

**NATURAL HERITAGE  
ENVIRONMENTAL IMPACT STUDY**

**PREPARED FOR**

**Georgian Escapes Ltd. (Laurence Oliver):**

**Resort Style Cottage Retreat**

**E. Part Lot 9 & 10, Concession Georgian Bluffs,  
Geographic Township of Keppel  
Township of Georgian Bluffs  
County of Grey**

**PREPARED BY**

**AWS**

**ENVIRONMENTAL CONSULTING INC.**

**operating as Aquatic and Wildlife Services**

**Phone: (519) 372-2303, Fax: (519) 372-1990, Email: [aws@gbtel.ca](mailto:aws@gbtel.ca)  
JOHN MORTON, R. R. # 1, Shallow Lake, Ontario, N0H 2K0**

**January 2019**

## Table of Contents

1	Executive Summary .....	2
2	Introduction .....	2
3	Study Works .....	3
3.1	Background Review .....	3
3.2	Field Study Methodology .....	3
3.3	Field Survey Dates .....	5
4	Vegetation Community Characterization .....	6

### Significant Feature Analysis

5	Habitat of Endangered and Threatened Species .....	7
6	Fish Habitat .....	8
7	Significant Valleylands .....	9
8	Significant Areas of Natural and Scientific Interest (A.N.S.I.) .....	9
9	Significant Wetlands .....	10
10	Significant Woodlands .....	11
11	Significant Wildlife Habitat .....	12
11.1	Seasonal Concentration Areas of Animals .....	12
11.2	Rare Vegetation Communities .....	14
11.3	Specialized Habitat for Wildlife .....	15
11.4	Habitat for Species of Conservation Concern .....	16
11.5	Animal Movement Corridors .....	17
11.6	Exceptions for Ecoregion 6E .....	18
12	Significant Feature Analysis Summary .....	19

### Impact Assessment

13	Fish Habitat .....	19
13.1	Characterization .....	19
13.2	Impact Assessment .....	19
14	Significant Woodland .....	20
14.1	Characterization .....	20
14.2	Floristic Quality Scoring .....	20
14.3	Ecological Functions .....	21
14.4	Impact Assessment .....	21
15	Mitigation .....	22
16	Conclusions .....	23
17	References .....	24
18	Figures .....	25

## 1 Executive Summary

Georgian Escapes Ltd (Laurence Oliver) has proposed a Resort Style cottage get-away within his land holding of East Part Lot 9 and 10, Concession Georgian Range, geographic Township of Keppel, Township of Georgian Bluffs, Grey County. The subject property is situated along the western shoreline of outer Owen Sound Bay near Pyette Point area, having a civic address of 505153 Grey Rd 1. Currently a laneway off Grey Rd 1 traverses down a steep slope to a single dwelling-cottage is situated 15m from the waters of Georgian Bay. Outbuildings, in-ground swimming pool, a derelict old cottage, rock groin and a small dredged boat slip are also within the property limits. The proponent has proposed to construct 10-12 small cottage/cabins and 5-6 yurts on-site with probable supporting septic system requirements.

Through the proponent's pre-application discussions with Town and Conservation Authority staff, a Natural Heritage Environmental Impact Study (EIS) was requested to address potential negative impacts associated from site development on surrounding natural heritage features.

AWS Environmental Consulting Inc. (AWS) was retained in February 2018 to undertake this EIS in accordance with the environmental policies of the Grey County Official Plan and Provincial standards for natural heritage impact assessments. EIS field investigations commenced in the spring and continued till late summer season of 2018, providing 2-season coverage.

This EIS has demonstrated and concluded that with appropriate site development mitigation, no negative impacts are anticipated to the identified significant natural environment features or ecological functions within the Study Lands or its adjacent lands. With the mitigative measures implemented, site development would be in compliance with the Natural Heritage Policies of the 2014 Provincial Policy Statement, the 2013 Grey County Official Plan, Draft Grey County Official Plan update and other applicable Provincial and Federal Acts, Legislation.

## 2 Introduction

This EIS has been undertaken to address the Endangered Species Act 2007, 2014 Natural Heritage Provincial Policy Statement 2.1, other applicable provincial and federal applicable Acts / Legislation and the 2013 Grey County Official Plan. Technical reporting will follow the format of the Provincial Natural Heritage Reference Manual of March 2010 for natural heritage features and ecological function identification and impact assessment.

This EIS technical report shall address the seven Natural Heritage Features, as defined by the Provincial Policy Statement 2.1, with a review of available literature (reports, data files, feature maps etc.) currently available through municipal, provincial and federal agencies, augmented with field survey/inventory works for the Study Lands and adjacent lands (as applicable).

Within this technical report, the field investigation lands are referred to as the '**Study Lands**', delineated on Figures No. 1 and No. 2. The Study Lands represent the entire subject property under same landownership. A broader review of the 120 m adjacent lands, referred to as the '**Site Lands**' also delineated on Figure No. 2, was undertaken through air photo interpretation and background literature reviews to identify any off-site natural environment features for corridor/linkage functions.

### 3 Study Works

#### 3.1 Background Review

A literature review and data search was conducted to aid in the identification of Natural Heritage Features and to search for historical occurrence records for flora and fauna species of conservation concern within 5 km of the Study Lands (Appendix 2). This background review was utilized to augment field data collection. A complete listing of reports / documents reviewed or cited is provided in the reference section. Sources include:

- 2013 Grey County Official Plan and schedule mapping
- January 2017 Green in Grey Natural Heritage Study
- Township of Georgian Bluffs Zoning Bylaw
- OMNRF- Owen Sound Area Office; fish and wildlife records and mapping of provincial features in the Land Information Ontario database
- Natural Heritage Information Center (NHIC) database of the Ontario Ministry of Natural Resources and Forestry (OMNRF) on the Land Information Ontario website for significant flora and fauna records

#### 3.2 Field Study Methodology

Property location mapping is provided on Figure No. 1, with the field inventory lands or Study Lands and adjacent 120m Site Lands delineated on Figure No. 2. Historical data record searches, literature reviews and air photo image interpretation were conducted for the Site Lands, and a broader landscape review extended 5 km from the Study Lands.

Field investigations and data collection for this EIS report were carried out from April 2018 to late August 2018. A full list of field work dates and weather conditions is provided in Table 1.

- A qualified two-person team comprised of John Morton and Judith Jones from AWS Environmental Consulting Inc., completed natural environment field inventory and assessment works within the Study Lands. Experience and qualification are provided in the Appendix section.

**Vascular Plant Surveys** were conducted during the growing seasons (spring and summer) of 2018. A complete list of species with conservation ranking, status levels and Floristic Quality Scores is provided in Appendix 3. Naming and taxonomy follow the VASCAN database (Brouillet et al. 2010). Survey works followed a single standardized search method over the Study Lands given its small coverage area:

- a) A 'random' coverage approach was implemented within all habitat types, transition edges and vegetation communities, with search efforts over the entire Study Lands.

**General Fauna Surveys** within the Study Lands included specific searches and/or investigation for amphibians, breeding birds, hibernation emergence and gestation activity for snakes, turtles and nesting habitat, general searches for mammals and movement corridor functions. A full summary list of all fauna species recorded over the study period, with current rankings, status levels and highest bird breeding codes observed, is provided in Appendix 4.

**Bird Survey** work for the Study Lands followed two standardized search methods:

- a) Monitoring activity included 'Point Counts' for breeding activity in accordance with Bird Studies Canada methodology for Woodland habitat. Point count locations were established to cover all habitat types within the Study Lands, with no point count location closer than 100 m to another (limited overlapping of potential territories). Occurrences were recorded, through both sightings and calling, for a total of 5-10 minutes at each point count location in the early morning hours (dawn to 10:30 am). Point Count undertaking times and location mapping are provided in Appendix 4.
- b) Additional bird observations of feeding adults and fledglings during summer site visits were also recorded and listed under Appendix 4 as observations outside the breeding season.

**Herpetofaunal Surveys** and habitat review were conducted throughout the Study Lands with the following habitat conditions noted:

- a) No suitable habitat for Anuran (Amphibian-Frog) breeding activity was identified within the Study Lands; as such no Anuran breeding call surveys were deemed to be required.
- b) No suitable habitat for Turtle activity was identified within the Study Lands; as such no detailed survey works for basking or egg laying activity were undertaken.
- c) Reptiles-Snake activity was actively searched for during the spring hibernation emergence period and summer gestation period within suitable habitat areas.

**Mammal** sightings or observations of habitat use (tracks, scat) were recorded during all other flora and fauna investigation work during all site visits throughout the study period. Specific searches plus random coverage was completed across the Study Lands.

**Fish Habitat** and fish community survey works were undertaken through visual observations and background reviews for the fronting waters of Georgian Bay, to the Study Lands.

### 3.3 Field Survey Dates

Table No. 1: Field Survey Dates and Focus of Works

Date	Survey Time & Duration	Weather Conditions (at start time)	Survey Focus
May 1, 2018	0800 to 0900 For 1.0 hrs	Wind Speed = 12-19 km/hr Air Temp.= 17.0 C Precipitation = 0, Cloud Cover = 75%	Hydrology features, Amphibian breeding habitat assessment, Stick Nests, Reptile hibernation emergence period activity.
May 23, 2018	1300 to 1500 For 2.0 hrs	Wind Speed = 3-11 km/hr Air Temp.= 18.0 C Precipitation = 0, Cloud Cover = 25%	Cavity trees search, General Fauna
May 30, 2018	0900 to 1030 For 1.5 hrs	Wind Speed = 12-19 km/hr Air Temp.= 24.0C Precipitation = 0, Cloud Cover = 75%	1 <sup>st</sup> Breeding Bird Survey, General Fauna
June 15, 2018	0800 to 0930 For 1.5 hrs	Wind Speed = 0-3 km/hr Air Temp. = 18.0 C Precipitation = 0, Cloud Cover = 50%	2nd Breeding Bird Survey, General Fauna
June 17, 2018	1230 to 1430 2-Person Crew For 4.0 hrs	Wind Speed = 3-6 km/hr Air Temp. = 28.0 C Precipitation = 0, Cloud Cover = 25%	Spring season flora inventory, General fauna
July 17, 2018	0700 to 0900 For 2.0 hrs	Wind Speed = 6-11 km/hr Air Temp. = 19.0 C Precipitation = 0, Cloud Cover = 25%	Vegetation community delineation, Snake gestation activity, General Fauna
August 24, 2018	0800 to 1000 For 2.0 hours	Wind Speed = 12-19 km/hr Air Temp. = 22.0 C Precipitation = 0, Cloud Cover = 25%	Summer Flora inventory, Snake gestation activity, General Fauna

Total field survey work provided 14.0 hours of search /survey coverage over seven site visits during the spring and summer seasons of 2018. All survey work site visit dates and weather conditions are in accordance with protocol requirements for the focused field survey works noted.

## 4 Vegetation Community Characterization

Vegetation community boundaries within the Site Lands (Figure 6) were mapped and defined in the field based on the 'Ecological Land Classification (ELC) for Southern Ontario, First Approximation'. ELC types, ranking and characterization for each vegetation community are provided in Table 2.

Table 2: Vegetation Communities Types - ELC Codes

Vegetation Community Number	ELC Code	Type	Description	Provincial Ranking
1	FOC4-3	Fresh-Moist White Cedar-Balsam Fir Coniferous Forest	Closely canopy mature stand of White Cedar and Balsam Fir. Patchy but sparse ground flora mainly non-native species. Site disturbances throughout.	S5
2	FOM4-2	Dry-Fresh White Cedar –Poplar Mixed Forest	Mature stand of mixed White Cedar, Polar with scattered Sugar Maple. Ground flora scattered, dominated by Asters, Poison Ivy	S5
3	BB01	Mineral Open Cobble Beach	Georgian Bay – Owen Sound Bay fronting shoreline	S5
4	FOD	Dry-Fresh Deciduous Forest	Off-site Deciduous woodland	S5

# Significant Feature Analysis

## 5 Habitat of Endangered and Threatened Species

A literature search for historic records of Endangered and Threatened species has been undertaken for the surrounding landscape extending 5 km from the Study Lands. Species are considered Endangered or Threatened based on: the Species At Risk in Ontario (SARO) list of the Ontario Ministry of Natural Resources and Forestry (OMNRF); the federal Species at Risk Public Registry of Environment and Climate Change Canada; and the listings of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). As input to this work and in conjunction with field investigations, a search for historic records of endangered and threatened species was undertaken within the Natural Heritage Information Centre (NHIC) database and in the published resources of the OMNRF. Results are provided in Appendix 2.

Through this background literature review, three Species-at-Risk that are listed under the Endangered Species Act, 2007 were noted for the search coverage area. A summary of provincial and on-site habitat descriptions for each noted historical species is provided below with a review if further impact assessment is warranted:

### Bobolink (*Dolichonyx oryzivorus*)

- Provincial habitat description: *Requires large, open expansive grasslands with dense ground cover; hayfields, meadows or fallow fields; marshes; requires tracts of grassland > 50 ha.*
  - No suitable habitat to provincial description is identifiable within the Site Lands, nor was this species recorded through on-site bird survey works.
  - No further review or impact assessment is warranted.

### Eastern Meadowlark (*Sturnella magna*)

- Provincial habitat description: *Open, grassy meadows, farmland, pastures, hayfields or grasslands with elevated singing perches; cultivated land and weedy areas with trees; old orchards with adjacent, open grassy areas >10 ha in size*
  - No suitable habitat to provincial description is identifiable within the Site Lands, nor was this species recorded through on-site bird survey works.
  - No further review or impact assessment is warranted.

Restricted species #16398: species confirmed by AWS with Midhurst District MNRF (access to identity information is restricted to protect the species from poaching or other damage) having an Endangered Status.

- No suitable habitat to provincial description is identifiable within the Site Lands, nor was this species recorded through on-site flora survey works.
- No further review or impact assessment is warranted.

The Provincial Policy Statement (PPS) section 2.1.7 states:

*Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.*

OMNRF documentation of historical records states:

*Absence of information for a specific location does not mean there are no natural areas, provincially tracked species, plant communities or wildlife concentration areas at that location. It means that on the date the MNR created the dataset there was no information for that location. These data are not a substitute for site visits.*

As such, detailed site investigations of the Study Lands were undertaken for flora and fauna that are currently listed under the Endangered Species Act and the Species at Risk Act. Appendix 3 and 4 provide an inventory listing of all species recorded within the Study Lands during the EIS investigations. **No** species having an Endangered or Threatened status were identified on-site during EIS field investigations.

Through the analysis of historical data, no habitat for Endangered or Threatened species was identified within the 'Site' lands for historically recorded species. Detailed EIS flora and fauna inventory works confirmed that **no** Endangered or Threatened species occur within the Study Lands or observed from roadside observations of the adjacent lands (other private lands). Therefore, it can be concluded that site development within the Study Lands would be in compliance with the Endangered Species Act 2007, the PPS 2.1.7, the Grey County Official Plan 2.8.6(2), and the Municipality of Meaford Official Plan B3.1.3. As such, no further assessment review for this feature is required.

## **6 Fish Habitat**

No in-land watercourse features are identifiable within the Site Lands through air photo imagery or provincial Ontario Base Mapping; this was confirmed through field investigations. Periodic surface water run-off through snow-melt or from significant precipitation events was evident from culverts under Grey Road 1, which would transfer run-off waters to Georgian Bay through the Study Lands. These features are not water courses nor provide Fish Habitat.

The fronting waters of Georgian Bay are documented as cold-water thermal regime by the Ministry of Natural Resources and Forestry (MNR), providing Fish Habitat for cold and cool water fish community species. The proponent has not proposed any in-water works or shoreline works, thus site development is outside of Fish Habitat areas and in compliance with the Federal Fisheries Act and the Provincial Policy Statement (PPS) 2.1.6.

The MNR document- Natural Heritage Reference Manual of March 2010 for Fish Habitat section 11.4 states that the adjacent land width to Fish Habitat in this area is 120m. With the Study Lands fronting Georgian Bay waters and its associated Fish Habitat being within 120m, further review and impact assessment is warranted and provided under reporting section 13.

## 7 Significant Valleylands

Through the Green in Grey Natural Heritage Study-January 2017, Grey County has identified Significant Valleylands through Grey County. Figure No. 4D confirms that no significant valleylands occur within the Site Lands.

The Provincial Policy Statement (PPS) Section 2.1.5 (c) states:

*Development and site alteration shall not be permitted in significant valleylands in Ecoregions 6E and 7E unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.*

The Study Lands are located within Ecoregion 6E, thus this policy is applicable.

The PPS Natural Heritage Section 2.1.8 states:

*Development and site alteration shall not be permitted on adjacent lands (120m) to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.*

The 2010 Provincial NHRM, under Section 8.4 for Significant Valleylands states that the Adjacent Land width to said features is 120 m.

Similar policy wording and intent for Significant Valleylands is within the Grey County Official Plan policy 2.8.6.1.

With confirmation that **no** Significant Valleyland feature occurs within the Site Lands, it has been demonstrated and can be concluded that, site development would be in compliance with the PPS 2.1.5 (c) and 2.1.8 (adjacent lands) and the Grey County Official Plan policy 2.8.6.1. Therefore, no further review or impact assessment is warranted for this feature.

## 8 Significant Areas of Natural and Scientific Interest (A.N.S.I.)

A review of Provincially Significant ANSI's was undertaken from MNR and Land Information Ontario web site mapping, shown on Figure 3. This provincial mapping demonstrates that **no** significant ANSI features, either earth science or life science, occur within the Site Lands.

The Provincial Policy Statement (PPS) Section 2.1.5 (e) states:

*Development and site alteration shall not be permitted in significant areas of natural and scientific interest unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.*

With no ANSI feature confirmed within the Study Lands, it can be concluded that site development within the subject Lot would be in compliance with the PPS 2.1.5 (e).

The 2010 Provincial NHRM, under Section 10.4 for Significant ANSI's states that the Adjacent Land Width to earth science ANSI's is 50 m while the Adjacent Lands Width to life science ANSI's is 120 m.

The PPS Natural Heritage Section 2.1.8 states:

*Development and site alteration shall not be permitted on adjacent lands (120 m) to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.*

Similar policy wording and intent for ANSI's is within the Grey County Official Plan policy 2.8.6.3.

With **no** ANSI features confirmed within the Site Lands, it has been demonstrated and can be concluded that site development would be in compliance with the: PPS 2.1.5 (e) and PPS 2.1.8, the Grey County Official Plan 2.8.6.3. Therefore, no further review or impact assessment is warranted for this feature.

## 9 Significant Wetlands

A review of Provincially Significant Wetlands (PSW) was undertaken from MNRF and Land Information Ontario web site mapping, shown on Figure 3. This provincial mapping demonstrates that no significant wetland features occur within the Site Lands.

The Provincial Policy Statement (PPS) section 2.1.4 (a and b) states:

*Development and site alteration shall not be permitted in significant wetlands in Ecoregions 5E, 6E and 7E and significant coastal wetlands.*

The Study Lands are within Ecoregion 6E, thus this policy is applicable.

The Provincial NHRM, 2010 under section 6.4 for Significant Wetlands states that the Adjacent Land width to significant wetlands is 120 m.

The PPS Natural Heritage section 2.1.8 states:

*Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.*

Similar policy wording and intent for Significant Wetlands is within the Grey County Official Plan policy 2.8.3.

With **no** Significant Wetland feature confirmed within the Site Lands, no further review or impact assessment is warranted and site development would be in compliance with the PPS 2.1.4, 2.1.8 and the Grey County Official Plan policy 2.8.3 and policy 2.8.6 (6) for 'other wetlands'.

## 10 Significant Woodlands

The County of Grey has undertaken countywide mapping for Significant Woodlands within its Official Plan, as per policy 2.8.4. In review of the County natural heritage constraint mapping of Figure 4B, all of the forest cover within the Study Lands has been deemed 'Significant Woodland'. The draft 2018 Grey County Official Plan updates of Figure No. 4D also reflects all of the 'forested' lands are designated Significant Woodlands.

The Natural Heritage Provincial Policy 2.1.5 (b) regarding Significant Woodlands states:

*Development and site alteration shall not be permitted in significant woodlands in Ecoregions 6E and 7E unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.*

The Site is within Ecoregion 6E; thus, this policy is in effect.

The Ontario NHRM 2010, Section 7.4 for Significant Woodlands states that the Adjacent Land width to Significant Woodlands is 120 m.

The PPS Natural Heritage Section 2.1.8 states:

*Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.*

Grey County Official Plan policy 2.8.3 (3) states:

*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 2.8.7 of this Plan, that there will be no negative impacts on the natural features or their ecological functions (section 6.19 for adjacent land width is 50m).*

Similar policy wording and intent for Significant Woodlands is within the Grey County Official Plan policy 2.8.3, though the County adjacent land width for site development impact assessment is 50m.

With Significant woodland confirmed within the Study and Site Lands, further review and impact assessment is deemed required and provided in Section 14 to address the policies of the PPS and the Grey County Official Plan.

## 11 Significant Wildlife Habitat

Currently, there is no mapping within the Grey County Official Plan to identify Significant Wildlife Habitat (SWH) due to its complexity and to the sub-components that require on-site survey work. The Meaford Official Plan Schedule B maps deer wintering areas, but this is only one of the many features that may be Significant Wildlife Habitat. Some historical OMNRF inventory and wildlife assessments within Grey County have been checked to locate any previously determined confirmed SWH is known within these Study Lands. Additionally, EIS field inventory works carried out over the Study Lands augment historical data to aid in the determination of significance for each wildlife habitat sub-component.

The Ontario Ministry of Natural Resources and Forestry published in January 2015 “Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E” as a supplement document to the 2000 Significant Wildlife Habitat Technical Guide (SWHTG). This supporting document provides a listing of candidate and criteria or threshold levels to confirm the presence of significant wildlife habitat within Ecoregion 6E with MNR-Land Information Ontario identifying that the subject lands are situated within Ecoregion 6E. Some historical Provincial MNR inventory and wildlife assessment works within Grey County has been sourced to aid in determination of confirmed SWH. Additionally EIS field inventory works carried out over the Study Lands will augment this historical data to aid in the determination of significance for each wildlife habitat sub-component.

The Study Lands are within the provincial Ecoregion 6E. Provided below is a review of Ecoregion 6E criteria for candidate SWH, a review of threshold levels and confirmed SWH for the Study Lands. This review follows the Natural Heritage Reference Manual, 2010 (NHRM), flow chart of Figure No. 9-1 for the identification and confirming Significant Wildlife Habitat.

### 11.1 Seasonal Concentration Areas of Animals

A summary review of Provincial Criteria Table 1.1 is provided below:

- Waterfowl Stopover and staging (Terrestrial)
  - No criteria waterfowl species were observed.
  - No ELC criteria codes are present within the Site Lands.
  - Criteria threshold for species and aggregate numbers not met and no functional habitat identified.
  - No confirmed SWH.
- Waterfowl Stopover and staging (Aquatic)
  - No criteria waterfowl species were observed.
  - No ELC criteria codes are present within the Site Lands.
  - Criteria threshold for species and aggregate numbers not met and no functional habitat identified.
  - No Confirmed SWH.
- Shorebird Migratory Stopover
  - No criteria shorebird species were observed.
  - No ELC criteria codes present and no suitable habitat identified within the Study Lands.
  - Criteria threshold for species and aggregate numbers not met.
  - No confirmed SWH.

- **Raptor Wintering Area**
  - No criteria raptor species were observed.
  - Forest ELC criteria codes FOC, FOM, and FOD are present but no open uplands.
  - No historical documentation of habitat use during winter period.
  - No confirmed SWH.
  
- **Bat Hibernacula**
  - No criteria bat species were observed.
  - No ELC criteria codes present within the Site Lands.
  - No historical documentation of bat hibernation activity.
  - No confirmed SWH.
  
- **Bat Maternity Colonies**
  - No criteria bat species were observed.
  - ELC criteria codes FOM is present within the Study Lands.
    - Field assessment did not identify and large diameter cavity trees/snags within vegetation community No. 2 (FOM stand)
    - Field assessment of trees is well below the Provincial threshold level of 10 cavity trees/snags being >25cm dbh / ha.
  - No historical documentation of bat maternity activity and no habitat meeting provincial criteria.
  - No confirmed SWH.
  
- **Turtle Wintering Areas**
  - No criteria turtle species were observed.
  - No ELC criteria codes are present within the Site Lands.
  - No suitable overwintering habitat (permanent water bodies with soft mud substrate being >40cm depth) features are present.
  - No confirmed SWH.
  
- **Reptile Hibernaculum**
  - One Common Gartersnake observed during the summer season only.
  - No burrows, rock crevices, rock piles, or other listed suitable features for hibernacula were identified in the Study Lands.
  - No confirmed SWH.
  
- **Colonially-Nesting Bird Breeding Habitat: Bank and Cliff**
  - No criteria bird species were observed.
  - No ELC criteria codes are present within Site Lands.
  - No confirmed SWH.
  
- **Colonially-Nesting Bird Breeding Habitat: Tree/Shrub**
  - No criteria bird species were observed.
  - No ELC criteria codes are present within the Site Lands.
  - No confirmed SWH.

- **Colonially-Nesting Bird Breeding Habitat: Ground**
  - No criteria bird species were observed.
  - No ELC criteria codes are present within the Site Lands.
  - No confirmed SWH.
  
- **Migratory Butterfly Stopover Areas**
  - No criteria butterfly species were observed.
  - Forest ELC criteria codes FOM, FOD and FOM are present; however, the Study Lands are not located within 5 km of Lake Ontario (provincial criteria location).
  - No confirmed SWH.
  
- **Landbird Migratory Stopover Areas**
  - Several migratory songbird species present within the Study Lands.
  - ELC criteria codes FOC, FOM and FOD are present; however, the Study lands are not located within 5 km of Lake Ontario (provincial criteria location).
  - No confirmed SWH.
  
- **Deer Yarding Areas**
  - OMNRF determines this habitat. Midhurst District has identified and mapped wintering deer yards within Grey County. A review of provincial mapping shows no such habitat has been designated within the Site Lands.
  - No confirmed SWH.
  
- **Deer Winter Congregation Areas**
  - Within Grey County, deer are typically constrained by snow depths thus yarding habitat is used rather than congregation areas. Congregation areas are typically associated with Carolinian regions, thus not a SWH function in Grey County.
  - No confirmed SWH.

## 11.2 Rare Vegetation Communities

A summary review of Provincial Criteria Table 1.2.1 is provided below:

- **Cliffs and Talus Slopes**
  - No ELC criteria code types present within the Site Lands.
  - No confirmed SWH.
  
- **Sand Barren**
  - No ELC criteria code types present within the Site Lands.
  - No confirmed SWH.
  
- **Alvar**
  - No ELC criteria code types present within the Site Lands.
  - No confirmed SWH.

- Old Growth Forest
  - ELC criteria codes FOC, FOM, and FOD are present.
  - Provincial habitat description criteria for 'Old Growth Forest' community are not present (tree sizes, density, etc.) within the Study Lands or identifiable within the adjacent lands.
  - No confirmed SWH.
- Savannah
  - No ELC criteria code types present within the Site Lands.
  - No confirmed SWH.
- Tallgrass Prairie
  - No ELC criteria code types present within the Site Lands.
  - No confirmed SWH.
- Other Rare Vegetation Communities
  - No identified vegetation communities with an S1, S2 or S3 ranking present within the Site Lands.
  - No confirmed SWH.

### **11.3 Specialized Habitat for Wildlife**

A summary review of Provincial Criteria Table 1.2.2 criteria is provided below:

- Waterfowl Nesting Area
  - One criteria waterfowl species: Mallard recorded however, only 1 breeding pair.
  - No ELC criteria codes are present within the Site Lands.
  - Criteria thresholds not met for species diversity, or habitat type.
  - No confirmed SWH.
- Bald Eagle and Osprey Nesting, Foraging and Perching Habitat
  - No criteria species observed.
  - ELC criteria codes FOC, FOM, and FOD are present and Study Lands are situated along Georgian Bay shoreline.
  - No evidence of current or historical nesting activity within the Study Lands or surrounding adjacent lands.
  - Criteria thresholds not met for active use of habitat.
  - No confirmed SWH.
- Woodland Raptor Nesting Habitat
  - No criteria species observed.
  - ELC criteria codes FOC, FOM, and FOD are present; however, no forest interior habitat was identified within the Study Lands.
  - No nesting activity identified. No documented nesting activity within the 120 m adjacent lands.
  - Criteria thresholds for species, numbers and habitat size plus habitat use, not met.
  - No confirmed SWH.

- Turtle Nesting Areas
  - No criteria species observed.
  - No ELC criteria codes present and no suitable habitat identified.
  - Criteria thresholds for species, numbers and habitat size plus use, not met.
  - No Confirmed SWH.
  
- Seeps and Springs
  - Criteria fauna species (Wild Turkey, White-tailed Deer) were identified within the Study Lands.
  - No seeps or groundwater upwelling functions were present in the Study Lands.
  - Criteria thresholds for numbers or presence not met.
  - No confirmed SWH.
  
- Amphibian Breeding Habitat (Woodland)
  - No criteria species observed.
  - ELC criteria codes FOC, FOM, and FOD are present but no surface water features within the woodlands. Steep slopes prevent seasonal ponding.
  - Criteria threshold for species diversity or numbers of "*at least 20 individuals*" not met (see Appendix 4).
  - No confirmed SWH.
  
- Amphibian Breeding Habitat (Wetlands)
  - No criteria species observed.
  - No ELC criteria codes are present within the Site Lands.
  - Criteria thresholds with 3 or more frog/toad species not met and criteria threshold for numbers "*at least 20 breeding adults*" was not met (see Appendix 3).
  - No confirmed SWH.

#### **11.4 Habitat for Species of Conservation Concern**

(Not including Endangered or Threatened Species)

A summary review of Provincial Criteria Table 1.3 criteria is provided below:

- Marsh Breeding Bird Habitat
  - No criteria bird species observed.
  - No ELC criteria codes are present within the Site Lands.
  - Criteria thresholds not met for species diversity, numbers or active habitat use.
  - No confirmed SWH.
  
- Woodland Area-Sensitive Bird Breeding Habitat
  - No criteria bird species observed.
  - ELC criteria codes FOC, FOM, and FOD are present; however, no forest interior habitat (>100 m from forest edge) identified within the Study Lands woodland feature.
  - Criteria thresholds for species diversity, numbers, presence or interior forest habitat, not met
  - No confirmed SWH.

- Open Country Bird Breeding Habitat
  - No criteria bird species observed.
  - No ELC criteria codes are present within the Site Lands.
  - Criteria thresholds for species diversity, numbers or active habitat use, not met.
  - No confirmed SWH.
  
- Shrub/Early Successional Bird Breeding Habitat
  - No criteria indicator species or common species observed.
  - No ELC criteria codes present within the Site Lands.
  - Criteria thresholds for species diversity, numbers or active habitat use, not met.
  - No confirmed SWH.
  
- Terrestrial Crayfish
  - No criteria species (no chimneys) observed.
  - No ELC criteria codes are present within the Site Lands.
  - Criteria threshold for species diversity, numbers or active habitat use, not met.
  - No confirmed SWH.
  
- Special Concern and Rare Wildlife Species
  - **No** flora species were observed in 2018 within the Study Lands that have a ranking of Special Concern or of provincial rarity (S1, S2 or S3). See Appendix 3 listing.
  - **No** fauna species were observed in 2018 within the Study Lands that have a ranking of Special Concern or of provincial rarity (S1, S2 or S3). See Appendix 4 listing.
  - Historical MNRF Records (see Appendix 2) for the surrounding landscape (extending 5 km from Study Lands) identified two species with Special Concern status and one of provincial conservation concern (rare). A review of each for potential or warranted further impact assessment is provided below:
    - Hart's-tongue Fern (Rare): This species was not found within the Study Lands during intensive flora investigations in 2018. No suitable habitat (shaded limestone cliffs or blocks in deciduous forest) within the Study Lands was identified.
    - Eastern Wood-pewee (Special Concern): This species was not found within the Study Lands during intensive fauna investigations in 2018. Typically associated with mature deciduous woodlands.
    - Snapping Turtle (Special Concern): This species was not found within the Study Lands during intensive fauna investigations in 2018. No suitable habitat identified within the Study Lands.
  - No confirmed SWH.

## 11.5 Animal Movement Corridors

A summary review of Provincial Criteria Table 1.4.1 Criterion is provided below:

- Amphibian Movement Corridors
  - No Confirmed significant breeding habitat through Table 1.1 review for amphibian breeding habitat-wetland or woodland, thus no corridor assessment required.

- Deer Movement Corridors
  - No deer wintering habitat was confirmed through Table 1.1 analysis, thus no delineation or threshold levels for deer movement corridor is required.

## 11.6 Exceptions for Ecoregion 6E

A summary review of Provincial Criteria Table 1.5.1 is provided below:

- Mast Producing Areas
  - Candidate areas are only within EcoDistrict 6E-14, the Upper Bruce Peninsula.
  - No confirmed SWH.
- Sharp-tailed Grouse
  - Candidate areas are only within EcoDistrict 6E-17, for Manitoulin Island.
  - No confirmed SWH.

In summary for this review of Ecoregion 6E criteria schedules, **No** Significant Wildlife Habitat has been confirmed within the Study or Site Lands.

The Natural Heritage Provincial Policy 2.1.5 (d) states:

*Development and site alteration shall not be permitted in significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.*

The Natural Heritage Provincial Policy 2.1.8 regarding the adjacent lands (120m) for significant wildlife habitat states:

*Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5 and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.*

The Grey County Official Plan 2.8.6(1) states:

*Development and site alteration shall not be permitted within valleylands, wildlife habitat, and their adjacent lands unless it has been demonstrated through an acceptable Environmental Study in accordance with Section 2.8.6(4) of this Plan that there will be no negative impacts on the natural features or their ecological functions.*

With **no** confirmed Significant Wildlife Habitat within the Study Lands, no further review or impact assessment for SWH is warranted, and it can be concluded that site development would be in compliance with the PPS 2.1.5 (d) and 2.1.8 and the Grey County Official Plan 2.8.6(1).

## 12 Significant Feature Analysis Summary

Through the significant feature analysis, the following Natural Heritage features of provincial concern have been identified within the Study Lands or within its 120 m adjacent lands:

- i. Fish Habitat: Lake Huron-Owen Sound Bay within the Study Lands
- ii. Significant Woodlands: all forested areas within the Study and Site Lands

Further review of the above features and their ecological functions is provided in the 'Impact Assessment' component of this EIS. Site development with recommended mitigation measures in relation to the proposed development activity is also provided to maintain compliance with applicable Acts, Legislation and Planning Policies.

## Impact Assessment

### 13 Fish Habitat

#### 13.1 Characterization

The waters of Georgian Bay-Owen Sound Bay front the eastern side of the Study Lands. Bottom substrate of the shoreline-littoral zone was primarily cobble sized rock with patches of flat shale, other than the dredged small boat slip at the south end of the Study Lands where silt sediment has accumulated providing small patches of aquatic vegetation growth.

Given the uniformity of the lake bottom along this shoreline area, and little cover habitat, no distinct fish spawning habitat was identifiable. The sheltered boat slip with aquatic vegetation provides some juvenile fish habitat however given its small area size <10m sq. this is considered to be negligible.

The existing dwelling and adjacent property dwellings are situated approximately 15m back from the Lake wave up rush limit.

#### 13.2 Impact Assessment

The Grey County Official Plan policy 2.8.6.5 states:

*No development shall be permitted within 30 metres of the banks of a stream, river, lake or Georgian Bay. Where an Environmental Impact Study prepared in accordance with Section 2.8.6 (4) of this Plan concludes setbacks may be reduced and/or where it has been determined by the appropriate Conservation Authority these setbacks may be reduced.....*

Based on the sites limited fish habitat features and littoral zone capacity, plus existing shoreline structures in this area, a reduced setback distance to 15m is sufficient. This setback width for site development from the Georgian Bay high water line is sufficient to maintain no negative impacts to water quality or shoreline littoral zone fish habitat. As such, a 15m setback is in compliance with the Federal Fisheries Act and meets typical Conservation Authority great Lakes setback requirement and minimum Health Unit setbacks for septic treatment fields for water quality protection.

## **14 Significant Woodland**

### **14.1 Characterization**

All of the Study Lands forest cover and have been designated Significant Woodland in the Grey County Official Plan. The woodland of the Study Lands is not high quality, being medium-aged cedar with patchy ground flora with a high level of non-native species (usually reflecting a history of past disturbance). A general characterization of the on-site vegetation for the Site Lands has been provided in section 4-Table 2, and vegetation community delineation on Figure 7.

### **14.2 Floristic Quality Scoring**

The following section provides an analysis of the native flora of the Study Lands using provincial Floristic Quality Assessment tools. A complete list of flora species identified in the Study Lands in 2018 and their individual values within the 'Floristic Quality Assessment for Southern Ontario' is provided in Appendix 3.

The Study Lands were found to support 74 vascular plant species in total, with 44 being native and 30 being non-native (introduced). This represents a non-native flora composition of 40% for the Study Lands. Within Southern Ontario, the average non-native composition ranges between 20 to 30%, as noted by M. Oldham of the OMNRF Natural Heritage Information Center. The non-native flora percentage composition level of the Study Lands is higher than the provincial range, reflecting forest flora composition of an environment that has been historically disturbed.

Floristic Quality Assessment 'coefficient of conservatism' (FQA-CC) scoring ranks native flora based on a plant's degree of fidelity to a range of synecological parameters established by the province and can represent a flora species' tolerance to site disturbances. An analysis of FQA-CC scoring for native species within the Study lands is provided in Table 3.

Table 3: Native Flora 'Coefficient of Conservatism' breakdown

Scoring	Provincial Description	Study Lands Plant Numbers
0 to 3	<i>Plants found in a wide variety of plant communities including disturbed sites</i>	16 species or 37%
4 to 6	<i>Plants typically associated with a specific plant community, but tolerate moderate disturbances</i>	22 species or 50%
7 to 8	<i>Plants associated with a plant community in an advanced successional stage that has undergone minor disturbance</i>	5 species or 11%
9 to 10	<i>Those plants with high degrees of fidelity to a narrow range of synecological parameters</i>	1 species or 2%

The above table demonstrates that 87 % of the native plant species within the Study Lands occupy a wide range of habitat types, and may tolerate high to moderate disturbances. An additional 11% occur in areas where forest cover is becoming more mature in age. One vascular common plant species: Smith's Melic Grass was identified which is associated with dry mature forest cover having scattered canopy openings and little ground cover competition.

No vascular plants were identified within the Study Lands that have any status of conservation concern, provincial or local.

The mean 'CC' value for the Study Lands scored a value of 2, showing that overall most of the woodland species present are generalists with no uniqueness.

### 14.3 Ecological Functions

Through the analysis of significant natural heritage features, no Significant Wildlife Habitat (SWH) was confirmed. With no SWH features at this site, little habitat diversity and historical disturbances, no significant woodland ecology functions are identifiable with the Study Lands Significant Woodland. As well, due to the sites location, size, terrain slope, minimal lower canopy cover and the surrounding landscape, the study land woodland environment does not provide any buffering influences to interior woodland habitat off-site.

### 14.4 Impact Assessment

Tree canopy openings greater than 0.4 ha within continuous woodland environments are documented in provincial manuals (OMNRF- Forestry Guidelines and Wildlife Habitat Research) to cause increased wind throw impacts in the remaining surrounding woodland. Additionally, woodland canopy openings which are greater than 0.4ha can have negative impacts to surrounding flora genetics/diversity due to increased invasive species and increased parasitism on woodland fauna and are a factor in overall 'woodland' size criteria calculations.

As such, it is recommended that no single land clearing/tree canopy removal area within the Study Lands to exceed 0.4 ha in area, without a minimum 15m wide treed native woodland strip/buffer between clearing areas. Additionally an overall target for the full 2.3 ha property should be a minimum 60% retention of the native woodlands to maintain a 'woodland' feature

that meets provincial criteria for canopy cover. With these two recommended woodland associated development constraints, the proposed site development would not see a loss in overall Significant Woodland feature size or woodland fragmentation impacts. Additionally, with migratory birds confirmed to be nesting and rearing within the woodland feature, tree cutting activity should be constrained to a period outside of the recognized breeding period, in accordance to the Federal Migratory Birds Act.

The January 2017 Grey County Natural Heritage Study 'Green in Grey' is currently under the draft 2018 County Official plan update, with relevant aspects provided under Figure 4C to 4E. Figure No. 4E demonstrates that the woodlands within the subject Study Lands are situated outside of the County – Natural Heritage System Core lands, with no identified linkages. Thus site development within the Study Lands portion of the Significant Woodland feature will not negatively impact upon the 'Core' natural heritage system for Grey County.

Therefore, it has been demonstrated and concluded that with constrained tree canopy clearing, targeted retained forest cover, and tree cutting activity periods, no negative impacts are anticipated to the Significant Woodland or identified ecological functions of the within the Study/Property Lands. Thus, site development would be in compliance with the PPS 2.1.5(b), 2.1.8, Grey County OP policy 2.8.4 and the Migratory Birds Act.

## **15 Mitigation**

The following mitigative measures should be implemented through Site Plan Control, Development Agreement and/or Development permits/approvals. These measures are recommended to maintain the ecological functioning role and natural heritage features that have been identified within the Study Lands and are in compliance with applicable Acts, Legislation, and Natural Heritage Planning Policies.

- 15.1 No site development shall occur within 15m to Georgian Bay's high-water line/elevation or in accordance to Grey Sauble Conservation Authority requirements.
- 15.2 Tree clearing for site development activity should not occur from May 1<sup>st</sup> to July 30<sup>th</sup>. If tree clearing is necessary during the active nesting period for woodland breeding birds, additional preventative measures in accordance to Environment Canada guidelines under the Federal Migratory Birds Act will be required with on-site monitoring by a qualified individual.
- 15.3 A detailed dimensioned Site Plan for the proposed Resort Style Retreat shall be prepared by the proponent demonstrating adherence to point 15.1 and new site development is focused within the delineated EIS-Development Lands as shown on Figure No. 8 and that site development in relation to the full property demonstrates:
  - i. Tree Canopy openings shall not exceed 0.4 ha in continuous cleared land without a minimum 15m wide retained native tree forest strip between new or existing tree canopy openings which approach that threshold size limit.
  - ii. Cumulative tree canopy openings through new development plus existing development shall not reduce the full property Significant Woodland area below 60% retention in native woodland.

## 16 Conclusions

Based on the Impact Assessment component of this EIS, Site Development with the mitigative constraints listed in Section 15, will have no anticipated negative impacts and will not cause loss of ecological function to the Natural Heritage features assessed within the Study Lands or surrounding natural environment. New proposed development in the form of a recreation resort style retreat, having scattered small cottages and/or yurts with supporting septic treatment, would be in compliance with the Natural Heritage policies of the 2014 Provincial policy Statement, the 2012 Grey County Official Plan and applicable natural heritage Provincial and Federal Acts, Legislation.

All *italicized* comments contained within this report are quotes from available literature, technical reports, manuals and documents relevant to the features and/or functions observed within these Study Lands. All natural feature locations are estimates based on current Grey County air photo imagery, topographic mapping from Ontario Base Maps, and plotting in the field with hand-held GPS unit. The maps contained within this report should not be considered 'a legal survey' but are deemed adequate for this planning/application review process.

Respectfully Submitted,



---

John Morton, President  
AWS Environmental Consulting Inc.

## 17 References

Brouillet, L., F. Coursol, S.J. Meades, M. Favreau, M. Anions, P. Bélisle & P. Desmet. 2010. VASCAN, the Database of Vascular Plants of Canada. <http://data.canadensys.net/vascan/>

Cadman, M.D., D.A. Sutherland, G.G. Beck, D. Lepage, and A.R. Couturier (eds), 2007. Atlas of the Breeding Birds of Ontario, 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature, Toronto Canada.

Environment and Climate Change Canada, Species at Risk Public Registry. [http://www.sararegistry.gc.ca/sar/index/default\\_e.cfm](http://www.sararegistry.gc.ca/sar/index/default_e.cfm)

Committee on the Status of Endangered Wildlife in Canada (COSEWIC), [www.cosewic.gc.ca](http://www.cosewic.gc.ca)

Grey County Official Plan, 2012 and schedule mapping and Draft 2018 Appendixes and Schedules

Grey County, January 2017, Natural Heritage Study 'Green in Grey'

Land Information Ontario, on-line database and mapping [https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main\\_home](https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main_home)

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, South central Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02

Natural Heritage Information Centre (NHIC), 2018. Provincial status of Plants, Wildlife and Vegetation Communities OMNR, Peterborough. <http://nhic.mnr.gov.on.ca/nhic.cfm>

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

Oldham, M.J., W.D. Bakowsky and D.A. Sutherland, (1995). Floristic Quality Assessment for Southern Ontario. Ontario Ministry of Natural Resources, Natural Heritage Information Centre Ontario Ministry of Natural Resources, 2000. Significant Wildlife Habitat Technical Guide. Fish and Wildlife Branch

Ontario Ministry of Municipal Affairs and Housing, 2014. Provincial Policy Statement

Ontario Ministry of Natural Resources, Significant Wildlife Habitat Eco-regional Criteria Schedules, January 2015

Species at Risk in Ontario (SARO), Committee on the Status of Species at Risk in Ontario (COSSARO) [www.mnr.gov.on.ca/mnr/speciesatrisk](http://www.mnr.gov.on.ca/mnr/speciesatrisk)

Species at Risk Public Registry of Environment and Climate Change Canada [http://www.sararegistry.gc.ca/sar/index/default\\_e.cfm](http://www.sararegistry.gc.ca/sar/index/default_e.cfm)

Township of Georgian Bluffs, Zoning

## 18 Figures

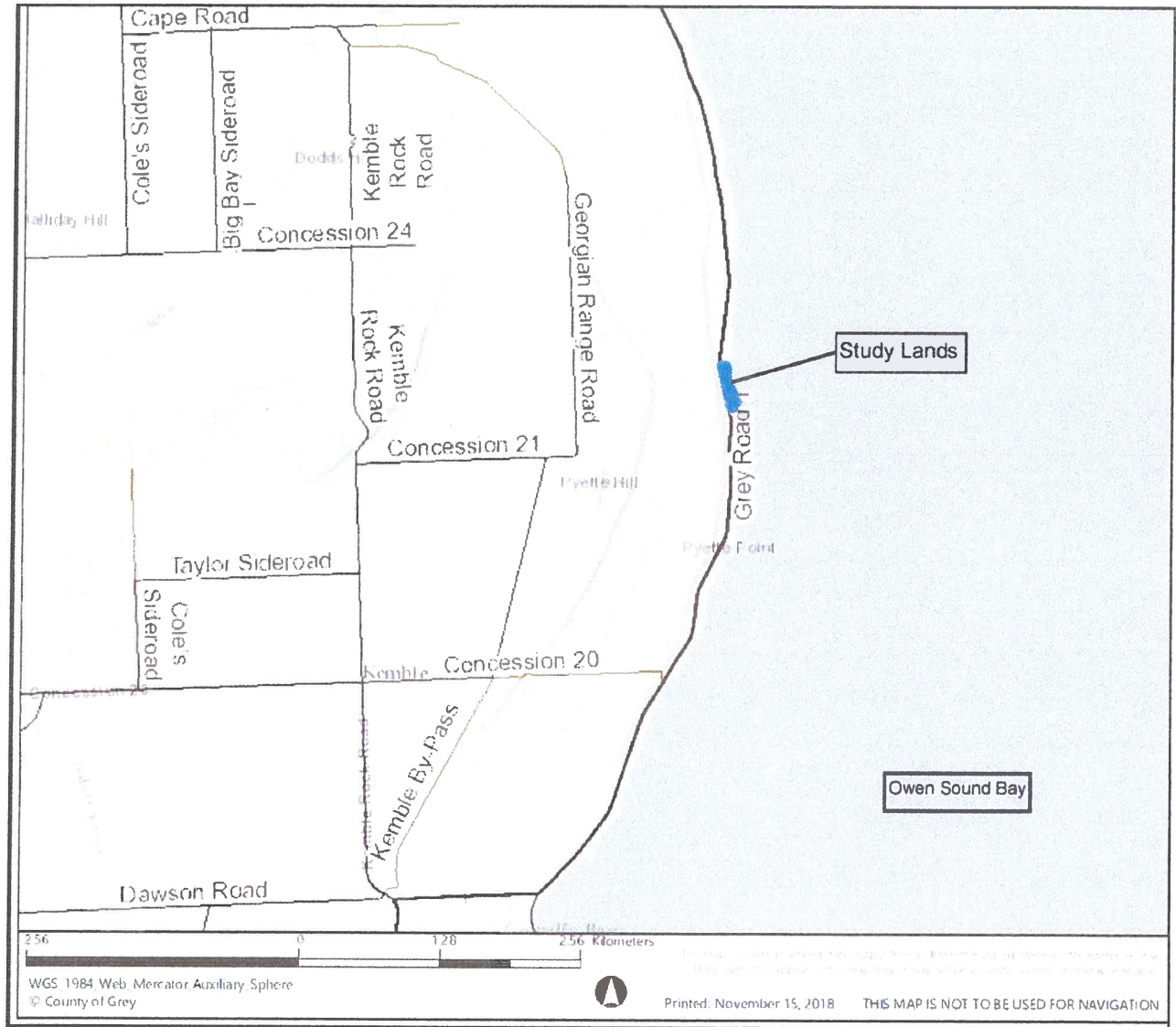
### Mapping Note for Clarification:

All figures below are a very close approximation for the property boundary, but given various mapping scales, boundary anomalies, etc., Figures may not exactly match the survey plan dimensions to their entirety.

Figure 1.....	Property Location
Figure 2.....	Study and Site Lands
Figure 3.....	Provincial Natural Heritage Features
Figure 4A.....	Grey County Official Plan – Land Use
Figure 4B.....	Grey County Official Plan – Constraints
Figure 4C.....	Draft 2018 County OP-Land Use
Figure 4D.....	Draft 2018 County OP-Appendix B Constraints
Figure 4E.....	Draft 2018 County OP, Schedule C- Core NHS
Figure 5.....	Township of Georgian Bluffs Zoning
Figure 6.....	Conservation Authority Regulatory Lands
Figure 7.....	Vegetation Community Boundaries
Figure 8.....	Buffer Zones and Development Land Delineation

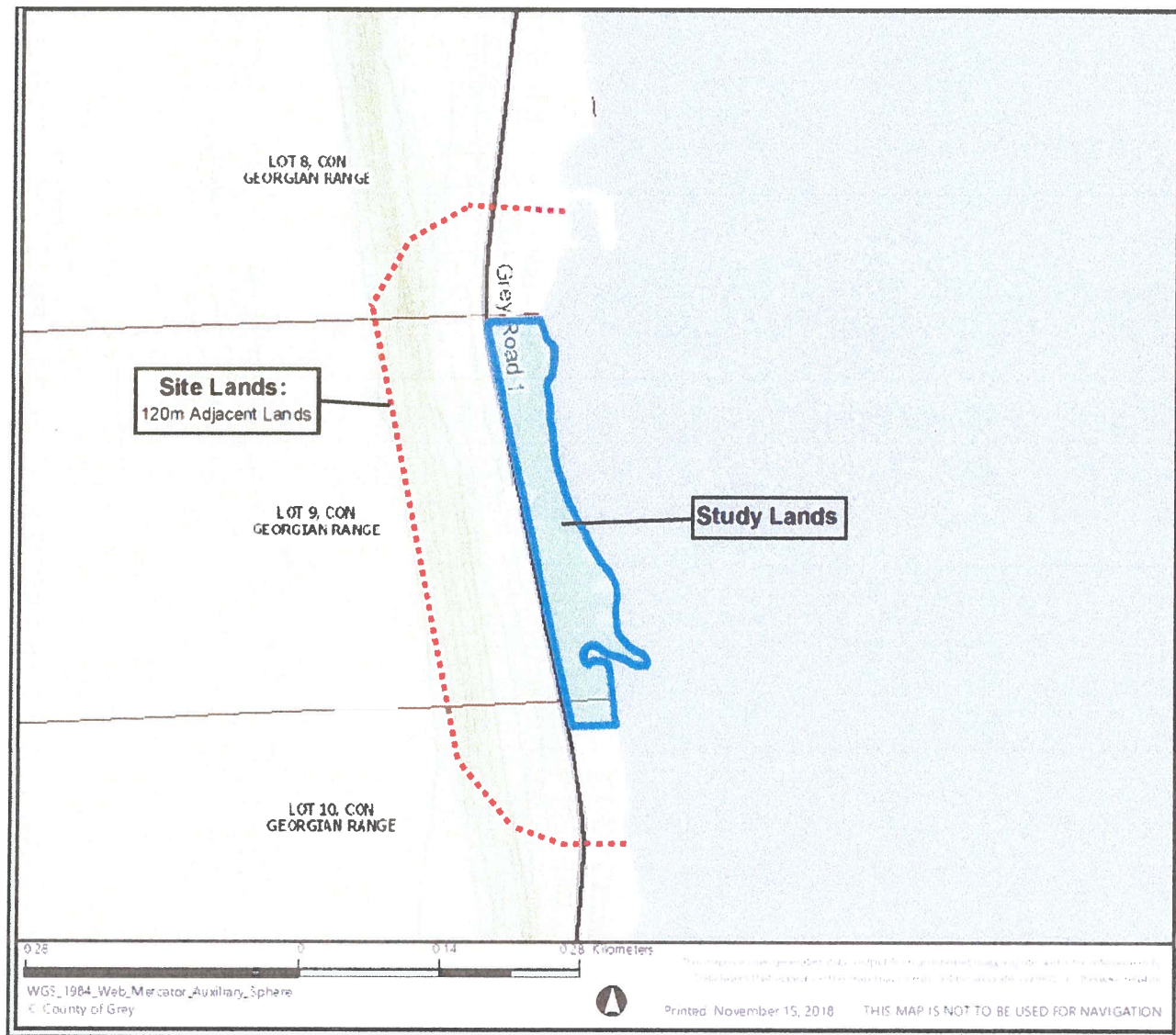
**Figure No. 1: Site Location**

- Base map source: Grey County web site



**Figure No. 2: Study and Site Lands**

- Base map source: Grey County web site





### Legend

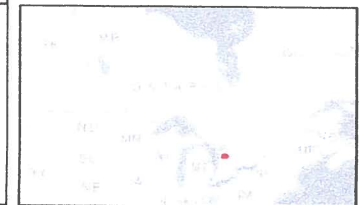
- Assessment Parcel
- Woodland
- Conservation Reserve
- Provincial Park
- Natural Heritage System
- Ecoregion
- Wetland
  - Provincially Significant Wetland Evaluated
  - Non-Provincially Significant Wetland Evaluated
  - Unevaluated Wetland
- Area of Natural Heritage & Scientific Interest (ANSI)
  - Provincially Significant Life Science ANSI
  - Provincially Significant Earth Science ANSI
- Greenbelt Plan
  - Boundary
  - River Valley Connections
- Land Use Designations
  - Protected Countryside
  - Towns and Villages
  - Hamlets
  - Urban River Valley
  - Specialty Crop Area
- Niagara Escarpment Plan (NEP)
  - Boundary
  - Parks and Open Space System
- Land Use Designations
  - Escarpment Natural Area
  - Escarpment Protection Area
  - Escarpment Rural Area
  - Mineral Resource Extraction Area
  - Escarpment Recreation Area
  - Urban Area
  - Minor Urban Centre
- Oak Ridges Moraine Conservation Plan (ORM)
  - Boundary
- Land Use Designations
  - Natural Core Area
  - Natural Linkage Area
  - Countryside Area
  - Rural Settlement
  - Palgrave Estates Residential Community
  - Settlement Area



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

Imagery Copyright Notices: DRAPE © Aéro-Photo (1961) Inc., 2008 - 2009  
 GTA 2005 / SWOOP 2006 / Simcoe-Muskoka-Dufferin © FirstBase Solutions, 2005 / 2006 / 2008

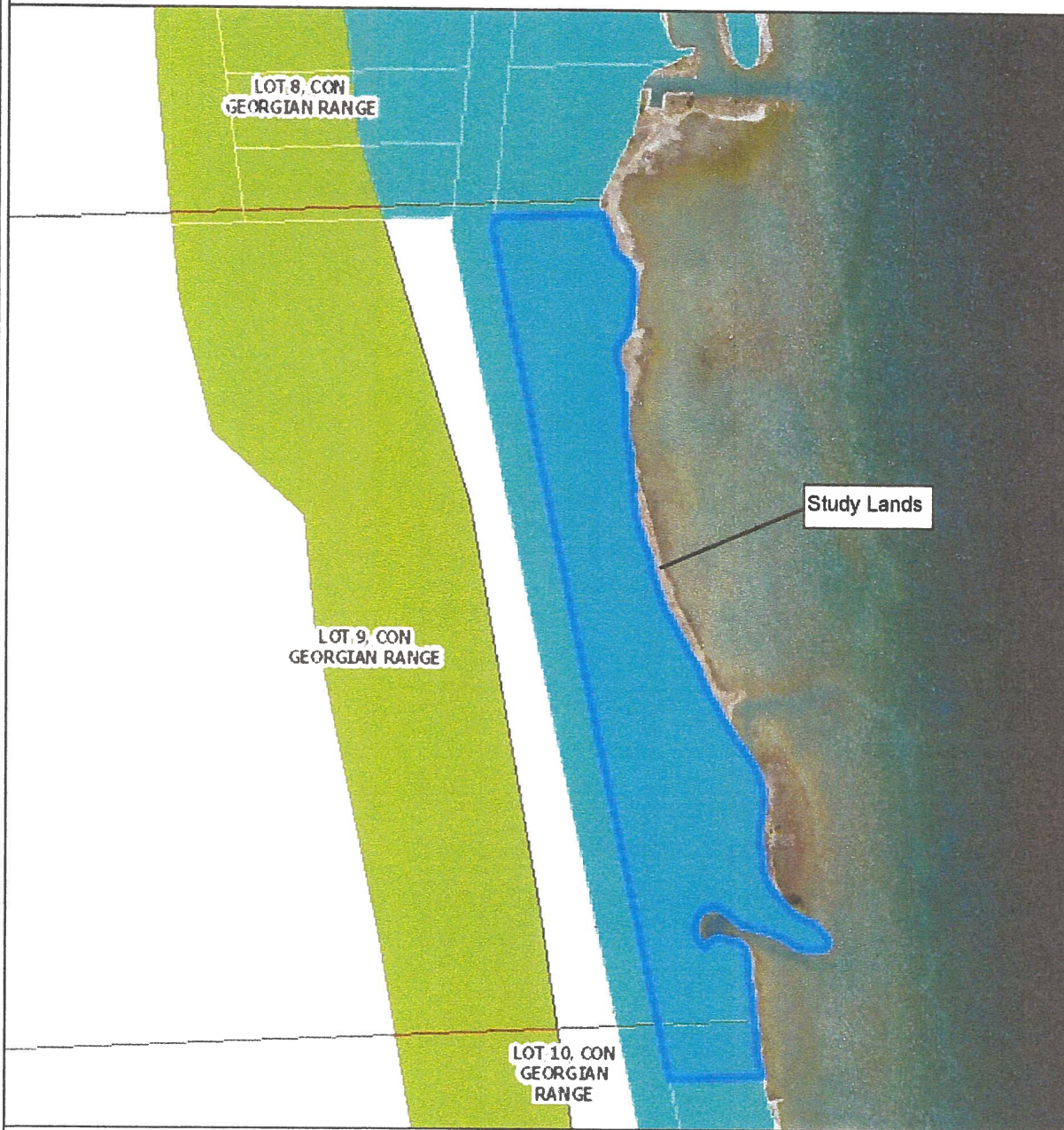
© Copyright for Ontario Parcel data is held by Queen's Printer for Ontario and its licensors [2013] and may not be reproduced without permission. THIS IS NOT A PLAN OF SURVEY.



# Figure No. 4A: County Official Plan - Land Use Designations

## Legend

- Parcels**
- Lots & Concessions
- Future Secondary Plan Area
- Land Use Classification**
- Primary Settlement Area
- Secondary Settlement Area
- Tertiary Settlement Area
- Agricultural
- Escarpment Recreation Area
- Hazard Lands
- Inland Lakes & Shoreline
- Niagara Escarpment Plan Area
- Rural
- Space Extensive Commercial
- Space Extensive Industrial
- Special Agriculture
- Wetlands
- Recreation Resort Area



0.16 0 0.08 0.16 Kilometers

WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere  
© County of Grey



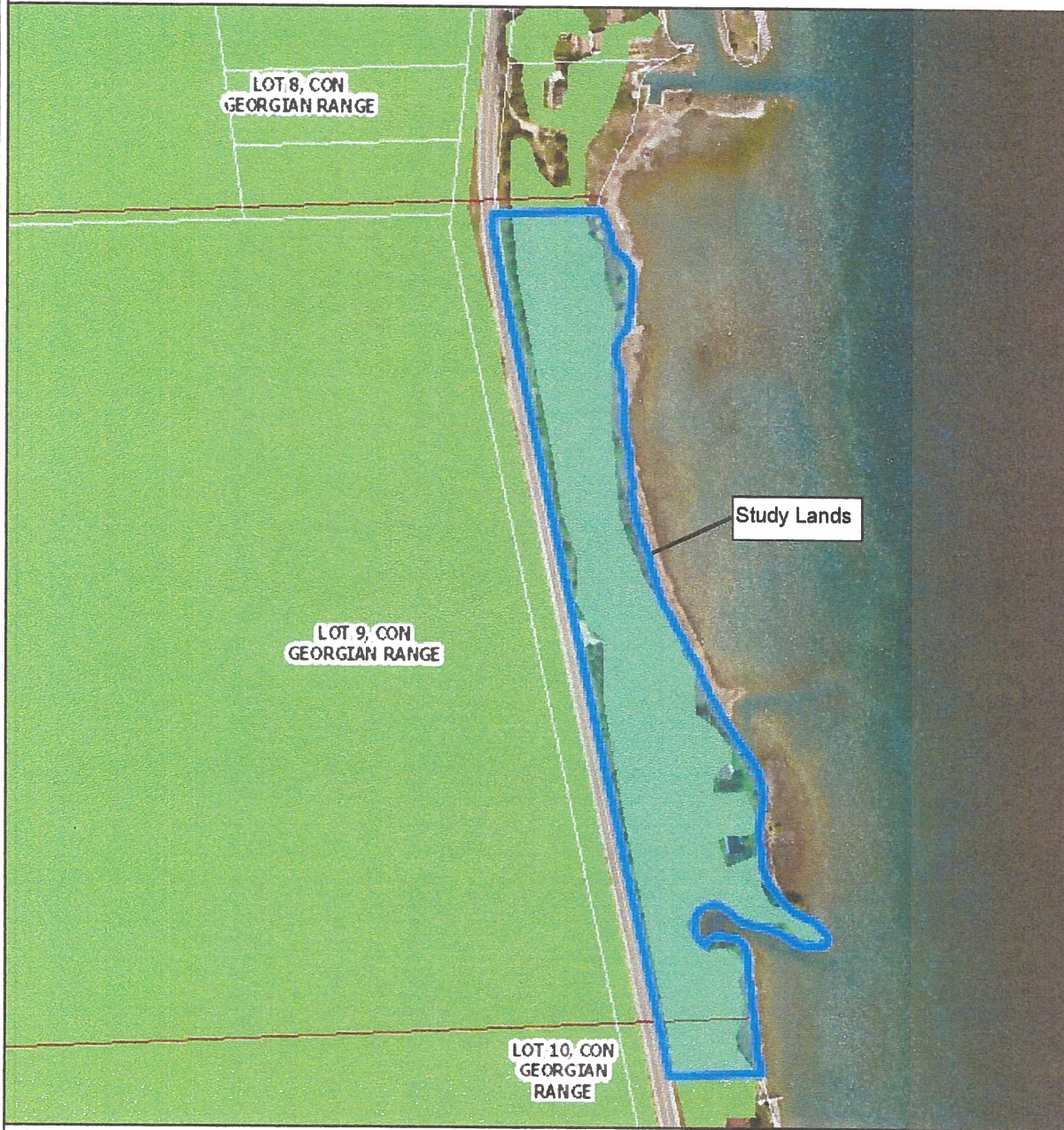
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

Printed: December 19, 2018 THIS MAP IS NOT TO BE USED FOR NAVIGATION

## Notes

Georgian Escapes Ltd.  
Pyette Point Area Shoreline Property

# Figure No. 4B : County Official Plan - Natural Heritage



## Legend

- Parcels
- Lots & Concessions
- Streams
- ANSI
  - Earth Life Science
  - Earth Science
  - Life Science
- ▨ Other Identified Wetlands
- Lakes
- Significant Woodlands

## Notes

Georgian Escapes Ltd.  
Pyette Point Area Shoreline Property

0.16 0 0.08 0.16 Kilometers



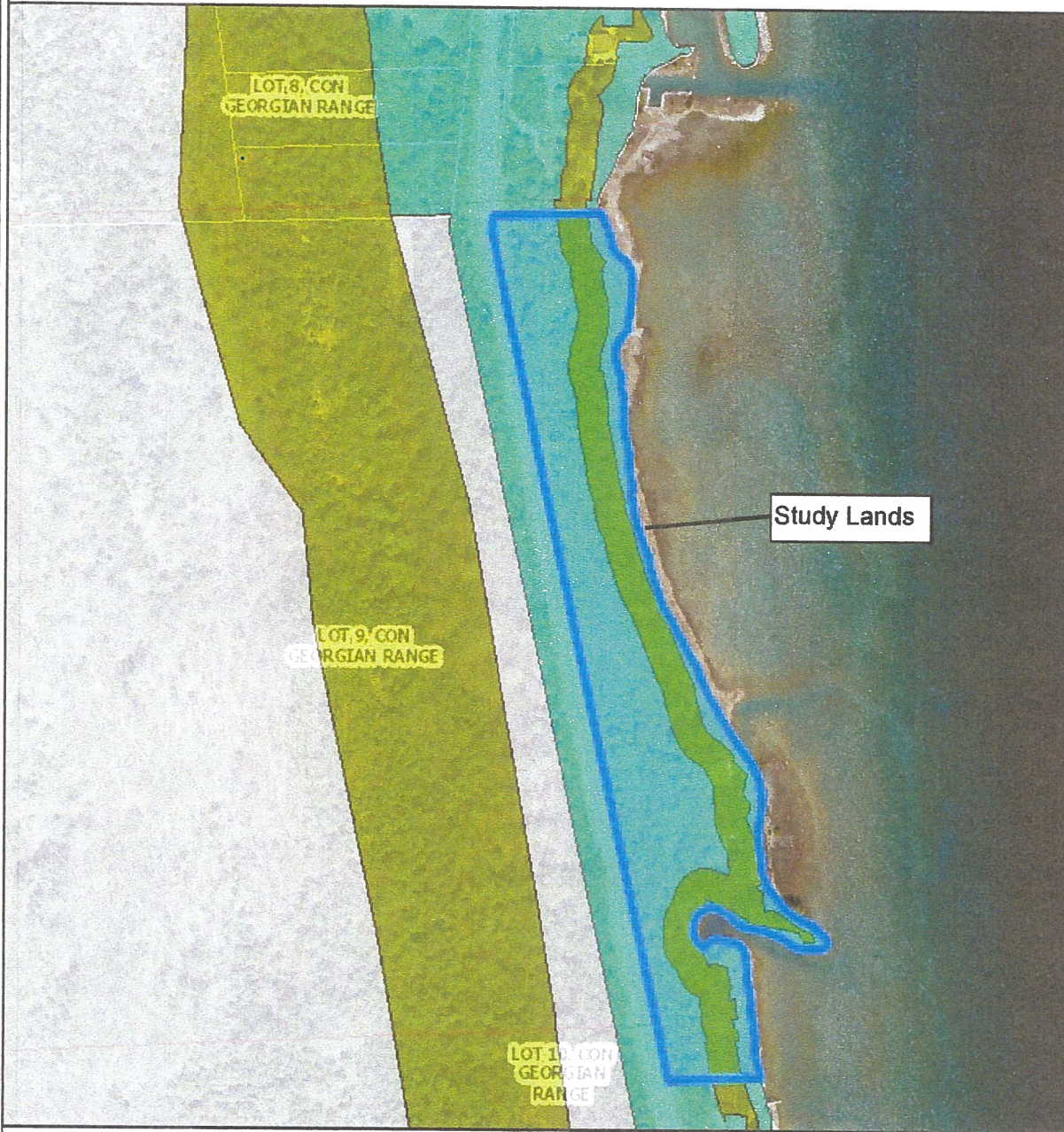
## Legend

### Land use

- Primary Settlement Area
- Secondary Settlement Area
- Agricultural
- Escarpment Recreation Area
- Hazard Lands
- Inland Lakes & Shoreline
- Niagara Escarpment Plan Area
- Rural
- Space Extensive Industrial and Commercial
- Sunset Strip Area
- Industrial Business Park
- Special Agriculture
- Provincially Significant Wetlands
- Recreation Resort Area

### Parcels

- Lots & Concessions



Study Lands








0.16 0 0.08 0.16 Kilometers



## Notes

Georgian Escapes Ltd.  
Pyette Point Area Shoreline Property

**Legend**

-  ANSI, Earth Life Science
-  ANSI, Earth Science
-  ANSI, Life Science
-  Other Wetlands
-  Significant Valleylands
-  Significant Woodlands
- Parcels**
-  Lots & Concessions



Study Lands

LOT 8, CON  
GEORGIAN RANGE

LOT 9, CON  
GEORGIAN RANGE

LOT 10,  
CON GEORGIAN  
RANGE






0.16 0 0.08 0.16 Kilometers



**Notes**

Georgian Escapes Ltd.  
Pyette Point Area Shoreline Property

**Legend**

-  NEC Boundary
-  NHS Core
-  NHS Linkage
-  Parcels
-  Lots & Concessions



Study Lands

LOT 8, CON  
GEORGIAN RANGE

LOT 9, CON  
GEORGIAN RANGE

LOT 10, CON  
GEORGIAN  
RANGE

0.16 0 0.08 0.16 Kilometers



**Notes**

**Georgian Escapes Ltd.  
Pyette Point Area Shoreline Property**

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

## Legend

### Parcels

### Zoning - Georgian Bluffs

- A1 General Rural
- A2 Restricted Rural
- C1 General Commercial
- C2 Rural Commercial
- C3 Tent & Trailer Campground
- C4 Space Extensive Commercial
- EP Environmental Protection
- I Institutional
- M1 General Industrial
- M2 Extractive Industrial
- NEC Niagara Escarpment Developme
- OS Open Space
- PD Planned Development
- R1 General Residential
- R2 Inland Lake & Shoreline Residen
- R4 Medium Density Residential
- R5 Medium High Density Residential
- R6 Mobile Home Park
- W Wetland



### Notes

Georgian Escapes Ltd  
 Pyett Point Area Shoreline Property

0.14 0 0.07 0.14 Kilometers



**Figure No. 6: Conservation Authority Regulatory Lands**

**Legend**

- Parcels
- CA Boundaries
- Wet Areas - GSCA
- Water Features
- Watercourses
- Regulations - GSCA



Study Lands

Grey Sauble

0.14 0 0.07 0.14 Kilometers

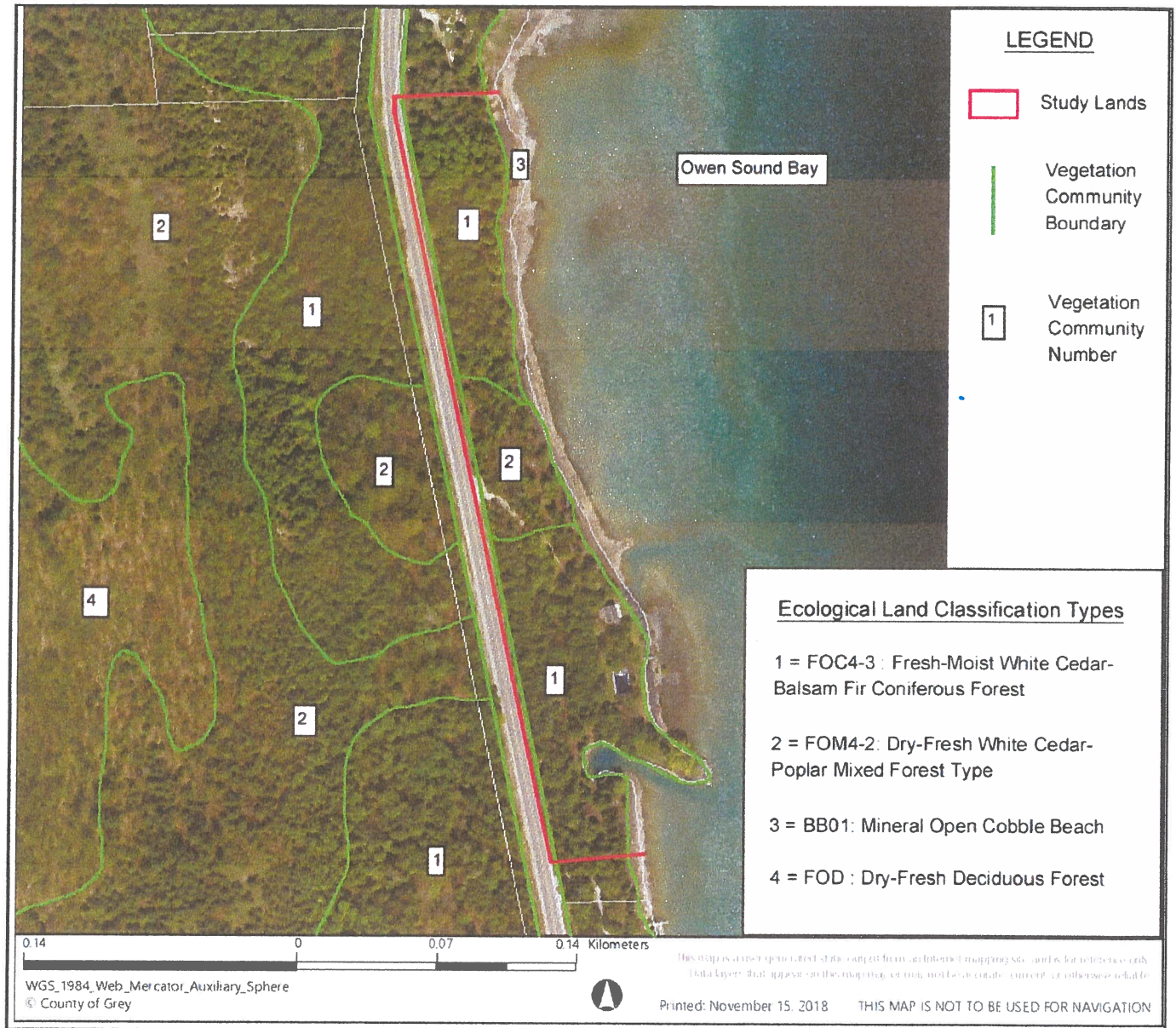


**Notes**

Georgian Escapes Ltd.  
Pyett Point Area Shoreline Property

**Figure No. 7: Vegetation Communities**

- Base map source: Grey County web site with 2015 air photo



# Figure No. 8: Development Lands

- Base map source: Grey County web site with 2015 air photo



**APPENDIX 1**

- Grey County web site, Property Parcel Report

## General Information

Report Generated: 11/15/2018 9:48:15 AM

Roll Number: 420362000723402

[\(Interactive Map\)](#)

Acreage:

5.70

Assessed Property Value: \$572,000

(May not reflect current market value- [MPAC](#))

Civic Address: 505153 GREY ROAD 1

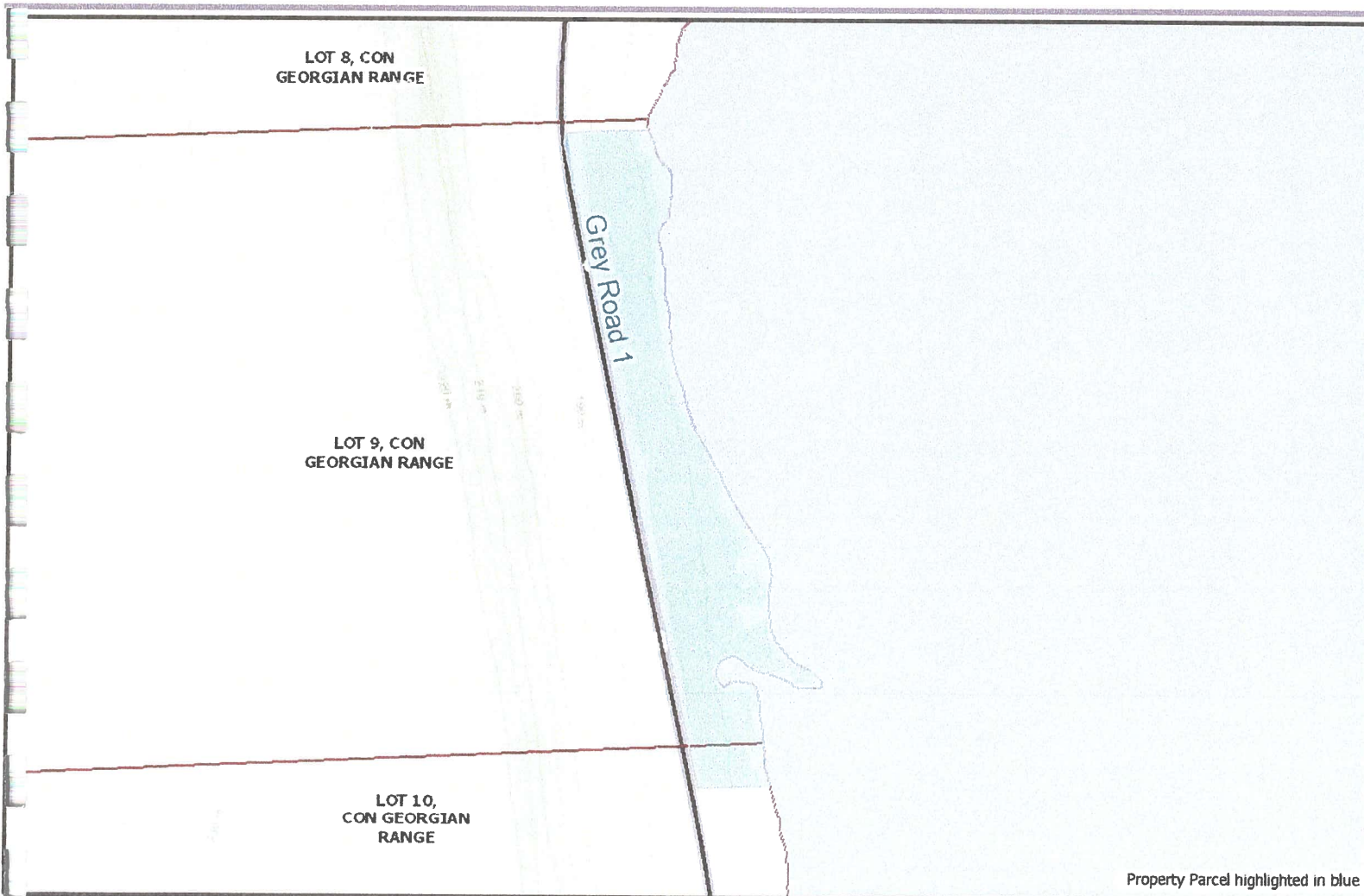
NEP Designation: Outside the Niagara Escarpment Plan Area

[\(NEP Map\)](#)

Legal Desc.: RANGE GEORGIAN E PT LOT 9 PT; LOT 10

Property Use: Seasonal/recreational dwelling - first tier on water

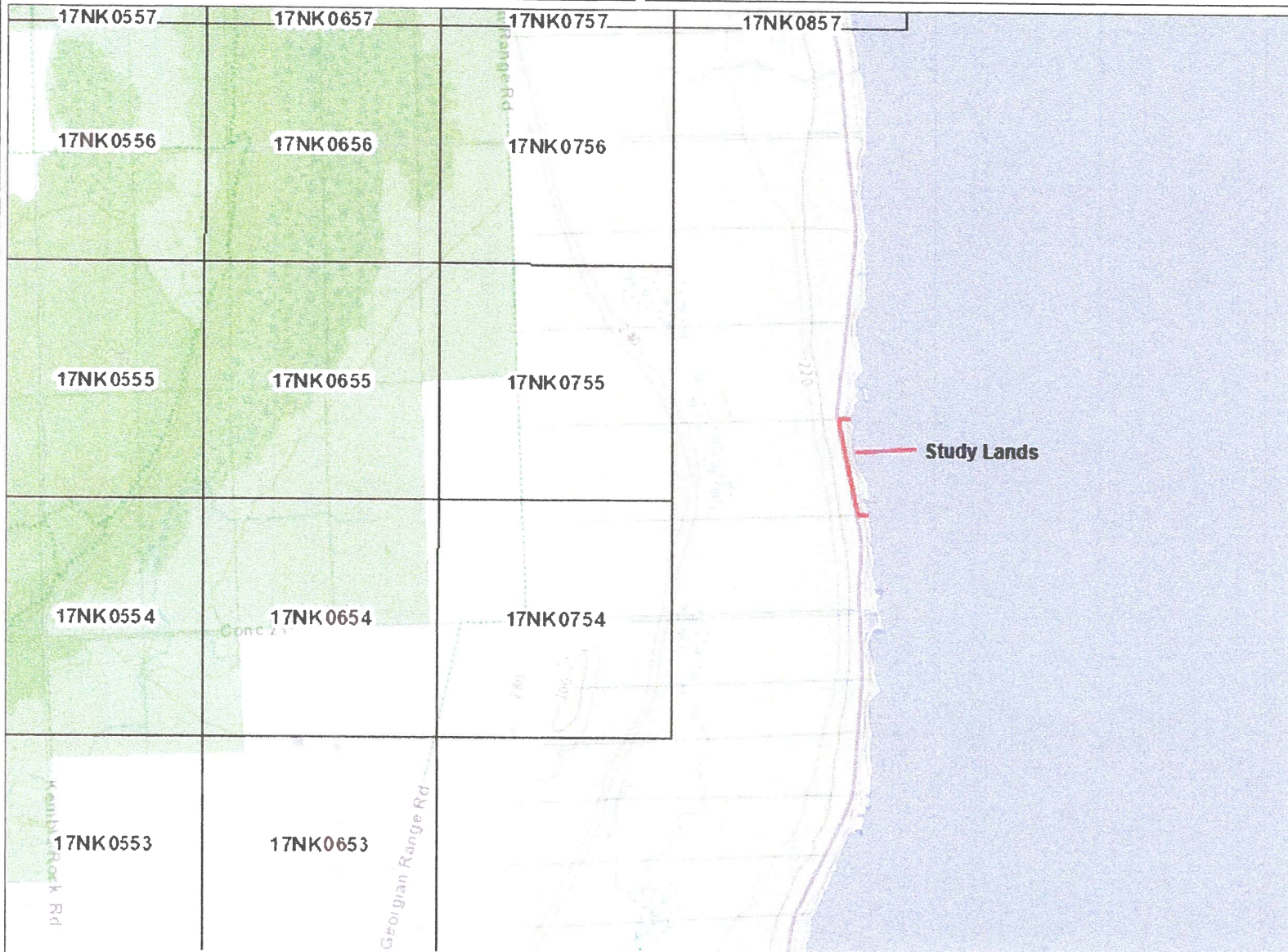
Zoning:



Property Parcel highlighted in blue

## **APPENDIX 2**

- **MNRF historical data records search within the surrounding 5km's**



**Legend**

- Assessment Parcel
- Woodland
- Conservation Reserve
- Provincial Park
- Natural Heritage System
- Ecoregion
- Wetland**
  - Provincially Significant Wetland Evaluation - Provincially Significant Wetland Evaluated
  - Unevaluated Wetland
- Area of Natural Heritage & Scientific Interest (ANSI)**
  - Provincially Significant Life Science ANSI
  - Provincially Significant Earth Science ANSI
- Greenbelt Plan**
  - Boundary
  - River Valley Connections
- Land Use Designations**
  - Protected Countryside
  - Towns and Villages
  - Hamlets
  - Urban River Valley
  - Specialty Crop Areas
- Niagara Escarpment Plan (NEP)**
  - Boundary
  - Parks and Open Space System
- Land Use Designations**
  - Escarpment Natural Area
  - Escarpment Protection Area
  - Escarpment Rural Area
  - Mineral Resource Extraction Area
  - Escarpment Recreation Area
  - Urban Area
  - Minor Urban Centre
- Oak Ridges Moraine Conservation Plan (ORM)**
  - Boundary
- Land Use Designations**
  - Natural Core Area
  - Natural Linkage Area
  - Countryside Area
  - Rural Settlement
  - Palgrave Estates Residential Community Settlement Area

1.3 0 0.65 1.3 Kilometers



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

Imagery Copyright Notices: DRAPE © Aéro-Photo (1961) Inc., 2008 - 2009  
GTA 2005 / SWOOP 2006 / Simcoe-Muskoka-Dufferin © FirstBase Solutions, 2005 / 2006 / 2008

© Copyright for Ontario Parcel data is held by Queen's Printer for Ontario and its licensors [2013] and may not be reproduced without permission. THIS IS NOT A PLAN OF SURVEY.



## Georgian Escapes Ltd. - Pyett Point Resort Retreat

Part Lot 9, Georgian Range, Geographic Township of Keppel

Ontario Ministry of Natural Resources and Forestry – NHIC historical records search for Significant Flora and Fauna within 5 km of the Study Lands

### Source:

OMNRF – Natural Heritage Information Center data in the Land Information Ontario on-line databases

#### Bobolink, *Dolichonyx oryzivorus*

- Provincial Ranking = S4, Provincial Status = Threatened
- Last recorded in search area: 2002

#### Eastern Meadowlark, *Sturnella magna*

- Provincial Ranking = S4, Provincial Status = Threatened
- Last recorded in search area: 2011

#### Snapping Turtle, *Chelydra serpentina*

- Provincial Ranking = S3, Provincial Status = Special Concern
- Last recorded in search area: 2008

#### Eastern Wood-pewee, *Cotopus virens*

- Provincial Ranking = S4, Provincial Status = Special Concern
- Last recorded in search area: 2001

#### Hart's-tongue Fern, *Asplenium scolopendrium*

- Provincial Ranking = S3, Provincial Status = Rare
- Last recorded in search area: 2001

#### Restricted Species

- EO ID number 16398
- Owen Sound OMNRF contacted for species information, confidential

### **APPENDIX 3**

- **Flora Listing: Rankings, Status and Floristic Quality Scoring**

**Georgian Escapes Ltd., Pyett Point Area - Resort Retreat : Flora Listing**

with current Ranking, Status and S. Ontario Floristic Quality Scoring

E. Part Lot 9 & 10, Georgian Range, Geograpghic Township of Keppel

Latin Name	Common Name	Native or Introduced	Rank		Status			FQA	
			Nat.	Prov.	Nat.	Prov.	Local	CC	CW
<i>Acer saccharum</i>	Sugar Maple	N	N5	S5	NAR	NAR	Common	5	-3
<i>Acinos arvensis</i>	Mother of Thyme	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
<i>Actaea rubra</i>	Red Baneberry	N	NNR	S5	NAR	NAR	Common	5	5
<i>Aesculus hippocastanum</i>	Horse Chestnut	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
<i>Amelanchier laevis</i>	Smooth Serviceberry	N	NNR	S5	NAR	NAR	Common	5	5
<i>Anemone acutiloba</i>	Sharp-lobed Hepatica	N	NNR	S5	NAR	NAR	Common	6	5
<i>Anemone virginiana</i>	Thimbleweed	N	N5	S5	NAR	NAR	Common	4	5
<i>Aralia nudicaulis</i>	Sarsaparilla	N	N5	S5	NAR	NAR	Common	4	3
<i>Berberis thunbergii</i>	Japanese Barberry	I	NNA	SNA	Exotic	Exotic	Exotic	0	4
<i>Betula papyrifera</i>	Paper Birch	N	N5	S5	NAR	NAR	Common	2	2
<i>Centaurea nigra</i>	Black Knapweed	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
<i>Cichorium intybus</i>	Chicory	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
<i>Convallaria majalis</i>	Lily of the Valley	I	NNA	SNAE	Exotic	Exotic	Exotic	0	5
<i>Cornus alternifolia</i>	Alternate-leaved Dogwood	N	NNR	S5	NAR	NAR	Common	6	5
<i>Cornus amomum</i>	Silky Dogwood	N	NNR	S5	NAR	NAR	Common	5	-4
<i>Cornus rugosa</i>	Round-leaved Dogwood	N	NNR	S5	NAR	NAR	Common	6	5
<i>Cornus stolonifera</i>	Red Osier Dogwood	N	NNR	S5	NAR	NAR	Common	2	-3
<i>Cynanchum rossicum</i>	Dog Strangling Vine	I	NNA	SNA	Exotic	Exotic	Exotic	0	0
<i>Cypripedium parviflorum var. pubescens</i>	Large-flowered Yellow Lady Slipper	N	N5	S5	NAR	NAR	Common	5	-1
<i>Daucus carota</i>	Wild Carrot	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
<i>Diervilla lonicera</i>	Bush Honeysuckle	N	NNR	S5	NAR	NAR	Common	5	5
<i>Elymus repens</i>	Twitch Grass	I	NNA	SNA	Exotic	Exotic	Exotic	0	3
<i>Erigeron philadelphicum</i>	Philadelphia Fleabane	N	N5	S5	NAR	NAR	Common	1	-3
<i>Erucastrum gallicum</i>	Dog Mustard	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
<i>Festuca pratensis</i>	Meadow Fescue	I	NNA	SNA	Exotic	Exotic	Exotic	0	4
<i>Festuca trachyphylla</i>	Sheep Fescue	I	NNA	SNA	Exotic	Exotic	Exotic	0	5

<i>Fragaria virginiana</i>	Wild Strawberry	N	NNR	S5	NAR	NAR	Common	2	1
<i>Fraxinus americana</i>	White Ash	N	NNR	S5	NAR	NAR	Common	4	3
<i>Fraxinus pennsylvanica</i>	Green Ash	N	N5	S4	NAR	NAR	Common	3	-3
<i>Juniperus communis</i>	Common Juniper	N	N5	S5	NAR	NAR	Common	4	3
<i>Lathyrus latifolius</i>	Sweet Pea	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
<i>Lonicera hirsuta</i>	Hairy Honeysuckle	N	NNR	S5	NAR	NAR	Common	7	0
<i>Lonicera morrowii</i>	Morrow's Honeysuckle	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
<i>Lonicera tatarica</i>	Tatarian Honeysuckle	I	NNA	SNA	Exotic	Exotic	Exotic	0	-3
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	I	NNA	SNA	Exotic	Exotic	Exotic	0	1
<i>Maianthemum canadense</i>	Mayflower	N	N5	S5	NAR	NAR	Common	5	0
<i>Melica smithii</i>	Smith's Melic Grass	N	NNR	S4?	NAR	NAR	Common	9	5
<i>Myosotis arvensis</i>	Field Forget-me-not	I	NNA	SNA	Exotic	Exotic	Exotic	0	0
<i>Origanum vulgare</i>	Oregano	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
<i>Ostrya virginiana</i>	Ironwood	N	N5	S5	NAR	NAR	Common	4	4
<i>Packera paupercula</i>	Balsam Ragwort	N	N5	S5	NAR	NAR	Common	7	-1
<i>Parthenocissus inserta</i>	Virginia Creeper	N	NNR	S5	NAR	NAR	Common	3	3
<i>Phalaris arundinacea</i>	Reed Canary Grass	N	N5	S5	NAR	NAR	Common	0	-4
<i>Phleum pratense</i>	Timothy	I	NNA	SNA	Exotic	Exotic	Exotic	0	3
<i>Physocarpus opulifolius</i>	Ninebark	N	NNR	S5	NAR	NAR	Common	5	-2
<i>Picea abies</i>	Norway Spruce	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
<i>Pilosella cespitosa</i>	Yellow Hawkweed	I	NNA	SNA	Exotic	Exotic	Exotic	0	0
<i>Pilosella officinarum</i>	Mouse-ear Hawkweed	I	NNA	SNA	Exotic	Exotic	Exotic	0	0
<i>Pinus strobus</i>	White Pine	N	N5	S5	NAR	NAR	Common	4	3
<i>Poa compressa</i>	Canada Bluegrass	I	NNR	SNA	Exotic	Exotic	Exotic	0	2
<i>Poa pratensis</i>	Kentucky Bluegrass	N	N5	S5	NAR	NAR	Common	0	1
<i>Populus tremuloides</i>	Trembling Aspen	N	NNR	S5	NAR	NAR	Common	2	0
<i>Potentilla recta</i>	Sulpher Cinquefoil	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
<i>Prunus virginiana</i>	Chokecherry	N	NNR	S5	NAR	NAR	Common	2	1
<i>Ranunculus acris</i>	Common Buttercup	I	NNA	SNA	Exotic	Exotic	Exotic	0	-2
<i>Rhamnus cathartica</i>	Common Buckthorn	I	NNA	SNA	Exotic	Exotic	Exotic	0	3
<i>Rhus typhina</i>	Staghorn Sumac	N	N5	S5	NAR	NAR	Common	1	5
<i>Ribes cynosbati</i>	Prickly Gooseberry	N	NNR	S5	NAR	NAR	Common	4	5
<i>Salix discolor</i>	Pussy Willow	N	NNR	S5	NAR	NAR	Common	3	-3
<i>Salix fragilis</i>	Crack Willow	I	NNR	SNA	Exotic	Exotic	Exotic	0	0

Shepherdia canadensis	Buffalo Berry	N	NNR	S5	NAR	NAR	Common	7	5
Solidago canadensis	Canada Goldenrod	N	N5	S5	NAR	NAR	Common	1	3
Sorbus decora	Showy Mountain Ash	N	NNR	S5	NAR	NAR	Common	8	3
Symphoricarpos albus	Snowberry	N	N5	S5	NAR	NAR	Common	7	4
Symphyotrichum lateriflorum	Calico Aster	N	N5	S5	NAR	NAR	Common	3	-2
Taraxacum officinale	Dandelion	I	N5	SNA	Exotic	Exotic	Exotic	0	3
Thuja occidentalis	White Cedar	N	N5	S5	NAR	NAR	Common	4	-3
Tilia americana	Basswood	N	N5	S5	NAR	NAR	Common	4	3
Toxicodendron rydbergii	Poison Ivy	N	N5	S5	NAR	NAR	Common	0	0
Tussock farfara	Colt's Foot	I	NNA	SNA	Exotic	Exotic	Exotic	0	3
Ulmus americana	American Elm	N	NNR	S5	NAR	NAR	Common	3	-2
Viburnum lentago	Nannyberry	N	NNR	S5	NAR	NAR	Common	4	-1
Viburnum opulus ssp. trilobum	Highbush Cranberry	N	NNR	S5	NAR	NAR	Common	5	-3
Vicia cracca	Cow Vetch	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
Vinca minor	Periwinkle	I	NNA	SNA	Exotic	Exotic	Exotic	0	5
Mean								2	2

Total number of Native species = 44 or 60%  
Total number of Introduced or Non-Native species = 30 or 40%  
74

National and Provincial Rank: Based on current 2018 Ontario Natural Heritage Information Center (NHIC) listings

NNA/ NNR defined as: No Ranking

N5 defined as: Very common

N4 defined as: Common

N3 defined as: Rare to uncommon species

N2 defined as: Very Rare

N1 defined as: Extremely Rare

SNA defined as: Unranked

S5 defined as: Secure

S4 defined as: Apparently Secure

S3 defined as: Vulnerable

S2 defined as: Imperiled

S1 defined as: Critically Imperiled

NAR defined as: Not At Risk / END defined as: Endangered / THR defined as: Threatened / SC defined as: Special Concern

National Status based on: Species At Risk Act, COSEWIC 2018 Listings

Provincial Status based on: Endangered Species Act 2007, NHIC 2018 and 2018 COSSARO Listings

Regional Status based on: Bruce-Grey Plant Committee: A Checklist of Vascular Plants for Bruce and Grey Counties Ontario

Ontario Ministry of Natural Resources and Forestry, 'Floristic Quality Assessment' (FQA) Scoring System:

CC = Coefficient of Conservatism, ranked 0 (grows anywhere) to 10 (very specific habitat requirements)

WI = Wetness Index, values from -5 (very wet) to 5 (very dry)

Note: CC scores of 8 or higher are indicator species of candidate Significant Woodlands

**APPENDIX 4**

- **Fauna Listing: Ranking and Status, Anuran Calling Survey and Point Count Location Map**

## Georgian Escapes Ltd., Pyett Point Area - Resort Retreat : Fauna Listing

with current Ranking, Status and Highest Breeding Bird Activity Code

E. Part Lot 9 & 10, Georgian Range, Geographhic Township of Keppel

### No species of conservation concern identified

#### Birds

Latin Name	Common Name	Ranking		Status			Breeding Codes	Recorded in Point Counts	Observed Range of Adult Numbers
		Nat.	Prov.	Nat.	Prov	Local			
<i>Anas platyrhynchos</i>	Mallard	N5	S5	NAR	NAR	Common	Conf	B1	2
<i>Archilochus colubris</i>	Ruby-throated Hummingbird	N5	S5	NAR	NAR	Common	Po-H	B3	1
<i>Bombycilla cedrorum</i>	Cedar Waxwing	N5	S5	NAR	NAR	Common	Pr	B1,B3,B4	4
<i>Cardinalis cardinalis</i>	Northern Cardinal	N5	S5	NAR	NAR	Common	Po-H	B2	1
<i>Carduelis tristis</i>	American Goldfinch	N5	S5	NAR	NAR	Common	Pr	B3, B4	3
<i>Cyanocitta cristata</i>	Blue Jay	N5	S5	NAR	NAR	Common	Pr	B1, B2	2
<i>Meleagris gallopavo</i>	Wild Turkey	N5	S5	NAR	NAR	Common	Po-H	B1	1
<i>Mniotilta varia</i>	Black-and-White Warbler	N5	S5	NAR	NAR	Common	Po-H	B4	1
<i>Picoides pubescens</i>	Downy Woodpecker	N5	S5	NAR	NAR	Common	Po-H	B2,B3,B4	3
<i>Poecile atricapillus</i>	Black-capped Chickadee	N5	S5	NAR	NAR	Common	Pr	B1,B2,B3,B4	9
<i>Sayornis phoebe</i>	Eastern Phoebe	N5	S5	NAR	NAR	Common	Po-H	B1	1
<i>Spizella passerina</i>	Chipping Sparrow	N5	S5	NAR	NAR	Common	Pr	B2, B3	5
<i>Tachycineta bicolor</i>	Tree Swallow	N5	S4	NAR	NAR	Common	Po-H	B1,B3	2
<i>Turdus migratorius</i>	American Robin	N5	S5	NAR	NAR	Common	Conf	B2, B3	2

#### Condensed Breeding Codes as per Bird Studies Canada Protocol

Ob = Observed bird outside of the Breeding Season

Ob -X = Observed in breeding season but no evidence of breeding

Po-H = Possible: Observed in suitable nesting habitat

Po-S = Possible: Singing/Calls in suitable nesting habitat

Pr = Probable: pairs observed, nest building, courtship display

Conf = Confirmed: active nest, egg shells, feeding young

#### Reptiles

Latin Name	Common Name	Ranking		Status			Observed Range of Adult Numbers
		Nat.	Prov.	Nat.	Prov	Local	
<i>Thamnophis sirtalis sirtalis</i>	Eastern Gartersnake	N5	S5	NAR	NAR	Common	1

Mammals	Latin Name	Common Name	Ranking		Status			Observed Range of Adult Numbers
			Nat.	Prov.	Nat.	Prov	Local	
	<i>Peromyscus maniculatus</i>	Deer Mouse	N5	S5	NAR	NAR	Common	1
	<i>Procyon lotor</i>	Raccoon	N5	S5	NAR	NAR	Common	1
	<i>Sylvilagus floridanus</i>	Eastern Cottontail	N5	S5	NAR	NAR	Common	1
	<i>Tamias striatus</i>	Eastern Chipmunk	N5	S5	NAR	NAR	Common	4
		White-tailed Deer	N5	S5	NAR	NAR	Common	1

Amphibians	none observed							
------------	---------------	--	--	--	--	--	--	--

Fish	None Observed							
------	---------------	--	--	--	--	--	--	--

Butterflies	<i>Cercyonis pegala</i>	Common Wood-Nymph	N5	S5	NAR	NAR	Common	2
	<i>Euphyes vestris</i>	Dun Skipper	N5	S5	NAR	NAR	Common	5

Dragonflies & Damselflies	<i>Amphiagrion saucium</i>	Eastern Red Damsel	N5	S4	NAR	NAR	Uncommon	1
---------------------------	----------------------------	--------------------	----	----	-----	-----	----------	---

**National and Provincial Rank: Based on current 2018 Ontario Natural Heritage Information Center (NHIC) listings**

NNA defined as: Not Ranked

SNA defined as : Unranked

N5 defined as: Secure

S5 defined as: Secure

N4 defined as: Apparently Secure

S4 defined as: Apparently Secure

N3 defined as: Vulnerable

S3 defined as: Rare to Uncommon

N2 defined as : Imperiled

S2 defined as: Very Rare

N1 defined as: Critically Imperiled

S1 defined as: Extremely Rare

NAR defined as : Not At Risk

END defined as : Endangered

THR defined as: Threatened

SC defined as: Special Concern

National Status based on: Species At Risk Act, and COSEWIC 2018 Listings

Provincial Status based on: Endangered Species Act 2007, NHIC 2018, COSSARO 2018 Listings

Regional Status lists based on:

Birds- Region No. 9 (Grey) 'Atlas Breeding Birds of Ontario 2001-2005'

Dragonflies & Damselflies (Grey) ' Regional Lists of Ontario Odonata'

**Georgian Escapes Ltd., Pyette Point Area- Resort Retreat**

**Breeding Bird Survey**



**APPENDIX 5**

➤ **Site Photographs**



Photo No. 1: Vegetation Community No. 1, June 2018

Photo No. 2: Vegetation Community No. 2, June 2018





Photo No. 3: Shoreline area fronting existing development, May 2018

Photo No. 4: Small existing harbor on property, August 2018





Photo No. 5: Development Area, north end of property, April 2018

Photo No. 6: Development area, south end of property, August 2018



**APPENDIX 6**

- **AWS Qualifications & EIS Experience**



**AWS Environmental Consulting Inc.**  
(Operating as Aquatic and Wildlife Services)

242090 Concession Rd. 3 Keppel,  
R.R. # 1, Shallow Lake, Ontario, Canada, N0H 2K0

Office: 519-372-2303, Email: [aws@gbtel.ca](mailto:aws@gbtel.ca)

Web site: [www.awsenvironmental.ca](http://www.awsenvironmental.ca)

**C.V. Summary: John D. Morton**

**Education**

- 1985: Graduate Sault College, Forestry Technician
- 1986: Honors Graduate Sault College, Fish & Wildlife Technologist
- 15 years training and experience with Ontario Ministry of Natural Resources as a contract & full time employee for Natural Heritage Programs and Biology/Ecology

**Work Experience Summary**

- 1997 to Present: Sole Proprietorship of **Aquatic and Wildlife Services**, specializing in Natural Heritage
  - Studies and Development Impact Assessments:
    - Over 250 Natural Heritage and Natural Environment Impact Study Reports for Land Use development proposals throughout Southwestern and Central Ontario in accordance to Legislation and Regulation for Federal and Provincial Agencies, Government and Niagara Escarpment Plan Policies and Conservation Authority Regulatory Lands.
      - Impact assessment technical reports ranging from: Single Residential Lot creations to Plan of Subdivisions for 100+ Lots, and Aggregate applications ranging from 5ha Wayside Gravel Pits to 120 ha Quarry Operations for both above and below groundwater table.
    - Design and Monitoring technical reports for Marina Development, , Water Crossings, Recreational Pond designs, Fish & Wildlife Habitat Restoration Plans and Managed Forest Plans.
    - Species At Risk Surveys for flora and fauna with study areas encompassing 20ha to 7000ha
    - Ontario Municipal Board expert witness testimony on Natural Heritage Features, Ecology, Development Impacts and Mitigation Techniques.
  - 1986 to 1997 : Resource Technician with the Ontario Ministry of Natural Resources, responsibilities included:
    - Backfill positions for Owen Sound Area Office District Biologist (Fisheries and Wildlife), and District Fish & Wildlife Management Officer.
    - Review and commenting on Provincial interests through Planning Review for development proposals.
    - Deputy Conservation Officer with completion of 5-week Enforcement Training Program, Provincial Offenses charges, court evidence presentation and convictions.
    - Fish & Wildlife Population and Habitat surveys and Rehabilitation Designs.

- Midhurst District Administrator and Program Coordinator of Wetlands and CFWIP Programs with annual budgeting and auditing roles.
- Fisheries Research Technician and Fish Culture Technician, Chatsworth Fish Culture Station.
- 1982 to 1986 : Contract Resource Technician With Ontario Ministry of Natural Resources, Grey-Sauble and Saugeen Conservation Authorities, responsibilities included:
  - Wetland Inventory Technician, Fish and Wildlife Population and Habitat Surveys.

### **Project Related Experience Summary**

- Fauna population and habitat surveys:
  - Salmonid biomass surveys through seining and Electrofishing.
  - Stream/Watershed surveys for habitat quality/conditions, fish passage/barriers, water quality assessment including Benthic Macro Invertebrate sampling.
  - Genetic research survey work on Chinook Salmon, Saugeen Muskellunge, Backcross Lake Trout.
  - Inland Lake surveys for water quality, thermal regimes, fisheries qualitative assessments through seining, trap netting, creel survey.
  - Stream/River/Lake Fisheries habitat enhancement and rehabilitation Plans.
  - Wintering Deer Yard mapping, quality assessment, carrying capacity calculations, herd health monitoring and natural reproduction rates.
  - Genetic research work on Bruce Peninsula Eastern Massassauga Rattlesnake and Black Bears including radio telemetry.
  - Breeding Bird surveys including waterfowl nesting surveys and natural recruitment success, Bald Eagle monitoring and banding, mapping of Owen Sound area significant production/staging areas.
  - Amphibian qualitative assessment within sensitive environments and monitoring population trends for wetland habitat conditions.
  - Species At Risk Surveys with habitat mapping and Ecological Land Classification community mapping for Copeland Forest, Shallow Lake Wetland, Meaford National Defense Training Centre, Grey County Pretty River Forest Tract and Oliphant Fens
- Flora species and habitat surveys:
  - Provincially Certified Wetland evaluator to Book 2 and 3 standards, with over 150 wetland evaluations and desktop upgrades completed. Wetland Evaluation instructor to former book 2 standards with successful training of 30+ candidates.
  - Southern Ontario Ecological Land Classification- Vegetation Community Mapping for sensitive and/or rare habitat types including fens, bogs, natural beaches, and alvars plus common woodland community types.
  - Botanical qualitative inventory works including identification, mapping of species of conservation concern with status levels and habitat types/condition assessments.
  - Tree marking for sustainable harvesting and rotational management of fuel wood and/or saw logs.
  - Native tree and shrub nursery operation with annual seedling production and retail sales of deciduous and conifer seedlings and saplings.

## **Certification & Training Courses:**

- Provincially Certified Wetland Evaluator to Book 2 and Book 3 Standards
- Provincial Class 1 Electrofishing Certification
- Provincial workshop training for Natural Heritage Environmental Impact Studies, Natural Hazard Studies and Non-Renewable (Aggregates) Impact Studies
- Level '1' OMNR Law Enforcement training
- Advanced Fish Habitat training and Habitat Impact Assessment
- Fluvial Geomorphology Workshop
- Stream Bioengineering Restoration training
- Cyprinidae Identification Workshop
- Wetland Restoration Techniques Training
- Provincial Managed Forest Tax Incentive Plan Approver
- Species-At-Risk Ontario Mussel Identification
- Bruce Peninsula Eastern Massassagua Rattlesnake Habitat Identification Training through Radio Telemetry work with Parks Canada
- Ecological Land Classification System for Southern Ontario
- Provincial Tree Making Course
- WHMIS
- Ontario Courts Evidence Collection and Presentation Training
- Department of Fisheries and Oceans South Georgian Bay Fish Habitat Issues Workshop
- Provincial Butternut Health Assessor
- Biotechnical Slope Stabilization Workshop.

Recipient of Provincial -OMNR Award for Fish Habitat Restoration Works & Stewardship

## C.V. SUMMARY: Judith Jones

### Education

B.S. Botany, University of Michigan, Ann Arbor 1980  
M.S. Cell Biology, University of Illinois, Chicago 1983  
Ontario Provincial Wetland Evaluator--certified 1999  
Canadian Environmental Assessment Agency—screening training, 2007  
Certificate of Proficiency in Spanish, Ryerson University, 2012

### Areas of Expertise

Plant identification and classification  
Vegetation identification and mapping (Ecological Land Classification; VSP; other protocols)  
Identification and mapping of Species at Risk and their habitats  
Life science inventories  
Field mapping of other natural features

**Judith Jones has been a consulting biologist since 1994. She has worked for AWS since 2005.**

### Highlights of Recent Projects

#### SURVEYS FOR ENVIRONMENTAL IMPACT

##### STUDIES (Subdivisions, Aggregates, etc.)

Aquatic and Wildlife Services since 2005  
Robin Craig Consulting since 2013  
M.K. Ince and Associates (2006)  
CEAA screening, Beausoleil First Nation (2007-8)

#### LIFE SCIENCE INVENTORIES

- 58 acres on Manitoulin Island for a species at risk farm plan.
- Ecological survey for an ecogift transfer.
- Copeland Forest
- Oliphant Shoreline
- Degrassi Point Prairie Remnant
- Carden Alvar ANSI
- 4 provincial parks on Manitoulin Island
- 4 conservation reserves on the Georgian Bay Coast
- Alvars of the Manitoulin District
- Manitoulin Island Escarpment ecosystem
- Field work: NCC's Ecological Survey of the Georgian Bay Coast.

#### RESEARCH

- Life history of Hill's Thistle (threatened)
- Demographics of Pitcher's Thistle (thr.)
- Niagara Escarpment: 50 years of forest change, VSP and point-quarter sampling.
- Sustainable harvest levels for Canada Yew (*Taxus canadensis*)
- Fire history of Oak Savannah vegetation
- Fire history of Manitoulin alvars

#### SPECIES AT RISK SURVEYS

- SAR surveys & mapping: Wikwemikong First Nation, Serpent River First Nation, Beausoleil First Nation, United Chiefs and Councils of M'nidoo M'nissing.
- Trent-Severn Waterway (Parks Canada)
- Fort St. Joseph National Historic Site
- Sault Canal National Historic Site
- Survey and mapping of Pitcher's Thistle and dune grasslands on Lake Huron

#### RECOVERY OF SPECIES AT RISK

- Author of more than 25 recovery strategies, action plans, management plans, and COSEWIC reports for endangered, threatened, and special concern species.
- Monitoring design and implementation for several species at risk and for prairie and alvar habitats.
- Coordinator of SAR monitoring by volunteers on Manitoulin Island

#### OTHER

- Gathering traditional ecological knowledge (TEK): Wikwemikong, Sagamok Anishnaabek, and elsewhere.
- Workshops about SAR for schools, Christian Island, Manitoulin Island
- Spring flora courses for non-biologists
- Layout and construction of trails (Misery Bay Provincial Park; other locations)
- Nature and environment columnist for the Manitoulin Expositor (1992-2004)

**Natural Heritage Environmental Impact Studies and Experience 1997-2018**

**Residential Subdivisions & Commercial Development**

**Grey County (16)**

Andpet 16th Ave Comm Deve.-Owen Sound  
 Loucks Subdivision- Chatsworth  
 Langen Subdivision-Shallow Lake  
 Boulter Subdivision- Keppel  
 Hilton Head Subdivision- Meaford  
 Oak Meadows Subdivision-Meaford  
 Mannerow Estates- Owen Sound  
 Georgian Shores Subdivision-Sarawak  
 Sutacriti Park Phase III- Sarawak  
 Debrincat Subdivision- Holland  
 Ferraro Subdivision- McCullough Lake  
 Andpet Bothwells Corner Comm.- Owen Sound  
 HSC Alvanley Comm. Cement Plant-Keppel  
 MacKinnon-Smart Subdivision-Francis Lake  
 Saugeen Cedar Heights-Hanover  
 Sunvale Homes-Durham

**Bruce County (27)**

Lakeside Woods Subdivision-Saugeen  
 Weatherhead Development- Eastnor  
 Maple Ridge Development-Amabel  
 Good Acres Development-Eastnor  
 Brown Subdivision- Kincardine  
 Sundance Estates- Bruce  
 Walker Estates Phase II-Amabel  
 Mystic Cove Subdivision-Kincardine  
 Black Subdivision-Kincardine  
 Mary Rose Subdivision-Saugeen  
 Gray Mildmay Development- Carrick  
 Lake Huron Escape-Bruce  
 MacKenzie Development-Saugeen  
 Harkins Harbour Development- Lindsay  
 Karen Investment Ltd-Port Elgin  
 Dent Dubdivision-Mildmay

Pegasus Trails-Saugeen  
 Lorne Beach Development- Kincardine  
 Mulholland Division St-Southampton  
 Chippewa Golf & Country Club-Saugeen  
 Leslie Subdivision-Saugeen  
 McMillan Subdivision-Saugen  
 Peacock's Meats and Groceries Inc-Tobermory  
 John Webster-Southampton  
 John Innes-Southampton  
 Moravian Subdivision-Southampton  
 Barry's Walkerton Subdivision  
**Wellington County (2)**  
 Murphy Subdivision - Mount Forest  
 South Saugeen Development-Mount Forest  
**Perth County (1)**  
 Maitland River Estates - Listowel

**Infrastructure Projects & Industrial Development**

**Bruce County (16)**

Barrow Bay North Shore Road  
 Bruce Road 21-Stoney Creek  
 Bruce Road 25  
 Kincardine-Park Street  
 Bruce Road 9  
 Bruce Road 12  
 Southampton Sanitary Sewers  
 Arran Landfill Expansion  
 Calhouan Drain  
 Bruce County Line Road Upgrades  
 Otter Creek-Dam Removal  
 McClure's Bridge  
 Silver Creek Bridges-Walkerton  
 Saugeen Shores 10th Line Drain  
 Mildmay Elora Street Dam Removal  
 South Bruce Carrick-Normanby Meux Cr Bridge

**Grey County (19)**

Owen Sound 7th Street Drain  
 Highway 4 Hanover-Stream Crossing  
 Owen Sound 6th Ave Stream Course  
 Sarawak Carney Street SWM  
 Southgate- Camp Creek Crossing  
 Owen Sound 9th St. Bridge  
 Owen Sound 10th St. Extension  
 Grey County Line  
 Greir Creek Bridge  
 Chatsworth- Sewage Upgrade  
 Southgate-Stream Realignment  
 Mill Creek Crossing  
 Dipple Drain  
 West Grey-Traverston Creek Realignment  
 Owen Sound-Sydenham River Stabilization  
 Minnihill Creek Fish Habitat Improvements

Town of Hanover Business Park  
 Viking-Cives Ltd - Mount Forest  
 Sydenham Heights-Owen Sound Servicing

**Huron County (2)**

Wingham Force main  
 Goderich Pier Stabilization

**Wellington County (2)**

Town of Minto-Coon Creek 5-Year Monitoring  
 Town of Minto-Palmerston Industrial Park

Natural Heritage Environmental Impact Studies and Experience 1997-2018

**Recreational and Energy Land Use Development**

**Grey County (29)**

Monterra Plateau Stream Realignment  
Devils Glen Ski Hill Expansion  
Morris Wetland Creation  
Rocky Saugeen Campground Expansion  
Sobiski Property Shoreline Stabilization  
Pesnail Property Shoreline Stabilization  
Carmicheal Pond Cleanout  
Overton Pond Design  
Beaver River Bank Stabilization  
Andrews Pond Design  
Hrodzicki Storage Building  
Klages Tree Retention Plan  
Cedar Run Horse Park Expansion  
Osler Bluff Shi Club-Storage Building  
Osler Bluff Ski Club-Water Reservoir  
Blue Mount. Orchard Run Ski Hill Expansion  
Walters Falls Hydro Facility Proposal  
Blue Mount Resort-Roller  
Blue Mount. Resort Stream Monitoring  
AndPet Commercial Development  
East West Exchange Retreat Camp  
Lahman Comm. Development  
Blue Mount. Resort SWMP Outlet Monitoring  
Lee Pond Design  
Morrison Marina  
Meaford-Cemetery Creek Realignment  
Goodyear-Effluent Monitoring  
Miller Group Ltd, -Owen Sound Indus. Park  
Parker-Nature Retreat Resort

**Bruce County (13)**

Blue Heron Parking Lot  
Home Hardware-Sauble Beach  
Mystic Cove Stream Realignment  
Casey Property-Bank Stabilization  
Wells Trucking-Mildmay  
MacKenzie Marina Dredging  
Pike Bay Marina Dredging  
Chesley Lake Cottagers Assoc. Dredging  
Miller Property Shoreline Dredging  
Hood Property Shoreline Dredging  
Smith Com. Expansion  
LEED Tree Retention Plan  
Mildmay-Hamel's Pond and Elora Street Dam

**Simcoe County (3)**

Hamilton Brothers Ltd.-Stream Restoration  
Devils Glen Stream Realignment  
Devils Glen Club House Expansion  
Robitaille Wind Farm-Cedar Point

**Dufferin County (2)**

Bowman Comm. Development  
Cedar Highlands Ski Club

**Wellington County (1)**

White's Creek Restoration

**Manitoulin Island (2)**

Manitoulin Streams Association  
Municipality Official Plan

Natural Heritage Environmental Impact Studies and Experience 1997-2018

**Lot Severances & Building Envelopes**

**Grey County (94) and NEC**

Zaferis Building Envelope  
Clancy- 20th Street Building Envelope  
Emmerson Building Envelope  
Shantz Building Envelope  
Fligg Building Envelope  
Todd Severance  
Underwood Building Envelope  
Klages Severances  
Beacock Building Envelope  
McNeil Building Envelope  
Gilbert Severances  
Dillman Severance  
Thom Severances  
DiFransco Severances  
Farnenhorst Building Envelope  
Biesinger Severances  
Love Building Envelope  
Braun Severances  
Legge Building Envelope  
Wilcox Building Envelope  
HSC Clavering Severances  
Holmes Building Envelope  
Brulette Severances  
Philipp Severances  
Sheppard Severance  
Pfaff Building Envelope  
Wilmer Severances  
Doherty Building Envelope  
Menaul Severance  
McNabb Building Envelope  
Toombs Building Envelope  
McGowan Building Envelope  
Lobban Severance

Hughes Building Envelope  
Wilson Building Envelope  
Smith Severance  
Currie Building Envelope  
Valette Building Envelope  
Robinson Severance  
Taylor Building Envelope  
Lowe Building Envelope  
Donavon Building Envelope  
Lupia Building Envelope  
Zeggil Severances  
McNeil Severance  
Byers Building Envelope  
Gilmour Building Envelope  
Martindill Severance  
Peach Severance  
Ryan Severance  
J. Martin Building Envelope  
Shrek Building Envelope  
James Severance  
Maxwell Severance  
Harris Severance  
R. Martin Building Envelope  
Philipp Building Envelope  
Bauman Building Envelope  
Berg Building Envelope  
Shrek Severance  
Yoder Severance  
Hollingshead Severance  
McKay Building Envelope  
Molner Severance  
Detzier Severance  
Baragar Building Envelope

Wiley Severance  
Davies Severance  
Stewart Severances  
Irwin Building Envelope  
Valent Building Envelope  
Barfoot Building Envelope  
Voisin Building Envelope  
Colborne Building Envelope  
Tengler Building Envelope  
Langerap Building Envelope  
Wattie Building Envelope  
Hall Severance  
Hrodzicki Building Envelope  
Nicholls Dwelling Expansion  
NEC-Caframo Tree Preservation Plan  
Elliott Building Envelope  
Spaleta Building Envelope  
Haslam Severance  
Bethune Severance  
O'Sullivan Building Envelope  
McGlynn Building Envelope  
Edgar Lot Severances  
Moore Buliding Envelop  
Dr. Bond Lot Severance  
Craig Building Envelope  
Godwin Building Envelope

**Natural Heritage Environmental Impact Studies and Experience 1997-2018**

<b>Lot Severances &amp; Building Envelopes continued</b>	<b>Species At Risk and Biological Surveys</b>
<p align="center"><b>Bruce County (38) and NEC</b></p> <p>Lee Building Envelopes Hall Building Envelope Vespasiano Severance Matheson Severances Seeman Severance P. MacDonald Severances Arcaro Building Envelope Goetz Severances Chippewa Golf Course Severances S. MacDonald Severances Zepf Severances Porto Severance B. Elliot Severances Royal Homes-Kincardine Ferguson Point Severances CAW-Saugeen Beach Severances Siekierski Building Envelope Murray Severance Walker Severances Janssen Building Envelope Knight Building Envelope Thorn Severance Kramer Building Envelope Smith Severances D. Elliot Severance O'Conner Severances McLay Severances Burley Building Envelope</p>	<p align="center"><b>Bruce County (12)</b></p> <p>Rankin River-Sky Lake SAR Study Rankin River-Boat Lake SAR Study Rankin River-Isaac Lake SAR Study Beatty Saugeen River-Thermal Grey/Bruce Wetland Evaluation Upgrades Spring Creek Fish Habitat Saugeen River-Muskellunge Habitat Beatty Saugeen River-Smolt Passage Chesley Lake Angling Winter Creel Peninsula Black Bear Radio Tag-Dens Peninsula Winter Yard Deer Browse Denny's Dam Fishway Monitoring</p> <p align="center"><b>Grey County (3)</b></p> <p>Shallow Lake SAR Study Meaford National Defence Base SAR Study Pretty River Valley County Forest SAR Study</p> <p align="center"><b>Simcoe County (1)</b></p> <p>Copeland Forest SAR Study</p> <p align="center"><b>Region of Peel (1)</b></p> <p>Ratray Marsh SAR Study</p>
	<p align="center"><b>Huron County (2)</b></p> <p>Wingham Golf Course Severances Kraemer Building Envelope</p> <p align="center"><b>Simcoe County (2)</b></p> <p>Wilbert Severances Alliance Homes Building Envelopes</p> <p align="center"><b>Dufferin County (1)</b></p> <p>Preist Severance</p> <p align="center"><b>Wellington County (2)</b></p> <p>Town of Erin-Weber Building Envelope Town of Erin-Langen Severance</p>

**Natural Environment Impact Assessment Reports for Aggregate Applications**  
Southern & Central Ontario: 100+ Technical Reports for Pits and Quarries, above and below watertable  
with successful representation at Ontario Municipal Board Hearing, Niagara Escarpment Hearings,  
County and Municipal Council Presentation and Legal Court Proceedings