cc: "natalie.dunn@pecg.ca" <natalie.dunn@pecg.ca>  
date: Feb 25, 2022, 3:53 PM  
subject: RE: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Hi Regan and Natalie,

I am very sorry for the delay. In regard to the Terms of Reference for an EIS at this location I offer the following:

1. Can you please clarify the existing/proposed lot lines of the parcels?
2. Can you please clarify if the 'adjacent lands' refers to 120m from the proposed study areas?
3. Breeding bird surveys should be completed at least 15 days apart as per the Bruce County EIS Guidelines.

4. Please connect with the County of Grey Planning Department to confirm their acceptance of a ToR as well.

The Bruce County EIS Guidelines is a reference document used to ensure EIS projects are completed sufficiently. The report should be in accordance with these guidelines.

Additionally, can you please confirm the name of the landowner(s)/applicant(s) of the parcels of land?

Thanks for your patience, please let me know if you have any questions.

Olivia

Olivia Sroka  
Intermediate Planner  
519.376.3076  
237897 Inglis Falls Road  
Owen Sound, ON N4K 5N6  
[www.greysauble.on.ca](http://www.greysauble.on.ca)

from: Regan Augustine <[regan.augustine@pecg.ca](mailto:regan.augustine@pecg.ca)>  
to: Olivia Sroka <[o.sroka@greysauble.on.ca](mailto:o.sroka@greysauble.on.ca)>  
date: Mar 9, 2022, 2:20 PM  
subject: Re: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Good Afternoon Olivia,

I have answered your questions below about the EIS for this project:

1. We assume the three development envelopes are where the landowner wants to sever the land. This will be further explained in the EIS.
2. Yes it does. We surveyed the adjacent lands from the Study Areas on the Subject Property that the client owns.
3. We have completed 2 breeding bird surveys last year and the surveys were conducted less than 15 days apart due to the project start up date occurring in mid June.
4. I sent the TOR to Grey County today.

The name of the landowner is Allan Speer.

Please let me know if you have any questions.

Thanks,

Regan

from: Regan Augustine <regan.augustine@pecg.ca>  
to: Olivia Sroka <o.sroka@greysauble.on.ca>  
date: Mar 15, 2022, 10:12 AM  
subject: Re: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Hello Olivia,

We received more information from the client/landowner about the proposed development. Here's some information that will hopefully clarify:

The Subject Property is comprised of three former lots which have been merged. The following two development envelopes are:

- Parcel 1: 0.36 hectares (ha) development envelope south of Big Rock Road; and
- Parcel 2: 6.84 ha development envelope connected to Francis Drive; and
- Parcel 3: 40.84 ha with no development proposed.

The three parcels are proposed to be severed and one single family home is proposed per development envelope on Parcel 1 and 2 (see attached figure). The vegetation removal for the single family home will be 0.10 ha per Parcel 1 and 2. At this time, the client does not have development plans prepared for the development envelopes. Parcel 3 does not currently have a development proposed.

This information will be further explained in our EIS.

Let me know if you have any questions.

Thank you,

from: Olivia Sroka <o.sroka@greysauble.on.ca>  
to: Regan Augustine <regan.augustine@pecg.ca>  
date: Mar 15, 2022, 2:22 PM  
subject: RE: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Hi Regan,

Thanks for that information. Were the other field investigations listed in the ToR provided completed starting last June as well?

from: Regan Augustine <regan.augustine@pecg.ca>  
to: Olivia Sroka <o.sroka@greysauble.on.ca>  
date: Mar 18, 2022, 8:19 AM  
subject: Re: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Good Morning Olivia,

You're welcome. Yes they were.

Thanks,

Regan

from: Regan Augustine <regan.augustine@pecg.ca>  
to: Olivia Sroka <o.sroka@greysauble.on.ca>  
date: Mar 21, 2022, 10:53 AM  
subject: Re: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Good Morning Olivia,

I am following up regarding the Terms of Reference (TOR) for this project and I would like to confirm if you generally accept the TOR I have provided and if you have any further questions or concerns please let me know.

Thank you,

Regan

from: Olivia Sroka <o.sroka@greysauble.on.ca>  
to: Regan Augustine <regan.augustine@pecg.ca>  
date: Mar 21, 2022, 3:31 PM  
subject: RE: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Hi Regan,

Given the timing of the surveys completed in 2021 we are recommending a spring survey be completed and considered within the EIS. GSCA of the opinion this is necessary to capture spring vegetation emergence and woodland amphibian breeding as outlined the in the Bruce County EIS Guidelines.

With the inclusion of this, we would generally accepting of the ToR put forth.

Olivia Sroka  
Intermediate Planner

from: Regan Augustine <regan.augustine@pecg.ca>  
to: Olivia Sroka <o.sroka@greysauble.on.ca>  
date: Mar 21, 2022, 3:44 PM  
subject: Re: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Hello Olivia,

Thank you for letting me know. I just want to confirm if you would like breeding birds recorded during this spring 2022 field survey? If you could let me know that would be great.

Thanks,

Regan

from: Olivia Sroka <o.sroka@greysauble.on.ca>  
to: Regan Augustine <regan.augustine@pecg.ca>  
date: Mar 21, 2022, 3:47 PM  
subject: RE: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Hi Regan,

Yes, this should be included as well please.

Let me know if you have anymore questions,

Olivia

Olivia Sroka  
Intermediate Planner

from: Regan Augustine <regan.augustine@pecg.ca>  
to: Olivia Sroka <o.sroka@greysauble.on.ca>  
date: Mar 22, 2022, 9:10 AM  
subject: Re: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Hi Olivia,

Thanks for letting me know. From our survey results, there was no habitat for breeding amphibians in the survey areas. Are we able to not complete the woodland amphibian survey as the habitat is not present? Please let me know. My plan is to complete a combined late May survey that would survey for birds and woodland ephemerals.

Thank you,

Regan

from: Olivia Sroka <o.sroka@greysauble.on.ca>  
to: Regan Augustine <regan.augustine@pecg.ca>  
date: Mar 22, 2022, 3:03 PM  
subject: RE: TOR for EIS Near Francis Lake in the Township of Georgian Bluffs

Hi Regan,

It would be beneficial to survey for breeding habitat during the May survey to include an additional season and ensure no habitat is present. If this is the case, it would negate the need to subsequently complete the woodland amphibian survey. I trust this is reasonable in moving forward. Looking forward to your response.

Olivia