

ENVIRONMENTAL IMPACT STUDY



August 13, 2025

548 Princess Street
Township of Georgian Bluffs
(Town of Shallow Lake)

Prepared for: Sunset View Farms



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1 INTRODUCTION

Roots Environmental Inc. ('Roots') has been retained by Sunset View Farms to complete an Environmental Impact Study (EIS) for the property located at 548 Princess Street, Township of Georgian Bluffs (Town of Shallow Lake), Grey County, as illustrated in *Figure 1 – Site Location*.

The proposed development of the site is for residential uses. An EIS is required to support an Official Plan Amendment (OPA), Zoning By-Law Amendment (ZBA) and Draft Plan of Subdivision for the development.

The purpose of the EIS is to identify the presence of any natural heritage features on the site or adjacent lands of 120 metres, assess any impacts resulting from the proposed development, and identify any preventative, mitigative or remedial measures to ensure no negative impacts.

A detailed review of relevant environmental legislation and policies will be included in Section 8 of this EIS. This review will include the Provincial Planning Statement, Grey County Official Plan, Township of Georgian Bluffs Official Plan, Ontario Regulation 41/24 under the *Conservation Authorities Act*, *Endangered Species Act* and *Migratory Birds Convention Act*.

2 METHODOLOGY

Preparation for the EIS involves a desktop review of available information, field investigations and analysis. The following provides a summary of tasks completed for the EIS.

2.1 Desktop Review

A desktop review was completed to identify previously known natural features and occurrences of rare species or Species at Risk (SAR) in the Study Area. Sources included the following:

- The Ministry of Natural Resources (MNR) Natural Heritage Information Centre (NHIC) Make A Map: Natural Heritage Areas;
- Ontario Nature Reptile and Amphibian Atlas;
- Ontario Breeding Bird Atlas;
- iNaturalist;
- County of Grey and Town of Georgian Bluffs Official Plan; and
- Grey Sauble Conservation Authority (GSCA) Regulation Mapping.



Legend

 Property Boundary

ENVIRONMENTAL IMPACT STUDY

Figure 1
Site Location

548 Princess Street
Township of Georgian Bluffs
County of Grey



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



500 250 0 500 1,000 1,500 2,000 Meters

2.2 Field Investigations

Site investigations were completed in 2022 and 2025 based on a preliminary desktop review for the Study Area, habitats present on site, and Terms of Reference provided to applicable agencies. The Terms of Reference are provided as Appendix A. Table 1 below provides a summary of dates and tasks completed.

Detailed site investigations were limited to the subject property. Adjacent lands of 120 metres were investigated through roadside observations where feasible, aerial photography and background mapping.

Table 1: Summary of Site Investigations (2022)

Task	Survey Dates (Duration)	Weather Conditions	Personnel
Bat Maternity Roost Survey	April 26, 2022 (1330-1530)	4°C; 1 wind*; 75% Cloud Cover (CC)	Kyle Fleming (Roots Env. Inc.)
Breeding Bird Surveys	June 10, 2022 (0735-0900hrs)	19°C; 2 wind; 0% CC	Kyle Fleming
	July 10, 2022 (0810-0915hrs)	18°C; 2 wind; 25% CC	
Vascular Plants Ecological Land Classification	June 10, 2022 (0900-1130hrs)	19°C; 2 wind; 0% CC	Kyle Fleming
	August 3, 2022 (1100-1145hrs)	24°C; 1 wind; 0% CC	
	August 8, 2025 (0930-1150)	22°C; 1 wind; 100% CC	

*Wind Measurement using Beaufort Scale (0-6)

2.2.1 Vascular Plants

Vascular plant surveys were completed in the spring and summer growing seasons using roving transects through all habitats within the development area and adjacent lands. Adjacent lands were completed using observations from the site property line.

Particular attention was paid during field investigations for rare species and Species at Risk listed under the Ontario *Endangered Species Act (ESA)*. Incidental observations were also completed during other surveys on site.

The significance of vascular plants sampled was assessed based on the Natural Heritage Information Centre's (NHIC) rankings (S-rank) for provincial rarity.

2.2.2 Vegetation Communities

Vegetation communities were identified using the Ecological Land Classification (ELC) for Southern Ontario, First Approximation (Lee et al., 1998). Polygons within the development area were delineated using aerial photography, field sampled and classified into the most appropriate vegetation type. The polygons were identified based on vegetative cover, soils and landscape features. Vegetation communities within adjacent lands are identified to the Ecosite or Community Level dependent on accessibility or roadside observations.

The significance of the vegetation communities was assessed based on the Natural Heritage Information Centre's (NHIC) provincial rankings where applicable.

2.2.3 Breeding Birds

Two surveys for breeding bird species were completed using general protocols in the Ontario Breeding Bird Survey Guide for Participants (2021 version), which were adapted for this small site. Due to the disturbed nature of the site and small project area, a wandering point count was completed along the edges of the site, recording all auditory and visual observations of bird species.

The significance of species detected during surveys has been assessed based on the Natural Heritage Information Centre's (NHIC) provincial rankings.

2.2.4 SAR Bat Maternity Roost (Treed)

The site has been cleared and is being utilized for agricultural purposes. A SAR Bat Maternity Roost (Treed) Survey was completed for the site in April 2022 during the leaf-free period. Due to the small size of the woodland area surveyed, 20-metre transects were completed to determine the presence of suitable roost trees containing snags/cavities or mature deciduous species (i.e., Hard Maple, Red Oak, etc.) that would support significant maternity roost habitat. General criteria for suitable trees were used from MECP protocols in the Species at Risk Bats Survey Note (MECP 2022).

2.2.5 Incidental Wildlife Observations

Incidental observations were made for mammals and herptiles (amphibians and reptiles) during field investigations through observations of physical evidence (scats, tracks) and for shelter, feeding and breeding sites (e.g., vernal pools, rock piles, etc.).

3 EXISTING CONDITIONS

3.1 Desktop Review

3.1.1 MNRF NHIC Make-A-Map: Natural Heritage Areas

The NHIC geographic search for the subject property and a 1-km area (Squares 17MK9341, 17MK9340, 17MK9339, 17MK9139, 17MK9239, 17MK9140, 17MK9240, 17MK9141 and 17MK9241) was completed to identify previous records for natural features and species in the area as shown on *Figure 2 – NHIC Natural Areas Map*. Occurrences documented by NHIC may include those

beyond the site and on habitats suitable to those species. The following records of rare species or SAR were found:



Figure 2: NHIC Mapping (Property Boundary illustrated in red).

- Midland Painted Turtle (*Chrysemys picta marginata*) (S4) (Special Concern) (SC)
- Hart's-tongue Fern (*Asplenium scolopendrium*) (S3)
- Wood Thrush (*Hylocichla mustelina*) (S4B) (SC)
- Least Bittern (*Botaurus exilis*) (S4B) (Threatened) (THR)
- Snapping Turtle (*Chelydra serpentina*) (S4) (SC)
- Mixed Wader Nesting Colony
- King Rail (*Rallus elegans*) (S1B) (Endangered) (END)
- Eastern Ribbonsnake (*Thamnophis saurita*) (S4) (SC)
- Massasauga (*Sistrurus catenatus*) (S3) (THR)

- Tuberous Indian-plantain (*Arnoglossum plantagineum*) (S2) (SC)
- Ghost Tiger Beetle (*Ellipsoptera lepida*) (S2)
- Gypsy Cuckoo Bumble Bee (*Bombus bohemicus*) (S1 S2) (END)
- Yellow-banded Bumble Bee (*Bombus terricola*) (S3S5) (SC)

The McNab Lakes Provincially Significant Wetland (PSW) is presently mapped greater than 250-metres to the east of the property. No other unevaluated wetlands or other natural heritage features (i.e., ANSI) were identified in the review. A summary of the records is included in Appendix B.

3.1.2 Ontario Nature Reptile and Amphibian Atlas

A geographic query of occurrence square 17MK94 was completed using the Ontario Nature Reptile and Amphibian Atlas for observations of species collected from 1970-2019. Observations will include observations beyond the site and on habitats suitable to those species. Two SAR were found in the search:

- Snapping Turtle (SC)
- Massasauga (THR)

Other species noted in the search are common to Ontario. A summary of the records is included in Appendix B.

3.1.3 Ontario Breeding Bird Atlas

A geographic query of occurrence square 17MK94 was completed using the Atlas of Breeding Birds of Ontario for observations of species collected from 2001-2005. It is noted that these occurrence squares encompass a 10-km area that includes the subject property. Occurrences will include those beyond the subject property and on habitats suitable to those species.

A summary of the search is included in Appendix B. 10 species observed during the Breeding Atlas are listed as a SAR in the *Endangered Species Act*. These species are:

- Least Bittern (THR)
- Common Nighthawk (*Chordeiles minor*) (SC)
- Chimney Swift (*Chaetura pelagica*) (THR)
- Eastern Wood-Pewee (*Contopus virens*) (SC)
- Barn Swallow (*Hirundo rustica*) (SC)
- Bank Swallow (*Riparia riparia*) (THR)
- Wood Thrush (SC)
- Grasshopper Sparrow (*Ammodramus savannarum*) (SC)
- Bobolink (*Dolichonyx oryzivorus*) (THR)
- Eastern Meadowlark (*Sturnella magna*) (THR)

3.1.4 iNaturalist

A geographic query was completed for iNaturalist records within the site and adjacent lands. All species were found to be common (S4 or higher) and non-at-risk in Ontario.

3.1.5 Grey County and Township of Georgian Bluffs Official Plans

The Grey County Official Plan (2018) identifies that the subject property is in a secondary settlement area (Shallow Lake). Schedule C to the Official Plan illustrates that there are no NHS Core or Linkage areas within the property.

Appendix A identifies Karst Area within a portion of the property and Appendix B identifies the presence of Significant Woodlands in the east part of the site.

Schedule A-1 to the Township of Georgian Bluffs Official Plan illustrates that the subject property is within a Settlement Area Boundary and designated as Future Development.

3.1.6 GRCA Regulation Mapping

Per GRCA regulation mapping, no portion of the subject property is regulated under O. Reg. 41/24 to the *Conservation Authorities Act*. No watercourses and associated flooding or erosion hazard lands, or wetlands are illustrated within the property.

3.2 Vegetation

Vegetation communities were identified on site using ELC to the vegetation type within the proposed development area. Adjacent lands are classified to the Ecosite level where possible. Provided below are descriptions of communities, which are shown on *Figure 3 – Existing Conditions* and *Table 2 – Site Photos*.

AGR: Agricultural

The majority of the site is actively farmed for wheat. No naturalized areas or significant habitats are found within the active agricultural lands.

FOD5-1: Sugar Maple Deciduous Forest Type

This community is largely dominated by mature and semi-mature Hard Maple (*Acer saccharum*) with associates of Black Cherry (*Prunus serotina*), White Ash (*Fraxinus americana*), Green Ash (*Fraxinus pennsylvanica*), American Beech (*Fagus grandifolia*) and White Elm (*Ulmus americanum*). Groundcover included Blue Cohosh (*Caulophyllum thalictroides*), Canada Mayflower (*Maianthemum canadense*), Bloodroot (*Sanguinaria canadensis*), Common Helleborine (*Epipactis helleborine*), Common Privet (*Ligustrum vulgare*) and Large-leaved Aster (*Eurybia macrophylla*).

The edges of this woodland were largely Common Buckthorn (*Rhamnus cathartica*) with occasional Apples trees (*Malus pumila*).

Large boulders (dolostone) were present throughout the woodland, likely brought to that area through past agricultural practices. A fencerow of small cobble stones was also present along the edges, again, likely placed through clearing of the agricultural field.

Trails are present in the woodland from adjacent residential lots and disturbance through dumping of refuse and clearing along the edges.



Legend

- Property Boundary
- Adjacent Lands (120 metres)
- Significant Woodlands
- Total Site Woodlands (3.55 ha)
- ELC Units
- Wetland - Provincially Significant

ENVIRONMENTAL IMPACT STUDY

Figure 3
Existing Conditions

548 Princess Street
Township of Georgian Bluffs
County of Grey

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, <https://www.ontario.ca/page/open-government-licence-ontario>, Ontario Ministry of Natural Resources and Forestry, Grey County, Maxar, Microsoft



125 62.5 0 125 250 375 500 Meters

Table 2: Site Photos (K Fleming 2025).

	
Agricultural lands within the development area (AGR).	FOD5-1 Hard Maple forest in the south part of the development area.
	
Boulders present in FOD5-1 in the south part of the development area.	Trails present in FOD5-1 to residential areas along the east boundary of the site.
	
FOD4 mixed deciduous forest in the northeast part of the development area.	FOD4 mixed deciduous forest in the northeast part of the development area.

FOD4: Dry-Fresh Deciduous Forest Ecosite

This community is consists of a young to semi mature mix of deciduous species, including Large-toothed Aspen (*Populus grandidentata*), Trembling Aspen (*Populus tremuloides*), White Elm, Black Cherry, Hard Maple, Green Ash and White Ash. Groundcover included Prickly Gooseberry (*Ribes cynobasti*), Virginia Creeper (*Parthenocissus quinquefolia*), Garlic Mustard (*Alliaria petiolata*), Common Privet and Maple-leaved Viburnum (*Viburnum acerifolium*).

This community is due to past clearing of the site for agriculture, with a younger canopy present and evidence of past disturbance.

Hedgerows visible in 2020 aerial photography in Figure 3 are no longer present and are now farmed for wheat.

Adjacent lands to the south and east are residential uses, to the west is commercial development and to the north is agricultural and deciduous woodlands.

No other rare species or SAR were found within the development area or adjacent lands. All species were found to be common to similar habitats found in Ontario or are listed as non-native/exotic species.

3.3 Wildlife

3.3.1 Breeding Birds

22 bird species were documented on site and adjacent lands. All species were found to be common to Ontario. Species included the Black-capped Chickadee (*Poecile atricapillus*), American Robin (*Turdus migratorius*), American Goldfinch (*Spinus tristis*), Blue Jay (*Cyanocitta cristata*), European Starling (*Sturnus vulgaris*), Red-eyed Vireo (*Vireo olivaceus*) and House Sparrow (*Passer domesticus*). A list of species observed is included in Appendix C.

An Osprey (*Pandion haliaetus*) nest was observed on a constructed light post to the west of the site within the Shallow Lake Community Centre.

3.3.2 Incidental Wildlife Observations

Incidental wildlife observations made during site visits included the Eastern Grey Squirrel (*Sciurus carolinensis*), Raccoon (*Procyon lotor*) and Eastern Chipmunk (*Tamias striatus*). These observations are included in Appendix C.

3.4 Aquatic Habitats

No aquatic features (i.e., watercourses, waterbodies, etc.) exist within the development area.

3.5 Species at Risk

3.5.1 SAR Bat Maternity Roost (Treed) Survey

A SAR Bat Maternity Roost (Treed) Survey identified a total of eight (8) suitable roost trees within Hard Maple dominated woodlands (FOD5-1) in the southeast part of the site, which results in a roost tree density of 4.6 trees/ha. No habitat was found in remaining areas of the site.

4 ASSESSMENT OF NATURAL HERITAGE FEATURES/AREAS

Identification of natural heritage features is based on the PPS, the MNRF “Natural Heritage Reference Manual” (2nd Edition) (MNRF 2010), Township of Georgian Bluffs Official Plan, County of Grey Official Plan, “Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E” (MNRF January 2015), and listings and habitat descriptions for species listed in the ESA.

4.1 Significant Wetlands (and Coastal Wetlands)

A review of the MNRF NHIC mapping found no Provincially Significant Wetlands within the site or adjacent lands of 120 metres.

4.2 Other Wetlands (Unevaluated, Non-Provincially Significant)

No unevaluated or non-provincially significant wetlands were found within the site or adjacent lands.

4.3 Significant Woodlands

The Natural Heritage Reference Manual (OMNR 2010) states that planning authorities should undertake comprehensive studies to identify significant woodlands in their planning area.

The County of Grey has mapped Significant Woodlands on site as in Appendix B to the Official Plan. Section 7.4 of the Official Plan provides criteria for the identification of Significant Woodlands as follows:

- Outside of Settlement Areas: ≥ 40 ha
- Settlement Areas: ≥ 4 ha

A woodland may also be deemed significant if it meets two of the following criteria:

- Proximity to other woodlands (within 30 metres of another Significant Woodland);
- Overlaps with a Provincially Significant Wetland, Significant Coastal Wetland, Core Area, Significant Valleyland or a Significant Area of Natural and Scientific Interest; or
- Interior habitat ≥ 8 ha with a 100-metre buffer on all sides.

The site is within a Secondary Settlement Area as illustrated in Schedule A to the Official Plan. Therefore, all woodlands that ≥ 4 ha in size or meet secondary criteria are significant.

Based on 2020 aerial photography, woodlands on site are 3.55 ha as illustrated in *Figure 3*. Significant Woodland mapping in Appendix B to the Official Plan includes portions of existing residential lots, roadways and buildings. It is likely that previous MNR woodlands layers used to map Significant Woodlands in the County were based on old aerial photography that pre-dated development in the area.

Woodlands within the site are greater than 30-metres to Significant Woodlands to the east, do not overlap with any Provincially Significant Wetlands, Significant Coastal Wetlands, Core Areas, Significant Valleylands or Areas of Natural and Scientific Interest.

Based on revised mapping, woodlands on site are not significant. Significant Woodlands are present within adjacent lands to the east of the site as illustrated in Figure 3. Based on the presence of this feature within adjacent lands, an impact assessment is provided in Section 6 of this report.

4.4 Significant Valleylands

No significant valley land features were identified during the desktop review or found during field surveys on the site.

4.5 Significant Wildlife Habitat

An assessment of candidate Significant Wildlife Habitat (SWH) has been completed using the “Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E” (MNRF 2015) based on the results of the desktop review, habitats present and field investigations.

No SWH was found on site or adjacent lands. A summary of the assessment is provided in Appendix D.

4.6 Significant Areas of Natural and Scientific Interest

A desktop review of available information found no Provincially Significant ANSI within 120 metres of the subject property.

4.7 Fish Habitat/Watercourses

There are no watercourses or aquatic features within the study area based on a desktop review and field investigations.

4.8 Habitat of Endangered Species and Threatened Species

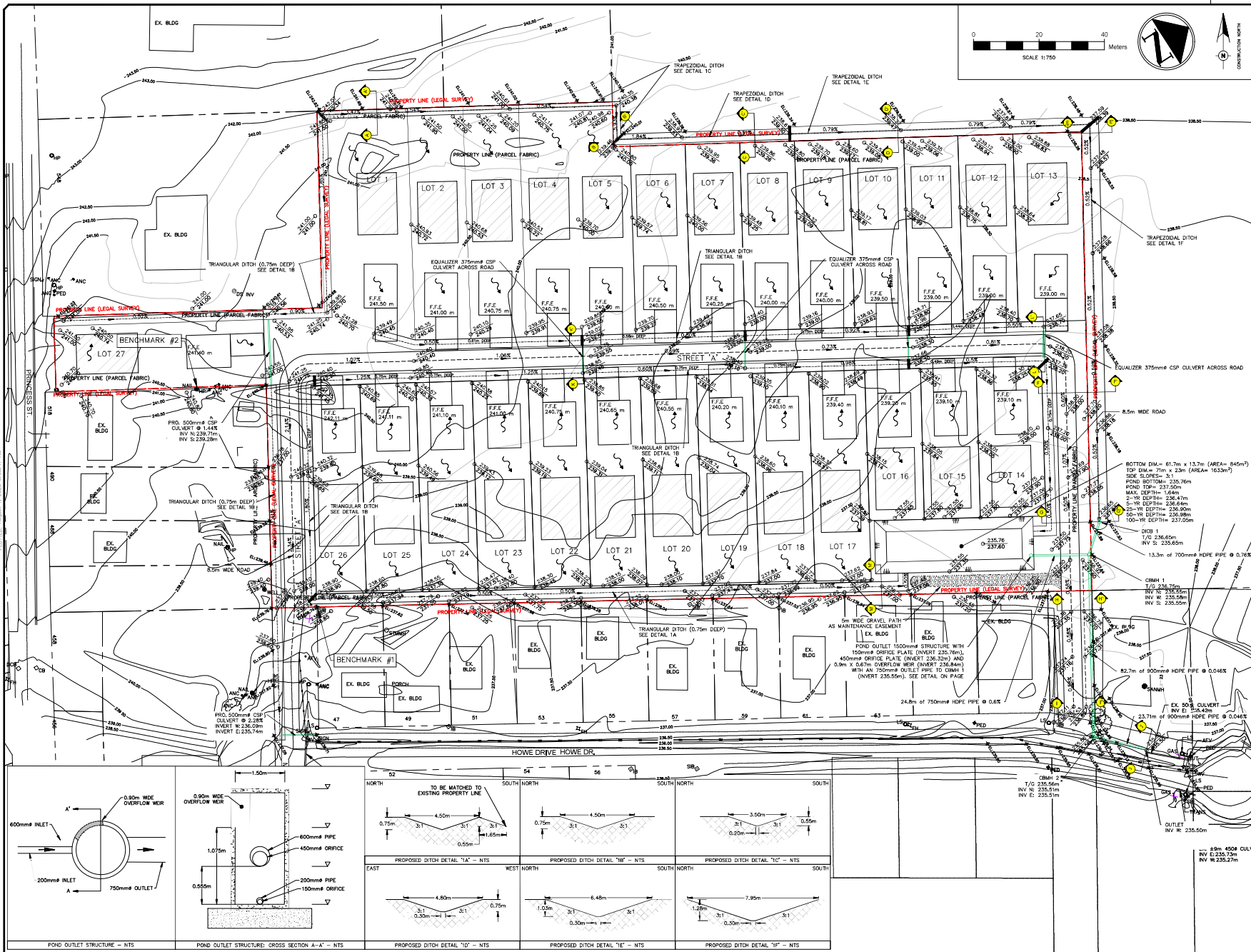
A SAR Assessment was completed based on existing records obtained through the desktop review, habitats present within the development area and field investigations. The results of the SAR Assessment are provided in Appendix E.

Potential habitat for SAR bat species was identified in woodland habitat in the southeast part of the site. Based on presence of potential habitat for SAR bat species, an impact assessment is provided in Section 6 of this report.

5 PROPOSED DEVELOPMENT

The proposed development will include a total of 27 residential lots as illustrated in *Figure 4 – Draft Plan of Subdivision*. All lots will be serviced by private septic systems and municipal water. Street A will provide access to the new lots and connect with Howe Drive and Main Street to the south of the site.

A stormwater management pond will be constructed in the southeast part of the site to manage all stormwater. The pond will outlet via underground pipes and ditches to Howe Drive as illustrated in the Functional Servicing Report.



6 IMPACT ASSESSMENT

Two natural heritage features have been identified on the site and adjacent lands:

- Significant Woodlands (Adjacent Lands); and
- Habitat for Endangered and Threatened Species (on site).

This section will assess potential impacts to these features and ecological functions resulting from the proposed development and provides mitigation measures to ensure no negative impacts. This report utilizes the definition of a “negative impact” in the PPS (Page 48) *“in regard to other natural heritage features 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.”*

6.1 Significant Woodlands

Significant Woodlands are present within adjacent lands to the east of the proposed development as illustrated in *Figure 5 – Development Setbacks*. No direct removal of this feature will occur as a result of the proposed development.

All residential development will occur approximately 120 metres from the Significant Woodlands and a proposed roadway extension to Howes Drive will have a separation of approximately 66-metres. The area between the development and those woodlands is comprised of residential and commercial development and municipal roads.

As there will be no direct impacts, and development will occur 66-120-metres or greater from the limit of the woodlands, we anticipate no negative impacts to Significant Woodlands and no mitigation measures are recommended.

6.2 Habitat of Endangered and Threatened Species

As described in Section 4.2.3.1, eight potential roost trees for SAR bat species were found within the site. Based on the low number of suitable trees present, removal of a small number of bat snags in the appropriate seasonal period is unlikely to represent a negative impact to habitat for the species in accordance with MECP guidance (i.e. Bat Survey Standards Note - 2022). Woodland habitats exist to the north and east of the site.

To avoid any potential for direct impacts to Species at Risk bat species, it is recommended that no clearing of treed areas occur during the active season of April 1 – September 30th.

6.3 Additional Recommendations

6.3.1 Endangered Species Act

As physical alteration of the subject property may not be immediate and applications for development may take time to be approved, it is recommended that if clearing and/or construction occurs greater than 5-years from the date of this report, a scoped assessment for SAR be undertaken to ensure that the provisions of the ESA are satisfied.



Legend

- Property Boundary
- Adjacent Lands (120 metres)
- Significant Woodlands
- Wetland - Provincially Significant

ENVIRONMENTAL IMPACT STUDY

Figure 5
Development Setbacks

548 Princess Street
Township of Georgian Bluffs
County of Grey



125 62.5 0 125 250 375 500 Meters

6.3.2 Migratory Birds Convention Act

The *Migratory Birds Convention Act* (MBCA) (1994) and *Migratory Bird Regulations* (MBR) (2022) protects migratory birds and their nests within Canada. Due to the presence of potential nesting habitat within the property, it is recommended that no clearing of vegetation occur between April 1-August 31st to present incidental direct impacts to nesting migratory birds.

7 POLICY AND LEGISLATION COMPLIANCE

7.1 Environmental Planning Policies

The following tables provide a summary of planning policies and rationale for compliance with the Provincial Planning Statement, County of Grey Official Plan, Township of Georgian Bluffs Official Plan, and Ontario Regulation 41/24 for the proposed development. This environmental policy consistency and conformity was undertaken by Charles F. Burgess, MCIP, RPP of Burgess Gleason Environmental Inc.

Table 3: Provincial Planning Statement (2024)

Section	Policy	Policy Consistency
4.1.3	Natural heritage systems shall be identified in Ecoregions 6E and 7E1 recognizing that they will vary in size and form in settlement areas, rural areas, and prime agricultural areas.	The Natural Heritage System (NHS) is illustrated through Grey County and the Township of Georgian Bluffs Official Plans and mapping produced by the province. Based on this information, the subject property is outside any NHS
4.1.4	Development and site alteration shall not be permitted in significant wetlands and significant coastal wetlands.	There are no significant or coastal wetlands on the subject property. As a result, this policy does not apply to this development proposal.
4.1.5	Development and site alteration shall not be permitted in valleylands, woodlands, wildlife habitat, and ANSI that are significant including coastal wetlands unless it has been demonstrated that there will be no negative impacts on the natural feature and their ecological functions.	Based on a site inspection and evaluation of existing information, the subject lands are devoid of the natural features identified in Policy 4.1.5.
4.1.6	Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.	There are no watercourses that contain fish habitat on the subject lands.
4.1.7	Development and site alteration shall not be permitted in habitat of endangered species and	The field inspection and evaluation has determined that the proposed development will be in an area that may contain the habitat

	threatened species except in accordance with provincial and federal requirements.	of Species at Risk bat species. Provided the recommendations in the EIS are implemented, the provisions of the ESA will be met through the development of the site.
4.1.8	Development and site alteration shall not be permitted on adjacent lands to features identified in 4.1.4, 4.1.5, and 4.1.6 unless it has been demonstrated that there will be no negative impacts.	The proposed development will be located adjacent to the features identified in Policy 4.1.5 (significant woodland). Given that all new development will be located a minimum of 66m from the adjacent significant woodland, there will be no negative impacts on this natural heritage feature.

Table 4: County of Grey Official Plan (Consolidation 2023)

Schedule/Section	Designation/Policy	Conformity
Schedule A (Land Use Types) Map 1 to the Official Plan (OP)	The subject property is designated Secondary Settlement Area based on Map 1.	The Secondary Settlement Area designation permits the proposed residential land use and development.
Schedule C Natural Heritage System Core Areas and Linkages	This Schedule illustrates the regional Natural Heritage System (NHS) including core areas and linkages.	Based on Schedule C, the subject property is located outside the County's NHS.
Appendix A (Map 1) Constraint Mapping to the Official Plan	This Appendix shows the constraints within the County including karst topography and woodland fire risk.	Based on this Appendix, the front part of the subject property may contain karst topography. However, a detailed study undertaken by GSS Consultants Engineering Ltd. has demonstrated that karst topography does not exist on the subject lands.
Appendix B (Map 1) Constraint Mapping to the Official Plan	This Appendix illustrates the constraints within the County including natural heritage features such as wetlands, and watercourses.	This Appendix shows that the subject property contains a significant woodland. However, based on the field analysis, it has been determined that the woodland on-site does not meet the criteria for significance. Please refer to Section 4.3 of this EIS.
Section 7.4 Significant Woodlands	This section provides a framework for the protection of significant woodlands.	The policies in this section define significant woodlands as those forested areas that are greater than 4 hectares in size in Settlement Areas. Other criteria are identified for significance include proximity to other features such as provincially significant wetlands. Based on the site inspections and analysis in this EIS,

		the woodland on-site does not meet the criteria for significance.
Section 7.5 Karst Areas	Section 7.5 provides a policy framework for karst topography.	Appendix A to the OP illustrates that the front part of the property may contain karst topography. A detailed study undertaken by GSS Consultants Engineering Ltd. has demonstrated that karst topography does not exist on the subject lands.
Section 7.10 Other Natural Features	Subsection 7.10.2 provides policy direction as it relates to endangered and threatened species.	The field inspection and evaluation has determined that the proposed development will be in an area that may contain the habitat of Species at Risk bat species. Provided the recommendations in the EIS are implemented, the provisions of the ESA will be met through the development of the site.
Section 7.11 Implementation	This policy section illustrates the criteria for the preparation and development of an EIS.	This EIS has been prepared in accordance with the Terms of Reference and the general requirements of this section.

Table 5: Township of Georgian Bluffs Official Plan (2013) and Zoning By-Law 2020-20

Schedule/Section	Designation/Policy	Conformity
Schedule A Policy Areas	The subject property is designated Secondary Settlement Area based on Schedule A.	The Secondary Settlement Area designation (Shallow Lake) allows for future development including residential uses.
Schedule A-1 Land Use Designations	This Schedule illustrates the land use designations within the Secondary Settlement Area of Shallow Lake.	Based on Schedule A-1, the subject property is designated Future Development.
Section 3.4.5 Future Development	This section provides direction for the development of lands designated Future Development.	This land use designation allows for future development within Settlement Areas. As noted previously, the subject property is located in the Secondary Settlement Area of Shallow Lake. An amendment to the Official Plan may be required in order to further the principle of development on the subject lands and redefine the proposed residential land use.
Section 3.4.6	This Section provides a policy framework for natural areas within the Township including the	The field inspection and evaluation has determined that the proposed development will be in an area that may contain the habitat

Natural Environment Areas	significant habitat of endangered and threatened species.	of Species at Risk bat species. Provided the recommendations in the EIS are implemented, the provisions of the ESA will be met through the development of the site.
Map #44 To Zoning By-Law 2020-020	The subject property is zoned Planned Development (PD) based on Map 44.	The “PD” zone is intended for planned development in the future including residential uses as proposed by a draft plan of subdivision.

Table 6: Ontario Regulation 41/24 - Under the Conservation Authorities Act

Section	Provision	Compliance
1	Section 1 defines the areas that are subject to the Regulation including wetlands, areas susceptible to flooding and erosion, and hazardous lands such as unstable soils and bedrock.	Based on mapping produced by the Grey Sauble Conservation Authority (GSCA), the property is located outside any areas subject to Ontario Regulation 41/24.
2.(1)	This section addresses development in association with valleylands, steep slopes, and flood plain areas.	There are no steep slopes, valley lands, or flood plain on the subject property based on mapping produced by the GSCA. As a result, permit approval will not be required from the GSCA as it relates to development in association with a watercourse.
2.(2)	This provision limits development associated with the Great lakes and large inland lakes such as Lake Simcoe.	The subject property is not located on the shorelands of a Great Lake or large inland lake. As a result, this provision does not apply to the development of this property.
2.(3)	These sections limit development associated with wetlands and adjacent lands which is defined as 30m.	Based on a site inspection, there are no wetlands on the property. Further, all new development will be located a minimum of 30 metres from any wetland area. On this basis, this provision does not apply to the proposed development.
7.	This section provides a framework for developing in areas identified in Section 2.	The County of Grey Official Plan illustrates that there may be karst topography in the front part of the subject lands. However, a detailed study undertaken by GSS Consultants Engineering Ltd. has demonstrated that karst topography does not exist on the subject lands.

8 CONCLUSIONS

Roots Environmental Inc. has been retained by Sunset View Farms to complete an Environmental Impact Statement in support of applications for development of the property known at 548 Princess Street, Township of Georgian Bluffs, County of Grey.

One natural heritage feature was identified on the site, the habitat of threatened and endangered species. One natural heritage feature, Significant Woodlands, was identified within adjacent lands to the site.

Provided development occurs as shown on the Draft Plan of Subdivision and mitigation measures in this report are implemented, we anticipate no negative impacts to identified natural heritage features on adjacent lands to the development.

Respectively submitted by Roots Environmental Inc.:

A handwritten signature in blue ink, appearing to read "Kyle Fleming", with a stylized flourish extending to the right.

Kyle Fleming, BSc. (Wildlife)
Senior Ecologist

REFERENCES

Government of Ontario. 2024. Provincial Planning Statement. Queen's Printer of 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, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

Natural Heritage Information Centre (NHIC) Database. 2021. Provincial Status of Plants, Wildlife and Vegetation Communities Database. Ministry of Natural Resources and Forestry, Peterborough.

Ontario Ministry of Natural Resources and Forestry. January 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E.

Ontario Ministry of Natural Resources and Forestry. March 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005.

APPENDIX A

Agency Correspondence

February 1, 2022 (Revised March 1, 2022)

Planning Department
County of Grey
595 9th Avenue East
Owen Sound Ontario N4K 3E3

RE: **Terms of Reference - Environmental Impact Study**
548 Princess Street
Township of Georgian Bluffs
County of Grey

1. Introduction

Roots Environmental ('Roots') was retained by Christian Nagel to complete a Terms of Reference for an Environmental Impact Study (EIS) for the development of the above noted property for residential uses. The location and extent of the property is shown on Figure 1.

The west part of the subject property is currently used for agricultural, while the east part is vacant woodlands.

The subject property is currently designated Future Development in Schedule A-1 of the Township of Georgian Bluffs Official Plan and is within the Shallow Lake Settlement area.

The County of Grey Official Plan Schedule A – Land Use designates the property as Secondary (Plan Area). Appendix B identifies the presence of Significant Woodlands in the east part of the property. Per section 7.4 (1) of the Official Plan: *"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. Adjacent lands are defined in Section 7 and 9.18 of this Plan."*

No other known natural heritage features were identified through a desktop review of available resources for the property or adjacent lands of 120 metres.

2. Work Plan

The following is recommended based on the objectives for development of the property, and the presence of Significant Woodlands and associated woodland habitats.

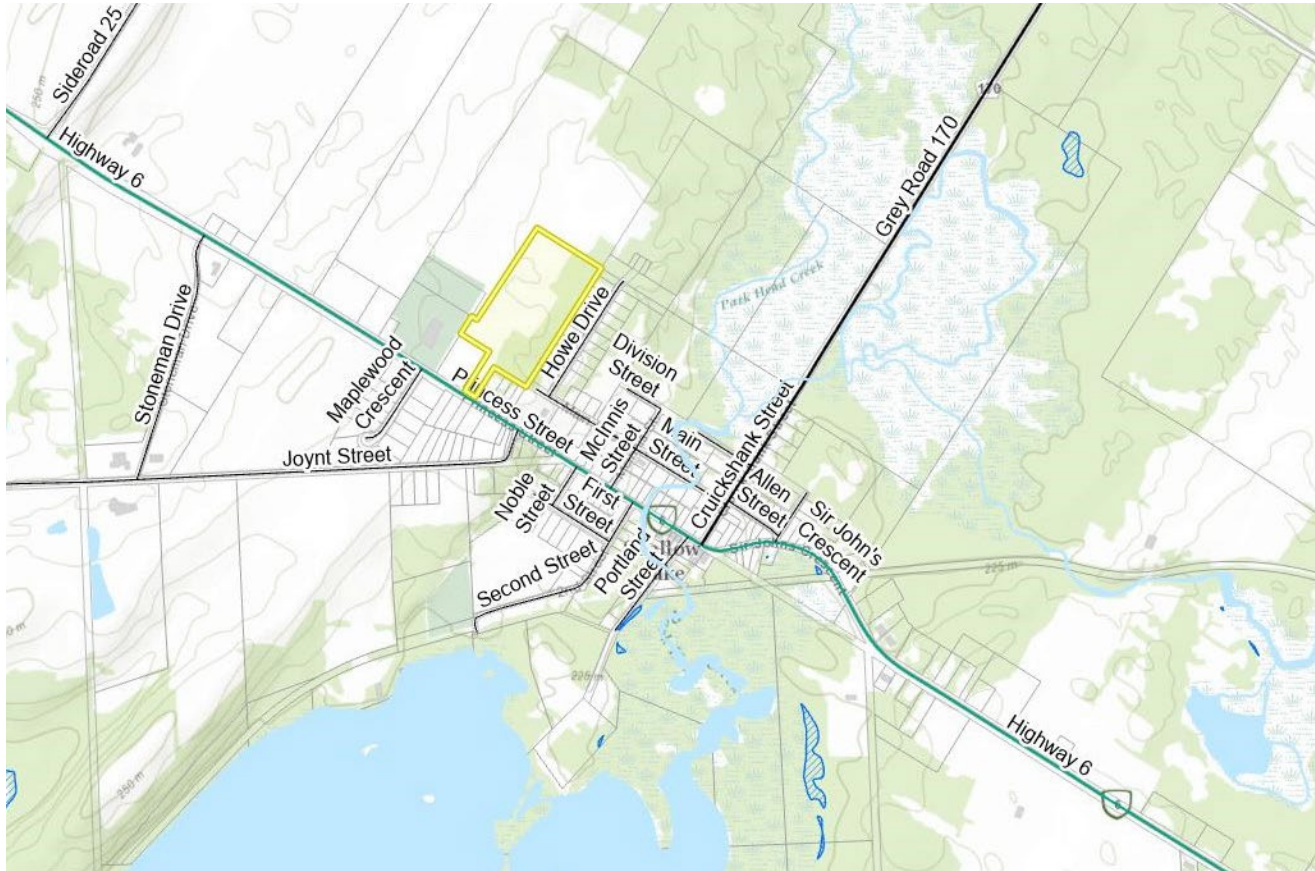


Figure 1: Site Location

1. Desktop Review:
 - I. Complete a desktop review for any relevant natural heritage information for the site and adjacent lands of 120 metres.
 - II. Review all applicable municipal official plan, provincial plans, policies and legislation.
2. Field Investigations:
 - I. *Species at Risk Bat Tree Survey* (April 2022) – to determine presence of any cavity/snag trees capable of supporting Species At Risk (SAR) bat species.
 - II. *Plant Surveys* (2) (Spring/Summer/Fall 2022) - to determine presence/absence of rare species or SAR.
 - III. *Breeding Bird Surveys* (2) (Late May – Early July 2022) – to determine presence of Significant Wildlife Habitat or SAR species.
 - IV. *Ecological Land Classification* (ELC) (Summer) – to classify vegetation communities to provincial standards and limits of the woodland feature.
 - V. *Incidental Wildlife Observations*- Wildlife observations will be made during site visits.
3. Environmental Impact Study, to include:
 - I. Introduction.

- II. Methodology.
- III. Summary of desktop review.
- IV. Biophysical description (existing conditions) of the site.
- V. Analysis for the presence of natural heritage features on the property and adjacent lands.
- VI. Assessment of potential impacts to identified natural heritage features and related ecological functions.
- VII. Recommendations for mitigation measures to ensure no negative impacts to natural features on site and adjacent lands.
- VIII. Policy Compliance/Conformity.
- IX. Conclusions.

If you have any comments that should be incorporated into these Terms of Reference, please let us know at your earliest convenience or provide confirmation of acceptance should these terms of reference meet with your approval.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kyle Fleming", with a stylized flourish at the end.

Kyle Fleming, BSc. (Wildlife)
Senior Ecologist/Owner

cc: Christian Nagel
Ryan Kochuta – Cuesta Planning Consultants Inc.

Kyle Fleming

From: Olivia Sroka <o.sroka@greysauble.on.ca>
Sent: February 28, 2022 11:42 AM
To: ryan@cuestaplanning.com
Cc: Kyle Fleming
Subject: RE: EIS TOR - 548 Princess Street - Draft Plan of Subdivision

Hi Ryan and Kyle,

In regard to the ToR compiled for 548 Princess St, Shallow Lake, I offer the following:

- 1) Please note the adjacent lands for review should extend 120m from the proposed development.
- 2) Breeding bird surveys should be carried out between May and July, with a minimum of 2 visits at least 15 days apart. Please clarify the timing of investigations.
- 3) 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.

Don't hesitate if you have any questions.

Thanks,

Olivia

Olivia Sroka
Intermediate Planner

519.376.3076
237897 Inglis Falls Road
Owen Sound, ON N4K 5N6
www.greysauble.on.ca



Please note that due to the recent surge in COVID-19 cases, GSCA's Administrative Office is closed to the public until further notice. During this time, some GSCA staff will be working remotely and may not have access to office phones. Please utilize email as the most reliable way to reach our staff at this time. A full staff directory is available on our website. Rest assured that GSCA is committing to continuing to provide a high level of service and staff will be doing their best to ensure this. As this is a rapidly evolving situation, please monitor our website at www.greysauble.on.ca for up-to-date information.

For after-hours non-911 emergencies please call 226-256-8702. Please do not use this number for planning related inquiries. For information regarding properties, visit our website at www.greysauble.on.ca.

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From: Ryan Cuesta Planning <ryan@cuestaplanning.com>
Sent: Wednesday, February 9, 2022 9:55 AM
To: MacLean Plewes <m.plewes@greysauble.on.ca>

Cc: Kyle Fleming <kyle@rootsenvironmental.ca>

Subject: EIS TOR - 548 Princess Street - Draft Plan of Subdivision

Hi Mac,

Attached you will find a TOR for the above noted project. If you could please review the document and provide your comments that would be greatly appreciated.

Kind Regards,
Ryan Kochuta
Junior Land Use Planner

Cuesta Planning Consultants Inc.

978 First Avenue West

Owen Sound, ON N4K 4K5

Phone: [519-372-9790](tel:519-372-9790)

Fax: [519-372-9953](tel:519-372-9953)

www.cuestaplanning.com

APPENDIX B

Desktop Review

NHIC Data

To work further with this data select the content and copy it into your own word or excel documents.

OGF ID	Element Type	Common Name	Scientific Name	SRank	SARO Status	COSEWIC Status	ATLAS NAD83 IDENT	COMMENTS
894365	SPECIES	Midland Painted Turtle	Chrysemys picta marginata	S4		SC	17MK9341	
894365	SPECIES	Hart's-tongue Fern	Asplenium scolopendrium	S3			17MK9341	
894365	SPECIES	Wood Thrush	Hylocichla mustelina	S4B	SC	THR	17MK9341	
894365	SPECIES	Least Bittern	Botaurus exilis	S4B	THR	THR	17MK9341	
894365	SPECIES	Snapping Turtle	Chelydra serpentina	S4	SC	SC	17MK9341	
894365	WILDLIFE CONCENTRATION AREA	Mixed Wader Nesting Colony	Mixed Wader Nesting Colony				17MK9341	
894364	SPECIES	Midland Painted Turtle	Chrysemys picta marginata	S4		SC	17MK9340	
894364	SPECIES	King Rail	Rallus elegans	S1B	END	END	17MK9340	
894364	SPECIES	Wood Thrush	Hylocichla mustelina	S4B	SC	THR	17MK9340	
894364	SPECIES	Eastern Ribbonsnake	Thamnophis saurita	S4	SC	SC	17MK9340	
894364	SPECIES	Massasauga (Great Lakes / St. Lawrence population)	Sistrurus catenatus pop. 1	S3	THR	THR	17MK9340	
894364	SPECIES	Least Bittern	Botaurus exilis	S4B	THR	THR	17MK9340	
894364	SPECIES	Snapping Turtle	Chelydra serpentina	S4	SC	SC	17MK9340	
894364	WILDLIFE CONCENTRATION AREA	Mixed Wader Nesting Colony	Mixed Wader Nesting Colony				17MK9340	
894273	SPECIES	Midland Painted Turtle	Chrysemys picta marginata	S4		SC	17MK9339	
894273	SPECIES	King Rail	Rallus elegans	S1B	END	END	17MK9339	
894273	SPECIES	Least Bittern	Botaurus exilis	S4B	THR	THR	17MK9339	

OGF ID	Element Type	Common Name	Scientific Name	SRank	SARO Status	COSEWIC Status	ATLAS NAD83 IDENT	COMMENTS
894273	SPECIES	Snapping Turtle	Chelydra serpentina	S4	SC	SC	17MK9339	
894273	WILDLIFE CONCENTRATION AREA	Mixed Wader Nesting Colony	Mixed Wader Nesting Colony				17MK9339	
894253	SPECIES	Midland Painted Turtle	Chrysemys picta marginata	S4		SC	17MK9139	
894253	SPECIES	King Rail	Rallus elegans	S1B	END	END	17MK9139	
894253	SPECIES	Least Bittern	Botaurus exilis	S4B	THR	THR	17MK9139	
894253	WILDLIFE CONCENTRATION AREA	Mixed Wader Nesting Colony	Mixed Wader Nesting Colony				17MK9139	
894263	SPECIES	Midland Painted Turtle	Chrysemys picta marginata	S4		SC	17MK9239	
894263	SPECIES	King Rail	Rallus elegans	S1B	END	END	17MK9239	
894263	SPECIES	Tuberous Indian-plantain	Arnoglossum plantagineum	S2	SC	SC	17MK9239	
894263	SPECIES	Least Bittern	Botaurus exilis	S4B	THR	THR	17MK9239	
894263	SPECIES	Snapping Turtle	Chelydra serpentina	S4	SC	SC	17MK9239	
894263	WILDLIFE CONCENTRATION AREA	Mixed Wader Nesting Colony	Mixed Wader Nesting Colony				17MK9239	
894344	SPECIES	Midland Painted Turtle	Chrysemys picta marginata	S4		SC	17MK9140	
894344	SPECIES	Snapping Turtle	Chelydra serpentina	S4	SC	SC	17MK9140	
894344	WILDLIFE CONCENTRATION AREA	Mixed Wader Nesting Colony	Mixed Wader Nesting Colony				17MK9140	
894354	SPECIES	Midland Painted Turtle	Chrysemys picta marginata	S4		SC	17MK9240	
894354	SPECIES	Snapping Turtle	Chelydra serpentina	S4	SC	SC	17MK9240	
894354	WILDLIFE CONCENTRATION	Mixed Wader	Mixed Wader Nesting				17MK9240	

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OGF ID	Element Type	Common Name	Scientific Name	SRank	SARO Status	COSEWIC Status	ATLAS NAD83 IDENT	COMMENTS
	AREA	Nesting Colony	Colony					
894345	SPECIES	Ghost Tiger Beetle	Ellipsoptera lepida	S2			17MK9141	
894345	SPECIES	Midland Painted Turtle	Chrysemys picta marginata	S4		SC	17MK9141	
894345	SPECIES	Hart's-tongue Fern	Asplenium scolopendrium	S3			17MK9141	
894345	WILDLIFE CONCENTRATION AREA	Mixed Wader Nesting Colony	Mixed Wader Nesting Colony				17MK9141	
894355	SPECIES	Gypsy Cuckoo Bumble Bee	Bombus bohemicus	S1S2	END	END	17MK9241	
894355	SPECIES	Yellow-banded Bumble Bee	Bombus terricola	S3S5	SC	SC	17MK9241	
894355	SPECIES	Midland Painted Turtle	Chrysemys picta marginata	S4		SC	17MK9241	
894355	SPECIES	Hart's-tongue Fern	Asplenium scolopendrium	S3			17MK9241	
894355	SPECIES	Wood Thrush	Hylocichla mustelina	S4B	SC	THR	17MK9241	
894355	WILDLIFE CONCENTRATION AREA	Mixed Wader Nesting Colony	Mixed Wader Nesting Colony				17MK9241	

Species list for square 17MK94 (number of entries returned: 113)

Region	Square	Species	Breeding Evidence				Point Counts			
			Max BE	Categ	#Sq	Atlasser Name	#PC	%PC	Abun	#Sq
8	17MK94	Canada Goose	FY	CONF	1	Joseph W Johnson	1	4.0	0.24	1
8	17MK94	Wood Duck	FY	CONF	1					
8	17MK94	Mallard	T	PROB	1		1	4.0	0.04	1
8	17MK94	Blue-winged Teal	P	PROB	1					
8	17MK94	Ring-necked Duck	P	PROB	1					
8	17MK94	Hooded Merganser	FY	CONF	1					
8	17MK94	Ruffed Grouse	T	PROB	1					
8	17MK94	Wild Turkey	FY	CONF	1					
8	17MK94	Common Loon	FY	CONF	1					
8	17MK94	Pied-billed Grebe	T	PROB	1					
8	17MK94	American Bittern	T	PROB	1					
8	17MK94	Least Bittern	D	PROB	1					
8	17MK94	Great Blue Heron	AE	CONF	1	2	8.0	0.08	1	
8	17MK94	Green Heron	H	POSS	1					
8	17MK94	Turkey Vulture	P	PROB	1					
8	17MK94	Osprey	NY	CONF	1					
8	17MK94	Northern Harrier	H	POSS	1	Glenn Coady				
8	17MK94	Sharp-shinned Hawk	A	PROB	1	Joseph W Johnson				
8	17MK94	Northern Goshawk	NE	CONF	1					
8	17MK94	Red-shouldered Hawk	S	POSS	1					
8	17MK94	Broad-winged Hawk	H	POSS	1	Joseph W Johnson				
8	17MK94	Red-tailed Hawk	AE	CONF	1					
8	17MK94	American Kestrel	P	PROB	1					
8	17MK94	Virginia Rail	T	PROB	1		1	4.0	0.04	1
8	17MK94	Sora	T	PROB	1		1	4.0	0.04	1
8	17MK94	Common Gallinule	T	PROB	1					
8	17MK94	American Coot	T	PROB	1					
8	17MK94	Sandhill Crane	FY	CONF	1					
8	17MK94	Killdeer	FY	CONF	1	Glenn Coady	1	4.0	0.04	1
8	17MK94	Rock Pigeon	P	PROB	1		3	12.0	0.44	1
8	17MK94	Common Snipe	T	PROB	1					
8	17MK94	American Woodcock	T	PROB	1					
8	17MK94	Black Tern	NE	CONF	1	Nicole C. Kopysh	1	4.0	0.04	1
8	17MK94	Mourning Dove	AE	CONF	1	Glenn Coady	4	16.0	0.32	1
8	17MK94	Eastern Screech-Owl	P	PROB	1					
8	17MK94	Great Horned Owl	P	PROB	1					
8	17MK94	Common Nighthawk	H	POSS	1	Joseph W Johnson				
8	17MK94	Chimney Swift	H	POSS	1	Glenn Coady				
8	17MK94	Ruby-throated Hummingbird	H	POSS	1	Glenn Coady				
8	17MK94	Belted Kingfisher	AE	CONF	1					
8	17MK94	Yellow-bellied Sapsucker	NY	CONF	1	Joseph W Johnson				
8	17MK94	Downy Woodpecker	FY	CONF	1	Joseph W Johnson				
8	17MK94	Hairy Woodpecker	T	PROB	1		1	4.0	0.04	1
8	17MK94	Northern Flicker	T	PROB	1		4	16.0	0.16	1
8	17MK94	Pileated Woodpecker	D	PROB	1					
8	17MK94	Eastern Wood-Pewee	T	PROB	1		2	8.0	0.08	1
8	17MK94	Alder Flycatcher	T	PROB	1					
8	17MK94	Least Flycatcher	P	PROB	1		3	12.0	0.16	1
8	17MK94	Eastern Phoebe	CF	CONF	1	Glenn Coady	1	4.0	0.04	1
8	17MK94	Great Crested Flycatcher	T	PROB	1		5	20.0	0.2	1
8	17MK94	Eastern Kingbird	FY	CONF	1	Joseph W Johnson	2	8.0	0.08	1
8	17MK94	Warbling Vireo	NY	CONF	1	Joseph W Johnson	4	16.0	0.24	1
8	17MK94	Red-eyed Vireo	P	PROB	1		14	56.0	0.84	1
8	17MK94	Blue Jay	P	PROB	1		2	8.0	0.08	1
8	17MK94	American Crow	T	PROB	1		12	48.0	0.48	1
8	17MK94	Common Raven	S	POSS	1					
8	17MK94	Purple Martin	S	POSS	1					
8	17MK94	Tree Swallow	T	PROB	1		6	24.0	0.52	1
8	17MK94	Bank Swallow	AE	CONF	1					

8	17MK94	Cliff Swallow	H	POSS	1					
8	17MK94	Barn Swallow	V	PROB	1	Glenn Coady	2	8.0	0.64	1
8	17MK94	Black-capped Chickadee	FY	CONF	1		4	16.0	0.28	1
8	17MK94	Red-breasted Nuthatch	S	POSS	1					
8	17MK94	White-breasted Nuthatch	S	POSS	1					
8	17MK94	Brown Creeper	S	POSS	1					
8	17MK94	House Wren	AE	CONF	1					
8	17MK94	Winter Wren	T	PROB	1					
8	17MK94	Marsh Wren	NE	CONF	1					
8	17MK94	Blue-gray Gnatcatcher	P	PROB	1		1	4.0	0.08	1
8	17MK94	Eastern Bluebird	CF	CONF	1	Glenn Coady				
8	17MK94	Veery	T	PROB	1		1	4.0	0.04	1
8	17MK94	Hermit Thrush	S	POSS	1					
8	17MK94	Wood Thrush	T	PROB	1		3	12.0	0.12	1
8	17MK94	American Robin	CF	CONF	1	Glenn Coady	14	56.0	1.04	1
8	17MK94	Gray Catbird	T	PROB	1		1	4.0	0.04	1
8	17MK94	Brown Thrasher	S	POSS	1					
8	17MK94	European Starling	CF	CONF	1	Glenn Coady	9	36.0	0.96	1
8	17MK94	Cedar Waxwing	CF	CONF	1	Nicole C. Kopysh	2	8.0	0.2	1
8	17MK94	Nashville Warbler	FY	CONF	1		1	4.0	0.04	1
8	17MK94	Yellow Warbler	P	PROB	1		1	4.0	0.04	1
8	17MK94	Chestnut-sided Warbler	CF	CONF	1					
8	17MK94	Yellow-rumped Warbler	S	POSS	1					
8	17MK94	Black-throated Green Warbler	T	PROB	1					
8	17MK94	Pine Warbler	S	POSS	1					
8	17MK94	Black-and-white Warbler	T	PROB	1					
8	17MK94	American Redstart	P	PROB	1		1	4.0	0.08	1
8	17MK94	Ovenbird	NB	CONF	1	Joseph W Johnson	9	36.0	0.4	1
8	17MK94	Northern Waterthrush	T	PROB	1					
8	17MK94	Mourning Warbler	CF	CONF	1		1	4.0	0.04	1
8	17MK94	Common Yellowthroat	P	PROB	1		7	28.0	0.36	1
8	17MK94	Eastern Towhee	P	PROB	1					
8	17MK94	Chipping Sparrow	T	PROB	1		5	20.0	0.24	1
8	17MK94	Field Sparrow	FY	CONF	1					
8	17MK94	Vesper Sparrow	T	PROB	1		2	8.0	0.12	1
8	17MK94	Savannah Sparrow	T	PROB	1		4	16.0	0.2	1
8	17MK94	Grasshopper Sparrow	T	PROB	1					
8	17MK94	Song Sparrow	NE	CONF	1	Joseph W Johnson	11	44.0	0.48	1
8	17MK94	Swamp Sparrow	CF	CONF	1		2	8.0	0.12	1
8	17MK94	White-throated Sparrow	T	PROB	1		1	4.0	0.04	1
8	17MK94	Scarlet Tanager	T	PROB	1		2	8.0	0.12	1
8	17MK94	Northern Cardinal	T	PROB	1		6	24.0	0.36	1
8	17MK94	Rose-breasted Grosbeak	NE	CONF	1	Joseph W Johnson	6	24.0	0.24	1
8	17MK94	Indigo Bunting	FY	CONF	1		2	8.0	0.08	1
8	17MK94	Bobolink	P	PROB	1		6	24.0	0.32	1
8	17MK94	Red-winged Blackbird	D	PROB	1		15	60.0	1.08	1
8	17MK94	Eastern Meadowlark	CF	CONF	1		2	8.0	0.08	1
8	17MK94	Yellow-headed Blackbird	S	POSS	1					
8	17MK94	Common Grackle	CF	CONF	1	Glenn Coady	7	28.0	0.36	1
8	17MK94	Brown-headed Cowbird	P	PROB	1		5	20.0	0.36	1
8	17MK94	Baltimore Oriole	P	PROB	1		8	32.0	0.4	1
8	17MK94	Purple Finch	H	POSS	1					
8	17MK94	American Goldfinch	P	PROB	1		5	20.0	0.2	1
8	17MK94	House Sparrow	CF	CONF	1	Glenn Coady	1	4.0	0.04	1



Species list in taxonomic order for square 17MK94

All species

Number of rows of data displayed below: 17.

Species #	Common Name	# of Records	Earliest Yr	Latest Yr
3	Midland Painted Turtle	7	1984	2019
6	Snapping Turtle	12	1986	2019
12	Eastern Gartersnake	2	1987	1989
14	Eastern Massasauga	1	2003	2003
19	Northern Ring-necked Snake	1	2010	2010
20	Northern Watersnake	8	1981	2013
22	Red-bellied Snake	1	1989	1989
25	American Bullfrog	1	1989	1989
28	Gray Treefrog	1	1987	1987
29	Green Frog	4	1984	2012
31	Northern Leopard Frog	12	1981	2012
33	Spring Peeper	10	1984	2012
35	Wood Frog	3	1987	1989
36	American Toad	2	1987	1990
44	Eastern Red-backed Salamander	3	1987	2018
48	Mudpuppy	1	2007	2007
51	Red-spotted Newt	3	2001	2015

[TEA home page](#) | [Main atlas page](#)

APPENDIX C

Species Lists

Wildlife List (2022) - 548 Princess Street - Georgian Bluffs

BREEDING BIRDS

SCIENTIFIC NAME	COMMON NAME	S RANK	SARO	SARA	G RANK
<i>Cardinalis cardinalis</i>	Northern Cardinal	S5			G5
<i>Passerina cyanea</i>	Indigo Bunting	S5B			G5
<i>Quiscalus quiscula</i>	Common Grackle	S5			G5
<i>Corvus brachyrhynchos</i>	American Crow	S5B			G5
<i>Geothlypis trichas</i>	Common Yellowthroat	S5B			G5
<i>Cyanocitta cristata</i>	Blue Jay	S5B			G5
<i>Dryobates villosus</i>	Hairy Woodpecker	S5			G5
<i>Melospiza melodia</i>	Song Sparrow	S5B			G5
<i>Dumetella carolinensis</i>	Gray Catbird	S5B			G5
<i>Myiarchus crinitus</i>	Great Crested Flycatcher	S5B			G5
<i>Poecile atricapillus</i>	Black-capped Chickadee	S5B			G5
<i>Agelaius phoeniceus</i>	Red-winged Blackbird	S5B			G5
<i>Troglodytes aedon</i>	House Wren	S5B			G5
<i>Setophaga fusca</i>	Blackburian Warbler	S5B			G5
<i>Setophaga petechia</i>	Yellow Warbler	S5B			G5
<i>Setophaga ruticilla</i>	American Redstart	S5B			G5
<i>Spinus tristis</i>	American Goldfinch	S5			G5
<i>Spizella passerina</i>	Chipping Sparrow	S5B,S3N			G5
<i>Sturnus vulgaris</i>	European Starling	SNA			G5
<i>Turdus migratorius</i>	American Robin	S5B			G5
<i>Vireo olivaceus</i>	Red-eyed Vireo	S5B			G5
<i>Zenaida macroura</i>	Mourning Dove	S5			G5

INCIDENTAL OBSERVATIONS

SCIENTIFIC NAME	COMMON NAME	S RANK	SARO	SARA	G RANK
<i>Canis latrans</i>	Coyote	S5			G5
<i>Odocoileus virginianus</i>	White-tailed Deer	S5			G5
<i>Procyon lotor</i>	Northern Raccoon	S5			G5
<i>Thamnophis sirtalis</i>	Eastern Gartersnake	S5			G5

APPENDIX D

Significant Wildlife Habitat Assessment

Seasonal Concentration of Areas of Animals				
Type	ELC Codes	Habitat Criteria	Defining Criteria	Presence/Absence of Candidate SWH?
Waterfowl Stopover and Staging Areas (Terrestrial)	CUM1 CUT1 *With evidence of annual flooding from melt water or run-off	Fields with sheet water during Spring (mid-March to May). Agricultural fields with waste grains are commonly used by waterfowl, these are not considered SWH unless they have spring sheet water available.	Any mixed species aggregations of 100 or more individuals required. The flooded field ecosite habitat plus a 100-300m radius area, dependant on local site conditions and adjacent land use is the significant wildlife habitat.	Not present – CUM1-1 communities are not found within the study area.
Waterfowl Stopover and Staging Areas (Aquatic)	MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7	Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration. Sewage treatment ponds and storm water ponds do not qualify as a SWH, however a reservoir managed as a large wetland or pond/lake does qualify. These habitats have an abundant food supply (mostly aquatic invertebrates and vegetation in shallow water)	Aggregations of 100 or more of listed species for 7 days, results in > 700 waterfowl use days. Areas with annual staging of ruddy ducks, canvasbacks, and redheads are SWH. The combined area of the ELC ecosites and a 100m radius area is the SWH.	Not present – applicable communities on site are not found within the development areas.
Shorebird Migratory Stopover Area	BBO1 BBO2 BBS1 BBS2 BBT1 BBT2 SDO1 SDS2 SDT1 MAM1 MAM2 MAM3 MAM4 MAM5	Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats. Great Lakes coastal shorelines, including groynes and other forms of armour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and early July to October. Sewage treatment ponds and storm water ponds do not qualify as a SWH.	Presence of 3 or more of listed species and > 1000 shorebird use days during spring or fall migration period. Any site with >100 Whimbrel used for 3 years, or more is significant. The area of significant shorebird habitat includes the mapped ELC shoreline ecosites plus a 100m radius area.	Not present – Ecosites are not found within the development areas.
Raptor Wintering Area	<u>Hawks/Owls</u> : Combination of ELC Community Series; need to have present one Community Series from each land class: Forest: FOD FOM FOC Upland: CUM CUT CUS CUW <u>Bald Eagle</u> : Forest community Series: FOD, FOM, FOC, SWD, SWM or SWC on shoreline areas adjacent to large rivers or adjacent to lakes with open water (hunting area).	The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors. Raptor wintering sites (hawk/owl) need to be > 20 ha with a combination of forest and upland. Least disturbed sites, idle/fallow or lightly grazed field/meadow (>15ha) with adjacent woodlands. Field area of the habitat is to be wind swept with limited snow depth or accumulation. Eagle sites have open water, large trees and snags available for roosting.	One or more Short-eared Owls or one or more Bald Eagles or At least 10 individuals and two of the listed hawk/owl species. To be significant a site must be used regularly (3 in 5 years) for a minimum of 20 days by the above number of birds. The habitat area for an Eagle winter site is the shoreline forest ecosites directly adjacent to the prime hunting area.	Not present – no nests were observed within the proposed development areas.
Bat Hibernacula	CCR1 CCR2 CCA1 CCA2 Buildings are not considered to be SWH.	Hibernacula may be found in caves, mine shafts, underground foundations and Karsts. Active mine sites should not be considered as SWH	All sites with confirmed hibernating bats are SWH. The habitat area includes a 200m radius around the entrance of the hibernaculum for most development types.	Not present – no hibernacula are found on site.
Bat Maternity Colonies	FOD FOM SWD SWM	Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH).	Maternity Colonies with confirmed use by; >10 Big Brown Bats >5 Adult Female Silver- haired Bats	Not present – greater than 10 snag trees/ha is not present based on site surveys.

		Maternity colonies located in Mature deciduous or mixed forest stands with >10/ha large diameter (>25cm dbh) wildlife trees. Female Bats prefer wildlife tree (snags) in early stages of decay, class 1-3. Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred.	The area of the habitat includes the entire woodland or a forest stand ELC Ecosite or an Eco element containing the maternity colonies.	
Turtle Wintering Areas	Snapping and Midland Painted Turtles; ELC Community Classes; SW, MA, OA and SA, ELC Community Series; FEO and BOO. Northern Map Turtle: Open Water areas such as deeper rivers or streams and lakes with current can also be used as over-wintering habitat.	For most turtles, wintering areas are in the same general area as their core habitat. Water has to be deep enough not to freeze and have soft mud substrates. Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen. Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH.	Presence of 5 over-wintering Midland Painted Turtles is significant. One or more Northern Map Turtle or Snapping Turtle over-wintering within a wetland is significant. The mapped ELC ecosite area with the over wintering turtles is the SWH. If the hibernation site is within a stream or river, the deep-water pool where the turtles are over wintering is the SWH.	Not present – Ecosites are not found within the site or adjacent lands.
Reptile Hibernaculum	For all snakes, habitat may be found in any ecosite other than very wet ones. For Five-lined Skink, ELC Community Series of FOD and FOM and Ecosites: FOC1 FOC3	For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural or naturalized locations. The existence of features that go below frost line; such as rock piles or slopes, old stone fences, and abandoned crumbling foundations assist in identifying candidate SWH. Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover. Five-lined skink prefer mixed forests with rock outcrop openings providing cover rock overlaying granite bedrock with fissures.	Presence of snake hibernacula used by a minimum of five individuals of a snake sp. or individuals of two or more snake spp. Congregations of a minimum of five individuals of a snake sp. or individuals of two or more snake spp. near potential hibernacula (e.g. foundation or rocky slope) on sunny warm days in Spring (Apr/May) and Fall (Sept/Oct) If there are Special Concern Species present, then site is SWH. The feature in which the hibernacula is located plus a 30 m radius area is the SWH.	Not present – Ecosites are not found within the site or adjacent lands. Old stone fence row does not extend down past the frost line based on site observations,
Colonially - Nesting Bird Breeding Habitat (Bank and Cliff)	Eroding banks, sandy hills, borrow pits, steep slopes, and sand piles. Cliff faces, bridge abutments, silos, barns. Habitat found in the following ecosites: CUM1 CUT1 CUS BLO1 BLS1 BLT1 CLO1 CLS1 CLT1	Any site or areas with exposed soil banks, undisturbed or naturally eroding that is not a licensed/permitted aggregate area. Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such as berms, embankments, soil or aggregate stockpiles. Does not include a licensed/permitted Mineral Aggregate Operation.	Presence of 1 or more nesting sites with 8 or more cliff swallow pairs and/or rough-winged swallow pairs during the breeding season. A colony identified as SWH will include a 50m radius habitat area from the peripheral nests.	Not present – no exposed banks or manmade structures were present.
Colonially - Nesting Bird Breeding Habitat (Tree/Shrubs)	SWM2 SWM3 SWM5 SWM6 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7 FET1	Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used. Most nests in trees are 11 to 15 m from ground, near the top of the tree.	Presence of 5 or more active nests of Great Blue Heron or other listed species. The habitat extends from the edge of the colony and a minimum 300m radius or extent of the Forest Ecosite containing the colony or any island <15.0ha with a colony is the SWH.	Not present – Ecosites are not found within the development areas.

Colonially - Nesting Bird Breeding Habitat (Ground)	Any rocky island or peninsula (natural or artificial) within a lake or large river. Close proximity to watercourses in open fields or pastures with scattered trees or shrubs (Brewer's Blackbird) MAM1 – 6 MAS1 – 3 CUM CUT CUS	Nesting colonies of gulls and terns are on islands or peninsulas associated with open water or in marshy areas. Brewer's Blackbird colonies are found loosely on the ground in low bushes in close proximity to streams and irrigation ditches within farmlands.	Presence of > 25 active nests for Herring Gulls or Ring-billed Gulls, >5 active nests for Common Tern or >2 active nests for Caspian Tern. Presence of 5 or more pairs for Brewer's Blackbird. Any active nesting colony of one or more Little Gull, and Great Black-backed Gull is significant. The edge of the colony and a minimum 150m radius area of habitat, or the extent of the ELC ecosites containing the colony or any island <3.0ha with a colony is the SWH.	Not present – Ecosites are not found within the development areas.
Migratory Butterfly Stopover Areas	Combination of ELC Community Series; need to have present one Community Series from each land class: Field: CUM CUT CUS Forest: FOC FOD FOM CUP	Minimum of 10 ha in size with a combination of field and forest habitat present and will be located within 5 km of Lake Ontario. Habitat is typically a combination of field and forest. The habitat should not be disturbed, fields/meadows with an abundance of preferred nectar plants and woodland edge providing shelter are requirements for this habitat.	The presence of Monarch Use Days (MUD) during fall migration (Aug/Oct). MUD of >5000 or >3000 with the presence of Painted Ladies or Red Admiral's is to be considered significant.	Not present – site not within 5km of Lake Ontario.
Landbird Migratory Stopover Areas	FOC FOM FOD SWC SWM SWD	Woodlots need to be >10 ha in size and within 5 km of Lake Ontario. If multiple woodlands are located along the shoreline those Woodlands <2km from Lake Ontario are more significant. Woodlots and forest fragments are important habitats to migrating birds, these features located along the shore and located within 5km of Lake Ontario are Candidate SWH cxlviii.	Use of the habitat by >200 birds/day and with >35 spp. with at least 10 bird spp. recorded on at least 5 different survey dates.	Not present - site not within 5 km of Lake Ontario.
Deer Yarding Areas	OMNRF to determine this habitat. FOM FOC SWM SWC CUP2 CUP3 FOD3 CUT	The yard is composed of two areas referred to as Stratum I and Stratum II. Stratum II covers the entire winter yard area and is usually a mixed or deciduous forest with plenty of browse available for food.	Deer Yards are mapped by MNR District offices.	Not present – MNR does not identify the plantation area as deer wintering habitat.
Deer Winter Congregation Areas	FOC FOM FOD SWC SWM SWD Conifer plantations much smaller than 50 ha may also be used.	Woodlots will typically be >100 ha in size. Woodlots <100ha may be considered as significant based on MNRF studies or assessment.	Deer winter congregation areas considered significant will be mapped by MNR.	Not present – MNR does not identify the plantation area as deer wintering habitat.
Rare Vegetation Communities				
Cliffs and Talus Slopes	TAO CLO TAS CLS TAT CLT	A Cliff is vertical to near vertical bedrock >3m in height. Most cliff and talus slopes occur along the Niagara Escarpment.	ELC Vegetation Type for Cliffs or Talus Slopes.	Not present – applicable ELC units are not present in the licence area.
Sand Barren	SBO1 SBS1 SBT1	A sand barren area >0.5ha in size	ELC Vegetation Type for Sand Barrens. Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotic sp.)	Not present – applicable ELC units are not present in the licence area.
Alvar	ALO1 ALS1 ALT1 FOC1 FOC2 CUM2 CUS2 CUT2-1 CUW2	An Alvar site > 0.5 ha in size.	Field studies that identify four of the five Alvar Indicator Species at a Candidate Alvar site is Significant.	Not present – applicable ELC units are not present in the licence area.

			Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotic sp.).	
Old Growth Forest	FOD FOC FOM SWD SWC SWM	Woodland areas 30 ha or greater in size or with at least 10 ha interior habitat assuming 100 m buffer at edge of forest .	If dominant trees species of the are >140 years old, then the Ecosite or eco-element within an ecosite containing these trees is SWH. The forested area containing the old growth characteristics will have experienced no recognizable forestry activities.	Not present – Woodlands on site are not > 30ha and trees on site are not > 140 years in age.
Savannah	TPS1 TPS2 TPW1 TPW2 CUS2	A Savannah is a tallgrass prairie habitat that has tree cover between 25 – 60%. No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH.	Confirm one or more of the Savannah indicator species. Area of the ELC Ecosite is the SWH. Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotic sp.).	Not present – applicable ELC units are not present in the licence area.
Tallgrass Prairie	TPO1 TPO2	An open Tallgrass Prairie habitat has < 25% tree cover. No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH.	Field studies confirm one or more of the Prairie indicator species. Area of the ELC Ecosite is the SWH. Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotic sp.).	Not present – applicable ELC units are not present in the licence area.
Other Rare Vegetation Communities	Provincially Rare S1, S2 and S3 vegetation communities.	The MNR/NHIC will have up to date listing for rare vegetation communities.	Area of the ELC Vegetation Type polygon is the SWH.	Not present – ELC units found on site are not provincially rare (S1-S3).
Specialized Habitat for Wildlife				
Waterfowl Nesting Area	All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 SWT1 SWT2 SWD1 SWD2 SWD3 SWD4	A waterfowl nesting area extends 120 m from a wetland (> 0.5 ha) or a wetland (>0.5ha) and any small wetlands (0.5ha) within 120m or a cluster of 3 or more small (<0.5 ha) wetlands within 120 m of each individual wetland where waterfowl nesting is known to occur. Upland areas should be at least 120 m wide so that predators such as racoons, skunks, and foxes have difficulty finding nests. Wood Ducks and Hooded Mergansers utilize large diameter trees (>40cm dbh) in woodlands for cavity nest sites.	Presence of 3 or more nesting pairs for listed species excluding Mallards, or; Presence of 10 or more nesting pairs for listed species including Mallards. Any active nesting site of an American Black Duck is considered significant.	Not present – Ecosites are not found within the development areas.
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM and SWC directly adjacent to riparian areas – rivers, lakes, ponds and wetlands.	Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water. Nests located on man-made objects are not to be included as SWH (e.g. telephone poles and constructed nesting platforms).	For an Osprey, the active nest and a 300 m radius around the nest or the contiguous woodland stand is the SWH. For a Bald Eagle the active nest and a 400-800 m radius around the nest is the SWH. Area of the habitat from 400-800m. To be significant a site must be used annually. When found inactive, the site must be known to be inactive for > 3 years or suspected of not being used for >5 years before being considered not significant.	Not present – Osprey nest found within adjacent lands to the west of the site is on a man-made light post, which per the criteria is not significant.

Woodland Raptor Nesting Habitat	May be found in all forested ELC Ecosites.	All natural or conifer plantation woodland/forest stands >30ha with >10ha of interior habitat. Interior habitat determined with a 200m buffer.	Presence of 1 or more active nests from species list is considered significant. Red-shouldered Hawk and Northern Goshawk – A 400m radius around the nest or 28 ha area of habitat is the SWH. Barred Owl – A 200m radius around the nest is the SWH. Broad-winged Hawk and Coopers Hawk – A 100m radius around the nest is the SWH. Sharp-Shinned Hawk – A 50m radius around the nest is the SWH.	Not present – woodland communities are not >30ha in size.
Turtle Nesting Areas	Exposed mineral soil (sand or gravel) areas adjacent (<100m) or within the following ELC Ecosites: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 BOO1 FEO1	Must provide sand and gravel that turtles are able to dig in and are in open, sunny areas. Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH.	Presence of 5 or more nesting Midland Painted Turtles. One or more Northern Map Turtle or Snapping Turtle nesting is a SWH. The area or collection of sites within an area of exposed mineral soils where the turtle's nest, plus a radius of 30-100m around the nesting area is the SWH. Travel routes from wetland to nesting area are to be considered within the SWH as part of the 30-100m area of habitat.	Not present – Ecosites are not found within the development areas.
Seeps and Springs	Seeps/Springs are areas where ground water comes to the surface. Often, they are found within headwater areas within forested habitats. Any forested Ecosite within the headwater areas of a stream could have seeps/springs.	Any forested area (with <25% meadow/field/pasture) within the headwaters of a stream or river system.	Presence of a site with 2 or more seeps/springs should be considered SWH. The area of a ELC forest ecosite or an Eco element within ecosite containing the seeps/springs is the SWH.	Not present – no seeps/springs were observed on site.
Amphibian Breeding Habitat (Woodland)	FOC FOM FOD SWC SWM SWD	Presence of a wetland, pond or woodland pool (including vernal pools) >500m ² within or adjacent (within 120m) to a woodland (no minimum size). Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat.	Presence of breeding population of 1 or more of the listed newt/salamander species or 2 or more of the listed frog species with at least 20 individuals (adults or eggs masses) or 2 or more of the listed frog species with Call Level Codes of 3. The habitat is the wetland area plus a 230m radius of woodland area.	Not present – no vernal pools or ponds were found within FOD habitats on site.
Amphibian Breeding Habitat (Wetlands)	Classes SW, MA, FE, BO, OA and SA.	Wetlands>500m ² (about 25m diameter). Bullfrogs require permanent water bodies with abundant emergent vegetation.	Presence of breeding population of 1 or more of the listed newt/salamander species or 2 or more of the listed frog/toad species with at least 20 individuals (adults or eggs masses) or 2 or more of the listed frog/toad species with Call Level Codes of 3; or; Wetland with confirmed breeding Bullfrogs are significant.	Not present – Ecosites are not found within the site or adjacent lands.

			The ELC ecosite wetland area and the shoreline are the SWH.	
Area-Sensitive Bird Breeding Habitat	FOC FOM FOD SWC SWM SWD	Habitats where interior forest breeding birds are breeding, typically large mature (>60 yrs old) forest stands or woodlots >30 ha. Interior forest habitat is at least 200 m from forest edge habitat.	Presence of nesting or breeding pairs of 3 or more of the listed wildlife species. Any site with breeding Cerulean Warblers or Canada Warblers is to be considered SWH.	Not present – no interior forest cover (>200 metres from edge) is present within the site or adjacent lands.
Habitat for Species of Conservation Concern (not including Endangered or Threatened Species.)				
Marsh Breeding Bird Habitat	MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 SAS1 SAM1 SAF1 FEO1 BOO1 For Green Heron: All SW, MA and CUM1 sites.	All wetland habitat is to be considered as long as there is shallow water with emergent aquatic vegetation present. For Green Heron, habitat is at the edge of water such as sluggish streams, ponds and marshes sheltered by shrubs and trees.	Presence of 5 or more nesting pairs of Sedge Wren or Marsh Wren or or 1 pair of Sandhill Cranes; or breeding by any combination of 5 or more of the listed species. Any wetland with breeding of 1 or more Black Terns, Trumpeter Swan, Green Heron or Yellow Rail is SWH. Area of the ELC ecosite is the SWH.	Not present – Ecosites are not found within the site or adjacent lands.
Open Country Bird Breeding Habitat	CUM1 CUM2	Large grassland areas (includes natural and cultural fields and meadows) >30 ha. Grasslands not Class 1 or 2 agricultural lands, and not being actively used for farming (i.e. no row cropping or intensive hay or livestock pasturing in the last 5 years).	Presence of nesting or breeding of 2 or more of the listed species. A field with 1 or more breeding Short-eared Owls is to be considered SWH.	Not present – Ecosites are not found within the site or adjacent lands.
Shrub/Early Successional Bird Breeding Habitat	CUT1 CUT2 CUS1 CUS2 CUW1 CUW2	Large field areas succeeding to shrub and thicket habitats >10ha in size. Shrub land or early successional fields, not class 1 or 2 agricultural lands, not being actively used for farming (i.e. no row-cropping, haying or live-stock pasturing in the last 5 years).	Presence of nesting or breeding of 1 of the indicator species and at least 2 of the common species. Habitat with breeding Yellow-breasted Chat or Golden-winged Warbler is to be considered as SWH. The area of the SWH is the contiguous ELC ecosite field/thicket area.	Not present – Ecosites are not found within the site or adjacent lands.
Terrestrial Crayfish	MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 MAS1 MAS2 MAS3 SWD SWT SWM CUM1 with inclusions of above meadow marsh or swamp ecosites can be used by terrestrial crayfish.	Wet meadow and edges of shallow marshes (no minimum size).	Presence of 1 or more individuals of species listed or their chimneys (burrows) in suitable meadow marsh, swamp or moist terrestrial sites. Area of ELC ecosite or an Eco element area of meadow marsh or swamp within the larger ecosite area is the SWH.	Not present – Ecosites are not found within the site or adjacent lands
Special Concern and Rare Wildlife Species	All plant and animal element occurrences (EO) within a 1 or 10km grid.	When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or provincially Rare species; linking candidate habitat on the site needs to be completed to ELC Ecosites.	The area of the habitat to the finest ELC scale that protects the habitat form and function is the SWH.	Not present – no Special Concern or rare species identified during field surveys.
Animal Movement Corridors				
Amphibian Movement Corridors	Corridors may be found in all ecosites associated with water. Corridors will be determined based on identifying the significant breeding habitat.	Movement corridors between breeding habitat and summer habitat. Movement corridors must be determined when Amphibian breeding habitat is confirmed as SWH.	Corridors should consist of native vegetation, with several layers of vegetation. Corridors unbroken by roads, waterways or bodies, and undeveloped areas are most significant.	Not present – Wetland ecosites are not found within the site or adjacent lands.

			Corridors should have at least 15m of vegetation on both sides of waterway or be up to 200m wide of woodland habitat and with gaps <20m.	
Deer Movement Corridors	Corridors may be found in all forested ecosites.	Movement corridor must be determined when Deer Wintering Habitat is confirmed as SWH.	Corridors that lead to a deer wintering habitat should be unbroken by roads and residential areas. Corridors should be at least 200m wide with gaps <20m and if following riparian area with at least 15m of vegetation on both sides of waterway.	Not present – Deer wintering habitat is not present per MNR mapping.
Exceptions for EcoRegion 6E				
6E-14 Mast Producing Areas for Black Bear	FOM FOD	Woodland ecosites >30ha with mast-producing tree species, either soft (cherry) or hard (oak and beech).	All woodlands > 30 ha with a 50% composition of these ELC Vegetation Types are considered significant: FOM1-1 FOM2-1 FOM3-1 FOD1-1 FOD1-2 FOD2-1 FOD2-2 FOD2-3 FOD2-4 FOD4-1 FOD5-2 FOD5-3 FOD5-7 FOD6-5	N/A
6E- 17 Lek for Sharp-tailed Grouse	CUM CUS CUT	Grasslands (field/meadow) are to be >15ha when adjacent to shrubland and >30ha when adjacent to deciduous woodland. Grasslands are to be undisturbed with low intensities of agriculture (light grazing or late haying).	Any site confirmed with sharp-tailed grouse courtship activities is considered significant. The field/meadow ELC ecosites plus a 200 m radius area with shrub or deciduous woodland is the lek habitat.	N/A

APPENDIX E

Species at Risk Assessment

Species at Risk Assessment (THR, END and SCC)
548 Princess Street, Township of Georgian Bluffs

Species	Source	Status (SARO)	Habitat Preferences	Presence/Absence
Eastern Wood-Pewee (<i>Contopus virens</i>)	OBBA	SC	Found in forest clearings and edges of deciduous and mixed forests. Prefer intermediate-age mature forest stands with little understory vegetation.	Absent – no detections during field investigations.
Wood Thrush (<i>Hylocichla mustelina</i>)	OBBA NHIC	SC	Mature deciduous and mixed (conifer-deciduous) forests.	Absent – no detections during field investigations.
Eastern Meadowlark (<i>Sturnella magna</i>)	NHIC OBBA	THR	Breed primarily in moderately tall grasslands, such as pastures and hayfields, but are also found in alfalfa fields, weedy borders of croplands, roadsides, orchards, airports, shrubby overgrown fields, or other open areas.	Absent – suitable grassland habitat not found within the site.
Bobolink (<i>Dolichonyx oryzivorus</i>)	NHIC OBBA	THR	Tallgrass prairie and other open meadows, including hayfields.	Absent – suitable grassland habitat not found within the site.
Bank Swallow (<i>Riparia riparia</i>)	OBBA	THR	Nest in burrows in natural and human-made settings where there are vertical faces in silt and sand deposits, including banks of rivers and lakes, and active sand and gravel pits.	Absent – no vertical faces with silt/sand deposits are present on site or adjacent lands.
Barn Swallow (<i>Hirundo rustica</i>)	OBBA	SC	Build nests almost exclusively on human-made structures such as open barns, under bridges and in culverts.	Absent – no suitable structures present on site.
Chimney Swift (<i>Chaetura pelagica</i>)	OBBA	THR	Commonly found in urban settlements where they nest and roost in chimneys and other manmade structures.	Absent – no manmade structures are present to support roosting or nesting habitat.

Species at Risk Assessment (THR, END and SCC)
548 Princess Street, Township of Georgian Bluffs

Golden-winged Warbler (<i>Vermivora chrysoptera</i>)	OBBA	SC	Nest in areas with young shrubs surrounded by mature forest – locations that have recently been disturbed, such as field edges, hydro or utility right-of-ways, or logged areas.	Absent – suitable shrubland not present on site.
Least Bittern (<i>Ixobrychus exilis</i>)	OBBA NHIC	THR	Wetland habitats but strongly prefers cattail marshes with a mix of open pools and channels.	Absent – suitable wetland habitat not found within the site or adjacent lands.
Common Nighthawk (<i>Chordeiles minor</i>)	OBBA	SC	Open areas with little to no ground vegetation, such as logged or burned-over areas, forest clearings, rock barrens, peat bogs, lakeshores, and mine tailings.	Absent – suitable open habitats not found on site or adjacent lands. Active wheat fields would not be suitable for the species.
Grasshopper Sparrow (<i>Ammodramus savannarum</i>)	OBBA	SC	Open grassland areas with well-drained, sandy soil such as hayfields and pasture, as well as alvars, prairies and occasionally grain crops such as barley. It prefers areas that are sparsely vegetated.	Absent – species not detected during breeding bird surveys. Active dense wheat field not suitable habitat.
King Rail (<i>Rallus elegans</i>)	NHIC	END	Found in densely vegetated freshwater marshes with open shallow water that merges with shrubby areas. Prefer larger, coastal wetlands.	Absent – suitable wetland/aquatic habitats not found on site or adjacent lands.
Snapping Turtle (<i>Chelydra serpentina</i>)	ONRAA NHIC	SC	Found in aquatic habitats such as ponds, marsh wetlands, shallow bays, slow moving streams/rivers and anthropogenic habits including golf course and aggregate ponds, irrigation canals, etc.	Absent – suitable wetland/aquatic habitats are not present in the subject property.
Massasauga Rattlesnake	ONRAA	THR	Well-drained soil, loose or sandy soil; open vegetative cover such as	Absent– records for this species are historic (2003). No current

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(<i>Sistrurus catenatus</i>)			open woods, brushland or forest edge; and proximity to water.	records indicating continued presence in the area. Residential and commercial development, roadways and an active agricultural fields would act as a barrier to movement of the species in this area.
Eastern Ribbonsnake (<i>Thamnophis sauritus</i>)	NHIC	SC	Found close to water, especially in marshes.	Absent – no wetlands present to support habitat.
Little Brown Myotis (<i>Myotis lucifugus</i>)	Habitat Assessment/ Distribution	END	Maternity roosts sites most often include buildings and large diameter trees with cracks, crevices, and/or exfoliating bark. Overwinters in caves and mines that maintain temperatures above 0°C.	Potential – Eight (8) suitable roost trees present in the development area.
Northern Myotis (<i>Myotis septentrionalis</i>)	Habitat Assessment/ Distribution	END	Maternity roosts most often include large diameter trees with cracks, crevices, and/or exfoliating bark. Overwinters in caves and mines that maintain temperatures above 0°C.	Potential – Eight (8) suitable roost trees present in the development area.
Tri-colored Bat (<i>Perimyotis subflavus</i>)	Habitat Assessment/ Distribution	END	Maternity roosts include Maple and Oak with dead/dying leaf clusters. Overwinters in caves and mines that maintain temperatures above 0°C.	Absent– no leaf clusters were observed in 2022 and 2025 that would indicate habitat.
Eastern Small-footed Myotis (<i>Myotis leibii</i>)	Habitat Assessment/ Distribution	END	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. Hibernate, most often in caves and abandoned mines that maintain temperatures above 0°C.	Absent– suitable rock faces, piles not present in the development areas.

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Hoary Bat (<i>Lasiurus cinereus</i>)	Habitat Assessment/ Distribution	END	Deciduous and coniferous forests, with a preference for deciduous stands that have larger diameter canopy trees. Forage in the open habitats that may include wetlands, grasslands and open fields with patchily distributed trees.	Potential – Eight (8) suitable roost trees present in the development area.
Eastern Red Bat (<i>Lasiurus borealis</i>)	Habitat Assessment/ Distribution	END	Deciduous and coniferous forests, with a preference for deciduous stands that have larger diameter canopy trees. Forage in the open habitats that may include wetlands, grasslands and open fields with patchily distributed trees.	Potential – Eight (8) suitable roost trees present in the development area.
Silver-haired Bat (<i>Lasionycteris noctivagans</i>)	Habitat Assessment/ Distribution	END	Deciduous and coniferous forests, with a preference on larger diameter decaying trees with cavities and/or peeling bark. Forage in young and old forests, openings and along the edges.	Potential – Eight (8) suitable roost trees present in the development area.
Hart's Tongue Fern (<i>Asplenium scolopendrium</i> var. <i>americanum</i>)	NHIC	SC	Grows on calcareous rocks in deep shade on slopes in deciduous forest (maple-beech).	Absent – was not found during site investigations in 2022 and 2025.
Tuberous Indian- plantain (<i>Arnoglossum plantagineum</i>)	NHIC	SC	Prefers open sunny areas in wet, calcium-rich meadows or shoreline fens. In Ontario, it grows along river banks and in wetlands near Lake Huron.	Absent – suitable shoreline or rich meadows not found within the site or adjacent lands.

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Gypsy Cuckoo Bumble Bee (<i>Bombus bohemicus</i>)	NHIC	END	Diverse habitats such as open meadows, agricultural and urban areas, boreal forest and woodlands.	Absent – no individuals found during site investigations.
Yellow-banded Bumble Bee (<i>Bombus terricola</i>)	NHIC	SC	Found in mixed woodlands, particularly for nesting and overwintering, as well as a variety of open habitat such as native grasslands, farmlands and urban areas.	Absent – no individuals found during site investigations.

Species Status:

SC: Special Concern THR: Threatened END: Endangered

Source References:

NHIC: Natural Heritage Information Centre (NHIC) <https://www.ontario.ca/page/make-natural-heritage-area-map>

ONRAA: Ontario Nature Reptile and Amphibian Atlas <https://www.ontarioinsects.org/herp/>

OBBA: Ontario Breeding Bird Atlas <https://www.birdsontario.org/>

APPENDIX F

CV – Kyle Fleming (Roots Environmental Inc.)



Kyle Fleming, BSc. (Wildlife)

Senior Ecologist/President

Qualifications

Kyle has over 20 years experience as an ecologist where he has been responsible completing over 350 Environmental Impact Studies, Species at Risk Assessments, environmental monitoring, and related projects throughout Central, Southern and Eastern Ontario. He is a Qualified Wetland Evaluator & Certified Butternut Assessor by the MNRF, is trained and experienced in the use of Ecological Land Classification (ELC) and has been qualified as an expert at the Ontario Municipal Board/LPAT. His work is readily accepted by municipalities, conservation authorities and government agencies, and he is very familiar with provincial and federal policies and legislation.

Professional Experience

MAY 2019 - PRESENT

Senior Ecologist/President / Roots Environmental Inc., Barrie, ON

As the Senior Ecologist with Roots Environmental, Kyle is responsible the managing and implementation of environmental impact assessments, species at risk assessments and related studies for private and public sector clients throughout Ontario.

MAY 2004- MAY 2019

Senior Terrestrial Ecologist / Skelton, Brumwell & Associates, Barrie, ON

Responsible for completing Natural Environmental Reports, Environmental Impact Studies, Species at Risk Assessments for private and public sector clients throughout Ontario.

APRIL – AUGUST 2003

Project Supervisor/Field Biologist / Hamer Environmental L.P., Mt. Vernon, WA, USA

Responsible for supervising and managing a threatened seabird monitoring project on state lands.

NOVEMBER 2002 – JANUARY 2003

Environmental Technician / Aqua-Terre Solutions Inc., Toronto, ON

Responsible for data management of water and soil sampling for sites across the GTA.

APRIL – AUGUST 2002

Field Biologist / Hamer Environmental L.P., Mt. Vernon, WA, USA

Conducted threatened seabird surveys on state lands to determine presence/absence relative to forestry activities.

MAY – AUGUST 2001

Field Technician/ University of Washington, Forks, WA, USA

June-August 2001, Field Technician

Research project on nest predation of threatened seabirds and impacts of forestry practices on nesting sites.

Education

2002

Bachelor of Science in Wildlife Biology / University of Northern British Columbia, Prince George, BC

1998

Diploma in Fish and Wildlife Technology / Sir Sandford Fleming College, Lindsay, ON

Certifications/Courses

- Ontario Wetland Evaluation Training Course, 2004.
- Ecological Land Classification for Southern Ontario Training Course, 2005.
- Certificate of Participation: Wildlife Acoustics Bat Detector & Analysis Course, 2015.
- Ministry of Natural Resources (MNR) Butternut Assessment Course, 2009, 2014 & 2019.
- OPPI- The Planner at the Ontario Municipal Board Seminar, 2006.