



**Scoped Environmental Impact Study**

**65 Nettleton Drive**

**Town of Penetanguishene**

Prepared for:  
Brenda Light-MacKinnon

Prepared by:  
Azimuth Environmental  
Consulting, Inc.

October 2022

AEC 21-523



Environmental Assessments & Approvals

October 27, 2022

AEC 21-523

Brenda Light-MacKinnon  
39 Oakeside Court  
Barrie, Ontario L4N 5V5

Re: **Scoped Environmental Impact Study for a Proposed Development Parcel at  
65 Nettleton Drive, Town of Penetanguishene, County of Simcoe**

Dear Ms. Light-MacKinnon:

Azimuth Environmental Consulting, Inc. was retained to provide a Scoped Environmental Impact Study report for a proposed future residence at the address above. The purpose of this report is to provide the Town of Penetanguishene with an understanding of natural environmental conditions and potential for impacts related to a future development envelope. The assessment concludes that a proposed development with the potential development envelope can be achieved without anticipated impacts to ecological functions of natural heritage features, including Species at Risk, providing the recommendations herein are followed.

Should you have any questions or require additional information please do not hesitate to contact the undersigned.

Yours truly,  
AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Dan Stuart, M.Env.Sc.  
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Fisheries Ecologist/Partner



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## 1.0 INTRODUCTION

Azimuth Environmental Consulting, Inc. (Azimuth) was retained by Brenda Light-MacKinnon (“the proponent”) to prepare a Scoped Environmental Impact Study (Scoped EIS) for a proposed building envelope intended to accommodate a future residence at 65 Nettleton Drive in the Town of Penetanguishene (Town), Simcoe County (County) (Figure 1). It is our understanding that the proponent is undertaking this Scoped EIS as a due diligence exercise for future project planning, due to the presence of a drainage feature traversing the property and adjacent lands.

The purpose of this Scoped EIS is to identify candidate Key Natural Heritage Features (KNHFs) present in the study area and address potential impacts to those candidate KNHFs. A review of background information, combined with a scoped field program, was undertaken in winter 2021 and spring 2022 to identify candidate KNHFs. The report also examines potential for Species at Risk (SAR) protected under Ontario’s *Endangered Species Act, 2007* (ESA) in the study area. The potential for negative impacts to KNHFs and SAR resulting from the proposed development is considered and recommendations for avoidance and mitigation are provided.

For the purposes of this Scoped EIS, the study area comprises the property, as shown on Figures 1-3, and adjacent lands [within approximately 120 metres (m)] of the property limits. Natural features in the overall planning area beyond the defined study area limits are discussed where applicable throughout this report.

## 2.0 PLANNING CONTEXT

### 2.1 Provincial Planning Policy (2020)

The Provincial Policy Statement (PPS) (MMAH, 2020) outlines policies related to natural heritage features (Section 2.1) and water resources (Section 2.2). Ontario's *Planning Act*, (1990) requires that planning decisions shall be consistent with the PPS. The study area for this assessment is located entirely in Ecoregion 6E. According to the PPS development and site alteration shall not be permitted in:

- *Significant wetlands* in Ecoregions 5E, 6E and 7E; and,
- *Significant coastal wetlands*.

Similarly, Section 2.1.5 of the PPS states that, unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions, development and site alteration shall not be permitted within:

- a) *significant wetlands* in the Canadian Shield north of Ecoregions 5E, 6E; and 7E;



- b) *significant woodlands* in Ecoregions 6E; and 7E;
- c) *significant valleylands* in Ecoregions 6E; and 7E;
- d) *significant wildlife habitat*;
- e) *significant areas of natural and scientific interest*; and,
- f) *coastal wetlands* in Ecoregions 5E, 6E; and 7E that are not subject to policy 2.1.4(b)

It is ultimately the responsibility of the Province and/or the Municipality to designate areas identified within Section 2.1.4 and 2.1.5 of the PPS as “significant”.

Section 2.1.6 of the PPS states that development and site alteration is not permitted in fish habitat except in accordance with federal and provincial requirements.

Section 2.1.7 of the PPS states that development and site alteration shall not be permitted in the habitat of Endangered and Threatened species, except in accordance with provincial and federal requirements.

Furthermore, under Section 2.1.8 of the PPS, no development or site alteration will be permitted on lands adjacent to 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 there will be no negative impacts on the natural features and their ecological functions.

## **2.2 Endangered Species Act, 2007**

Ontario’s ESA provides regulatory protection to Endangered and Threatened species prohibiting harassment, harm and/or killing of individuals and destruction of their habitats. Habitat is broadly characterized within the ESA as the area prescribed by a regulation as the habitat of the species or an area on which the species depends, directly or indirectly, to carry on its life processes including reproduction, rearing of young, hibernation, migration or feeding.

The various schedules of the ESA included under O. Reg. 230/08 identify SAR in Ontario. These include species listed as Extirpated, Endangered, Threatened and Special Concern. As noted above, only species listed as Endangered and Threatened receive protection from harm and destruction to habitat on which they depend.

## **2.3 County of Simcoe**

The property is designated by the County’s Official Plan (OP; 2016) as occurring entirely in the Settlements designation (Schedule 5.1; Appendix A). The property and adjacent lands do not occur in the vicinity of mapped Greenlands, Greenbelt Plan Area or Growth



Plan Area, Niagara Escarpment Plan Area, Oak Ridges Moraine Conservation Plan Area, Locally Significant Wetland or Area of Natural and Scientific Interest (ANSI) – Provincial or Regional (Schedule 5.1, Schedule 5.2.2 and Schedule 5.2.3; Appendix A).

The property and adjacent lands are not in the vicinity of a mapped Provincially Significant Wetland (PSW), watercourse or Woodlands (Schedule 5.2.2-5.2.3, Simcoe County Map; Appendix A). As per Simcoe County mapping, the property is not mapped within a natural heritage designation, however a unit belonging to the Penetang Marsh (PE3) PSW is mapped approximately 165m northwest of the property limit associated with the Penetang Bay (Georgian Bay) shoreline (Appendix A).

#### **2.4 Town of Penetanguishene**

The property is designated by the Town's OP (2018) as being partly in a Neighbourhood Area and partly in a Major Open Space Area (Schedule A; Appendix A). None of the property is mapped as an Environmental Protection Area (EP) or as being in a Site Specific Policy Area (Schedule A; Appendix B1). Since the Town's EP overlay includes Significant Woodlands and fish habitat, there are no mapped Significant Woodlands or fish habitat mapped as occurring in the study area based on OP mapping.

#### **2.5 Federal Fisheries Act**

The *Fisheries Act* includes protections for fish and fish habitat in the form of standards, codes of practice, and guidelines for projects near water. The *Fisheries Act* provides protection against the “death of fish, other than by fishing”, (Section 34.4(1)) and the “harmful alteration, disruption or destruction of fish habitat”, (Section 35(1)), otherwise known as HADD. In cases where impacts to fish and fish habitat cannot be avoided, and the project does not fall within waterbodies where Fisheries and Oceans Canada (DFO) review is not required, proponents are asked to submit a request for review to their Fish and Fish Habitat Protection Program regional office to determine approval requirements. All projects are encouraged to avoid causing the death of fish and a HADD of fish habitat, using measures to protect fish and fish habitat that include standards and codes of practice for common works, undertakings and activities.

### **3.0 STUDY APPROACH**

Azimuth completed a preliminary site visit on December 6, 2021 to carry out an initial assessment of the general vegetation communities and environmental features in the study area. The preliminary investigation was undertaken under winter conditions, therefore some plant species in the vegetation community limits were obscured by snow cover. The initial visit also included detailed bat snag mapping under leaf-off conditions according to provincial protocols (MECP, 2021; MNRF, 2015a) to identify mature trees





with potential to provide maternity and/or day roosting habitat function for Endangered bat species including Little Brown Myotis, Northern Myotis, and Tri-colored Bat.

Prior to in-season field studies, an initial classification of habitats was undertaken using recent air photo imagery for an area encompassing the study area. Vegetation boundaries were then checked in the field and delineated on June 10, 2022 (Figure 2). Vegetation community types were classified using the Ecological Land Classification for Southern Ontario: First Approximation (ELC; Lee *et al.*, 1998, 2008). An inventory of vascular plant species in the study area was generated, including consideration for Butternut (*Juglans cinerea*, Endangered) and Black Ash (*Fraxinus nigra*, Endangered).

Observations of incidental wildlife (*e.g.* direct, indirect – tracks, scat) were conducted as a matter of course throughout the field program.

The field program was undertaken by qualified Terrestrial Ecologists with knowledge of rare, Threatened and Endangered species with potential to occur in the area.

### **3.1 Amphibian Breeding Survey**

One early-spring evening calling amphibian survey was completed on April 25, 2022 (21:38-21:43, minimum air temperature 5°C) in accordance with the Great Lakes Marsh Monitoring Program (Bird Studies Canada, 2008). As per the protocol, the 5 minute (min) survey was conducted during the period between 30min after sunset and midnight, on an evening with no rain and winds Beaufort <4. The survey station location provided appropriate coverage of potentially suitable habitat in the study area plus possible adjacent wetland habitat for breeding amphibians. Subsequent evening amphibian surveys were not carried out due to an absence of amphibian activity within the study area during the April 2022 survey.

### **3.2 Breeding Bird Surveys**

Two dawn breeding bird surveys were conducted on June 10, 2022 (08:44 to 08:49) and June 27, 2022 (08:49 to 08:54) guided by the point count methodology in Appendix D of the OBBA Guide for Participants (2001). Surveys were conducted no earlier than one half hour before sunrise and were completed prior to 10:00a.m. Surveys were completed under suitable weather conditions (*i.e.* no precipitation and light winds [Beaufort wind scale  $\leq 3$ ]), with an observation period of 5min carried out at the point count station shown on Figure 2.



### **3.3 Species at Risk**

A SAR screening was undertaken for the scope of this assignment that compared the habitat requirements of species with potential to occur at the County scale, refined based on species within range of the study area. Where potentially suitable habitat was present, the assessment also included SAR occurrence records from the Natural Heritage Information Centre (NHIC) database (Appendix A). Habitat requirements and appropriate designations (Endangered, Threatened or Special Concern) are outlined in Table 1. The SAR assessment followed the Ministry of the Environment, Conservation and Parks (MECP) guidance document - Client's Guide to Preliminary Screening for SAR (MECP, 2019). The screening was based on air photo interpretation combined with on-property evaluation of habitat in the study area.

### **3.4 Fisheries**

An application for a License to Collect Fish (LCF) was submitted to the Ministry of Natural Resources and Forestry (MNR) on March 28, 2022, and secured on May 18, 2022 - LCF for Scientific Purposes #110096 (Appendix B). Correspondence regarding fish habitat policies between the client and the Town indicated that the Town would consider the consultant's expertise pertaining to any fish habitat/fish habitat buffer recommendations.

In addition to the background information request, on May 20, 2022, Azimuth Fisheries Ecologists completed a field visit to review onsite fish habitat, and sample for potential fish within the drainage feature utilizing a backpack electro-fisher. Azimuth sampled for fish within the entire property limits where potential fish habitat was observed.

## **4.0 EXISTING CONDITIONS**

### **4.1 Land Use**

The property, located at 65 Nettleton Drive, is situated near the west end of Nettleton Drive south of Penetang Bay (Georgian Bay). The property is bound by Nettleton Drive to the south, urban residences to the east and west, Penetanguishene Rotary Champlain Wendat Park to the north. An isolated shallow marsh is associated with the residential property located beyond the western property boundary. An east-west ditch and municipal park are located off-property to the north. The property is vacant and undeveloped (Figure 1, Figure 2).

Adjacent lands to the north and southwest (Penetanguishene Rotary Champlain Wendat Park) comprise woodland and wetland areas. The Penetang Bay shoreline is located north of the property. The property is located within a developed residential area with landscape-level woodlands and wetlands farther west toward Champlain Road.



## 4.2 Vegetation

Vegetation communities on the property were determined in accordance with the ELC system and illustrated on Figure 2. A detailed vascular plant species list observed on the property is provided in Table 2. The following ELC vegetation communities were observed on the property:

- FOMM8-1 - (Fresh-Moist Poplar Mixed Forest); and,
- SWTM3-6 - (Mixed Willow Mineral Thicket Swamp).

The FOMM8-1 vegetation community is a relatively open woodland feature with a moderately sparse canopy/supercanopy consisting of mature Balsam Poplar (*Populus balsamifera*) and occasional White Spruce (*Picea glauca*). The subcanopy layer is moderately dense and comprises Balsam Poplar, White Spruce, White Birch (*Betula papyrifera*) and Crack Willow (*Salix fragilis*). The understory was observed to consist of Balsam Poplar, Eastern White Cedar (*Thuja occidentalis*), Manitoba Maple (*Acer negundo*), and Common Buckthorn (*Rhamnus cathartica*) in descending order of density. The ground layer included Balsam Poplar, Canada Goldenrod (*Solidago canadensis*), asters (*Symphotrichum spp.*) and various graminoids.

The SWTM3-6 wetland community in the northeast portion of the property is dominated by Broad-leaved Cattail (*Typha latifolia*), with Flat-topped White Aster (*Doellingeria umbellata*), Bittersweet Nightshade (*Solanum dulcamara*), and various sedge associates. A limited number of willows (*Salix spp.*) and Balsam Poplar stems also occur in the feature.

The FOMM8-1 and SWTM3-6 vegetation communities were observed to continue for approximately 8-10 metres (m) beyond the northern property boundary. In addition to the SWT wetland on the property, Shallow Marsh (MAS) was observed (from on-property) immediately adjacent to the southwestern property boundary. All wetlands located on and directly adjacent to the property were observed to be dry during June 2022 surveys, and are therefore expected to be inundated for only a brief period in the spring following snow melt.

There were no elements of occurrence on the property or adjacent lands for provincially Endangered or Threatened plants, or provincially rare plant species, according to MNRF's NHIC database (Appendix A). No Butternut or Black Ash trees were observed in the study area. Further, no provincially rare species were observed during the field



program. None of the vegetation communities or species documented are of federal or provincial conservation concern (MNRF, 2022).

### **4.3 Wildlife**

No evening calling amphibian activity was observed during the early spring evening amphibian survey, and as such May and June evening amphibian surveys were not undertaken.

Direct and indirect observations of incidental wildlife (*e.g.* tracks, scat, fur) were collected as a matter of course during the field program. The following mammal species and signs thereof were noted as incidental observations within the study area: Eastern Cottontail and Eastern Gray Squirrel.

#### **4.3.1 Bats and Bat Habitat**

Several bat species including (but not limited to) Little Brown Myotis, Northern Myotis and Tri-colored Bat may utilize any trees [*e.g.* at least 25 centimetres (cm) diameter at breast height (DBH)] in early stages of decay (“snag” trees) for the purposes of maternity colony roosting and day roosting during the late spring and summer seasons (MECP, 2021; MNRF, 2015a).

In accordance with provincial protocols (MNRF, 2015a), a detailed survey was conducted during the leaf-off period on December 6, 2021 in the study area to screen for presence of “snag” trees with potential to provide refuge and maternity roosting habitat for SAR and other bat species. The property had several mature, scattered candidate habitat trees varying in quality. High quality snag trees with one or more larger or several cracks, holes, splits, *etc.* with potential to provide access for roosting bats were distinguished from non-high quality snags and identified during the bat habitat inventory. One candidate bat snag tree was determined to be high quality and may potentially be used preferentially by SAR bats (Figure 2).

#### **4.3.2 Breeding Bird Surveys**

A total of 20 bird species were recorded during dawn breeding bird surveys, all of which are typical of urban/semi-urban landscapes in residential areas (Table 3). Two (2) additional bird species (White-breasted Nuthatch and Red-breasted Nuthatch) were recorded incidentally during other site surveys, and not documented during dawn breeding bird surveys.



#### 4.4 Species at Risk

A screening for SAR occurred in the planning area based on potentially suitable habitat features identified during the property investigations (Table 1). The SAR assessment fully considers SAR with potential to occur in the overall planning area. Based on this assessment, in combination with vegetation communities and other environmental features observed during property visits, the following potential species are considered below in this report:

- **Threatened and Endangered:** Little Brown Myotis, Northern Myotis, Tri-colored Bat

#### 4.5 Wetlands

Wetlands in the study area are not identified as provincially or locally Significant Wetland, or similar designation on municipal or provincial mapping resources. The wetlands observed in the field remain unevaluated by Provincial or Municipal resources and, as such, wetlands in the study area are treated as “Other Wetlands” for the purposes of this assessment.

#### 4.6 Candidate Significant Woodland

Woodlands in the study area are not identified as Significant Woodland according to municipal or provincial mapping resources.

According to the Natural Heritage Reference Manual (NHRM; OMNR, 2010), woodlands are considered as a single continuous feature if intersected by narrow gaps 20m or less in width between crown edges. Using the polygon function in Google Earth Pro, woodlands on the property (FOMM8-1; Figure 2) were estimated to be approximately 0.2ha in size within the property boundary, however were part of a larger minor woodland feature measuring approximately 0.8ha in size. Woodlands on the property do not meet the minimum size criterion identified in the NHRM for consideration as Significant Woodland. As such, the woodland will not be considered a Candidate Significant Woodland for the purposes of this assessment.

#### 4.7 Candidate Significant Valleyland

No portion of the study area was identified as Significant Valleyland, nor assigned a similar designation on municipal or provincial mapping resources.

There are no valleyland features located in the study area according to standards presented in the NHRM. Although a drainage feature was identified on the property, no



portion of the study area fulfills the well-defined valley morphology and landform prominence required to be considered Candidate Significant Valleyland.

#### **4.8 Candidate Significant Wildlife Habitat**

Assessment of the potential for Significant Wildlife Habitat (SWH) in study area was conducted using the criteria outlined in the Significant Wildlife Habitat Technical Guide (OMNR, 2000) and the accompanying the Ecoregion 6E Criteria Schedules (MNR, 2015b). The following Candidate SWH types have potential to be present in the study area based on results of the field program:

- Bat Maternity Colonies; and,
- Seeps and Springs.

#### **4.9 Areas of Natural and Scientific Interest**

There are no Areas of Natural and Scientific Interest in the study area, according to municipal or provincial mapping resources.

#### **4.10 Fish and Fish Habitat**

The property contains one drainage feature, as shown on Figure 2. The drainage feature originates from adjacent residential lots along the eastern property edge where a series of underground pipes (two) discharge into the drainage feature in conjunction with a surface ditch feature from an adjacent lot. It is expected that groundwater seepage within the property limits also contributes to the feature. At the time of the site investigations, flow was observed from both the surface ditch feature and underground piping. The drainage feature flows in a westerly direction, continuing on an east-west axis toward the adjacent property, where it discharges into a series of man-made ditches/culverts before eventually discharging into Georgian Bay. Between the property limits and eventual discharge to Georgian Bay, numerous barriers/areas of underground flow exist, therefore limiting the potential for fish to access the drainage feature from Georgian Bay.

The drainage feature was observed to be approximately 50-80cm in wetted width, with an average depth of 3-5cm, except where a large pool (2m x 1m with 30–40cm depths) existed at the eastern limit of the property. Observed substrates included a mix of sand, fine gravel, soils and allocthonous materials. Water-cress (*Nasturtium spp.*) was observed within wetted portions of the drainage feature, indicative of potential ground water outflow throughout the feature.

On May 20 2022, Azimuth completed fish sampling throughout the drainage feature within the property limits. Sampling was completed using a backpack electro-fisher



under an MNR Scientific Collectors Permit (Licence #110096). No fish were captured or observed during the sampling event. As previously stated, based on the large sections of downstream drainage being contained underground, impassable culverts, and the upstream limits of flow being two outlet pipes from existing residential lots, it is expected that the drainage feature does not support direct fish habitat, and can be classified as indirect fish habitat.

Due to the drainage feature being indirectly connected to Georgian Bay (direct fish habitat) the drainage feature remains protected under the Federal *Fisheries Act*, with maintaining the form and function of the feature (permanent flow contribution) the primary goal under a post-development scenario.

There are no records of aquatic Threatened or Endangered species in this watershed, however Fisheries and Oceans Canada (DFO) records indicate the shoreline of Penetang Harbour provides habitat for Northern Sunfish (Special Concern under the federal *Species at Risk Act*).

## **5.0 NATURAL HERITAGE FEATURES SUMMARY**

Results of Azimuth's investigation, combined with review of background information, indicate the potential for the following candidate KNHFs in the study area:

- Potential Habitat for Threatened and Endangered Species;
  - Little Brown Myotis, Northern Myotis, Tri-colored Bat;
- Other Wetlands;
- Candidate Significant Wildlife Habitat;
  - Bat Maternity Colonies;
  - Seeps and Springs; and,
- Indirect Fish Habitat – Drainage Feature

## **6.0 PROPOSED DEVELOPMENT**

The proposed development involves potential construction of a future residence. The future development is recommended to be located within the proposed conceptual building envelope shown on Figure 3, based on the candidate KNHFs identified in the study area. The recommended conceptual building envelope (Figure 3) considers the candidate KNHFs outlined in this report, based on the scale of the undertaking.

As illustrated on Figure 3, the conceptual building envelope has been recommended to be limited to within the southern region of the property (*i.e.* south of the recommended 5m



fish habitat buffer to the drainage feature that bisects the central portion of the property on an east-west axis.

## **7.0 IMPACT ASSESSMENT**

This impact assessment for the proposed future development is prepared in regards to the recommended conceptual building envelope on the property, as described above and illustrated on Figure 3.

### **7.1 Habitat for Threatened and Endangered Species**

Impacts with regards to the ESA and Habitat of Threatened or Endangered Species are covered under Section 9 and 10 of the ESA. Section 9 deals directly with killing, harming, or harassing living members of a species while Section 10 covers destruction or damage to habitat of Threatened or Endangered species. The following Threatened and Endangered species have the potential to occur in the study area:

- Little Brown Myotis, Northern Myotis, Tri-colored Bat (Endangered)

#### **7.1.1 Little Brown Myotis, Northern Myotis, Tri-colored Bat (Endangered)**

Little Brown Myotis, Northern Myotis and Tri-colored Bat may utilize woodlands with trees that have “snag” features that can provide function as maternity or day roost sites. During field surveys, potentially suitable bat snag trees were observed in the FOM woodlands on the property (Figure 2).

Although a site plan for the proposed development has not been prepared at this time, given the conformation of the recommended conceptual building envelope (Figure 3), the development will likely result in removal of a small number of candidate bat snag trees on the property. Based on the position of the one high quality candidate bat snag tree (in the middle of the recommended conceptual building envelope), tree removals are expected to include this high quality snag tree.

For projects of a similar scope, Azimuth engaged the Ministry of the Environment, Conservation and Parks (MECP) regarding potential impacts to woodland bat habitat. Guidance was provided via the Bat Survey Standards Note (MECP, 2021) which clarifies the following:

*“If a proposed activity will avoid impairing or eliminating the function of habitat for supporting bat life processes (e.g. remove, stub, etc. a small number of potential maternity or day roost trees in treed habitats) but the timing of tree removal will avoid*





*the bat active season (April 1-September 30 in Southern Ontario)”... “then there is no need to conduct species at risk bat surveys of treed habitats.”*

The above is consistent with Azimuth’s understanding that when suitable habitat availability is not limiting, a mitigation approach that restricts vegetation removals during the active period for bats is a suitable approach to avoid a contravention to SAR bat individuals or habitats under Section 9 and Section 10 of the ESA.

In Azimuth’s opinion, potential removal of a small number snags on the property (potentially including one (1) high quality snag tree) is not expected to compromise the overall habitat availability within the adjacent connected woodland unit, or extensive woodland and woodland/wetland complexes located approximately 400m northwest and southwest of the property. As such, providing tree removals are avoided during the April 1-September 30 period and other mitigation measures described in Section 8 of this report are followed, there is no expectation that the proposed development will result in impacts to Little Brown Myotis, Northern Myotis, and Tri-colored Bat if present on the property.

## **7.2 Other Wetlands**

The proposed development would not result in direct removal of wetlands on the property, nor will any portion of the property be subject to disturbance within 5m of a wetland. A 5m setback is recommended in recognition of the urbanized character of the local landscape, and relatively fragmented and degraded condition of wetlands located on and immediately adjacent to the property boundary.

Providing that conformance is demonstrated for environmental considerations and the mitigation recommendations described in Section 8 below, there is no expectation that the proposed development would result in a negative direct or indirect impacts to Other Wetlands.

## **7.3 Candidate Significant Wildlife Habitat**

According to the PPS development and site alteration are not permitted within SWH located in Ecoregion 6E, unless it can be demonstrated there will be no negative impacts upon the feature and its ecological functions. For the purposes of this assessment, Candidate SWH described below is treated as significant.

### **7.3.1 Bat Maternity Colonies**

Woodlands within the study area may provide suitable roosting habitat for bat maternity colonies during the late spring period (approximately June). As described in Section



7.1.1 above in the context of SAR bats (Little Brown Myotis, Northern Myotis, Tri-colored Bat), a small number of potentially suitable snag trees were observed on the property, which were determined to exhibit features such as cracks, splits, peeled bark, and cavities. As discussed above, removal of a small number of potentially suitable bat roosting trees is not anticipated to negatively impact overall habitat availability for bat species, particularly considering extensive natural cover located in the greater landscape including extensive woodlands and woodland/wetland complexes located approximately 400m northwest and southwest of the property boundary.

### 7.3.2 Seeps and Springs

Areas of seepage were observed in association with the drainage feature traversing the property (Figure 3), located directly adjacent to the banks of the drainage feature. The proposed development envelope is located entirely outside of the limits of the drainage and associated 5m vegetated setback, therefore direct impacts to seeps and springs are not anticipated as a result of the proposed development.

Depending on the location of the construction footprint within the recommended conceptual building envelope, the proposed development has potential to indirectly impact seepage areas, noting that considerations related to potential geotechnical (soil stability) and groundwater impacts are outside of the scope of this natural heritage review. Azimuth recommends that the proponent consult the appropriate qualified professional(s) to ensure that the ultimate proposed development does not indirectly impact seepage areas associated with the drainage feature. Should indirect impacts to seepage areas be avoidable, Azimuth concludes that the proposed development would not be expected to negatively impact candidate SWH function associated with seeps and springs.

## 7.4 Indirect Fish Habitat – Drainage Feature

The proposed development will not result in direct alteration of the drainage feature on the property, nor is the proposed 5m vegetated buffer from the drainage feature expected to have a negative impact on the form and function that the indirect habitat is contributing (permanent flow) to Georgian Bay. Providing that conformance is demonstrated for environmental considerations and mitigation described in Section 8 below, there is no expectation that the proposed development will result in a negative impacts to fish or fish habitat under the Federal *Fisheries Act*.



## **8.0 RECOMMENDATIONS**

### **8.1 Species at Risk**

It should be noted that absence of a protected species in the study area does not indicate that they will never occur in the area. Given the dynamic character of the natural environment, there is a constant variation in habitat use. Care should be taken in the interpretation of presence of species of concern including those listed under the ESA. Changes to policy or the natural environment could result in shifts, removal or addition of new areas to the list of areas currently considered SAR habitat. This report is intended as a point in time assessment of the potential to impact SAR; not to provide long term “clearance” for SAR. While there is no expectation that the assessment should change significantly, it is the responsibility of the proponent to ensure that they are not in contravention of the ESA at the time that site works are undertaken. A review of the assessment provided in this report by a qualified person should be sufficient to provide appropriate advice at the time of the onset of future site works.

#### **8.1.1 Worker Training**

Worker training would assist on-site workers in the identification of the SAR with potential to occur in the area. Workers should be instructed to stop work and contact the MECP immediately if any SAR are encountered in the work area. Individuals working on the property should ensure that SAR are not harmed during construction or killed by heavy machinery, vehicles or other equipment.

The contractor should educate all site personnel to ensure that, if identified, the SAR are not wantonly injured or killed, and to ensure that damage to features which could constitute habitat is avoided. Information should be conveyed through a SAR expert and include:

- Species habitat and identification;
- Requirements under the ESA including avoidance of harm to the species and damage to relevant habitat;
- Appropriate action to take if the species is encountered;
- How to record sightings and encounters; and,
- That care should be taken when undertaking construction activities in order to avoid harming the species or damaging/destroying habitat.

The expert should be a qualified biologist who specializes in ecology/biology or SAR.



## 8.2 Migratory Breeding Birds and Bats

Activities involving the removal of trees/vegetation should be restricted from occurring during the breeding season. Migratory birds, nests and eggs are protected by the *Migratory Birds Convention Act, 1994* (MBCA) and *Fish and Wildlife Conservation Act, 1997* (FWCA). Environment Canada outlines dates when activities in any region have potential to impact bird nests at the Environment Canada Website (<https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html>). In Zones C1 and C2 vegetation clearing should be avoided **April 1 through August 31** of a given year. If work requires vegetation clearing between these dates, screening by an ecologist with knowledge of bird species present in the area is recommended to ensure that the vegetation has been confirmed to be free of nests prior to clearing.

Activities involving tree removal, particularly in woodlands on the property, should be avoided **April 1 to September 30** of a given year during the active period for bat species that may utilize trees for maternity and/or day roosting purposes. It is anticipated that adherence to this timing restriction will avoid impacts to individual SAR bats, therefore remaining in compliance with Section 9 of the ESA affording individual protection to Endangered species. Avoiding tree/vegetation removals between April 1 and September 30 will avoid potential for impact to migratory birds and bats.

## 8.3 Sediment and Erosion Controls

Diligent application of sediment and erosion controls is recommended for all future construction activities to minimize the extent of accidental or unavoidable impacts to adjacent vegetation communities and wildlife habitat. Prior to the commencement of works on the property, silt fencing should be applied along the length of directly adjacent natural or naturalized features, and routine inspection/maintenance of the silt fencing should occur throughout construction. It is recommended that erosion and sediment controls be maintained until vegetation is re-established post-construction.

## 8.4 Operations

All maintenance activities required during future construction should be conducted at least 30m away from woodlands, wetlands and the drainage feature to prevent accidental spillage of deleterious substances that may harm natural environments. On-site material storage should occur within the defined work area limits and have consideration for adjacent sensitive environmental features and their associated protections and setbacks.

Snow fencing or equivalent should be installed at the limit of the work area to prevent accidental intrusion of machinery operations into adjacent undisturbed natural areas.



## 9.0 CONCLUSIONS

Based on our analysis, it is concluded that the environmental conditions are not limiting to the proposed development of a future residence through incorporation of the environmental protection measures described in Section 8 of this report, with particular consideration for seepage areas associated with the drainage feature (see below).

At this time, our findings are summarized as follows:

- The proposed development is consistent with the policies of the Provincial Policy Statement, ESA, County Official Plan, Town of Penetanguishene Official Plan and Federal *Fisheries Act*.
- Our impact assessment has given full consideration to the habitat requirements of all SAR assumed and documented to occur in the area, and results indicate the proposed development will not result in negative direct or indirect impacts to habitat of SAR providing conformance is demonstrated to mitigation measures described in Section 8.
- The proposed works are not expected to negatively impact the ecological functions of Other Wetlands or Candidate SWH (see bullet below) outlined in Section 5, if the appropriate mitigation measures outlined in Section 8 are followed.
- Azimuth recommends that the proponent consult the appropriate qualified professional(s) to ensure that the ultimate proposed development does not indirectly impact seepage areas associated with the drainage feature. Should indirect impacts to seepage areas be avoidable, Azimuth concludes that the proposed development would not be expected to negatively impact candidate SWH function associated with seeps and springs.
- Providing that conformance is demonstrated for environmental considerations and mitigation described in Section 8 regarding sediment and erosion control and construction maintenance, there is no expectation that the proposed development, including the proposed vegetated buffers to the drainage feature, will result in a negative impacts to fish or fish habitat under the Federal *Fisheries Act*.



## 10.0 REFERENCES

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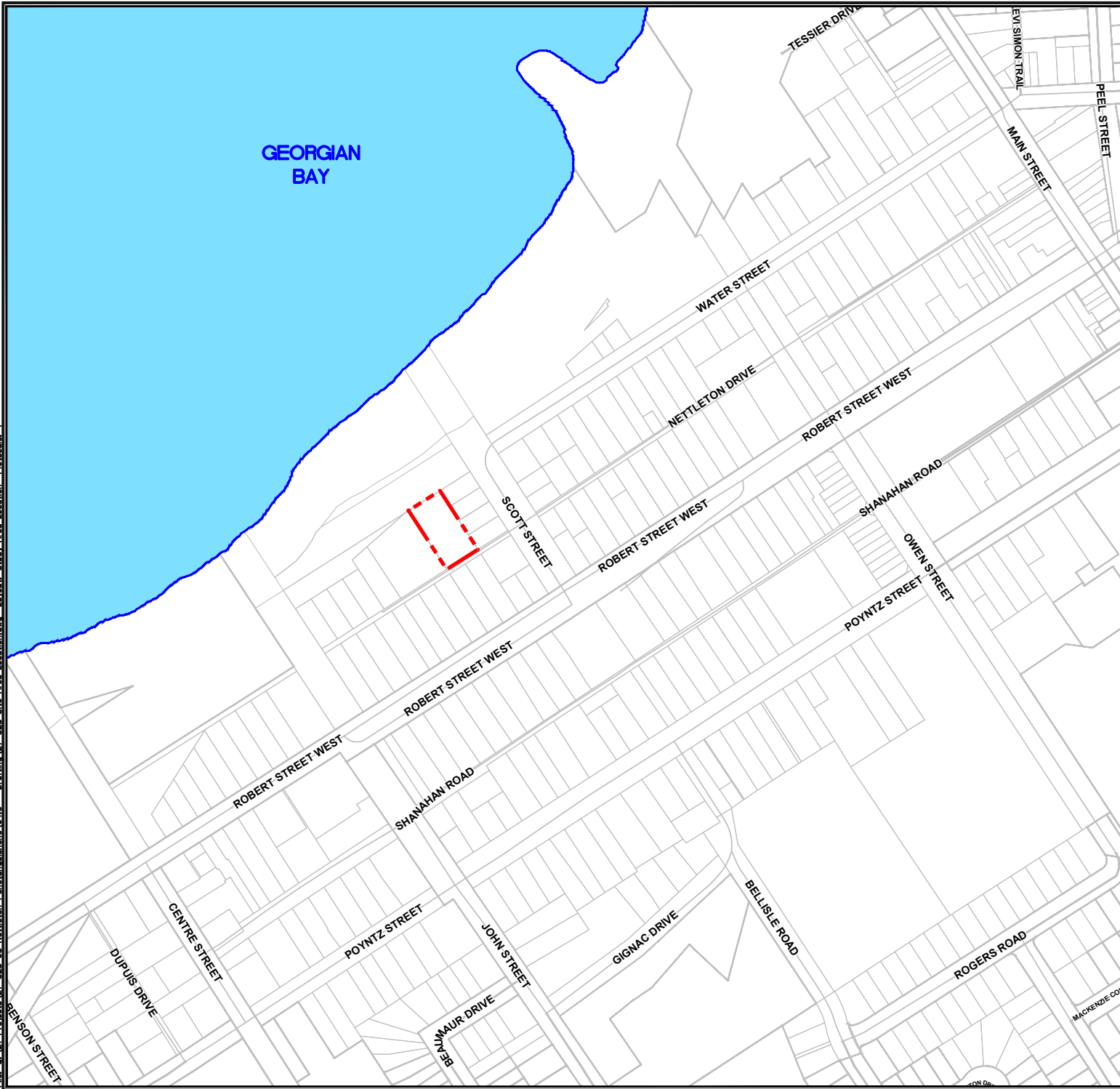
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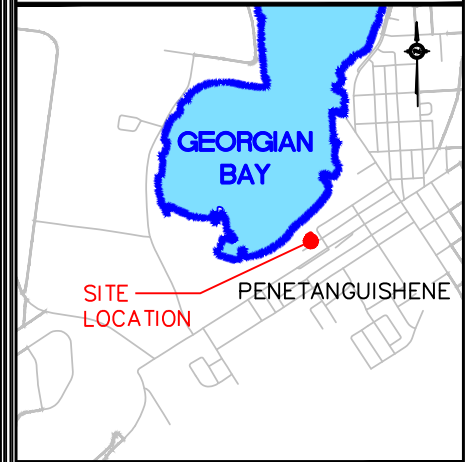
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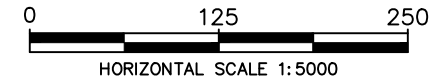
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--- APPROX. PROPERTY BOUNDARY



**REGIONAL MAP**

SCALE 1:50000



**STUDY AREA LOCATION**

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PENETANGUISHENE, ON

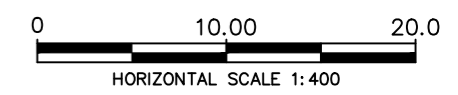
DATE ISSUED: OCTOBER 2022	Figure No.
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REFERENCE: SIMCOE COUNTY	



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- LEGEND:**
- - - APPROX. PROPERTY BOUNDARY
  - ▶ WATERCOURSE
  - SPRING (BANKFUL)
  - ▲ CANDIDATE BAT SNAGS
  - ✕ DITCH INPUT (APPROXIMATE)
  - ✕ UNDERGROUND PIPE INPUTS (APPROX.)
- 
- ELC VEGETATION COMMUNITIES:**
- FOMM8-1 FRESH-MOIST POPLAR MIXED FOREST
- ELC WETLAND COMMUNITIES:**
- MAS SHALLOW MARSH
  - SWTM3-6 MIXED WILLOW MINERAL THICKET SWAMP
- 
- POINT COUNTS / SURVEY STATIONS**
- 📍 DAWN BREEDING BIRD POINT COUNT
  - AMPHIBIAN POINT COUNT
- 
- BAT SNAG CLASSIFICATION:**
- △ CIRCLED - HIGH QUALITY
  - △ UNCIRCLED - LOW QUALITY
  - △ HEALTHY / DECAY CLASS 0
  - ▲ DECAY CLASS 1
  - ▲ DECAY CLASS 2
  - ▲ DECAY CLASS 3
  - ▲ DECAY CLASS 4
  - ▲ DECAY CLASS 5
  - ▲ DECAY CLASS 6

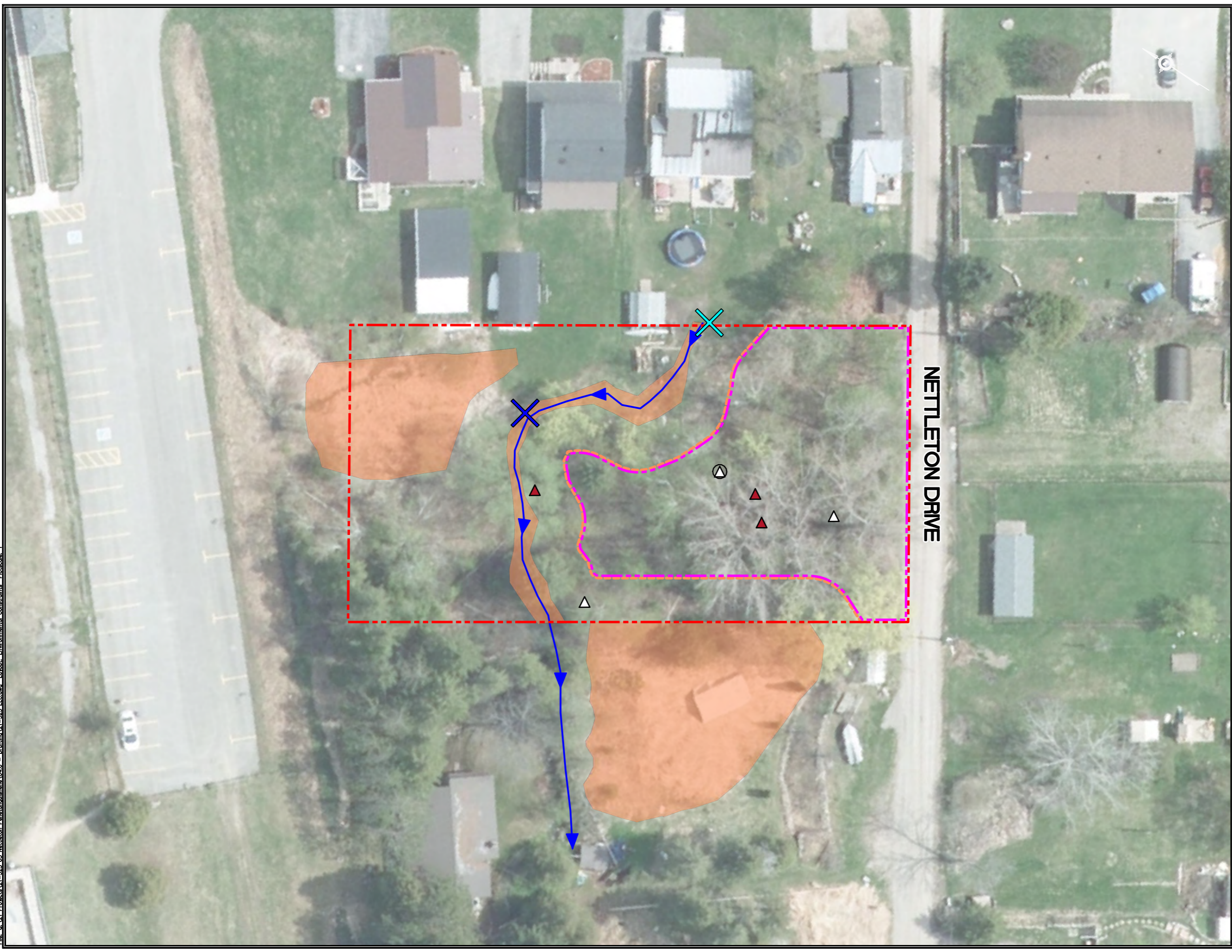


**ENVIRONMENTAL FEATURES**

**65 NETTLETON DRIVE  
PENITANGUISHENE, ON**

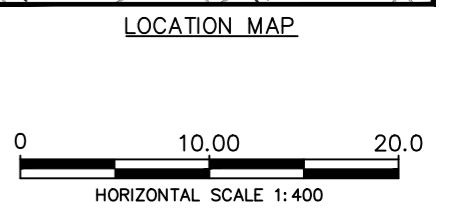
DATE ISSUED: OCTOBER 2022	Figure No.
CREATED BY: A.L.	2
PROJECT NO.: 21-523	
REFERENCE: SIMCOE COUNTY	

Plotted by: ALU on October 14, 2022 at 5:43pm  
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- LEGEND:**
- - - APPROX. PROPERTY BOUNDARY
  - WATERCOURSE
  - HIGH DEVELOPMENTAL CONSTRAINT
  - - - 5m SETBACK
  - - - PROPOSED DEVELOPMENT ENVELOPE
  - X DITCH INPUT (APPROXIMATE)
  - X UNDERGROUND PIPE INPUTS (APPROX.)

- BAT SNAG CLASSIFICATION:**
- △ CIRCLED – HIGH QUALITY
  - △ UNCIRCLED – LOW QUALITY
  - △ HEALTHY / DECAY CLASS 0
  - ▲ DECAY CLASS 1
  - ▲ DECAY CLASS 2
  - ▲ DECAY CLASS 3
  - ▲ DECAY CLASS 4
  - ▲ DECAY CLASS 5
  - ▲ DECAY CLASS 6



**ENVIRONMENTAL CONSTRAINTS**

**65 NETTLETON DRIVE  
 PENETANGISHENE, ON**

DATE ISSUED: <i>OCTOBER 2022</i>	Figure No.
CREATED BY: <i>A.L.</i>	3
PROJECT NO.: <i>21-523</i>	
REFERENCE: <i>SIMCOE COUNTY</i>	

Common Name	Species Name	ESA	SARA	Key Habitats Used By Species <sup>1</sup>	Initial Assessment
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SC	No status	Nests are typically found near the shoreline of lakes or large rivers, often on forested islands (Cadman <i>et al.</i> , 2007). ESA Protection: N/A	Bald Eagle nests sites not observed on the property or adjacent lands. Species not observed during breeding bird surveys or incidentally throughout the remainder of the field program.
Bank Swallow	<i>Riparia riparia</i>	THR	THR	Nests in burrows excavated in natural and human-made settings with vertical sand and silt faces. Commonly found in sand or gravel pits, road cuts, lakeshore bluffs, and along riverbanks (COSEWIC, 2013a). ESA Protection: Species and general habitat protection	Property and adjacent lands are not associated with sand or gravel pits <i>etc.</i> . Species not observed during breeding bird surveys or incidentally throughout the remainder of the field program.
Barn Swallow	<i>Hirundo rustica</i>	THR	THR	Ledges and walls of man-made structures such as buildings, barns, boathouses, garages, culverts and bridges. Also nest in caves, holes, crevices and cliff ledges (COSEWIC, 2011a). ESA Protection: Species and general habitat protection	Key habitat requirements are not found in study area. Species not observed during breeding bird surveys or incidentally throughout the remainder of the field program.
Black Ash	<i>Fraxinus nigra</i>	END	No Status	Facultative wetland tree species frequently found in floodplain forests, swamps, seepage areas, shoreline margins and fens. Occupied sites are generally seasonally-flooded (COSEWIC, 2018). ESA Protection: Species and general habitat protection (ESA protections take effect January 27, 2024)	Species not observed during the vascular plant survey.
Blanding's Turtle	<i>Emydoidea blandingii</i>	THR	THR	Blanding's Turtles are a primarily aquatic species that prefer wetland habitats, lakes, ponds, slow-moving streams, etc., however they may utilize upland areas to search for suitable basking and nesting sites. In general, preferred wetland sites are eutrophic and characterized by clear, shallow water, with organic substrates and high density of aquatic vegetation (COSEWIC, 2005). ESA Protection: Species and general habitat protection	Key habitat requirements for the species not present on-property and species not observed. Wetlands on the property and adjacent lands are not typical of those suitable for the species' life processes, as minimal standing water was observed during June 2022 surveys.  Portions of the Penetang Bay PSW may provide suitable habitat for the species, however this unit is mapped approximately 165m from the property boundary at its closest point. As wetlands in the study area are not anticipated to provide suitable habitat function, and surrounding areas are urbanized, there is no expectation that any portion of the study area serves wildlife conveyance function for species movement between wetland nodes.  As such, no suitable habitat for the species is anticipated within the study area limits.

Common Name	Species Name	ESA	SARA	Key Habitats Used By Species <sup>1</sup>	Initial Assessment
Bobolink	<i>Dolichonyx oryzivorus</i>	THR	THR	<p>Nests primarily in forage crops (<i>e.g.</i> hayfields and pastures) dominated by a variety of species such as clover, Timothy, Kentucky Bluegrass, tall grass, and broadleaved plants. Also occurs in wet prairie, graminoid peatlands, and abandoned fields dominated by tall grasses. Does not generally occupy fields of row crops (<i>e.g.</i> corn, soybeans, wheat) or short-grass prairie. Sensitive to habitat size and has lower reproductive success in small habitat fragments (COSEWIC, 2010a).</p> <p>ESA Protection: Species and general habitat protection</p>	Key habitat requirements for the species do not occur within the study area limits. Species not observed during breeding bird surveys or incidentally throughout the remainder of the field program.
Butternut	<i>Juglans cinerea</i>	END	END	<p>Commonly found in riparian habitats, but is also found in rich, moist, well-drained loams, and well-drained gravels. Butternut is intolerant of shade (COSEWIC, 2003).</p> <p>ESA Protection: Species and general habitat protection</p>	Species not observed during the vascular plant survey.
Eastern Meadowlark	<i>Sturnella magna</i>	THR	THR	<p>Most common in grassland, pastures, savannahs, as well as anthropogenic grassland habitats, including hayfields, weedy meadows, young orchards, golf courses, restored surface mines, <i>etc.</i> Occasionally nest in row crop fields such as corn and soybean, but there are considered low-quality habitat. Large tracts of grassland are preferred over smaller fragments and the minimum area required is estimated at 5ha (COSEWIC, 2011b).</p> <p>ESA Protection: Species and general habitat protection</p>	NHIC 1km grid square #17NK8357 shows record of the species but suitable habitat not present on property or adjacent lands. Species not observed during breeding bird surveys or incidentally throughout the remainder of the field program.
Eastern Musk Turtle	<i>Sternotherus oderatus</i>	SC	SC	<p>Inhabit littoral zones of waterways such as rivers, lakes, bays, streams, ponds, canals, and swamps with slow to no current and soft bottoms. During the active season they prefer shallow water (&lt;2m) with abundant vegetation. Most are found close to shore and do not venture onto land except to nest or access adjacent wetlands (COSEWIC, 2012a).</p> <p>ESA Protection: N/A</p>	<p>Key habitat requirements for the species not present on-property and species not observed. Wetlands on the property and adjacent lands are not typical of those suitable for the species' life processes, as minimal standing water was observed during June 2022 surveys.</p> <p>Portions of the Penetang Bay PSW may provide suitable habitat for the species, however this unit is mapped approximately 165m from the property boundary at its closest point. As wetlands in the study area are not anticipated to provide suitable habitat function, and surrounding areas are urbanized, there is no expectation that any portion of the study area serves wildlife conveyance function for species movement between wetland nodes.</p> <p>As such, no suitable habitat for the species is anticipated within the study area limits.</p>

Common Name	Species Name	ESA	SARA	Key Habitats Used By Species <sup>1</sup>	Initial Assessment
Eastern Ribbonsnake	<i>Thamnophis sauritus</i>	SC	THR	Found in wetland habitats with both flowing and standing water such as marshes, bogs, fens, ponds, lake shorelines and wet meadows. Most sightings occur near the water's edge (COSEWIC, 2012b). ESA Protection: N/A	No areas of abundant wetland or riparian vegetation such as large swamps, marshes, bogs, fens, or wet meadows are located within the study area limits. Swamp Thicket on the property occupies approximately 0.05ha and is therefore provides highly limited to no potential habitat function. According to COSEWIC (2012b), home ranges for the species range from 0.16ha to 0.78ha and therefore it is highly unlikely that the wetland feature on the property has potential to support habitat function for the species.
Eastern Small-footed Myotis	<i>Myotis Lleibii</i>	END	END	Generally occurs in mountainous or rocky regions as well as in buildings, on the face of rock bluffs and beneath slabs of rock and stones. Hibernation is typically confined to caves and old mines (Best and Jennings, 1997). ESA Protection: Species and general habitat protection	Key habitat requirements for the species are not found on or adjacent to the property. Hibernation habitat not present. The species would not be expected to occur.
Eastern Wood-pewee	<i>Contopus virens</i>	SC	SC	Mostly in mature and intermediate-age deciduous and mixed forests having an open understory. It is often associated with forests dominated by Sugar Maple and oak. Usually associated with forest clearings and edges within the vicinity of its nest (COSEWIC, 2012d). ESA Protection: N/A	Species not observed during breeding bird surveys or incidentally throughout the remainder of the field program.
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	SC	THR	Areas of early successional scrub surrounded by mature forests including dry uplands, swamp forests, and marshes (COSEWIC, 2006). ESA Protection: N/A	Key habitat features not found on or adjacent to the property. Species not observed during breeding bird surveys or incidentally throughout the remainder of the field program.
Grasshopper Sparrow <i>pratensis</i> subspecies	<i>Ammodramus savannarum pratensis</i>	SC	SC	Typically breeds in large human-created grasslands (≥5 ha), such as pastures and hayfields, and natural prairies, such as alvars, characterized by well-drained, often poor soil dominated by low, sparse perennial herbaceous vegetation (COSEWIC, 2013b). ESA Protection: N/A	Key habitat requirements for the species do not occur within the study area limits. Species not observed during breeding bird surveys or incidentally throughout the remainder of the field program.
Least Bittern	<i>Ixobrychus exilis</i>	THR	THR	Breed strictly in marshes of emergents (usually cattails) that have relatively stable water levels and interspersed areas of open water (COSEWIC, 2009a). ESA Protection: Species and general habitat protection	Key habitat requirements not found in study area and species not observed.

Common Name	Species Name	ESA	SARA	Key Habitats Used By Species <sup>1</sup>	Initial Assessment
Little Brown Myotis	<i>Myotis lucifugus</i>	END	END	<p>Forests and regularly aging human structures as maternity roost sites. Regularly associated with attics of older buildings and barns for summer maternity roost colonies. Overwintering sites are characteristically mines or caves (MNRF, 2014) (COSEWIC, 2013c).</p> <p>ESA Protection: Species and general habitat protection</p>	<p>Wooded areas on the property and adjacent lands consist of immature to mid-aged treed cover with large trees in the early stages of decay ("snags") that could provide suitable maternity roosting and day roosting function for bats.</p> <p>No caves or abandoned mines that could provide suitable overwintering habitat located within the study area limits.</p> <p>No manmade structures occur on the property that could provide potential roosting function for bats.</p>
Monarch	<i>Danaus plexippus</i>	SC	SC	<p>Breeding habitat is confined to sites where milkweeds, the sole food of caterpillars, grow. Milkweeds grow in a variety of environments, including meadows in farmlands, along roadsides and in ditches, open wetlands, dry sandy areas, short and tall grass prairie, river banks, irrigation ditches, arid valleys, and south-facing hills (COSEWIC, 2010b).</p> <p>ESA Protection: N/A</p>	<p>Key habitat requirements not present. The species was not observed on the property.</p>
Northern Myotis	<i>Myotis septentrionalis</i>	END	END	<p>Maternity roost sites are generally located within deciduous and mixed forests and focused in snags including loose bark and cavities of trees. Overwintering sites are characteristically mines or caves (COSEWIC, 2013c).</p> <p>ESA Protection: Species and general habitat protection</p>	<p>Wooded areas on the property and adjacent lands consist of immature to mid-aged treed cover with large trees in the early stages of decay ("snags") that could provide suitable maternity roosting and day roosting function for bats.</p> <p>No caves or abandoned mines that could provide suitable overwintering habitat located within the study area limits.</p>
Northern Map Turtle	<i>Graptemys geographica</i>	SC	SC	<p>Inhabits rivers and lakes where it basks on emergent rocks, banks, logs and fallen trees. Prefer shallow, soft-bottomed aquatic habitats with exposed objects for basking (COSEWIC, 2012c).</p> <p>ESA Protection: N/A</p>	<p>Key habitat requirements for the species not present on-property and species not observed. Wetlands on the property and adjacent lands are not typical of those suitable for the species' life processes, as minimal standing water was observed during June 2022 surveys.</p>
Olive-sided Flycatcher	<i>Contopus cooperi</i>	SC	THR	<p>Natural forest openings, forest edges near natural openings (such as wetlands) or open to semi-open forest stands. Occasionally human made openings (such as clear cuts). Presence of tall snags and residual live trees is essential (COSEWIC, 2007a).</p> <p>ESA Protection: N/A</p>	<p>Species not observed during breeding bird surveys or incidentally throughout the remainder of the field program.</p>
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	END	END	<p>Occurs in open deciduous forests, particularly those dominated by oak and beech, grasslands, forest edges, orchards, pastures along rivers and roads, urban parks, golf courses, cemeteries, beaver ponds and timber stands that have been treated with herbicides (COSEWIC, 2007b).</p> <p>ESA Protection: N/A</p>	<p>Species not observed during breeding bird surveys or incidentally throughout the remainder of the field program.</p>

Common Name	Species Name	ESA	SARA	Key Habitats Used By Species <sup>1</sup>	Initial Assessment
Snapping Turtle	<i>Chelydra serpentina</i>	SC	SC	Habitat is characterized by slow-moving water with a soft mud bottom and dense aquatic vegetation. Often located in ponds, sloughs, shallow bays or river edges and slow streams, or areas combining several of these wetland habitats (COSEWIC, 2008).  ESA Protection: N/A	Key habitat requirements for the species not present on-property and species not observed. Wetlands on the property and adjacent lands are not typical of those suitable for the species' life processes, as minimal standing water was observed during June 2022 surveys.  Portions of the Penetang Bay PSW may provide suitable habitat for the species, however this unit is mapped approximately 165m from the property boundary at its closest point. As wetlands in the study area are not anticipated to provide suitable habitat function, and surrounding areas are urbanized, there is no expectation that any portion of the study area serves wildlife conveyance function for species movement between wetland nodes.  As such, no suitable habitat for the species is anticipated within the study area limits.
Tri-colored Bat	<i>Perimyotis subflavus</i>	END	END	Maternity roost sites include forests and modified landscapes (barns or human-made structures). Overwintering sites include mines and caves (COSEWIC, 2013c).  ESA Protection: Species and general habitat protection	Wooded areas on the property and adjacent lands consist of immature to mid-aged treed cover with large trees in the early stages of decay ("snags") that could provide suitable maternity roosting and day roosting function for bats.  No caves or abandoned mines that could provide suitable overwintering habitat located within the study area limits.  No manmade structures occur on the property that could provide potential roosting function for bats.
Wood Thrush	<i>Hyllocichla mustelina</i>	SC	THR	Found in moist, deciduous hardwood or mixed stands, often previously disturbed, with a dense deciduous undergrowth and with tall trees for singing perches (COSEWIC, 2012e).  ESA Protection: N/A	Species not observed during breeding bird surveys or incidentally throughout the remainder of the field program.
Yellow Rail	<i>Coturnicops noveboracensis</i>	SC	SC	Nest in wet marshy areas of short grass-like vegetation. The habitat must remain wet throughout the breeding season (COSEWIC, 2009b).  ESA Protection: N/A	Graminoid-dominated marshes not observed within the study area limits. Wetlands on the property occupy approximately 0.05ha and are highly unlikely to provide suitable habitat opportunities for the species.

<sup>1</sup> Habitat as outlined within the MNR's Species at Risk in Ontario website files (<https://www.ontario.ca/environment-and-energy/species-risk-ontario-list>), or Species Specific COSEWIC Reports referenced in this document.

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COSEWIC 2006. COSEWIC assessment and status report on the Golden-winged Warbler *Vermivora chrysoptera* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 30 pp.

COSEWIC. 2007a. COSEWIC assessment and status report on the Olive-sided Flycatcher *Cotopous cooperi* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 25 pp.

COSEWIC. 2007b. COSEWIC assessment and status report on the Red-headed Woodpecker *Melanerpes erythrocephalus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 27 pp.

Common Name	Species Name	ESA	SARA	Key Habitats Used By Species <sup>1</sup>	Initial Assessment
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COSEWIC. 2008. COSEWIC assessment and status report on the Snapping Turtle *Chelydra serpentina* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 47 pp. vii + 45 pp.

COSEWIC. 2009a. COSEWIC assessment and update status report on the Least Bittern *Ixobrychus exilis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 36 pp.

COSEWIC. 2009b. COSEWIC assessment and status report on the Yellow Rail *Coturnicops noveboracensis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 32 pp.

COSEWIC. 2010a. COSEWIC assessment and update status report on the Bobolink *Dolichonyx oryzivorus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 42 pp.

COSEWIC. 2010b. COSEWIC assessment and status report on the Monarch *Danaus plexippus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 43 pp.

COSEWIC. 2011a. COSEWIC assessment and status report on the Barn Swallow *Hirundo rustica* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 37 pp.

COSEWIC. 2011b. COSEWIC assessment and update status report on the Eastern Meadowlark *Sturnella magna* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 40 pp.

COSEWIC. 2011c. COSEWIC assessment and update status report on the Barn Swallow *Hirundo rustica* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 37 pp.

COSEWIC. 2012a. COSEWIC assessment and status report on the Eastern Musk Turtle *Sternotherus odoratus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 68 pp.

COSEWIC. 2012b. COSEWIC assessment and status report on the Eastern Ribbonsnake *Thamnophis sauritus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 39 pp.

COSEWIC. 2012c. COSEWIC assessment and status report on the Northern Map Turtle *Graptemys geographica* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xi + 63 pp.

COSEWIC. 2012d. COSEWIC assessment and status report on the Eastern Wood-pewee *Contopus virens* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 39 pp.

COSEWIC. 2012e. COSEWIC assessment and status report on the Wood Thrush *Hylocichla mustelina* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 46 pp.

COSEWIC. 2013a. COSEWIC assessment and update status report on the Bank Swallow *Riparia riparia* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 48 pp.

COSEWIC. 2013b. COSEWIC assessment and status report on the Grasshopper Sparrow *pratensis* subspecies *Ammodramus savannarum pratensis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 36 pp.

COSEWIC. 2013b. COSEWIC assessment and update status report on the Little Brown Myotis *Myotis lucifugus*, Northern Myotis *Myotis septentrionalis* and Tri-colored Bat *Perimyotis subflavus* in Canada. Committee on the Status of Endangered

COSEWIC. 2018. COSEWIC assessment and status report on the Black Ash *Fraxinus nigra* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 95 pp.

Ministry of Natural Resources and Forestry (MNRF). 2014. Eastern Small-footed Bat. Queen's Printer for Ontario. <https://www.ontario.ca/environment-and-energy/eastern-small-footed-bat>



Table 2: Vascular Plant List, 65 Nettleton Drive (Penetanguishene)

Surveyor: D. Stuart

AEC21-523

FAMILY <sup>1</sup>	SCIENTIFIC NAME <sup>1</sup>	COMMON NAME <sup>1</sup>	Vegetation Communities <sup>2</sup>		Conservation Rankings <sup>3</sup>		
			FOMM8-1	SWTM3-6	GRANK	SRANK	TRACK
Aceraceae	<i>Acer negundo</i>	Manitoba Maple	X		G5	S5	N
Aceraceae	<i>Acer saccharum</i>	Sugar Maple	X		G5	S5	N
Amaranthaceae	<i>Amaranthus retroflexus</i>	Redroot Amaranth	X		G5	SE5	N
Anacardiaceae	<i>Rhus typhina</i>	Staghorn Sumac	X		G5	S5	N
Apiaceae	<i>Aegopodium podagraria</i>	Goutweed	X		GNR	SE5	N
Apiaceae	<i>Daucus carota</i>	Wild Carrot	X		GNR	SE5	N
Apocynaceae	<i>Asclepias syriaca</i>	Common Milkweed	X		G5	S5	N
Asteraceae	<i>Ambrosia artemisiifolia</i>	Common Ragweed	X		G5	S5	N
Asteraceae	<i>Cirsium arvense</i>	Canada Thistle	X		G5	SE5	N
Asteraceae	<i>Erigeron annuus</i>	Annual Fleabane	X		G5	S5	N
Asteraceae	<i>Eutrochium maculatum var. maculatum</i>	Spotted Joe Pye Weed	X	X	G5T5	S5	N
Asteraceae	<i>Solidago canadensis var. canadensis</i>	Canada Goldenrod	X	X	G5T5	S5	N
Asteraceae	<i>Symphotrichum puniceum</i>	Purple-stemmed Aster	X		G5	S5	N
Asteraceae	<i>Taraxacum officinale</i>	Common Dandelion	X		G5	SE5	N
Asteraceae	<i>Tussilago farfara</i>	Coltsfoot	X		GNR	SE5	N
Balsaminaceae	<i>Impatiens capensis</i>	Spotted Jewelweed	X	X	G5	S5	N
Betulaceae	<i>Betula papyrifera</i>	Paper Birch	X	X	G5	S5	N
Boraginaceae	<i>Hackelia virginiana</i>	Virginia Stickseed	X		G5	S5	N
Boraginaceae	<i>Myosotis scorpioides</i>	True Forget-me-not	X		G5	SE5	N
Brassicaceae	<i>Alliaria petiolata</i>	Garlic Mustard	X		GNR	SE5	N
Brassicaceae	<i>Brassica rapa</i>	Field Mustard		X	GNR	SE5	N
Brassicaceae	<i>Lunaria annua</i>	Annual Honesty	X		GNR	SE2	N
Brassicaceae	<i>Nasturtium officinale</i>	Watercress	X	X	GNR	SE	N
Caprifoliaceae	<i>Lonicera tatarica</i>	Tatarian Honeysuckle	X		GNR	SE5	N
Caprifoliaceae	<i>Viburnum opulus var. opulus</i>	Cranberry Viburnum	X		G5TNR	SE4?	N
Chenopodiaceae	<i>Chenopodium album</i>	Common Lamb's-quarters	X		G5	SE5	N
Clusiaceae	<i>Hypericum perforatum</i>	Common St. John's-wort	X		GNR	SE5	N
Convolvulaceae	<i>Convolvulus arvensis</i>	Field Bindweed	X		GNR	SE5	N

Table 2: Vascular Plant List, 65 Nettleton Drive (Penetanguishene)

Surveyor: D. Stuart

AEC21-523

FAMILY <sup>1</sup>	SCIENTIFIC NAME <sup>1</sup>	COMMON NAME <sup>1</sup>	Vegetation Communities <sup>2</sup>		Conservation Rankings <sup>3</sup>		
			FOMM8-1	SWTM3-6	GRANK	SRANK	TRACK
Cornaceae	<i>Cornus sericea</i>	Red-osier Dogwood	X	X	G5	S5	N
Cupressaceae	<i>Thuja occidentalis</i>	Eastern White Cedar	X	X	G5	S5	N
Cyperaceae	<i>Carex pellita</i>	Woolly Sedge		X	G5	S5	N
Cyperaceae	<i>Carex stricta</i>	Tussock Sedge		X	G5	S5	N
Dryopteridaceae	<i>Athyrium filix-femina var. angustum</i>	Northeastern Lady Fern		X	G5T5	S5	N
Dryopteridaceae	<i>Matteuccia struthiopteris</i>	Ostrich Fern	X	X	G5	S5	N
Dryopteridaceae	<i>Onoclea sensibilis</i>	Sensitive Fern	X	X	G5	S5	N
Equisetaceae	<i>Equisetum arvense</i>	Field Horsetail	X	X	G5	S5	N
Fabaceae	<i>Medicago lupulina</i>	Black Medick	X		GNR	SE5	N
Fabaceae	<i>Melilotus albus</i>	White Sweet-clover	X		G5	SE5	N
Fabaceae	<i>Vicia cracca</i>	Tufted Vetch	X	X	GNR	SE5	N
Fagaceae	<i>Quercus rubra</i>	Northern Red Oak	X		G5	S5	N
Juglandaceae	<i>Juglans nigra</i>	Black Walnut	X	X	G5	S4?	N
Lamiaceae	<i>Glechoma hederacea</i>	Ground-ivy	X		GNR	SE5	N
Liliaceae	<i>Heemerocallis fulva</i>	Orange Daylily	X		GNA	SE5	N
Lythraceae	<i>Lythrum salicaria</i>	Purple Loosestrife		X	G5	SE5	N
Oleaceae	<i>Fraxinus pennsylvanica</i>	Red Ash	X		G4	S4	N
Onagraceae	<i>Circaea canadensis</i>	Broad-leaved Enchanter's Nightshade	X		G5	S5	N
Oxalidaceae	<i>Oxalis stricta</i>	Upright Yellow Wood-sorrel	X		G5	SE5	N
Pinaceae	<i>Larix laricina</i>	Tamarack		X	G5	S5	N
Pinaceae	<i>Picea glauca</i>	White Spruce	X		G5	S5	N
Pinaceae	<i>Picea pungens</i>	Blue Spruce	X		G5	SE1	N
Plantaginaceae	<i>Plantago lanceolata</i>	English Plantain		X	G5	SE5	N
Poaceae	<i>Agrostis stolonifera</i>	Creeping Bentgrass	X		G5	SE5	N
Poaceae	<i>Bromus inermis</i>	Smooth Brome	X		G5T5	SE5	N
Poaceae	<i>Dactylis glomerata</i>	Orchard Grass	X		GNR	SE5	N
Poaceae	<i>Elymus repens</i>	Quackgrass	X		GNR	SE5	N
Poaceae	<i>Glyceria striata var. striata</i>	Fowl Mannagrass		X	G5T5	S5	N

Table 2: Vascular Plant List, 65 Nettleton Drive (Penetanguishene)

Surveyor: D. Stuart

AEC21-523

FAMILY <sup>1</sup>	SCIENTIFIC NAME <sup>1</sup>	COMMON NAME <sup>1</sup>	Vegetation Communities <sup>2</sup>		Conservation Rankings <sup>3</sup>		
			FOMM8-1	SWTM3-6	GRANK	SRANK	TRACK
Poaceae	<i>Poa palustris</i>	Fowl Bluegrass	X	X	G5	S5	N
Poaceae	<i>Poa pratensis ssp. pratensis</i>	Kentucky Bluegrass		X	G5T5	SE5	N
Polygonaceae	<i>Reynoutria japonica</i>	Japanese Knotweed		X	GNR	SE5	N
Polygonaceae	<i>Rumex obtusifolius</i>	Bitter Dock	X	X	GNR	SE5	N
Ranunculaceae	<i>Anemonastrum canadense</i>	Canada Anemone		X	G5	S5	N
Ranunculaceae	<i>Clematis virginiana</i>	Virginia Clematis	X	X	G5	S5	N
Rhamnaceae	<i>Frangula alnus</i>	Glossy Buckthorn	X	X	GNR	SE5	N
Rosaceae	<i>Geum aleppicum</i>	Yellow Avens	X		G5	S5	N
Rosaceae	<i>Prunus virginiana</i>	Chokecherry	X	X	G5	S5	N
Rosaceae	<i>Rubus allegheniensis</i>	Allegheny Blackberry	X		G5	S5	N
Rosaceae	<i>Rubus idaeus ssp. strigosus</i>	North American Red Raspberry	X		G5T5	S5	N
Rosaceae	<i>Rubus odoratus</i>	Purple-flowering Raspberry	X		G5	S5	N
Rosaceae	<i>Sorbus aucuparia</i>	European Mountain-ash	X		G5	SE4	N
Rubiaceae	<i>Galium palustre</i>	Common Marsh Bedstraw		X	G5	S5	N
Salicaceae	<i>Populus balsamifera</i>	Balsam Poplar	X	X	G5	S5	N
Salicaceae	<i>Populus deltoides ssp. deltoides</i>	Eastern Cottonwood	X		G5T5	S5	N
Salicaceae	<i>Populus tremuloides</i>	Trembling Aspen	X	X	G5	S5	N
Salicaceae	<i>Salix alba</i>	White Willow	X	X	G5	SE4	N
Salicaceae	<i>Salix discolor</i>	Pussy Willow		X	G5	S5	N
Salicaceae	<i>Salix eriocephala</i>	Cottony Willow	X	X	G5	S5	N
Scrophulariaceae	<i>Chelone glabra</i>	White Turtlehead		X	G5	S5	N
Scrophulariaceae	<i>Verbascum thapsus</i>	Common Mullein	X		GNR	SE5	N
Solanaceae	<i>Solanum dulcamara</i>	Bittersweet Nightshade	X	X	GNR	SE5	N
Typhaceae	<i>Typha angustifolia</i>	Narrow-leaved Cattail		X	G5	SE5	N
Typhaceae	<i>Typha latifolia</i>	Broad-leaved Cattail		X	G5	S5	N
Urticaceae	<i>Urtica dioica ssp. dioica</i>	European Stinging Nettle	X	X	G5T5?	SE2	N
Vitaceae	<i>Parthenocissus vitacea</i>	Thicket Creeper	X		G5	S5	N
Vitaceae	<i>Vitis riparia</i>	Riverbank Grape	X	X	G5	S5	N

**Table 2: Vascular Plant List, 65 Nettleton Drive (Penetanguishene)**

Surveyor: D. Stuart

AEC21-523

			Vegetation Communities <sup>2</sup>		Conservation Rankings <sup>3</sup>		
FAMILY <sup>1</sup>	SCIENTIFIC NAME <sup>1</sup>	COMMON NAME <sup>1</sup>	FOMM8-1	SWTM3-6	GRANK	SRANK	TRACK

<sup>1</sup> Nomenclature based on Ministry of Natural Resources and Forestry (MNR) Natural Heritage Information Centre (NHIC, 2022)

<sup>2</sup> ELC Codes based on Ecological Land Classification for Southern Ontario manual (Lee et al., 1998, 2008)

<sup>3</sup> Conservation Rankings: From Ontario Ministry of Natural Resources and Forestry, Natural Heritage Information Centre (<https://www.ontario.ca/page/natural-heritage-information-centre>)

Table 3: Dawn Breeding Birds Survey, 65 Nettleton Drive EIS, 2022

AEC 21-523

FAMILY	SCIENTIFIC NAME	COMMON NAME	Location <sup>1,2</sup>		Conservation Rankings <sup>3</sup>								
			1		Adjacent Lands	Incidental	Breeding Evidence	GRANK	SRANK	ESA	SARA	TRACK	
			Visit 1	Visit 2									
Anatidae	<i>Branta canadensis</i>	Canada Goose			FO/C				G5	S5			N
Bombycillidae	<i>Bombycilla cedrorum</i>	Cedar Waxwing		S	C			Po	G5	S5			N
Cardinalidae	<i>Cardinalis cardinalis</i>	Northern Cardinal	S		C			Po	G5	S5			N
Cardinalidae	<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	S					Po	G5	S5B			N
Columbidae	<i>Zenaidura macroura</i>	Mourning Dove			S	√			G5	S5			N
Corvidae	<i>Cyanocitta cristata</i>	Blue Jay				√			G5	S5			N
Fringillidae	<i>Haemorhous mexicanus</i>	House Finch			S				G5	SNA			N
Fringillidae	<i>Spinus tristis</i>	American Goldfinch	C/H			√	Po		G5	S5			N
Icteridae	<i>Agelaius phoeniceus</i>	Red-winged Blackbird	T/S	S,C	S			Pr	G5	S5			N
Icteridae	<i>Icterus galbula</i>	Baltimore Oriole		S, VIS				Po	G5	S4B			N
Icteridae	<i>Quiscalus quiscula</i>	Common Grackle	FO/C	C				Pr	G5	S5			N
Laridae	<i>Larus argentatus</i>	Gull sp.			FO/C				G5	S4B,S5N			N
Mimidae	<i>Dumetella carolinensis</i>	Gray Catbird	S					Po	G5	S5B,S3N			N
Paridae	<i>Poecile atricapillus</i>	Black-capped Chickadee	C/H	C		√		Pr	G5	S5			N
Parulidae	<i>Geothlypis trichas</i>	Common Yellowthroat		C	S			Po	G5	S5B,S3N			N
Parulidae	<i>Setophaga petechia</i>	Yellow Warbler			S				G5	S5B			N
Passerellidae	<i>Melospiza melodia</i>	Song Sparrow	P/S	S	S			Pr	G5	S5			N
Sittidae	<i>Sitta canadensis</i>	Red-breasted Nuthatch				√			G5	S5			N
Sittidae	<i>Sitta carolinensis</i>	White-breasted Nuthatch				√			G5	S5			N
Troglodytidae	<i>Troglodytes aedon</i>	House Wren	S		S			Po	G5	S5B			N
Turdidae	<i>Turdus migratorius</i>	American Robin		VIS	S			Po	G5	S5			N
Vireonidae	<i>Vireo gilvus</i>	Warbling Vireo	S		S			Po	G5	S5B			N

2022,

Observer: S.Tarof, Temperature 16°C, Cloud Cover 5% , Wind: B2, Precipitation: No rain, Survey Time 08:49 to 08:54

<sup>2</sup> Breeding Bird Evidence Codes: X/√ - Species observed or heard, C - Call heard, FO - Flyover (Species presence); H - Species observed in its breeding season in suitable nesting habitat, S - Singing male (Possible Breeding); P - Pair observed , T - Territorial behaviour, A - Agitated behaviour or anxiety calls of adult, V - Visiting a probably nest site, N - Nest building or excavation of nest hole (Probable Breeding); DD - Distraction display or injury feigning, NU - Used Nest or egg shells, FY - Recently fledged young, AE - Adult leaving or entering nest sites, FS - Adult carrying fecal sac, CF - Adult carrying food for young, NE - Nest containing eggs, NY - Nest with young seen or heard (Confirmed Breeding).

<sup>3</sup> Conservation Rankings: From Ontario Ministry of Natural Resources, Natural Heritage Information Centre ([http://nhic.mnr.gov.on.ca/nhic\\_.cfm](http://nhic.mnr.gov.on.ca/nhic_.cfm))  
 S-Rank = Sub-national/provincial scale (from 1-5), S1 - Extremely Rare, S2 - Very Rare, S3 - Rare to Uncommon, S4 - Common, S5 - Very Common, E - Exotic  
 G-Rank = Global scale (from 1 - "Critically Imperiled" to 5 - "Secure" or common), G1 - Critically Imperiled, G2 - Imperiled, G3 - Vulnerable, G4 - Apparently Secure, G5 - Secure.

B = Breeding Populations, N = Non-breeding Populations; M = Migratory Populations; SARO: EXT - Extirpated, END - Endangered, THR - Threatened, SC - Special Concern.

Track (Is the species tracked provincially?) = Y - Yes, N = No, P = Partial

NA - Not Applicable (*i.e.* not native to Ontario), Blank - Not at Risk in Ontario.



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## **APPENDICES**

**Appendix A:** Background Information

**Appendix B:** License to Collect Fish for Scientific Purposes

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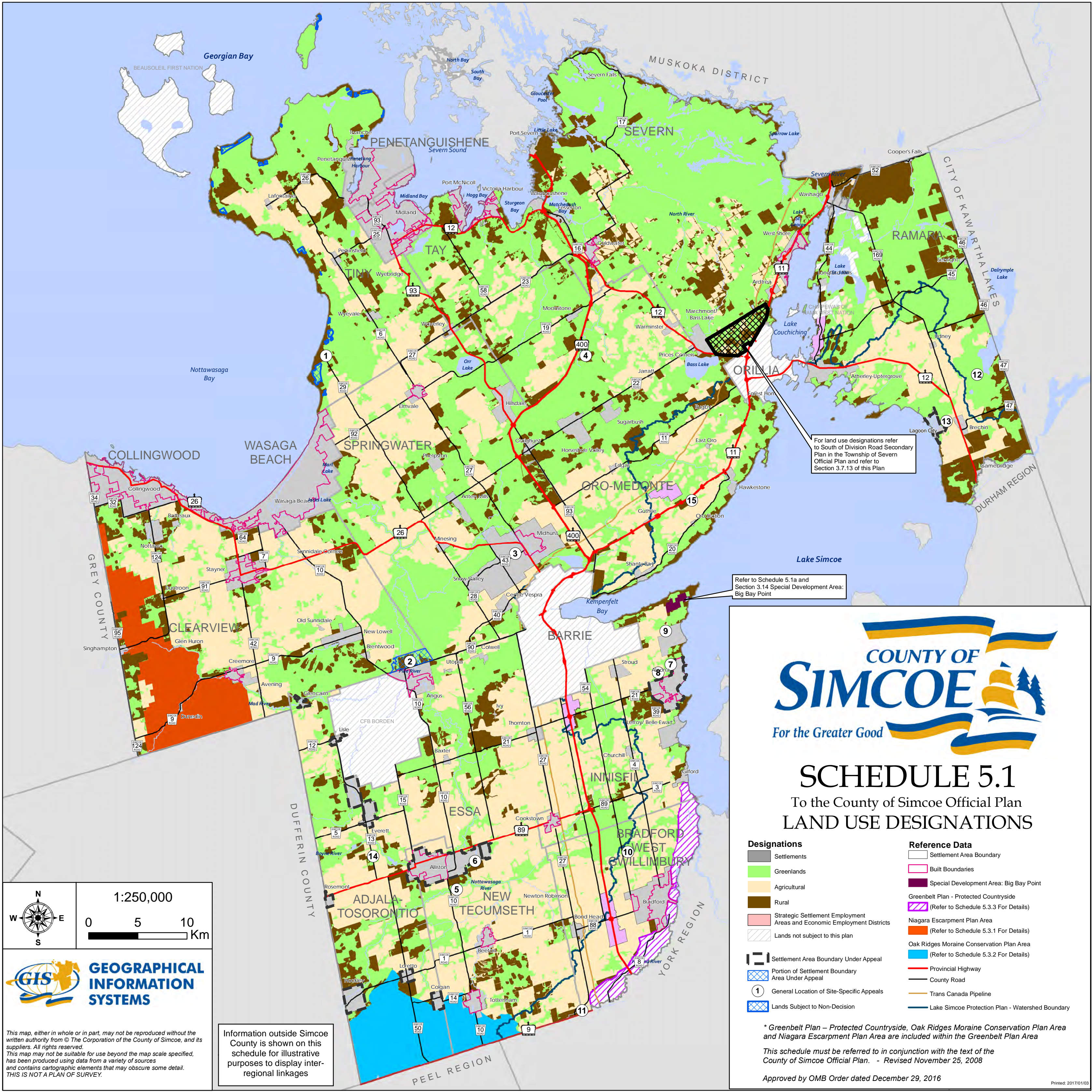
## **APPENDIX A**

### **Background Information**

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For land use designations refer to South of Division Road Secondary Plan in the Township of Severn Official Plan and refer to Section 3.7.13 of this Plan

Refer to Schedule 5.1a and Section 3.14 Special Development Area: Big Bay Point



# SCHEDULE 5.1

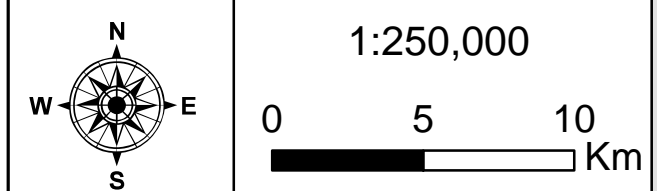
## To the County of Simcoe Official Plan

### LAND USE DESIGNATIONS

Designations	Reference Data
Settlements	Settlement Area Boundary
Greenlands	Built Boundaries
Agricultural	Special Development Area: Big Bay Point
Rural	Greenbelt Plan - Protected Countryside
Strategic Settlement Employment Areas and Economic Employment Districts	(Refer to Schedule 5.3.3 For Details)
Lands not subject to this plan	Niagara Escarpment Plan Area
Settlement Area Boundary Under Appeal	(Refer to Schedule 5.3.1 For Details)
Portion of Settlement Boundary Area Under Appeal	Oak Ridges Moraine Conservation Plan Area
General Location of Site-Specific Appeals	(Refer to Schedule 5.3.2 For Details)
Lands Subject to Non-Decision	Provincial Highway
	County Road
	Trans Canada Pipeline
	Lake Simcoe Protection Plan - Watershed Boundary

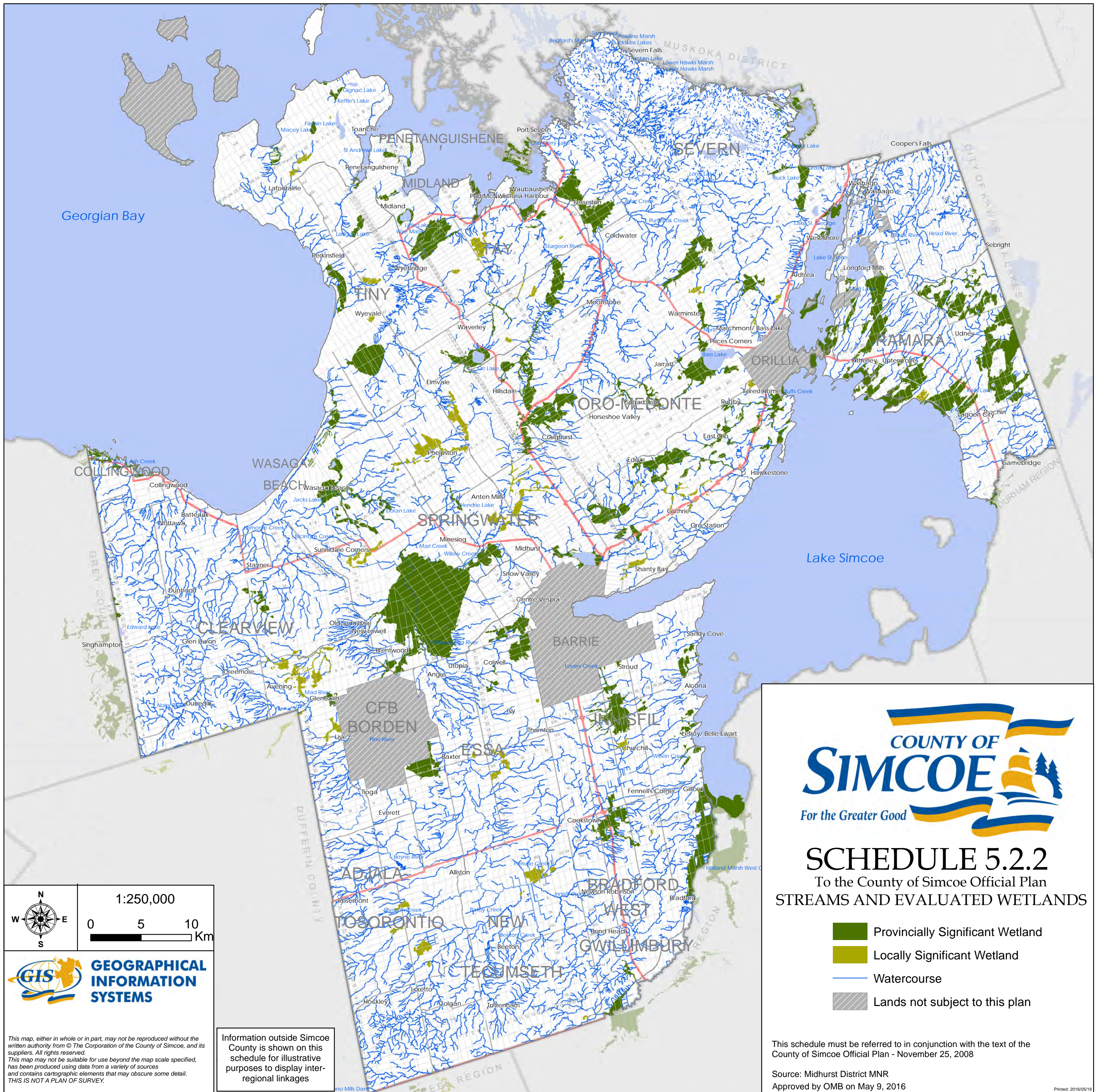
\* Greenbelt Plan - Protected Countryside, Oak Ridges Moraine Conservation Plan Area and Niagara Escarpment Plan Area are included within the Greenbelt Plan Area  
 This schedule must be referred to in conjunction with the text of the County of Simcoe Official Plan. - Revised November 25, 2008

Approved by OMB Order dated December 29, 2016



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Information outside Simcoe County is shown on this schedule for illustrative purposes to display inter-regional linkages

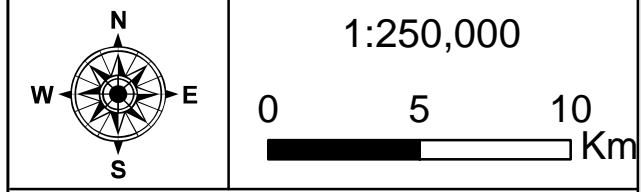


**SCHEDULE 5.2.2**  
 To the County of Simcoe Official Plan  
**STREAMS AND EVALUATED WETLANDS**

- Provincially Significant Wetland
- Locally Significant Wetland
- Watercourse
- Lands not subject to this plan

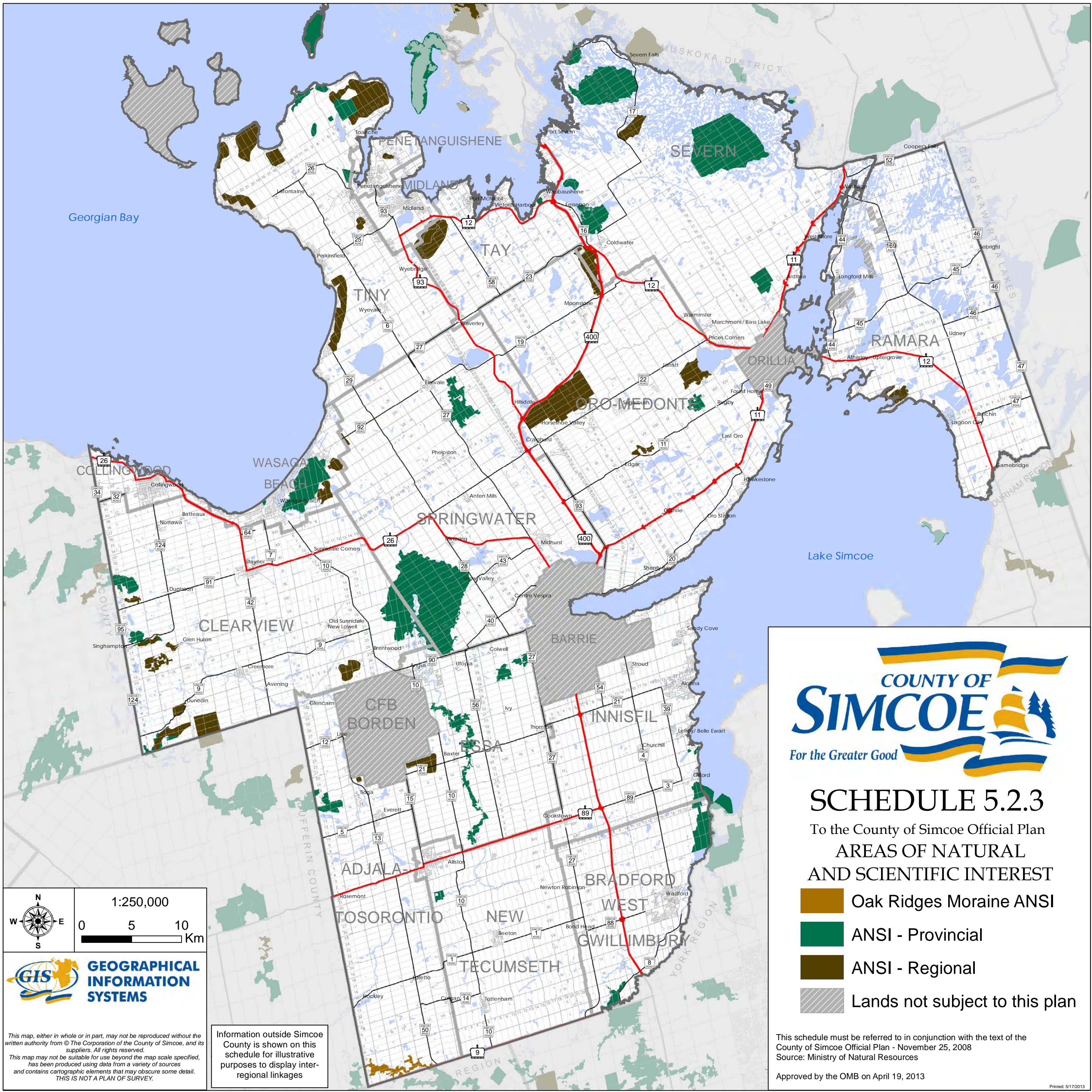
This schedule must be referred to in conjunction with the text of the County of Simcoe Official Plan - November 25, 2008

Source: Midhurst District MNR  
 Approved by OMB on May 9, 2016







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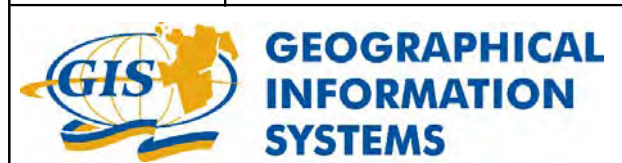
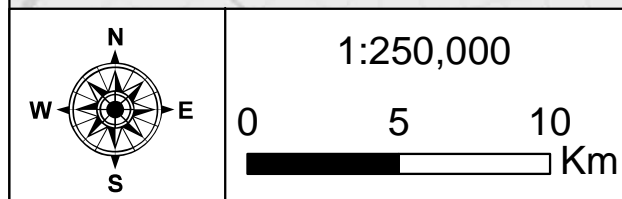


**SCHEDULE 5.2.3**  
 To the County of Simcoe Official Plan  
**AREAS OF NATURAL  
 AND SCIENTIFIC INTEREST**

-  Oak Ridges Moraine ANSI
-  ANSI - Provincial
-  ANSI - Regional
-  Lands not subject to this plan

This schedule must be referred to in conjunction with the text of the County of Simcoe Official Plan - November 25, 2008  
 Source: Ministry of Natural Resources

Approved by the OMB on April 19, 2013



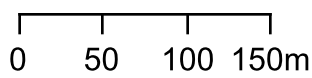
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Information outside Simcoe County is shown on this schedule for illustrative purposes to display inter-regional linkages

# County of Simcoe - Web Map



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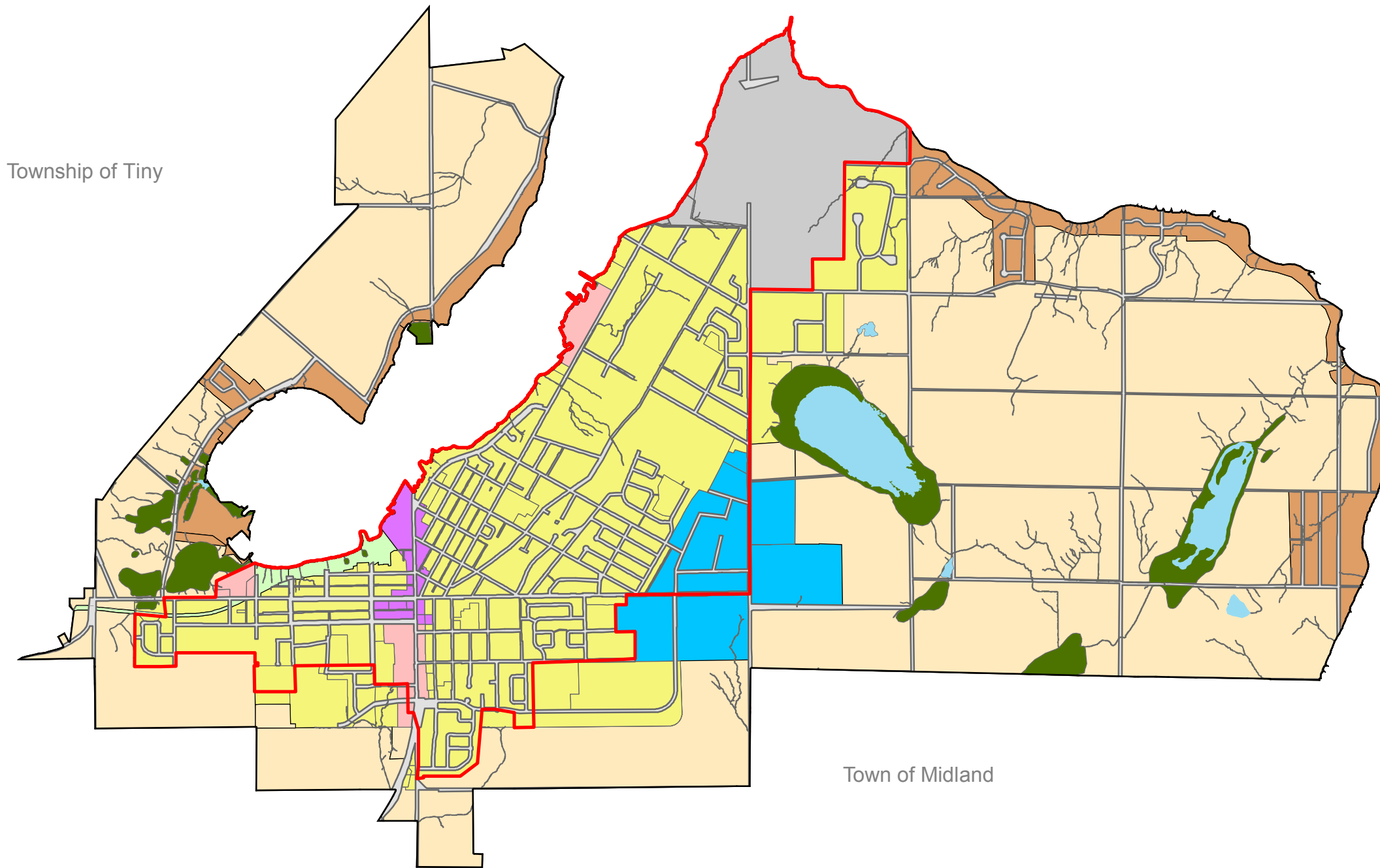
1 : 4,514



Aug 22, 2022



**OFFICIAL PLAN**  
**Schedule A: Land Use Structure**





- Neighbourhood Area
- Downtown and Waterfront Area
- Mixed-Use and Commercial Area
- Employment Area
- Major Open Space Area
- Shoreline Area
- Rural Area
- Provincial Institution Area
- Environmental Protection Area (EP)
- Delineated Built Boundary

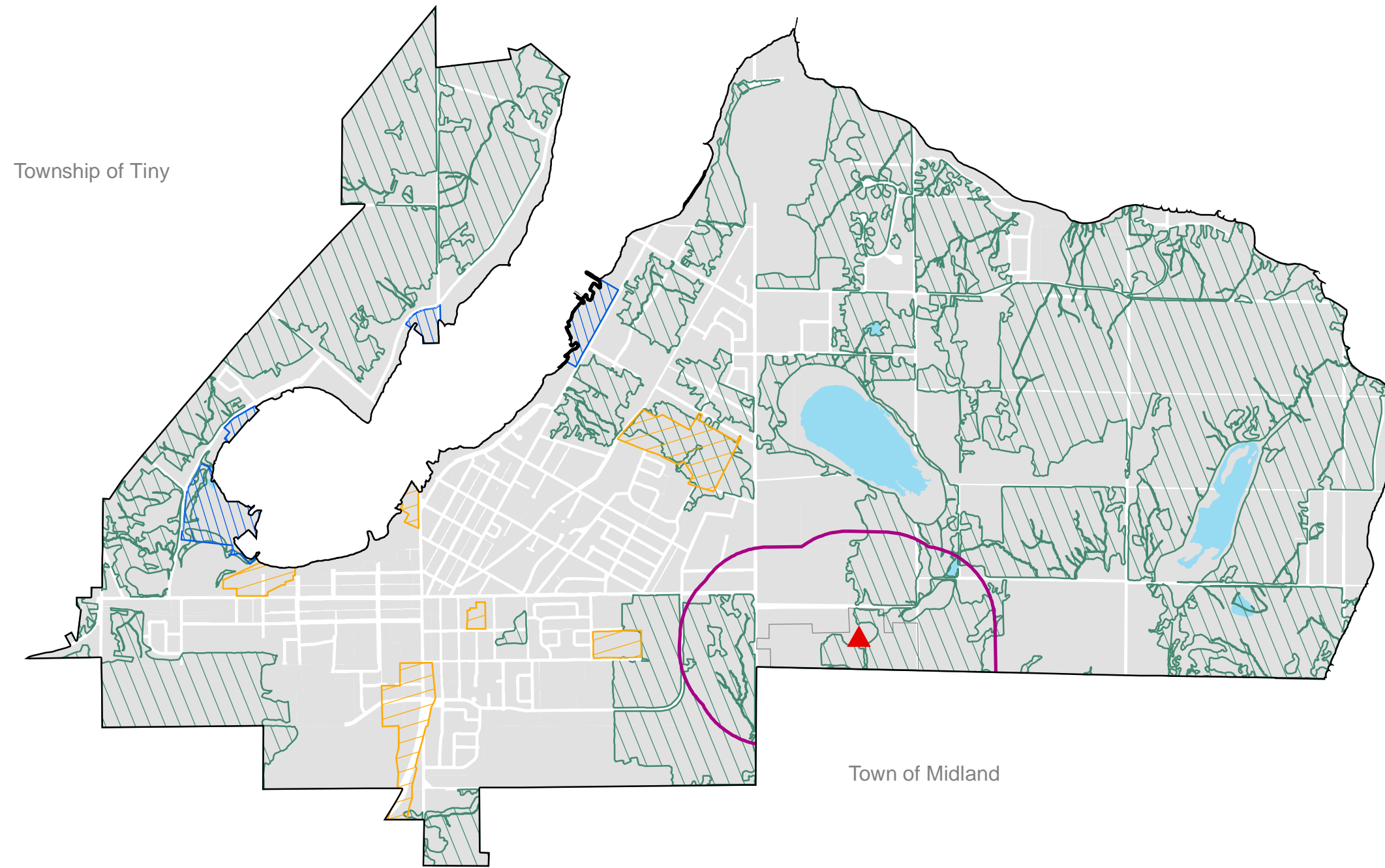
Interpretation Note:  
This Schedule shall be read and interpreted  
in conjunction with the Official Plan.





**OFFICIAL PLAN**  
**Schedule B1: Policy Overlays**

-  Environmental Protection
-  Future Study Areas
-  Site Specific Policy Areas
-  Waste Disposal Influence Area
-  Waste Disposal Site



Interpretation Note:  
This Schedule shall be read and interpreted  
in conjunction with the Official Plan.



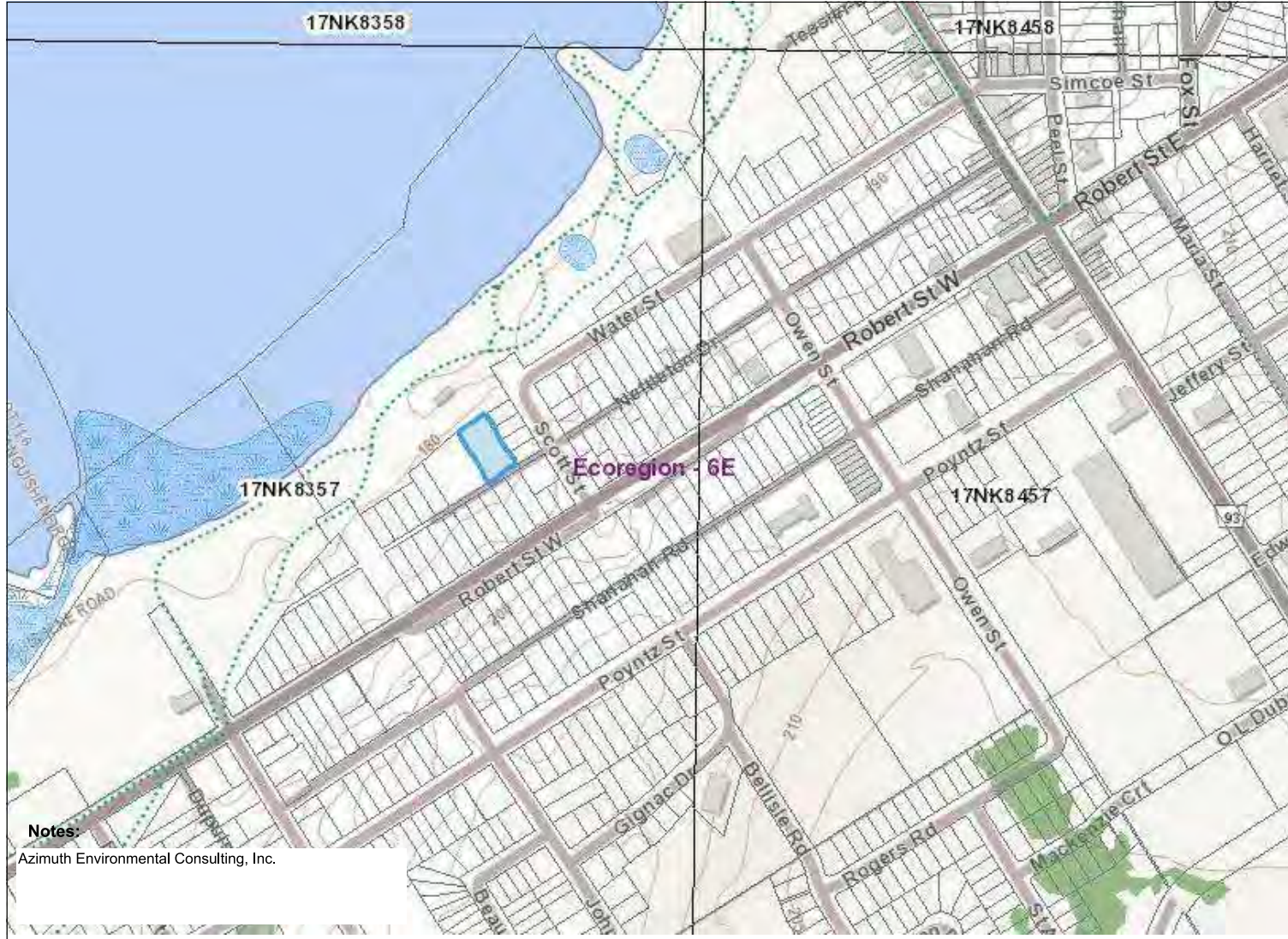


### 65 Nettleton Drive, Penetanguishene

Map created:8/17/2022

### Legend

- Assessment Parcel
- NHIC 1 Km Grid
- Ecoregion
- ORM Boundary
- NEP Boundary
- ANSI
- Earth Science Provincially Significant/sciences de la terre d'importance provinciale
- Earth Science Regionally Significant/sciences de la terre d'importance régionale
- Life Science Provincially Significant/sciences de la vie d'importance provinciale
- Life Science Regionally Significant/sciences de la vie d'importance régionale
- Evaluated Wetland
- Provincially Significant/considérée d'importance provinciale
- Non-Provincially Significant/non considérée d'importance provinciale
- Unevaluated Wetland
- Woodland
- Conservation Reserve
- Provincial Park
- Natural Heritage System



**Notes:**  
Azimuth Environmental Consulting, Inc.

0.3 0 0.16 0.3 Kilometres Absence of a feature in the map does not mean they do not exist in this 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.  
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GTA 2005 / SWOOP 2006 / Simcoe-Muskoka-Dufferin © FirstBase Solutions, 2005 / 2006 / 2008  
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## NHIC Data

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

OGF ID	Element Type	Common Name	Scientific Name	SRank	SARO Status	COSEWIC Status	ATLAS NAD83 IDENT	COMMENTS
988571	WILDLIFE CONCENTRATION AREA	Colonial Waterbird Nesting Area		SNR			17NK8357	
988571	SPECIES	Lake Sturgeon (Great Lakes - Upper St. Lawrence River population)	Acipenser fulvescens pop. 3		THR	THR	17NK8357	
988571	SPECIES	Northern Sunfish (Great Lakes - Upper St. Lawrence populations)	Lepomis peltastes pop. 2		SC	SC	17NK8357	
988571	SPECIES	Midland Painted Turtle	Chrysemys picta marginata			SC	17NK8357	
988571	SPECIES	Eastern Meadowlark	Sturnella magna		THR	THR	17NK8357	
988571	SPECIES	Massasauga (Great Lakes / St. Lawrence population)	Sistrurus catenatus pop. 1		THR	THR	17NK8357	
988571	SPECIES	Snapping Turtle	Chelydra serpentina		SC	SC	17NK8357	



# 65 Nettleton Drive, Penetanguishene



Azimuth Environmental Consulting, Inc.





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**APPENDIX B**

**License to Collect Fish for Scientific Purposes**

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Environmental Assessments & Approvals

March 28, 2022

AEC 21-523

Ministry of Northern Development, Mines, Natural Resources and Forestry  
Midhurst District  
2284 Nursery Road  
Midhurst, Ontario  
L9X 1N8

Re: **Licence to Collect Fish for Scientific Purposes (LCFSP) Application – 65  
Nettleton Drive, Town of Penetanguishene**

To whom it may concern:

Azimuth Environmental Consulting, Inc. (Azimuth) has been retained to complete a Fish Habitat Impact Assessment for the abovementioned properties in the Town of Penetanguishene (Figure 1). This property is located approximately 83 meters (m) from Penetanguishene Harbour (Georgian Bay) approximately 60m west of Scott Street.

The study area contains an unmapped drainage feature. This feature is seasonal, however baitfishes have been potentially observed by the landowner in spring. In order to assist in characterizing the fish habitat functions and sensitivity of this feature, Azimuth is requesting a LCFSP from NDMNRF to allow for non-standardized presence/absence sampling. This feature is not directly connected to Georgian Bay, therefore no migratory species are expected to utilize the feature and no disruption of spawning/egg incubation is expected to occur based on the timing being requested.

Azimuth proposes to conduct spot sampling using a backpack electrofisher in the drainage feature (Figure 2) over one day in spring 2022. Any captured fish will be promptly identified and released in good health. All fish data will be submitted to NDMNRF as a condition of the licence.

The application for this LCFSP, along with the VHS questionnaire is provided herein.

Thank you in advance for your assistance, and should you have any questions, please do not hesitate to contact me.

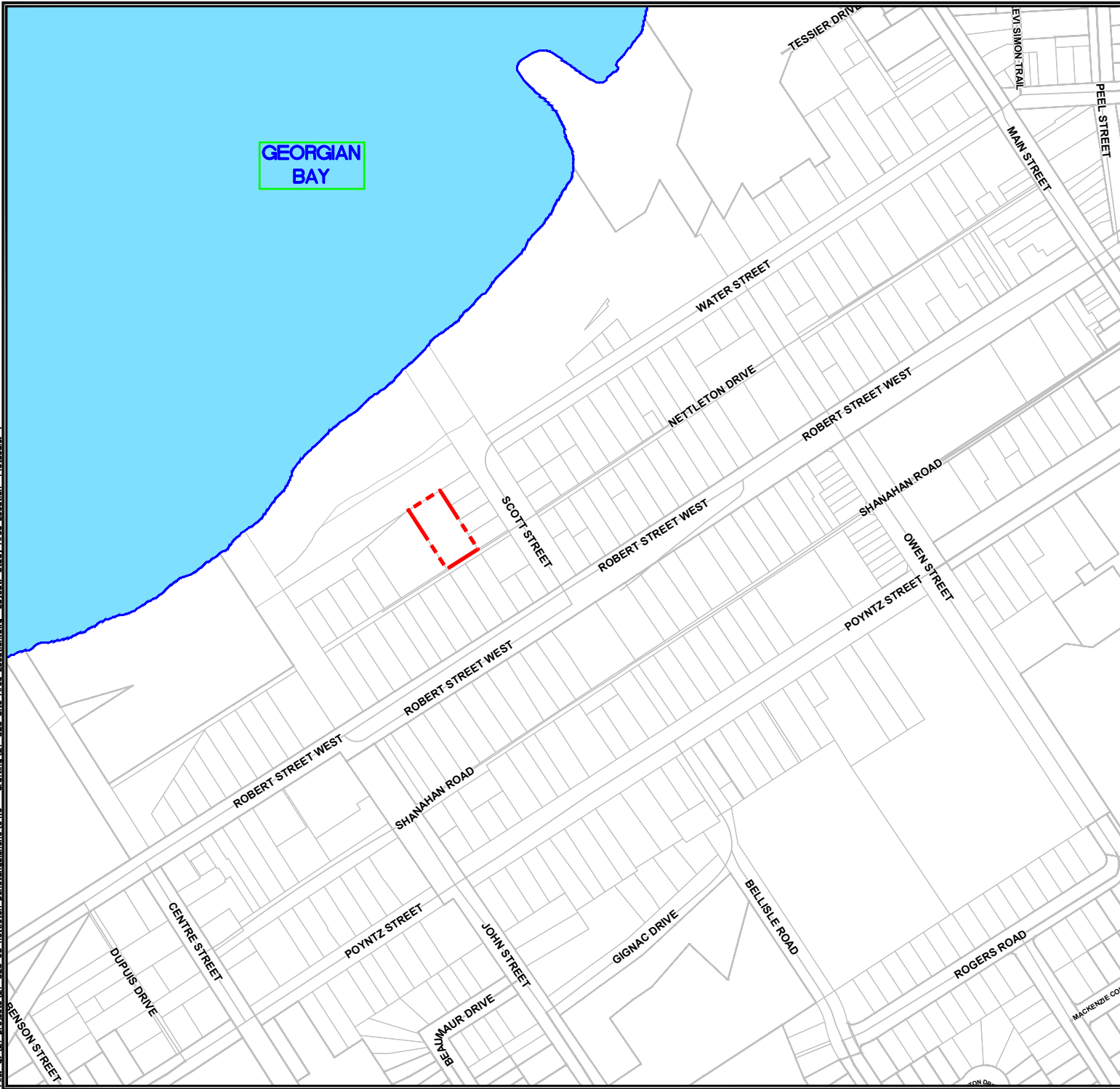


Regards,  
AZIMUTH ENVIRONMENTAL CONSULTING, INC.

*Alyssa Deurwaarder*

Alyssa Deurwaarder, B.Sc.,  
Ecologist

Plotted by: ALU on January 18, 2022 at 4:45pm  
File: C:\21 projects\21-523 nettleton\_penetanguishene\04.0 - drafting\21-523 Site Area Location.dwg Layout: Study Area Location\_Plotcode: 1



**LEGEND:**

- APPROX. PROPERTY BOUNDARY

**REGIONAL MAP**  
SCALE 1:50000

HORIZONTAL SCALE 1:5000

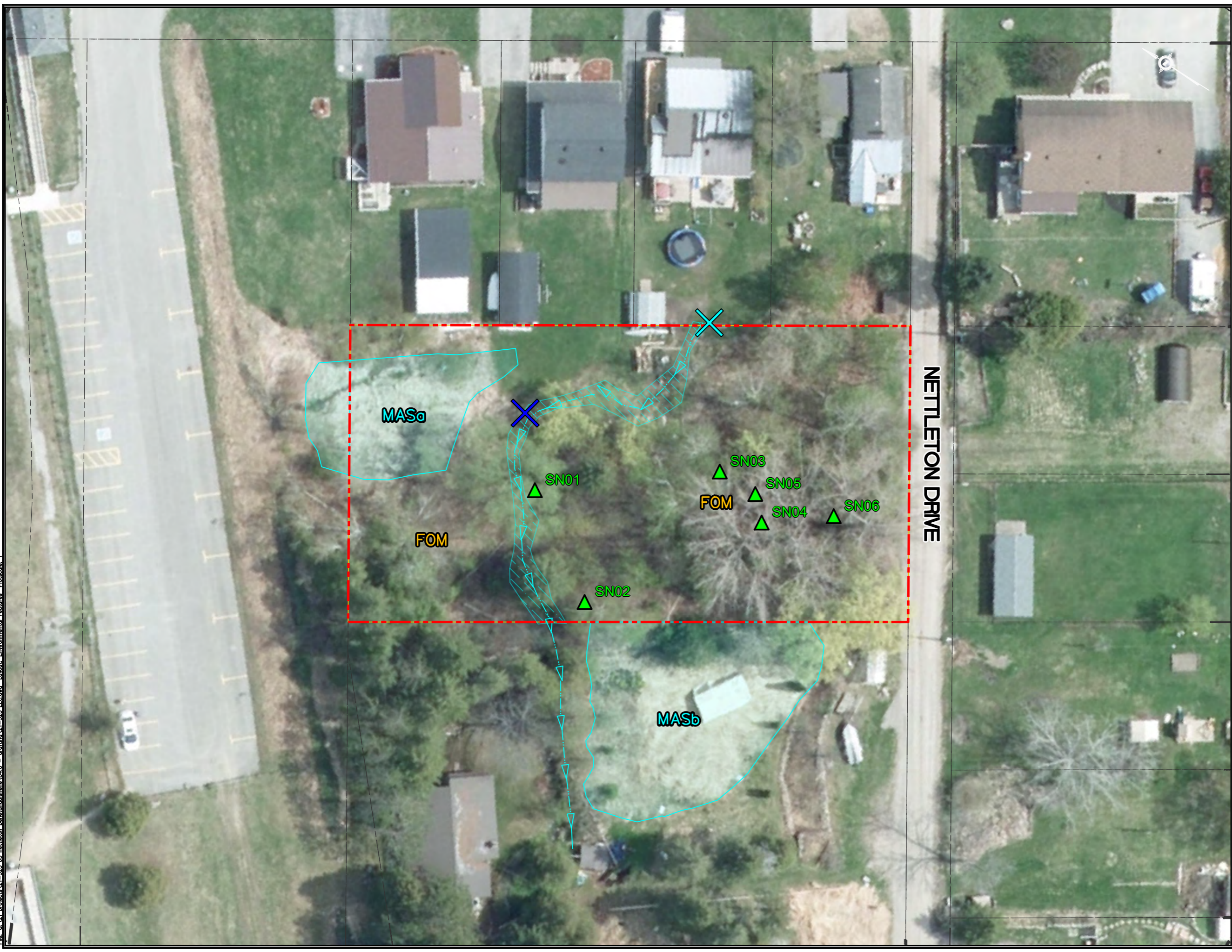
ENVIRONMENTAL ASSESSMENTS & APPROVALS

**STUDY AREA LOCATION**

65 NETTLETON DRIVE  
PENETANGUISHENE, ON

DATE ISSUED: JANUARY 2022	Figure No.
CREATED BY: A.L.	
PROJECT NO.: 21-523	1
REFERENCE: SIMCOE COUNTY	

Plotted by: ALJ on January 18, 2022 at 4:48pm  
 File: G:\21-523-65-Nettleton-Environmental-Features-Photoscale\_1



**LEGEND:**

- - - APPROX. PROPERTY BOUNDARY
- - - DRAINAGE FEATURE
- ▨ SPRING (BANKFUL)
- ▲ CANDIDATE BAT SNAGS
- X DITCH INPUT (APPROXIMATE)
- X UNDERGROUND PIPE INPUTS (APPROX.)

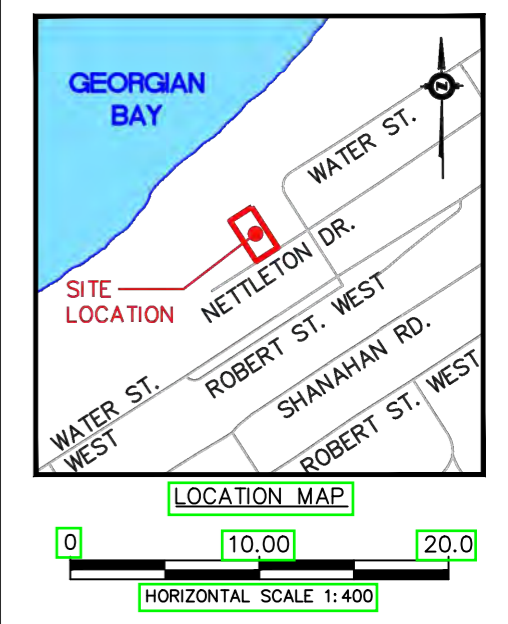
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**ELC VEGETATION COMMUNITIES:**

- ▭ FOM MIXED FOREST

**ELC WETLAND COMMUNITIES:**

- ▭ MAS SHALLOW MARSH



**ENVIRONMENTAL FEATURES**

**65 NETTLETON DRIVE  
 PENETANGUISHENE, ON**

DATE ISSUED: JANUARY 2022	Figure No.
CREATED BY: A.L.	2
PROJECT NO.: 21-523	
REFERENCE: SIMCOE COUNTY	

Personal information contained on this form is collected under the authority of the *Fish and Wildlife Conservation Act, 1997* and will be used for the purpose of licensing, identification, enforcement, resource management and customer service surveys. Please direct further enquiries to the District Manager of the MNRF issuing district.

New Licence Application

Licence Renewal      Current Licence Number \_\_\_\_\_

### Applicant Information

Last Name <b>Deurwaarder</b>	First Name <b>Alyssa</b>	Middle Initial
---------------------------------	-----------------------------	----------------

Name of Business/Organization/Affiliation  
**Azimuth Environmental Consulting, Inc.**

### Mailing Address of Applicant

Unit Number	Street Number <b>642</b>	Street Name <b>Welham Road</b>	PO Box
City/Town <b>Barrie</b>	Province <b>Ontario</b>	Postal Code <b>L4N 9A1</b>	

**Physical Address of Applicant (if different from mailing address)**     If address is same as above

Unit Number	Street Number	Street Name	PO Box
City/Town	Province	Postal Code	

Telephone Number <b>705 305-8582</b>	ext.	Business Telephone Number <b>705 721-8451</b>	ext. <b>220</b>	Fax Number	ext.
---	------	--	-----------------	------------	------

Assistant Last Name	Assistant First Name	Assistant Middle Initial
<b>Gillespie</b>	<b>Mike</b>	
<b>Stuart</b>	<b>Dan</b>	
<b>Stuart</b>	<b>Matt</b>	
<b>Murphy</b>	<b>Sara</b>	
<b>Wrobel</b>	<b>Jordan</b>	
<b>Butler</b>	<b>Courtney</b>	
<b>D'Entremont</b>	<b>David</b>	

### Gear to be Used

- Backpack electrofisher**
- Dip nets**
- Seine**

### Collection Information

Collection Period Start Date (yyyy/mm/dd) <b>2022/04/25</b>	Collection Period End Date (yyyy/mm/dd) <b>2022/05/20</b>
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## Transfer of Viral Hemorrhagic Septicemia (VHS) Risk Assessment Questionnaire

### AEC 21-523: Licence to Collect Fish for Scientific Purposes (LCFSP) – 65 Nettleton Drive, Town of Penetanguishene

**Note:** The Best Management Practices for Collection of Fish for Scientific Purposes (FPS Bulletin 2011-01 July 29, 2011) should be reviewed before completing this questionnaire.

Subject to a risk assessment conducted by MNR, a Licence to Collect Fish for Scientific Purposes **may be issued** for:

- Live fish to be collected from inside the VHS or Lake Simcoe Management Zones and transported to facilities outside the Zone of Capture, and/or
- Collection activities that will occur both inside and outside the VHS or Lake Simcoe Management Zones with the same equipment.

Ministry staff will conduct the risk assessment based on this questionnaire and ensure appropriate control measures are agreed to before authorizing scientific collection activities inside and outside of the VHS or Lake Simcoe Management Zones. The appropriate control measures, including the requirement to adhere to the practices outlined in the Best Management Practices for Collection of Fish for Scientific Purposes (FPS Bulletin 2011-01 July 29, 2011), will be added as a condition of licence.

#### **Definitions:**

**VHS Positive Waters in the VHS Management Zone:** the waters of Lakes Ontario, Erie, Huron (including Georgian Bay), their connecting waterways and adjacent tributaries up to the first impassable barrier for all fish species. (Note: Where fish are manually transferred over barriers or pass through a fishway, that barrier will not be considered to be impassable. Low head lamprey weirs or dams that do not normally stop salmonid passage also are not considered impassable.)

**VHS Management Zone:** includes the area bounded by the provincial road network which encompasses the waters defined as VHS Positive Waters in the VHS Management Zone.

**Lake Simcoe Management Zone:** includes the area bounded by the provincial road network which encompasses the waters around Lake Simcoe (based on fish movement, water flow and watershed boundaries).

Maps depicting the VHS Management Zone and Lake Simcoe Management Zone can be viewed at: <http://www.mnr.gov.on.ca/239480.pdf>.

**Questions:**

1. Location of collections.

Fish sampling is proposed within an unnamed drainage feature on the property. Please refer to Figure 2 for sampling locations.

Are any of the collection locations identified on the Application for a Licence to Collect Fish for Scientific Purposes in the VHS or Lake Simcoe Management Zones?

- i. YES   X   (high risk)
- ii. NO        Referring to the 'Lake Simcoe Management Zone and VHS Management Zone' map (MNR, 2017), the two fish sampling areas are directly east of (and outside) the VHS Management Zone.

a. Will collections occur both inside the VHS or Lake Simcoe Management Zones and outside of that Management Zone (including the other Management Zone)?

- i. YES        (high risk)
- ii. NO   X

2. Equipment (including clothing) used to collect and handle fish.

Azimuth will conduct spot fish sampling using a backpack electrofisher with dip nets. A seine may also be used if necessary.

a. Will equipment or clothing used to collect fish be in contact with water from either Management Zone and then used in waters not in the Management Zone where the collections took place (including the other Management Zone)?

- i. YES   X   (high risk, should be avoided)
- ii. NO

b. If yes, will the equipment and clothing be disinfected prior to collecting in waters not in the Management Zone?

- i. YES   X
- ii. NO        (higher risk - licence will not normally be issued unless suitable measures to mitigate the risk are put in place).

- c. If yes, describe planned disinfection method, particularly if different from that outlined in the BMP.

Azimuth adheres to the best management practices prescribed by MNRF in the 'Fisheries Policy section technical Bulletin, BMP, Collection of Fish for Scientific Purposes' to assist MNRF in ensuring the implementation of control measures to slow and limit the spread of Viral Hemorrhagic Septicemia (VHS). All sampling gear will be thoroughly dried and cleaned to remove remnant material (mud, plants, inverts, etc.) in advance of the proposed fish sampling, and again after completing fish sampling.

3. Live transport of fish across the Management Zone boundaries.
- a. Will any live fish collected from either of the Management Zones be transported through an area not in the Management Zone?
- i. YES \_\_\_\_\_
- ii. NO   X
- b. Describe the route to be followed to the research facility?  
NOT APPLICABLE
4. What measures will be put in place to ensure that live fish and the water in which they are being carried will be contained during transport and not accidentally deposited near any waters (e.g., closed container)?  
All fish captured within the drainage feature will be promptly released after identification/documentation. All water used to temporarily hold fish will be collected and poured out on site. No transportation of fish will occur.
5. Source of water used to transport live fish.  
NOT APPLICABLE
- a. Is the source of water from either of the Management Zones or waters connected to VHS Positive Waters?
- i. YES \_\_\_\_\_ (Licence will not be issued)
- ii. NO   X
- b. Will the water to be used for transporting the live fish be treated (e.g., UV, ozone, municipally treated)?
- i. YES \_\_\_\_\_ (lower risk)
- ii. NO   X
6. What is the source of the water?

NOT APPLICABLE

a. Will any of the fish collected be transported live to a research facility?

- i. YES \_\_\_\_\_ (higher risk)
- ii. NO   X

b. Is the research facility in either of the Management Zones?

NOT APPLICABLE

- i. YES \_\_\_\_\_
- ii. NO \_\_\_\_\_ (higher risk)

c. Does the facility use treated water?

NOT APPLICABLE

- i. YES \_\_\_\_\_
- ii. NO \_\_\_\_\_ (higher risk)
- iii. If yes, describe how the water is treated

d. Describe how the fish will be held (e.g., aquaria, tanks with water, recirculation, closed or open system - i.e., drains to municipal sewer, etc.).

NOT APPLICABLE

e. Describe effluent treatment.

NOT APPLICABLE

f. Describe how the fish will be disposed of.

NOT APPLICABLE

7. Please describe any other measures that will be put in place to mitigate the risk of spreading VHS through the fish collection activities or the movement of live fish.

All sampling and processing equipment will arrive on site in clean condition, and will be cleaned again prior to use in other areas.

Midhurst District Office  
2284 Nursery Road  
Midhurst, ON, L9X 1N8  
Tel: 705-725-7500  
Fax: 705-725-7584

Bureau de district Midhurst  
2284 rue Nursery  
Midhurst, ON, L9X 1N8  
Tél: 705-725-7500  
Télé: 705-725-7584

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May 13, 2022

Azimuth Environmental Consulting Inc.  
642 Welham Road  
Barrie, ON  
L4N 9A1

**Attention:**

**Subject:** Licence to Collect Fish for Scientific Purposes #1100960

Dear Alyssa:

Please find enclosed your Licence to Collect Fish for Scientific Purposes as requested. Please sign the Licence and the Conditions page immediately upon receipt and fax (519) 372-3305 or scan/email to [midhurstinfo@ontario.ca](mailto:midhurstinfo@ontario.ca) a signed copy of the Licence and Conditions.

Please note that this approval allows for the collection of fish and is not an approval to do in-water work for the duration of the licence term. Please visit our [website](#) to determine the timing window for in-water work for your project. If you are hoping to deviate from the prescribed in-water work timing window you will require prior approval from the Ministry of Natural Resources and Forestry. Please forward such requests to [midhurstinfo@ontario.ca](mailto:midhurstinfo@ontario.ca).

As per condition # 19, mandatory report forms documenting the sampling conducted under this licence must be submitted to the licence issuer within 30 days of the termination date, but in no case later than January 31 next following the year of issue. **Condition # 19 now requires you to submit the Mandatory Report (Part 1), the Site Collection Reports (Part 2) and site maps electronically by email to [midhurstinfo@ontario.ca](mailto:midhurstinfo@ontario.ca).** The most recent electronic report form is attached in this email for your use. Please ensure you use this form.

The electronic report form attached includes Part 1 and Part 2. Please make sure to complete all mandatory fields indicated on the form. In addition to those indicated with an \*, please include "Sampling Date" and "Gear Type". Although not indicated as mandatory on the form, this information is required. Also included is a tool to embed (or electronically attach) a map to the collection record (Part 2).

If you have any questions, please send an email to [midhurstinfo@ontario.ca](mailto:midhurstinfo@ontario.ca).

Yours truly,

*Shari Haak*

Shari Haak

Resources Clerk – Midhurst District



Ministry of  
Natural Resources

Ministère des  
Richesses naturelles

# Licence to Collect Fish for Scientific Purposes

## Permis pour faire la collecte de poissons à des fins scientifiques

Licence No. N° de permis	1100960
Local Reference No. N° de référence local	MH2022-00115
Issuer Account No. N° de compte du délivreur de permis.	10003131

This licence is issued under Part I of the Fish Licensing Regulation made under the Fish and Wildlife Conservation Act, 1997 to:

Ce permis est délivré en vertu de la Partie I du règlement sur la délivrance de permis de pêche formulé conformément à la Loi sur la protection du poisson et de la faune de 1997 à:

<b>Name of Licencee</b> Nom du titulaire du permis	Last Name / Nom de famille Deurwaarder	First Name / Prénom Alyssa	Middle Name / Second Prénom
Name of Business/Organization/Affiliation ( if applicable) / Nom de l'entreprise/de l'organisme/de l'affiliation (le cas échéant) Azimuth Environmental Consulting, Inc.			
<b>Mailing address of Licencee</b> Adresse postale du titulaire du permis	Street Name & No./PO Box/RR#/Gen. Del./ N° rue/C.P./R.R./poste restante 642 Welham Road		
	City/Town/Municipality / Ville/village/municipalité Barrie	Province/State Province/État ON	Postal Code/Zip Code Code Postal/Zip L4N9A1

to collect the species, size and quantities of fish from the waters as set out below.

Pour faire la collecte des espèces suivantes (stade et nombre indiqués ci-dessous):

Species Espèces	Eggs Oeuf	Juvenile Fretin	Adults Adulte	Numbers Nombre	Name of Waterbody Nom de l'étendue d'eau
All Fish Species Encountered	X	X	X		Unnamed Drainage Feature - 65 Nettleton Drive, Penetanguishene

Yes/Oui  Additional species/Waterbody list attached / Liste d'espèces/d'étendue d'eau additionnelles ci-jointe

<b>Purpose of collection</b> But de la collecte	Information gathering for a Fish Habitat Impact Assessment
--	--

<b>Licence Dates</b> Dates du permis	Effective Date / Date d'entrée en vigueur (YYYY-MM-DD) 2022-05-12	Expiry Date / Date d'expiration (YYYY-MM-DD) 2022-05-31
---	---	---

**Licence conditions** This licence is subject to the conditions contained in Schedule A if included. / Ce permis doit respecter les conditions de l'annexe A si celle-ci est jointe.

<b>Conditions du permis</b>	Yes/Oui <input checked="" type="checkbox"/> No/Non <input type="checkbox"/>	Schedule A included. / Annexe A ci-jointe
-----------------------------	---	---

Issued by (please print) Délivré par (veuillez écrire en caractères d'imprimerie)	Signature of issuer / Signature du délivreur	Date of Issue/Date de délivrance
Julie Simard, District Supervisor		(YYYY-MM-DD) 2022-05-12
Signature of Licencee / Signature du titulaire du permis		Date (YYYY-MM-DD) 2022-05-12

Personal information contained on this form is collected under the authority of the Fish and Wildlife Conservation Act, 1997 and will be used for the purpose of licencing, identification, enforcement, resource management and customer service surveys. Please direct further inquiries to the District Manager of the MNR issuing district.

Les renseignements personnels dans ce formulaire sont recueillis conformément à la Loi sur la protection du poisson et de la faune, 1997, et ils seront utilisés aux fins de délivrance de permis, d'identification, d'application des règlements, de gestion des ressources et de sondage sur les services à la clientèle. Veuillez communiquer avec le chef du district du MRN qui délivrera le permis si vous avez des questions.

## Licence to Collect Fish for Scientific Purposes

### Schedule A - Licence Conditions

Licence No.: 1100960

**This licence is subject to the conditions listed below.**

1. This licence is valid only for the person(s), species, number(s), and date(s) indicated.
2. Licensee may collect fish in the following location(s): Unnamed drainage - 65 Nettleton Drive, Town of Penetanguishene.
3. Licensee may be assisted by: Mike Gillespie, Dan Stuart, Matt Stuart, Sara Murphy, Jordan Wrobel, Courtney Butler, David D'Entremont. Any changes to assistants must be confirmed in writing.
4. A signed copy of the original licence shall be carried by the licensee(s) or designated assistant(s) and be on the permitted site(s) at all times.
5. This licence is not valid in Provincial Parks, Conservation Reserves, or National Parks without the written permission from the authorized person in charge of the area concerned.
6. This licence does not allow access to any property without permission of the landowner.

#### **COLLECTION:**

7. Licensee may collect with the following gear: backpack electrofisher, dip nets and seine.
8. All collection gear shall be inspected regularly and live holding traps must be inspected at least once daily.
9. All field equipment must be de-contaminated prior to use on each water body in order to prevent the spread of exotic species and disease.
10. Any collection gear left unattended at the end of each sampling day at the designated site(s) shall be clearly marked with the licensee's contact information. If blocker nets are used, they shall be removed from the watercourse immediately following completion of in-water work.
11. The licensee shall follow the best management practices for the collection, handling, transportation and holding of fish identified in the Fisheries Policy Section Technical Bulletin, Best Management Practices (December 15, 2011) included with the licence to minimize the risk of spreading aquatic invasive species and diseases.
12. Due to potential spawning activity by spawning salmonids visual inspection of all sampling areas should be done prior to sampling with the electrofisher or seine nets. Should spawning activity or redds be observed all sampling must be stopped in order to prevent disturbance to the fish and habitats.

**Signature of Licensee**

**Date**

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## Licence to Collect Fish for Scientific Purposes

### Schedule A - Licence Conditions

Licence No.: 1100960

13. Subject to Condition 14 regarding Invasive Species, the licensee shall release all specimens live at the capture site with the exception of any specimens required for identification purposes.

#### INVASIVE SPECIES

14. Any person, while acting under the authority of this licence, shall immediately **euthanize and not return to the water or the habitat area** any species listed as prohibited or restricted under the Prescribed Species Lists (Ontario Regulation 354/16) or any other invasive species, unless otherwise specified in an authorization issued under the *Invasive Species Act, 2015*. Any other non-native or invasive species captured outside of their established range (not already naturalized) shall be euthanized and not returned to the water or the habitat area. All euthanized specimens shall be disposed of appropriately so as to ensure they do not re-enter the natural environment.

#### SPECIES AT RISK

15. Unless specifically authorized by a separate Endangered Species Act (ESA) authorization (i.e. Registry or permit) and/or Federal Species at Risk Act (SARA) permit, no person shall attempt to catch a Species at Risk.
16. Unless specifically authorized by a separate Endangered Species Act (ESA) authorization (i.e. Registry or permit) and/or Federal Species at Risk Act (SARA) permit, sampling must cease immediately in an area when a Species at Risk is caught.
17. Unless specifically authorized by a separate *Endangered Species Act, 2007*, authorization (i.e. Registry or permit) and/or *Federal Species at Risk Act, 2002*, permit, any species at risk that are incidentally captured must be photographed and immediately released alive at the point of capture. The photographs, including capture coordinates and date caught, must be forwarded to the Ministry of the Environment, Conservation and Parks at [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca).
  - a. All aquatic species at risk records and data must also be reported to the Ministry of Natural Resources and Forestry Natural Heritage Information Centre on the appropriate form at: <https://www.ontario.ca/environment-and-energy/natural-heritage-information-centre>.

#### REPORTING:

18. Sampling locations must be reported using GPS location data using: Projection: Universal Transverse Mercator (UTM); Datum: North American 1983 (NAD83), Canadian Transformation (CNT); Zone: 17N; Units: Metres.
19. A Mandatory Report documenting the sampling conducted under this licence must be submitted to the Midhurst District MNR office (at [midhurstinfo@ontario.ca](mailto:midhurstinfo@ontario.ca)) within 30 days of the termination date, but in no case later than January 31 next following the year of issue. The report shall include:

**Signature of Licensee**

**Date**

**Licence to Collect Fish for Scientific Purposes**

**Schedule A - Licence Conditions**

**Licence No.: 1100960**

- a. The Mandatory Report form (Part 1), completed for each sampling program and the site;
- b. For each collection site, a digital Site Collection Report (Part 2) and an accompanying map clearly indicating the location of the collection site.

**Signature of Licensee**

**Date**

---

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