



Environmental Impact Study
Barzo Lands
Everett
Township of Adjala-Tosorontio

Prepared for:
FarSIght Investments Limited

Prepared by:
Azimuth Environmental
Consulting, Inc.

In Association With
Orion Environmental Solutions

April 2021

AEC 16-093



Environmental Assessments & Approvals

April 27, 2021

AEC 16-093

FarSight Homes
117 Ringwood Drive, Unit 18
Whitchurch-Stouffville, ON
L4A 8C1

Attention: Bob Schickedanz

Re: **Environmental Impact Study, Barzo Land Development, Everett**

Dear Mr. Schickedanz:

As requested, we have completed an Environmental Impact Study related to the residential subdivision concept proposed for the Barzo Lands in Everett.

The following report describes environmental conditions related to lands within and adjacent to the site of the proposed development and provides an assessment of the potential for indirect, direct and cumulative impacts associated with the proposed development on significant natural heritage features and functions including Species at Risk.

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



Yours truly,

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

A handwritten signature in black ink that reads "Jim Broadfoot". The signature is written in a cursive style and is set against a light green rectangular background.

Jim Broadfoot, H. B.Sc.
Terrestrial Ecologist

Attach:

cc: Paul Neals, Orion Environmental Solutions
Brian Goodreid, Goodreid Planning



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1.0 INTRODUCTION

Azimuth Environmental Consulting Inc. (Azimuth) was retained by Far Sight Investments Limited to complete an Environmental Impact Study (EIS) related to residential development for the Barzo Lands in Everett (Lot 13 & 14 Concession 5, Township of Adjala-Tosorontio, Simcoe County) (Figure 1).

The following report outlines our study approach, describes existing conditions, evaluates the significance of natural heritage features and functions of the subject and adjacent lands and provides an assessment of potential environmental impacts, with recommendations for mitigation and restoration.

2.0 PLANNING CONTEXT

2.1 Adjala-Tosorontio Official Plan/Everett Secondary Plan

The subject lands are contained within the settlement boundary of Everett as set out on Schedules to the Simcoe County Official Plan and the Adjala-Tosorontio Official Plan, as amended by Amendment No. 8. The principle of development is established for low and medium density residential land use on the subject property. The Everett Secondary Plan has been adopted by the Township of Adjala-Tosorontio, but is not yet approved by the County of Simcoe and might upon the County making its decision still be subject to appeals to LPAT. The Township is currently proposing modifications to the Secondary Plan that include the removal of its Land Use Plan(s).

2.2 Everett Natural Heritage Report

The Township of Adjala-Tosorontio completed a natural heritage background report (PlanB 2012) as part of the Everett Secondary Plan process. The background report identified the following features/attributes on/adjacent to the property (Appendix A): Unevaluated Wetland (MNR); Wetland (NVCA); Woodlands (MNR); Hedgerows; Watercourse (NVCA & PlanB); Meanderbelt (NVCA); Regulated Area (NVCA); Greenland (Simcoe County); and Corridor Enhancement Opportunity.

2.3 Natural Heritage Policy

In the following sections we identify the planning policies and regulations related to natural heritage utilized in the EIS to identify significant features and functions – including habitat of endangered and threatened species, upon which to assess impacts.



2.3.1 Provincial Policy Statement

Section 2.1 of the Provincial Policy Statement (PPS 2020) specifies policy related to protection of significant natural heritage features and functions as follows:

Section 2.1.4

- a) Significant wetlands in Ecoregions 5E, 6E; and 7E; and,
- b) Significant coastal wetlands.

Section 2.1.5

- 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 Section 2.1.4(b)

Section 2.1.6 – Fish Habitat.

Section 2.1.7 – Habitat of Endangered and Threatened species.

The following provincial guidance documents were utilized to assess significance of natural heritage features and functions: Natural Heritage Reference Manual (OMNR, 2010); Ecoregion 6E Significant Wildlife Habitat (SWH) Criterion Schedule (MNRF, 2015a); and SWH Technical Guide (OMNR 2000). Features and functions within and adjacent (120m) to the area directly impacted by the development were assessed.

2.3.2 Endangered Species Act

Ontario's *Endangered Species Act, 2007* (ESA) provides regulatory protection to endangered and threatened species, prohibiting harassment, harm and/or killing of individuals and/or destruction of their habitats. The various schedules of the ESA identify Species at Risk (SAR) in Ontario. This list includes Special Concern (SC) species not afforded protection under the ESA. Species designated as SC may receive protection under the SWH provisions of the PPS.

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.



2.3.3 Ontario Regulation 172/06

A portion of the lands proposed for development are mapped as “regulated” under O. Reg. 172/06 – administered by the Nottawasaga Valley Conservation Authority (NVCA). In this location, the regulation limit appears to relate to wetlands and associated setback identified in the regulation mapping (Appendix A). There appear to be no floodplain issues related to the development site.

2.3.4 The Growth Plan, 2020

Section 4.2.2 - 1 of the Growth Plan states that the Natural Heritage System mapping and related policies will exclude lands within settlement area boundaries established by July 1, 2017. Section 4.2.2 - 6 states that beyond the Natural Heritage System for the Growth Plan, including within settlement areas, the municipality: a) will continue to protect any other natural heritage features and areas in a manner that is consistent with the PPS; and b) may continue to protect any other natural heritage system or identify new systems in a manner that is consistent with the PPS. As the subject lands are within the Everett Settlement Area, this EIS applies the tests of the PPS with respect to the PPS consistent with the requirements of the Growth Plan.

3.0 STUDY APPROACH

3.1 Existing Conditions Assessment:

- Obtained background environmental information and mapping from the data sources listed below;
- Completed a SAR assessment based on the MECP’s 2019 guidance 2019 document based on a comprehensive list of the SAR of Simcoe County compiled by the MNR Midhurst District as well as SAR records reported locally in background sources;
- Completed three evening amphibian call surveys – May 7, May 28 and June 25, 2018;
- Completed three nocturnal bird surveys – May 28, June 25 and June 28, 2018;
- Completed two dawn breeding bird surveys – June 5 and June 19, 2020;
- Completed vascular plant surveys – June 5 and June 19, 2020;
- Searched specifically for Butternut (endangered) during all site visits; and,
- Classified vegetation communities according to the methods of the Ecological Land Classification (ELC) for southern Ontario (Lee *at al.*, 1998, plus 2008 update).



3.2 Impact Assessment:

- Evaluated the potential for direct, indirect and cumulative impacts related to the proposed development on significant natural heritage features and functions identified in background data and through site investigations/assessment using provincial guidance documents regarding the identification of significant natural heritage features and functions (*i.e.*, Natural Heritage Reference Manual [OMNR 2010], Significant Wildlife Habitat Criterion Schedules for Ecoregion 6E [MNRF 2015a], Technical Note: Species at Risk Bats [MNRF 2015b]);
- Provided recommendations for avoidance and mitigation of potential negative impacts to significant natural heritage features or functions; and,
- Provided direction with respect to authorizations that might be required related to impacts to protected natural heritage features and functions.

3.3 Data Sources

- Aerial images (Google Earth, VuMap);
- Atlas of the Breeding Birds of Ontario (OBBA) [website - <http://www.birdsontario.org/atlas/index.jsp>];
- Atlas of the Mammals of Ontario (Dobbyn, 1994);
- MNRF Natural Heritage Information Center [website - <https://www.ontario.ca/page/make-natural-heritage-area-map>];
- MNRF's Species at Risk in Ontario list [website - <http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/246809.html>];
- Ontario Nature – Ontario Reptile and Amphibian Atlas [website - https://www.ontarionature.org/protect/species/reptiles_and_amphibians/index.php]; and,
- PlanB, 2012 – Natural Heritage System, Everett Secondary Plan Area (Appendix A).

3.4 Vegetation Community Mapping and Surveys

The Ecological Land Classification (ELC) for Southern Ontario (Lee *et al.*, 1998 plus 2008 update) was used to classify vegetation communities. Data were collected on June 5 and June 19, 2020 (J. Broadfoot).

3.5 Wildlife Surveys

3.5.1 General

All wildlife seen, heard or otherwise detected (tracks, scats, feeding evidence, *etc.*) were recorded during all field studies.



Significant Wildlife Habitat functions were evaluated according to provincial criteria of the Ecoregion 6E Criterion Schedule (MNR 2015).

3.5.2 Birds

Dawn breeding bird surveys were conducted on June 5 and June 19, 2020, according to the protocols of the Atlas of the Breeding Birds of Ontario ([OBBA], 2001). Point count stations were established at 8 locations throughout the property (Figure 2). Point count duration was 5 minutes per station. At each station, all species of birds seen or heard were recorded. All species recorded while in transit to other point count stations were also recorded.

Nocturnal bird surveys, focusing on Eastern Whip-poor-will (threatened) and Common Nighthawk (special concern), were conducted on May 28 and June 25, 2018. Surveys were conducted according to the protocols set out by the Ontario Whip-poor-will Project - Bird Studies Canada, and were within the optimal moon-phase windows and under optimal sky and environmental conditions.

3.5.3 Amphibians

Evening calling amphibian surveys were completed on May 7, May 28, and June 25, 2018 according to the Great Lakes Marsh Monitoring Program protocol (Bird Studies Canada, 2008) at the Evening Calling Amphibian Station shown on Figure 2.

3.6 Species at Risk

Azimuth completed a habitat and field observation based assessment (Table 1) of a comprehensive list of SAR known/assumed to occur in Simcoe County compiled by the MNR and based on background data sources including those listed in Section 3.3.

4.0 EXISTING CONDITIONS

4.1 Land Use

4.1.1 On-site Land Use

The subject lands cover approximately 95ha, approximately 60ha of which are actively farmed - potatoes. The farmlands contain a single-detached dwelling with several accessory buildings – metal equipment sheds, small wooden barn (Photo 11). The non-farmed lands contain a mix of mature woodlands/swamps and successional vegetation communities – wetlands and terrestrial.



The lands were traversed by an historic rail line (see 1954 air photo in Appendix B). A section of raised railway bed is present within vegetation communities in the north western section of the property.

The sequence of air photos provided in Appendix B indicates that two ponds and a drainage ditch were constructed on the property post-1954.

4.1.2 Adjacent Land Use

Adjacent lands to the north, west and east are tree covered (forest, swamp). Lands to the south were farmed historically. The fencerows evident on air photos have been cleared recently. Lands to the southeast outside of this subdivision are the site of a Waste Water Treatment Plant proposed to service lands in Everett (these were the topic of an EIS that Azimuth prepared in February 2019 [Azimuth 2019]).

4.2 Geology, Soils and Topography

The subject lands are located within the Nottawasaga Basin of the Simcoe Lowlands, on the Borden Sand Plain, and are part of the bed of ancient Lake Algonquin.

According to surficial geology mapping presented in Greenland (2013), most of the lands contain sand and gravel – nearshore inland deposits. The northwest section of the site contains a mix of gravel, sand, silt, clay – post-glacial river delta deposits. Mapping suggests that lands on the eastern side of the site and extending east contain sand, silt, clay – glacial nearshore flats (Lake Algonquin) deposits. Canada Land Inventory mapping (Simcoe County GIS) indicates organic soils in low lying areas of the west side of the site and covering a portion of the eastern section of the subject lands – extending eastward (Appendix A). The surface soil of the farmed and forest portion of the property is composed of Tioga Sandy Loam

The central section of the property has a height of elevation approximately 240masl. Lands slope gently to the east. In contrast, there is a defined bank on the west side of the site that slopes to the west to low lying areas at approximately 234masl (Appendix A).

4.3 Drainage Features

4.3.1 Watercourses

PlanB (2012) mapped a watercourse on the west side of the subject lands (Appendix A). Field studies and air photo interpretation reveal this mapped watercourse to be a drainage ditch constructed between 1989 and 2002. This drainage feature connects to the eastern ditch of County Road 13 on the west side of the property. Field studies and air photo interpretation revealed a watercourse on the east side of the subject lands and a



watercourse on adjacent lands to the east as shown on Figure 2. These un-mapped watercourses drain to the east toward a mapped watercourse located approximately 850m to the east.

The watercourse on the east side of the subject lands (W1) conveys flow intermittently through wetland habitat (swamp – SWD3-1) contained within woodlands on the east side of the site (mapped alignment defined by GPS points collected by Azimuth June 19, 2020). Flow is from west to east. As shown on Photos 13 and 14, flow in June was discontinuous with standing water limited to small pools. Bankfull width was approximately 150cm and bankfull width averaged less than 25cm. Substrate is silt/muck with downed woody debris and detritus. Upper reaches of W1 were dry and vegetated throughout indicating limited seasonal flow (Photo 13). Within the area of agricultural infrastructure (IAG), WC1 is outfitted with a plastic culvert that facilitates passage of the wheels of a rotary irrigator that swings through the area. In this area W1 has been ditched resulting in a small area of standing water at the forest edge. No fish were observed in any of the isolated pools of W1.

Watercourse W2 is confined to adjacent lands to the east as shown on Figure 2. As shown on Photo 8, there is a low area in the farm field in the vicinity of the beginning of W2 on adjacent land but repeated site visits revealed no evidence of flows off of the farmland into the watercourse (no erosion/defined channel). Viewed from the property line, W2 contained water on June 5 and June 19, 2020. Wetted width was estimated to be approximately 2m and no flow was apparent (i.e., pooled water). Wetted depth and other channel characteristic could not be determined.

4.3.2 Drainage Ditch

Linear drainage ditches were constructed on the west side of the subject lands as shown on Figure 2 sometime between 1989 and 2002 as per historic air photos (Appendix B). The ditch has uniform dimensions and is approximately 7m wide. When observed in June 2020, ditches were full of water throughout – wetted width approx. 5m, wetted depth 100cm, muck substrate. Flow was not apparent (i.e., pooled water).

4.3.3 Ponds

Two ponds were constructed on the subject lands sometime after 1954 as per historic air photos (Appendix B).

Pond 1 (P1, Photo 15) was constructed along the field edge on the east side of the site as shown on Figure 2. The pond is isolated as there is no connection to WC1.



Pond 2 (P2) was constructed on the west side of the subject lands as shown on Figure 2. The pond is isolated as there are no watercourses or ditches connected to it. The pond is supplied by an irrigation pipe (Photo 2) following an alignment from the west. The pond is used as a source of water for the rotary irrigation system of the subject and adjacent lands.

4.4 Vegetation Communities

Fifteen vegetation community types were mapped on/adjacent to the subject lands as shown on Figure 2 and described in Table 2. Table 3 provides a list of vascular plants by community. None of the vegetation are types considered rare provincially (*i.e.*, not tallgrass prairie, savannah, alvar, sand barren [MNRF 2015], or assigned S rank of 1, 2 or 3 by the NHIC).

4.4.1 Wetland

Background mapping (Appendix A) indicates that portions of the subject and adjacent lands have been identified as MNR Unevaluated Wetland. Fields surveys indicate that there is an area of Red Maple Deciduous Swamp (SWD3-1) imbedded within woodland cover of the east side of the site as shown on Figure 2 (Note: this area was partially delineated by the NVCA during a site visit on October 7, 2016 – see NVCA map in Appendix A). A low area of field located next to Pond 1/SWD3-1 and woodland edge is populated by wetlands plants and is classified as Mineral Meadow Marsh (MAM2) wetland (Figure 2). These are no rare wetland types – *i.e.*, not Fen or Bog, and are types that are relatively common locally.

Lowlands on the west side of the subject lands contain organic wetlands of various types - SWT3 Organic Thicket Swamp; MAM3-2/SWT3 Reed-canary Grass Organic Meadow Marsh/Organic Thicket Swamp; SWM4-1 White Cedar-Hardwood Organic Mixed Swamp; and SWD5 Ash Organic Deciduous Swamp, as shown on Figure 2. These are not rare wetland types – *i.e.*, not Fen or Bog, and are types that are relatively common locally. Much of the wetland on the west side of the site is successional having developed on lands farmed historically.

4.5 Plants

Table 3 provides a list of vascular plants by vegetation community.

Black Ash has recently been assessed by the MNRF as S3 (provincially rare). No endangered, threatened or special concern plant species were observed.



4.6 Wildlife

4.6.1 Birds

Forty-seven bird species were assessed as possible or probable breeders on or adjacent to the property (Table 4). Two of these species are designated SC – Eastern Wood-pewee, and Wood Thrush. No endangered or threatened species were detected.

Based on the MNRF's SWH criteria (MNRF, 2015a), the woodlands (forest/treed swamp) of the property and adjacent lands would be considered SWH with respect to Woodland Area-Sensitive Bird Breeding Habitat as three of the listed species were detected as possible or probable breeders – Veery, Yellow-bellied Sapsucker, and Ovenbird. The meadow marsh and thicket swamp habitats of the west side of the property could be considered SWH with respect to Shrub/Early Successional Bird Breeding Habitat as Brown Thrasher was detected in this area as a possible breeder (singing male detected during first survey only – no evidence of probable or confirmed breeding). Woodlands on the east side of the property and those on adjacent lands to the east and north would be considered SWH with respect to Special Concern and Rare Wildlife Species as Eastern Wood-pewee and Wood Thrush were detected as probable breeders in those woodlands.

4.6.2 Amphibians

The results of evening calling amphibian surveys in 2018 indicated that the Pond 1 and nearby wetlands (i.e., SWD3-1) was populated by Spring Peeper – call code 3 [May 7], call code 1-3 [May 28]; Gray Treefrog – call code 1-3 [May 28], call code 1-1 [June 25]; Western Chorus Frog – call code 1-1 [May 7]; and Green Frog – call code 1-1 [June 25]. The NVCA reported an observation of Eastern Newt in Pond 1 during a site-visit on October 7, 2016. No evening calling amphibian surveys were completed for wetlands on the west side of the property. Daytime observation in June 202 revealed relatively high numbers of Green Frog, and a Bull Frog using the drainage ditches.

Based on the MNRF's SWH criteria (MNRF, 2015a) Pond 1 would be considered SWH with respect to Amphibian Breeding Habitat (Woodland) given presence of Eastern Newt despite the relatively low levels of calling amphibian activity overall. The drainage ditch on the west side of the property would be considered SWH with respect to Amphibian Breeding Habitat (Wetlands) given presence of Bullfrog assumed to be breeding in the ditch. Pond 1 and nearby wetlands (SWD3-1, MAM2/CUT1) on the east side of the property could be considered SWH with respect to Special Concern and Rare Wildlife Species as Western Chorus Frog (S3) was detected during evening calling amphibian surveys (single individual).



4.6.3 Reptiles

No snakes were observed during visual encounter surveys conducted at times and under weather conditions when snakes would have been active and hence detectable.

A single Midland Painted Turtle was observed in Pond 1 on June 19, 2020. No signs of turtle nesting (predated nests, etc.) were observed during June site visits in 2020. No turtles were observed in Pond 2 or the drainage ditch on the west side of the property.

As Pond 1 is occupied by turtles it would logically be used by turtles as overwintering habitat and that turtles would nest near the pond (presumably in the pond margins or nearby farmland) and hence the following SWH functions are attributed to Pond 1 and nearby land - Turtle Wintering Areas , and Turtle Nesting Areas.

4.6.4 Mammals - General

The following mammals were detected while completing field studies: White-tailed Deer (*Odocoileus virginianus*, S5); Northern Raccoon (*Procyon lotor*, S5), Striped Skunk (*Mephitis mephitis*, S5); Coyote (*Canis latrans*, S5); Eastern Gray Squirrel (*Sciurus carolinensis*, S5), Eastern Chipmunk (*Tamias striatus*, S5); Red Squirrel (*Tamiasciurus hudsonicus*, S5). None of these is a SAR and all are common locally.

MNRF mapping (Allan *et al.*, 2005) depicts areas of Stratum 1 (Core) and Stratum 2 Deer Yard in the general area (Appendix A) and hence woodlands of the property and adjacent lands function as SWH with respect to Deer Yarding Areas.

According to the MNRF's SWH criteria (MNRF, 2015a), Bat Maternity Colonies may occur in deciduous and mixed forest and swamp vegetation communities that provide an abundance of wildlife cavity trees/snags. Vegetation communities FOD6-5, SWD3-1, FOD5-7 and portions of FOM8-1 are mature (present pre-1954 as per historic air photo – Appendix B) and hence may function as maternity colony habitat for bats.

5.0 BIOPHYSICAL ASSESSMENT

5.1 Identified Natural Heritage Features & Functions

Background mapping (Appendix A) indicates that portions of the subject and adjacent lands have been identified as MNR Unevaluated Wetland. There are no Areas of Natural or Scientific Interest (ANSIs) identified on or adjacent to the subject lands.



5.2 Natural Heritage Assessment

5.2.1 Provincially Significant Natural Heritage Features & Functions

Wetlands

As per Section 4.3.1, wetlands identified within and adjacent to the subject lands are not evaluated as Provincially Significant and they are not located on the shoreline or within 2km upstream of connecting watercourses of Georgian Bay and hence are not coastal wetlands. The nearest Provincially Significant Wetland is located approximately 4km to the northeast.

Assessment – The subject and adjacent lands do not contain Provincially Significant Wetland or Coastal Wetland.

Woodlands

The area of continuous woodland associated with the subject lands and lands to the southeast, east and north covers more than 180ha (Appendix C). In contrast, areas of continuous woodland cover on the west side of the site cover approx. 7ha (Appendix C). Provincial mapping indicates that the Township of Adjala-Tosorontio contains 41.5% woodland cover (Sources: MNRF 2013. 'Wooded Area' data layer. Created by the Ministry of Natural Resources and Forestry. from Land Information Ontario; MMAH 2012). Based on the NHRM, in landscapes having between 30% and 60% woodland cover, woodlands over 50ha may be considered significant.

Assessment – The area of continuous woodland associated with the east and northern sections of the subject lands may be considered significant woodland while those on the west side of the site would not.

Significant Valleylands

The NHRM identifies the following typical characteristics of valleylands: areas with well-defined valley morphology (*e.g.*, floodplains, meander belts, valley slopes), distinctive geomorphic landforms (eroding slopes along river banks or valley walls), *etc.*

Assessment – The subject and adjacent lands do not display well-defined valley morphology and hence are not part of a significant valleyland as defined in the context of the PPS.

Significant Wildlife Habitat

The Criterion Schedule for Ecoregion 6E (MNRF 2015a) identifies 35⁺ wildlife habitat functions to scrutinize for significance. Based on a consideration of all the listed functions, site-specific and background data (as discussed above) indicate that the following SWH functions appear attributable to the subject and adjacent lands:



- Bat Maternity Colony Habitat – mature deciduous and mixed woodlands, FOD6-5, SWD3-1, FOD5-7 and portions of FOM8-1;
- Area-sensitive Bird Breeding Habitat (forest breeding birds) –vegetation communities FOD6-5, SWD3-1, FOD5-7FOM8-1, SWM4-1;
- Shrub/Early Successional Bird Breeding Habitat – vegetation communities SWT3, MAM3/SWT3 (west side of property);
- Deer Yarding Habitat - woodland (forest, treed swamp) and thicket vegetation communities;
- Turtle Overwintering and Turtle Nesting habitat – Pond 1;
- Amphibian Breeding Habitat Woodland – Pond 1 and nearby wetlands SWD3-1 and MAM2;
- Amphibian Breeding Habitat Wetland - drainage ditches on west side of property.
- Habitat of Special Concern and Rare Wildlife Species - SC forest breeding birds – Eastern Wood-pewee, Wood Thrush (vegetation communities FOD6-5, SWD3-1, FOD5-7); Western Chorus Frog (S3, provincially rare) - Pond 1 and nearby wetlands SWD3-1 and MAM2; Black Ash (S3, provincially rare) – SWD3-1, SWM4-1, FOM8-1, SWD5.

5.2.2 Other Wetlands

As per Section 4.3.1, there are areas of wetlands on the subject and adjacent lands portions of which are identified in background mapping as MNR Unevaluated wetlands. The results of field studies by Azimuth and wetland delineation by the NVCA in October 2016 define the limits of unevaluated wetlands on the subject lands for the purposes of the impact assessment.

5.2.3 Fish Habitat

No fish were observed in watercourse W1, Ponds 1 or 2 or the drainage ditch on the west side of the property. Watercourse W1 conveys little flow, is intermittent and is not obviously directly connected to mapped drainage features to the east. Therefore, we do not identify W1 as direct or indirect fish habitat. Though difficult to assess from the property limits, watercourse W2 on adjacent lands to the east appears to have similar characteristic as W1 and hence is unlikely to function as fish habitat. Ponds 1 and 2 and the drainage ditch on the west side of the property are all constructed features and isolated from nearby drainage features. As with similar constructed features, given enough time they tend to become colonized by “baitfish”. However, the DFO does not consider isolated constructed ponds or similar built features to be managed as fish habitat.



Assessment – Watercourses and constructed ponds/ditches on the property do not have characteristics of important habitat for fish.

5.2.4 Habitat of Endangered and Threatened Species

The results of field studies and habitat based SAR assessment (Table 1) indicate that mature woodlands (FOD3-1, FOD6-5, FOD75-7, FOM8-1, SWD3-1, SWM4-1) adjacent to the field where residential development is proposed has the potential to function as maternity/summer roost habitat of END bats. The red pine plantation habitat (CUP3-1) does not provide suitable habitat for bats.

Most buildings on the property are relatively new, well maintained/ closed up and hence do not provide potential habitat for bats.

6.0 PROPOSED DEVELOPMENT

As per the preliminary draft plan (Appendix E), the farmed portion of the Barzo lands is proposed for a mix of residential development (1,238 lots total).

Access to the development is proposed from residential lands to the south.

A park (3.0ha) is proposed on the east side of the plan. We understand that this would be an active use park (soccer pitches, ball fields, play areas, etc.).

The development would be serviced with municipal water and sanitary sewer.

A Storm Water Management (SWM) facility is proposed in the southeast section of the Barzo lands plan area (Figures 3a & b). The facility includes two ponds – A (forebay) and B (wet cell) (Figure 3b). The forebay discharges water via a pipe to the wet cell. The wet cell discharges east into adjacent wetland habitat via an outlet control structure/flow spreader. The length of the outlet is determined by local topography and a requirement to achieve sufficient positive drainage. Emergency overflows from each pond are designed to direct overland flow east of Concession Road 6 and ultimately into adjacent wetlands to the east of the WWTP lands. As per the Functional Servicing Report (FSR, Pearson Engineering 2021), it is recognized that Low Impact Development (LID) approaches are to be implemented to compliment the approach to surface water management/promote infiltration in keeping with Township and NVCA requirements.



7.0 IMPACT ASSESSMENT

The results of our biophysical assessment of site-specific and background data indicate that the subject and adjacent lands contain/provide the following natural heritage features and functions:

- Unevaluated wetland;
- Potential habitat of END bats and Bat Maternity Colony Habitat;
- Significant Woodland;
- Area-sensitive Bird Breeding Habitat (forest breeding birds);
- Shrub/Early Successional Bird Breeding Habitat;
- Amphibian Breeding Habitat;
- Turtle Overwintering and Nesting Habitat;
- Deer Yarding Habitat; and,
- Habitat of Special Concern and Rare Wildlife Species (SC forest breeding birds – Eastern Wood-pewee, Wood Thrush); Western Chorus Frog (S3, provincially rare); Black Ash (S3, provincially rare).

Impact to these natural heritage features and functions is provided in the following sections. Recommendations for impact mitigation are summarized in Section 9.

7.1 Unevaluated Wetland

The footprint of the residential and parkland component of the proposed development is aligned outside of wetlands as shown on Figure 3a. This conclusion is based on the recognition that the area of wetland identified as “NVCA MAM wetland but disputed” (see Farsight/Barzo Wetlands mapping in Appendix A) is actually contained within lands managed to facilitate rotary irrigation system and hence identified in this EIS as “Agriculture Infrastructure” (ELC - IAG). Therefore there will be no direct impacts to wetlands.

The SWM facility outlet encroaches into unevaluated wetlands to the east of the proposed Everett WWTP. The direct impact amounts to approx. 725m² with an anticipation of slightly more wetland habitat impacted temporarily to install the outlet. These lands can be restored post-development. The unevaluated wetlands east of the WWTP are extensive covering over 200ha as mapped by the province (Appendix C). Field data collected as part of the Everett WWTP (Azimuth 2019) indicated that the wetlands where the SWM outlet is proposed do not function as significant habitat with respect to amphibian breeding. Therefore, the proposed outlet does not impact significant amphibian breeding habitat. The area of the proposed outlet does not contain vegetation community types or plant species unique to the overall wetlands, and hence the outlet does not impact unique wetland features or functions. The scale of habitat loss relative to



the abundance of wetlands locally is insignificant. Therefore, the proposed SWM outlet does not represent a significant direct impact to unevaluated wetlands.

As per the FSR (Pearson 2021) LID techniques will be employed to compliment the approach to surface water management and promote infiltration. Field observations indicate that wetlands adjacent to the farmlands proposed for residential development receive little by way of overland flow into adjacent wetlands. Therefore, as the water level of constructed ponds, ditches within/adjacent to wetlands vary little through growing season, we infer that the hydrology of adjacent wetlands is governed primarily by shallow groundwater. Therefore, the approach to surface water management does not represent a significant change to hydrology of adjacent wetlands as there are no important overland flow routes being altered and on-site infiltration to shallow ground water will be maintained through proposed LID servicing. Water discharged from the SWM pond into adjacent wetlands to the east will rapidly infiltrate into the organic soils of the wetland, contributing to the already perennially saturated conditions of the wetland substrates. As the topography in the wetlands at the proposed outlet is relatively flat, there is no expectation of pooling of water at the outlet for durations long enough to impact the integrity of the existing wetland vegetation. Therefore, the proposed development including its approach to surface water management will result in no negative indirect impact to wetlands.

7.2 Potential habitat of END bats and Bat Maternity Colony Habitat

Proposed residential development is confined to active cropland and hence there will be no direct impacts to woodlands having potential to function as bat habitat (i.e., no impact to mature FOD, FOM, SWD, SWM communities). The proposed development removes the pine plantation (CUP3-1) on the western side of the property. The province does not consider plantations/CUP communities to provide potential maternity roost habitat (MNR 2015b). The proposed development does not impact potential bat maternity colony habitat.

The province does not identify built structures as bat maternity colony habitat (MNR 2015a). However, buildings are known to be used by bats. Therefore, there is potential for the farm dwelling and other buildings that are to be demolished to accommodate the proposed development to be used by endangered bats during summer. Therefore, we recommend that bat use of the structures is evaluated in advance of demolition and that if endangered bats are identified using the buildings steps are taken to ensure that the demolition occurs in a manner consistent with Ontario's ESA.



7.3 Significant Woodland

Proposed residential development is confined to active cropland and hence there will be no direct impacts to significant woodland (discounting the pine plantation – CUP3-1 that will be removed as it does not represent a natural forest community and is confined to tableland farmlands). The proposed SWM pond outlet impacts a very minor amount of woodland/wetland to the east of the proposed WWTP site. The gap created by the outlet is insignificant in dimension (<20m) and occurs near woodland edge. Therefore, the SWM pond outlet does not represent a significant direct impact to significant woodland. Potential for impacts to ecological functions of significant woodlands are considered in Sections 7.4, 7.5, 7.8, and 7.9.1.

As per the subdivision concept (Appendix E), the required 10m tree preservation area shall be determined based on an average width of 10m and has been applied to the edge of woodlands. It is our understanding that the NVCA has indicated that a 10m setback is sufficient and acceptable for the purposes of tree protection (Paul Neals, *Personal Communications*). As per Photographs 5, 6 and 8 (Appendix D), land in the vicinity of woodland edge is open farmland. Therefore, opportunities exist to plant the tree preservation setback to establish a natural, self-sustaining buffer to significant woodland post-development. There appear to be additional opportunities within the proposed development to increase the extent of the tree preservation limit within parkland proposed on the east side of the development. Also, as per Section 7.4 - there are opportunities to plant buffer areas established in the plan with tree/shrub cover restoring habitat on what is now open farmland to woodland cover of value to amphibians utilizing the Pond 1. We recommend that an Edge Management/Tree Preservation Plan be established once detailed plans related to grading associated with the approved plan become established.

No aspects of the proposed development impact significant woodland or related significant wildlife habitat functions.

7.4 Amphibian Breeding Habitat

Studies indicate amphibian breeding habitat function associated with Pond 1 and nearby areas of adjacent woodland (SWD3-1), drainage ditches and potentially Pond 2 on the western side of the property and in wetlands adjacent to the proposed Barzo SWM pond (as per Azimuth 2019). The proposed development does not directly impact any of these areas of amphibian breeding. Woodland amphibians breeding in these areas have a requirement for woodland habitat outside of the breeding season for summer estivation, foraging and overwintering. As the proposed development does not impact woodlands of value to amphibians there will be no direct impacts to terrestrial habitat associated with the breeding sites. Pond 1 is located at the edge of woodland/farmland. There are opportunities within the proposed development to plant buffer areas established in the



plan with tree/shrub cover restoring habitat on what is now open farmland to woodland cover of value to amphibians utilizing the pond.

As per Section 7.1, with the proposed application of LIDs to enhance infiltration to achieve pre to post-development water balance there is no expectation of impact to hydrology of adjacent wetlands and hence the ponds, drainage ditches functioning as amphibian breeding habitat. Water discharged from the proposed Barzo SWM pond will be treated to MECP standards and will not be released into vernal pool areas functioning as amphibian breeding habitat. Therefore, there will be no indirect impacts to the quantity or quality of water associated with areas of amphibian breeding.

No aspects of the proposed development impact amphibian breeding habitat or associated terrestrial habitat. Opportunities exist to enhance amphibian breeding habitat function of Pond 1.

7.5 Area-sensitive Bird Breeding Habitat (forest breeding birds)

Area-sensitive forest breeding birds, and the SC species detected (Eastern Wood-pewee, Wood Thrush and Canada Warbler) occur locally as continuous woodlands of the property and adjacent lands are extensive – 180⁺ha (Appendix C). The proposed development does not directly impact any of the woodlands of value to area-sensitive forest breeding birds.

Residential development is proposed adjacent to woodlands functioning as habitat of area-sensitive forest breeding birds. The proposed development is aligned with an existing forest edge with active farmland. Such edge habitats are known to be less valuable as breeding bird habitat with many area-sensitive species preferring to nest internal to woodlands away from edges (apparent main issue nest parasitism by Brown-headed Cowbird). Therefore, any indirect impacts to nearby areas of woodland related to light, sound, etc. emanating from the proposed development will impact edge habitat of lower habitat quality than areas of internal woodland of the extensive woodland cover of adjacent lands. Therefore, adjacent woodlands will continue to function as habitat by area-sensitive forest breeding birds and hence there will be no negative indirect impacts to this habitat function.

7.6 Shrub/Early Successional Bird Breeding Habitat

Vegetation communities providing this habitat function are associated with lands outside of the development footprint on the west side of the Barzo property. Therefore, there will be no direct impacts to shrub/early successional bird breeding habitat.



The area of habitat is relatively large and most of it is well removed from areas of proposed development (50m average). Intervening lands are tree covered for the most part. Therefore, habitat function of these successional lands will be retained post development and hence there will be no indirect impacts to shrub/early successional bird breeding habitat of the subject or adjacent lands.

7.7 Turtle Overwintering and Nesting Habitat

Pond 1 contains turtles (Midland Painted Turtle observed) and hence the pond and nearby land would function as overwintering and nesting habitat, respectively. As per Section 7.4, the proposed development does not impact Pond 1 (no loss of pond area or impacts to hydrology) and lands in the vicinity of the pond are located beyond the development footprint. Therefore, the proposed development retains lands having potential to function as nesting habitat post-development). Open lands in the vicinity of the pond are actively farmed and contain very light/fine textured sand soils. These soils are not ideal for nesting by turtles and the regular ploughing/cropping reduces nest habitat quality in the vicinity of the pond considerably. Therefore, opportunities exist to introduce suitable nesting substrate (i.e., granular A or similar) into the restoration plan recommended for the lands in the vicinity of Pond 1 to enhance turtle nesting habitat.

The proposed development does not impact turtle overwintering habitat and provides opportunities to greatly enhance conditions for successful nesting and recruitment of turtles using the pond post-development.

7.8 Deer Yarding Habitat

Portions of the subject and adjacent lands are mapped as part of the Pine River Deer Yard (Allan *et al.*, 2005). According to MNR data and mapping (Appendix A) this deer yard covers approximately 4940ha and contains approximately 1260ha of Stratum 1 (core) habitat. Habitat of particular value to deer for overwintering (*i.e.*, core) is composed primarily of conifer cover (Eastern White Cedar, Eastern Hemlock, and Eastern White Pine in particular) (Viogt *et al.* 1997). The woodlands (forest/swamp) located adjacent to the proposed development provides considerable amounts of coniferous cover, distributed throughout the 180⁺ha woodland. The open lands where the majority of the development is proposed provide no woodland of value as winter cover for deer, no appreciable amounts of woody browse of value as winter food for deer and provides no habitat connection of value to deer moving seasonally into or out of the deer yard. The minor amount of tree removal required to construct the proposed Barzo SWM pond is irrelevant to the quality of the deer yarding area given the amount of core deer habitat available in the overall Pine River Deer Yard and the small scale of tree removal required. Deer movement to, from and within the deer yard is not impacted by the proposed development as it is confined to open croplands and adjacent lands to the north provide a



wide swath of woodland cover allowing deer to move among yarding areas east and west of the development. Therefore, establishing habitat connectivity/corridor enhancement on the north end of the subject lands as depicted on Figure 3 of the Everett Secondary Plan Natural Heritage System (PlanB 2012) is not required in the context of maintaining deer yard function. The results of field studies revealed no other natural heritage functions of the subject or adjacent lands warranting establishment of habitat connectivity through what are currently open active farmlands on the north end of the subject lands.

White-tailed Deer are tolerant of human activity and often occur at high density within and adjacent to urban development. Therefore, the proposed development will result in no indirect impacts to the function of the significant woodland as deer yarding habitat.

The proposed development does not represent a negative impact to deer yard habitat function or habitat linkages/wildlife movement corridors required to support this function or to facilitate the general movement of wildlife and dispersal of plants through the surrounding landscape.

7.9 Habitat of Species of Conservation Concern

7.9.1 Special Concern Forest Breeding Birds

Assessed with respect to area-sensitive forest breeding bird habitat (Section 7.5). No negative direct or indirect impacts.

7.9.2 Provincially Rare Amphibian – Western Chorus Frog

Western Chorus Frog is a woodland breeding amphibian detected in wetland habitat (SWD3-1) in the vicinity of Pond 1. As per Section 7.4, the proposed development results in no direct or indirect impacts to amphibian breeding habitat and that there is opportunity to restore areas of open farmland in the vicinity of Pond 1 that create woodland habitat of value to woodland amphibians – including Western Chorus Frog. Therefore, the proposed development poses no direct or indirect impact to the continued function of wetland/pond and associated woodland communities as habitat for Western Chorus Frog or other woodland amphibians.

7.9.3 Provincially Rare Plant – Black Ash

Black Ash (*Fraxinus nigra*) was assigned the sub-national rank S3 by the NHIC in December 2018, a fact not registered by NatureServ (<https://www.natureserve.org/> – accessed June 11, 2020) that lists its sub-national rank in Ontario as S4. The global rank for this species is listed as G5 – Secure by the NHIC and NatureServ. The NHIC indicates that the species is “*Widespread in southern and central Ontario, but declining due to Emerald Ash Borer. Ash trees are being decimated in southern Ontario by*



Emerald Ash Borer, which is now has populations throughout most of southern Ontario south of the Precambrian Shield as well as in Sault Ste. Marie and is likely to continue to expand its range and kill Fraxinus species. Fraxinus nigra is perhaps less likely to be adversely affected than other Ontario ash species since it ranges further north, well beyond the current range of Emerald Ash Borer.” Ash species, including Black Ash are being cut/recommended to cut in municipalities throughout southern Ontario in an effort to control the spread of Emerald Ash Borer and to remove dead and dying trees before they become falling hazards. Therefore, given that the conservation issue related to Black Ash is not habitat related, and efforts are underway to remove ash from the landscape – it is not logical to identify Significant Wildlife Habitat with respect to this species. Regardless, Black Ash was identified in vegetation communities FOM8-1, SWD3-1, SWM4-1, MAM3/SWT3 and in SWD0-1-SWMO4-1 east of the proposed Barzo SWM pond (Azimuth 2019). No aspects of the residential component of the proposed development impact habitat containing Black Ash. The SWM outlet to be advanced into wetlands east of the Barzo lands/WWTP is aligned through habitat containing Black Ash. Therefore, there is some potential to require removal of Black Ash to construct the outlet. Given that the wetland in the area contains an abundance of Black Ash and the area of wetland is extensive, the potential loss of a few Black Ash does not represent a significant impact to this species. There is no regulatory protection afforded to Black Ash.

8.0 POLICY & REGULATION CONFORMITY

8.1 Provincial Policy Statement

The proposed development can be achieved with no direct or indirect impacts to significant natural heritage features or functions attributable to the subject or adjacent lands and is consistent with the PPS.

8.2 Growth Plan, 2020

The proposed development is in conformity with the natural heritage policies of the Growth Plan as they relate to lands within a settlement area.

8.3 Ontario’s Endangered Species Act

The proposed development does not impact natural habitat functioning as habitat of endangered or threatened species. The required building demolition has the potential to impact endangered bats. Habitat use by endangered bats should be evaluated prior to demolition and steps taken to ESA permitting requirements should endangered bats be found to be using the buildings.



8.4 O. Reg. 172-06

The proposed development requires development within and adjacent to regulated features (wetlands). Therefore, permitting issued under O. Reg. 172/06 appears necessary to allow the development to proceed.

8.5 Local Planning Approvals

The results of this EIS indicate that the proposed development can be achieved with no direct or indirect impacts to significant natural heritage features or functions attributable to the subject or adjacent lands or natural connections important in maintaining habitat functions. Therefore, the proposed development does not impact natural heritage features or functions important to maintaining the integrity of the Natural Heritage System proposed in the Township Official Plan or County Greenlands.

9.0 RECOMMENDATIONS

- To avoid impacts to active nests of migratory birds and END bats *potentially* utilizing trees during spring/summer as roosting habitat, clear trees between November 1 through to March 31;
- Evaluate use of the farm dwelling and associated buildings by endangered bats in advance of demolition to establish if authorizations are required to proceed with demolition;
- Establish a sediment and erosion control plan for the proposed development based on requirements of the municipality (engineering); and,
- Prepare an Edge Management/Tree Preservation Plan addressing planting of open farmland in the vicinity of proposed residential lots to establish a natural, self-sustaining buffer to significant woodlands and as a condition of approval and restoration of open farmland located in the vicinity of Pond 1 of benefit to woodland amphibians and turtles.

10.0 CONCLUSIONS

The proposed development can be achieved with no direct or indirect impacts to significant natural heritage features or functions attributable to the subject or adjacent lands.

11.0 REFERENCES

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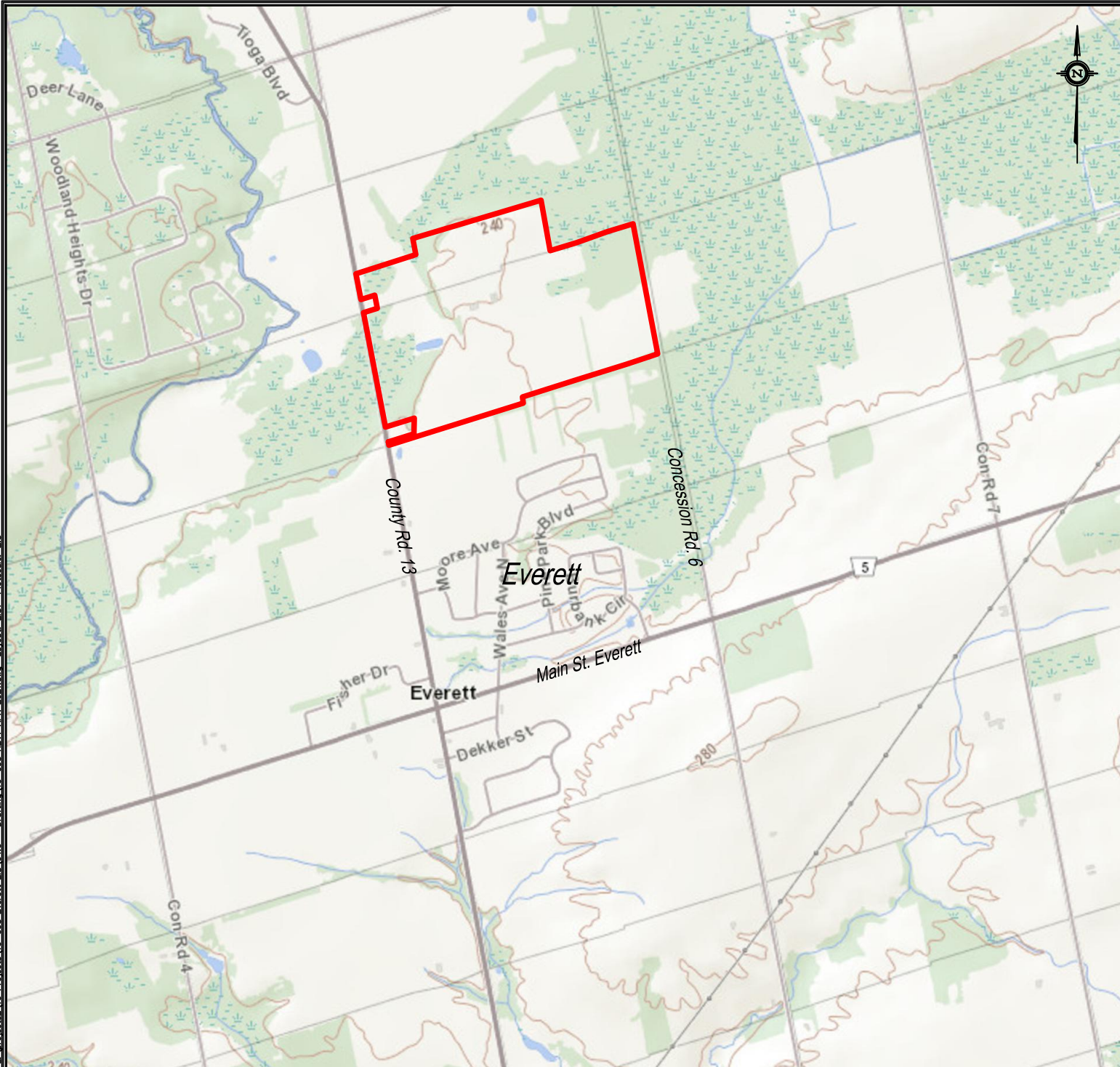
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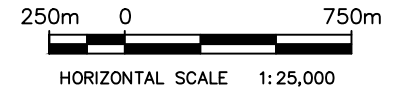
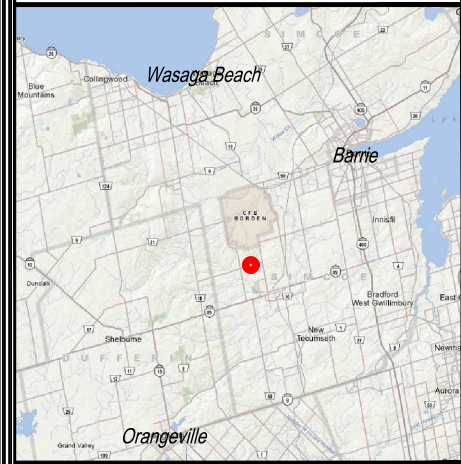
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 *Approx. Study Area*

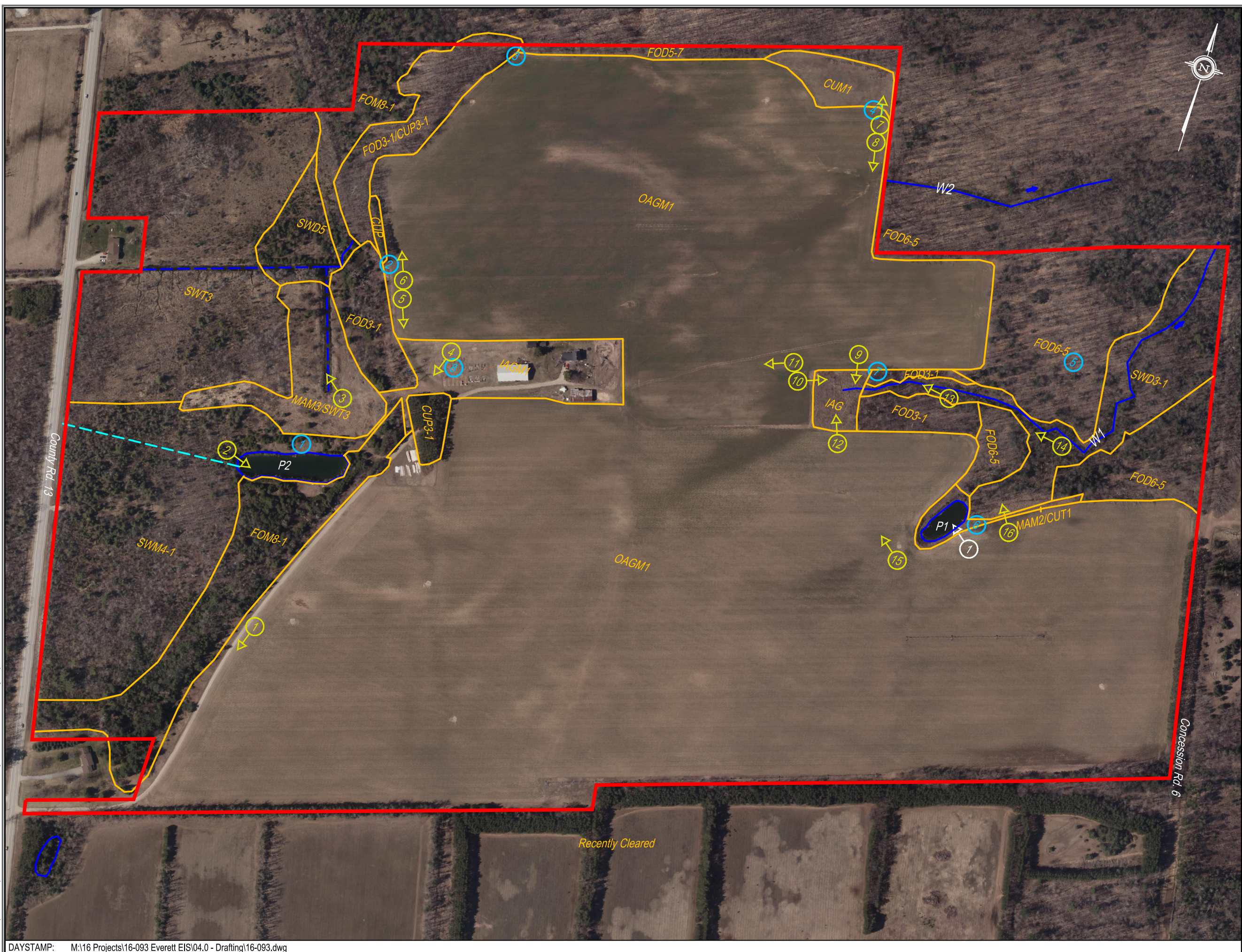


Study Area Location

Barzo EIS
Everett, ON

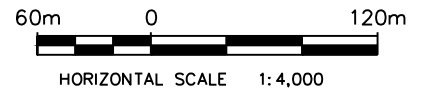
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REFERENCE: MNR	

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- LEGEND:**
- Approx. Study Area
 - Watercourse
 - Ponds
 - - - Drainage Ditch
 - Irrigation Pipe
 - ➔ Flow Direction
 - ⊕ Bird Point Count Station
 - ⊕ Photo Stations and Direction
 - ⊕ Amphibian Stations and Direction (white)
 - Vegetation Communities

- IAG Agricultural Infrastructure
- IAGM1 Annual Row Crops
- OAGM1 Agricultural Buildings
- FOD6-5 Fresh-Moist Sugar Maple-Hardwood Deciduous Forest
- FOD8-1 Fresh-Moist Poplar Deciduous Forest
- FOD5-7 Dry-Fresh Sugar Maple-Black Cherry Deciduous Forest
- CUM1 Mineral Cultural Meadow
- FOD3-1/CUP3-1 Dry-Fresh Poplar Deciduous Forest/Red Pine Coniferous (inclusion)
- FOM8-1 Fresh-Moist Poplar Mixed Forest
- FOD3-1 Dry-Fresh Poplar Deciduous Forest
- CUP3-1 Red Pine Coniferous Plantation
- FOM8-1 Fresh-Moist Poplar Mixed Forest
- SWD3-1 Red Maple Mineral Deciduous Swamp
- SWD5 Ash Organic Deciduous Swamp
- MAM2/CUT1 Mineral Meadow Marsh/Mineral Cultural Thicket
- SWT3 Organic Thicket Swamp
- MAM3-2/SWT3 Reed-canary Grass Organic Meadow Marsh/Organic Thicket Swamp
- SWM4 White Cedar-Hardwood Organic Mixed Swamp



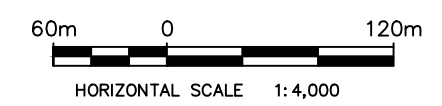
Environmental Features

**Barzo EIS
 Everett, ON**

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PROJECT NO.:	16-093	
REFERENCE:	Simcoe County Maps	



- LEGEND:**
- Approx. Study Area
 - Watercourse
 - P# Ponds
 - - - Drainage Ditch
 - - - Irrigation Pipe
 - ➔ Flow Direction
 - Vegetation Communities
- IAG Agricultural Infrastructure
 IAGM1 Annual Row Crops
 OAGM1 Agricultural Buildings
 FOD6-5 Fresh-Moist Sugar Maple-Hardwood Deciduous Forest
 FOD8-1 Fresh-Moist Poplar Deciduous Forest
 FOD5-7 Dry-Fresh Sugar Maple-Black Cherry Deciduous Forest
 CUM1 Mineral Cultural Meadow
 FOD3-1/CUP3-1 Dry-Fresh Poplar Deciduous Forest/Red Pine Coniferous (inclusion)
 FOM8-1 Fresh-Moist Poplar Mixed Forest
 FOD3-1 Dry-Fresh Poplar Deciduous Forest
 CUP3-1 Red Pine Coniferous Plantation
 FOM8-1 Fresh-Moist Poplar Mixed Forest
 SWD3-1 Red Maple Mineral Deciduous Swamp
 SWD5 Ash Organic Deciduous Swamp
 MAM2/CUT1 Mineral Meadow Marsh/Mineral Cultural Thicket
 SWT3 Organic Thicket Swamp
 MAM3-2/SWT3 Reed-canary Grass Organic Meadow Marsh/Organic Thicket Swamp
 SWM4 White Cedar-Hardwood Organic Mixed Swamp

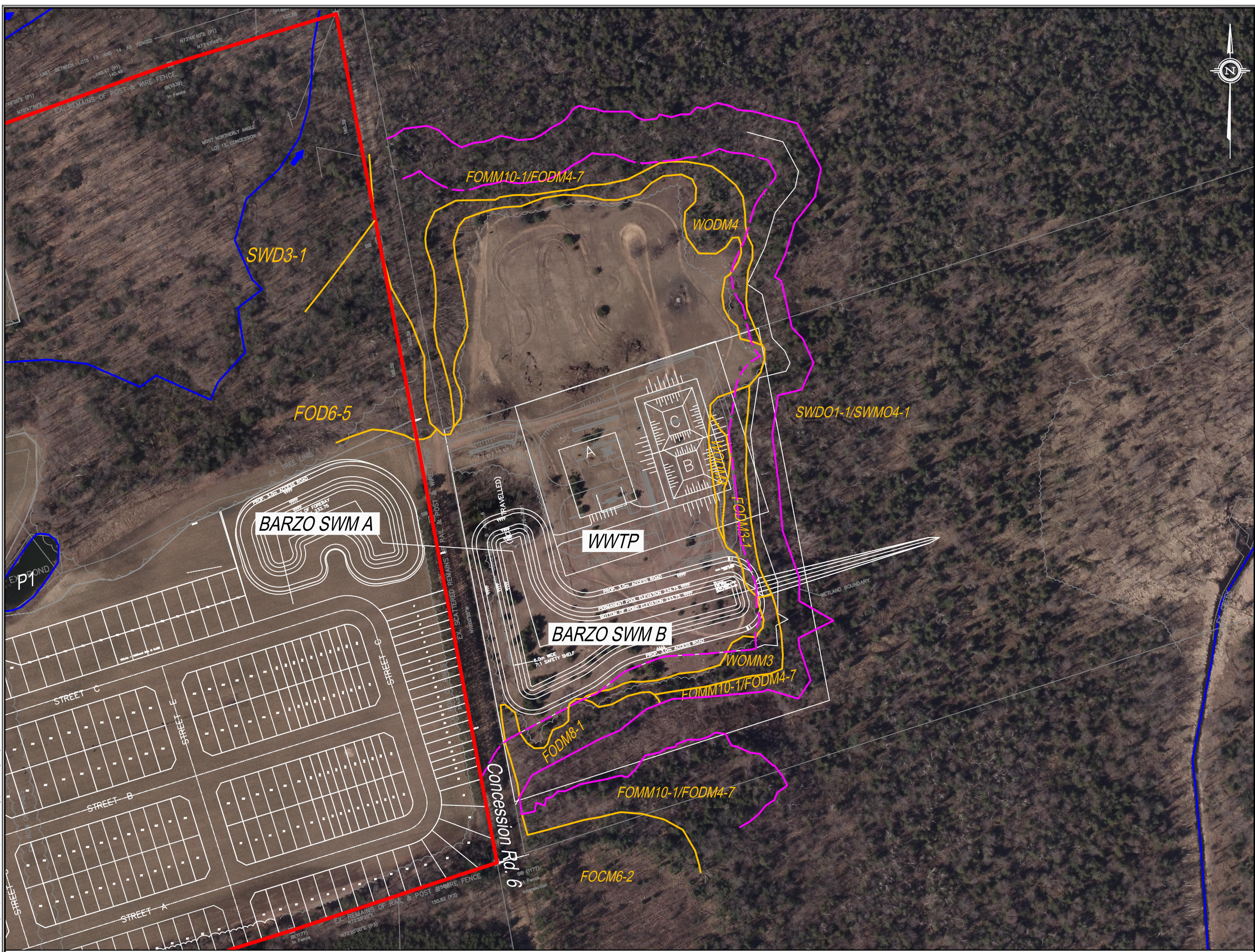


Environmental Features
with Proposed Development

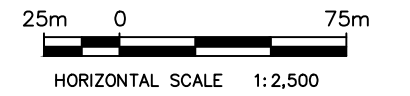
Barzo EIS
Everett, ON

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- LEGEND:**
- Everett WWTP Study Area
 - Watercourse
 - Wetland
 - 30m Wetland Buffer
 - Vegetation Communities
- FOCM6-2 Dry - Fresh Red Pine Naturalized Coniferous Plantation
 - FOD6-5 Fresh-Moist Sugar-Maple Hardwood Deciduous Forest
 - FODM3-1 Dry - Fresh Poplar Deciduous Forest
 - FODM4-7 Dry - Fresh Red Maple Deciduous Forest
 - FODM8-1 Fresh - Moist Poplar Deciduous Forest
 - FOMM10-1 Fresh - Moist Balsam Fir - Hardwood Mixed Forest
 - SWD3-1 Red Maple Mineral Deciduous Swamp
 - SWDO1-1 Black Ash Organic Deciduous Swamp
 - SWMO4-1 Balsam Fir - Hardwood Organic Mixed Swamp
 - THDM4-1 Native Deciduous Regeneration Thicket
 - WODM4 Dry - Fresh Deciduous Woodland
 - WOMM3 Dry - Fresh Mixed Woodland



Environmental Features
with Proposed Development

Barzo WWTP
Everett, ON

DATE ISSUED:	November 2020	Figure No.
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PROJECT NO.:	16-093	
REFERENCE:	Simcoe County Maps	

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Table 1. Species at Risk Assessment, Barzo Lands (Everett), 2021

Taxa ¹	Common Name	Scientific Name	SARO Status	Habitat Requirements ²	Habitat Within or Adjacent to Site of Proposed Development?	Reported Locally? ³	Detected During Field Surveys?	Issue Affecting Proposed Development?
Amphibian	Jefferson Salamander	<i>Ambystoma jeffersonianum</i>	END	Deciduous forests with vernal pools/pond within or adjacent. Generally associated with Niagara Escarpment	No	No	No	No
Bird	Henslow's Sparrow	<i>Ammodramus henslowii</i>	END	Large grasslands	No	No	No	No
Bird	Loggerhead Shrike	<i>Lanius ludovicianus</i>	END	Alvars, large pasturelands with shrub cover	No	No	No	No
Bird	King Rail	<i>Rallus elegans</i>	END	Large marsh wetlands	No	No	No	No
Bird	Piping Plover	<i>Charadrius melodus</i>	END	Dry sandy or gravelly beaches along wetlands, rivers, or lakes	No	No	No	No
Bird	Cerulean Warbler	<i>Dendroica cerulea</i>	THR	Large blocks of continuous forest/swamp cover	Yes	Yes	No	No
Bird	Eastern Meadowlark	<i>Sturnella magna</i>	THR	Grasslands	No	No	No	No
Bird	Barn Swallow	<i>Hirundo rustica</i>	THR	Grasslands, pastures, graminoid and other open wetlands. Nest on buildings, bridges, culverts	Yes	Yes	No	No
Bird	Bank Swallow	<i>Riparia riparia</i>	THR	Riparian habitat with sand banks for nesting	No	Yes	No	No
Bird	Bobolink	<i>Dolichonyx oryzivorus</i>	THR	Grasslands	No	Yes	No	No
Bird	Eastern Whip-poor-will	<i>Caprimulgus vociferus</i>	THR	Open woodlands (scattered tree cover), rock barrens and similar habitats providing mix of open land and shrub/tree cover.	Yes	No	No	No
Bird	Least Bittern	<i>Ixobrychus exilis</i>	THR	Large marsh wetlands	No	No	No	No
Bird	Louisiana Waterthrush	<i>Seiurus motacilla</i>	THR	Mature forest associated with rivers	No	No	No	No
Bird	Chimney Swift	<i>Chaetura pelagica</i>	THR	Typically built features (chimneys, buildings), also caves, or tree cavities in old growth forests	Yes	No	No	No
Bird	Eastern Wood-pewee	<i>Contopus virens</i>	SC	Forests, treed swamps	Yes	Yes	Yes	Yes
Bird	Wood Thrush	<i>Hylocichla mustelina</i>	SC	Forests, treed swamps	Yes	Yes	Yes	Yes
Bird	Golden-winged Warbler	<i>Vermivora chrysoptera</i>	SC	Shrublands/thickets, forest edges	Yes	No	No	No
Bird	Grasshopper Sparrow	<i>Ammodramus savannarum</i>	SC	Large grasslands	No	No	No	No

Taxa ¹	Common Name	Scientific Name	SARO Status	Habitat Requirements ²	Habitat Within or Adjacent to Site of Proposed Development?	Reported Locally? ³	Detected During Field Surveys?	Issue Affecting Proposed Development?
Bird	Common Nighthawk	<i>Chordeiles minor</i>	SC	Open woodlands (scattered tree cover), rock barrens and similar habitats providing mix of open land and shrub/tree cover.	Yes	No	No	No
Bird	Black Tern	<i>Chlidonias niger</i>	SC	Large marsh wetlands	No	No	No	No
Bird	Bald Eagle	<i>Haliaeetus leucocephalus</i>	SC	A variety of habitats adjacent a major lake or river.	No	No	No	No
Bird	Canada Warbler	<i>Cardellina canadensis</i>	SC	Breeds in a range of deciduous and coniferous, usually wet forest types, all with a well- developed, dense shrub layer - generally associated with the southern shield/boreal shield.	Yes	No	No	No
Bird	Olive-sided Flycatcher	<i>Contopus cooperi</i>	SC	Breeding occurs within coniferous or mixed forests adjacent rivers or wetlands. More often present along forest edges and clearings, including recently logged/burned areas.	Yes	No	No	No
Bird	Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	SC	Open woodlands, woodland edges, parks, golf courses and cemeteries	Yes	No	No	No
Bird	Short-eared Owl	<i>Asio flammeus</i>	SC	Open areas such as grasslands and marshes. Preference for prairies and savannahs.	No	No	No	No
Bird	Yellow Rail	<i>Coturnicops noveboracensis</i>	SC	Shallow wetlands containing reeds, sedges and marshy areas with overlying dry mats of dead vegetation.	Yes	No	No	No
Fish	American Eel	<i>Anguilla rostrata</i>	END	In Ontario, connecting waterbodies from the Great Lakes as far inland as Algonquin Park.	No	No	No	No
Fish	Lake Sturgeon	<i>Acipenser fulvescens</i>	THR	Georgian Bay and connected rivers	No	No	No	No
Fish	Grass Pickerel	<i>Esox americanus vermiculatus</i>	SC	Coastal wetlands in the Great Lakes and tributaries or Lake St. Clair, Lake Erie, Lake Huron, the Niagara River, Lake Ontario and the St. Lawrence River, and inland in the Severn River system.	No	No	No	No

Taxa ¹	Common Name	Scientific Name	SARO Status	Habitat Requirements ²	Habitat Within or Adjacent to Site of Proposed Development?	Reported Locally? ³	Detected During Field Surveys?	Issue Affecting Proposed Development?
Fish	Northern Brook Lamprey	<i>Ichthyomyzon fossor</i>	SC	Rivers draining into Lake Superior, Huron and Erie, and the Ottawa River.	No	No	No	No
Insect	Hine's Emerald (Dragonfly)	<i>Somatochlora hineana</i>	END	Hine's Emeralds rely on slow-moving, calcareous water with emergent vegetation for egg-laying and larval development. These conditions are associated with fens, marshes or areas where groundwater rises to the surface. Only known to occur in Minesing Wetland	No	No	No	No
Insect	Lake Huron Grasshopper	<i>Trimerotropis huroniana</i>	THR	Lives exclusively in open dune habitat along the shores of Lake Huron, Lake Michigan and Lake Superior.	No	No	No	No
Insect	Monarch	<i>Danaus plexippus</i>	SC	Caterpillars are confined to meadows and open areas containing milkweed. Adults are widespread, favouring areas with wildflowers.	No	Yes	No	No
Insect	West Virginia White	<i>Pieris virginiensis</i>	SC	Moist deciduous woodlots containing the plant, Toothwort.	No	No	No	No
Mammal	Little Brown Myotis	<i>Myotis lucifugus</i>	END	Winter hibernation - caves, abandoned mines, etc. Summer maternity colony - typically buildings (attics, etc.) but occasionally in tree cavities.	Yes - farm buildings, snag trees adjacent	Yes	Not Assessed	Potential - farm structures
Mammal	Northern Myotis	<i>Myotis septentrionalis</i>	END	Winter hibernation - caves, abandoned mines, etc. Summer maternity roost - tree cavities.	Yes - snag trees, adjacent	Yes	Not Assessed	No
Mammal	Tri-colored Bat	<i>Perimyotis subflavus</i>	END	Winter hibernation - caves, abandoned mines, etc.. Summer - day roosts and maternity colonies in older forest and occasionally in barns or other structures.	Yes - farm buildings, snag trees adjacent	Yes	Not Assessed	Potential - farm structures
Mammal	Eastern Small-footed Bat	<i>Myotis leibii</i>	END	Winter hibernation - caves, abandoned mines, etc. Summer maternity roost - talis slopes, rock outcrops.	No	No	No	No

Taxa ¹	Common Name	Scientific Name	SARO Status	Habitat Requirements ²	Habitat Within or Adjacent to Site of Proposed Development?	Reported Locally? ³	Detected During Field Surveys?	Issue Affecting Proposed Development?
Mammal	American Badger	<i>Taxidea taxus</i>	END	Variety of habitats providing small prey (<i>i.e.</i> groundhogs, rabbits, small rodents) with a preference for tall grass prairie, sand barrens and farmland.	Yes	No	No	No
Plant	Butternut	<i>Juglans cinerea</i>	END	Forests, fencerows	Yes	Yes	No	No
Plant	Forked Three-awned grass	<i>Aristida basiramea</i>	END	Grasslands, open lands, trails (localized distribution)	No	No	No	No
Plant	Eastern Prairie Fringed-orchid	<i>Platanthera leucophaea</i>	END	Grasslands, wet meadows, alvars, fens	No	No	No	No
Plant	American Ginseng	<i>Panax quinquefolius</i>	END	Mature forest cover	Yes	No	No	No
Plant	Spotted Wintergreen	<i>Chimaphila maculata</i>	END	Dry oak-pine woodlands with sandy soils.	No	No	No	No
Plant	Englemann's Quillwort	<i>Isoetes engelmannii</i>	END	Grows in shallow water in lakes and rivers (Severn River).	No	No	No	No
Plant	Hill's Thistle	<i>Cirsium hillii</i>	THR	Open areas such as prairie, sand dunes and alvar grasslands surrounded by coniferous forests.	Yes	No	No	No
Plant	Broad Beech Fern	<i>Phegopteris hexagonoptera</i>	SC	Prefers rich, undisturbed deciduous forest, particularly mature beech-maple forests, typically occurs in moister situations such as lower valley slopes, bottomlands and even swamps.	Yes	No	No	No
Plant	American Hart's-tongue Fern	<i>Asplenium scolopendrium var. americanum</i>	SC	Moist deciduous forests, generally associated with Niagara Escarpment.	No	No	No	No
Reptile	Spotted Turtle	<i>Clemmys guttata</i>	END	Wetlands with open water	Yes	No	No	No
Reptile	Wood Turtle	<i>Glyptemys insculpta</i>	END	Clear rivers, streams or creeks with a sandy or gravelly bottom. Preference for wooded areas but have also been found in wet meadows, swamps and fields.	No	No	No	No
Reptile	Massasauga (Great Lakes-St. Lawrence Population)	<i>Sistrurus catenatus</i>	END	Wide variety of habitats: tall grass prairie, bogs, marshes, shorelines, forests and forest clearings, alvars, rock barrens, and grasslands	Yes	No	No	No
Reptile	Blanding's Turtle	<i>Emydoidea blandingii</i>	THR	Wetlands with open water	Yes	No	No	No

Taxa ¹	Common Name	Scientific Name	SARO Status	Habitat Requirements ²	Habitat Within or Adjacent to Site of Proposed Development?	Reported Locally? ³	Detected During Field Surveys?	Issue Affecting Proposed Development?
Reptile	Eastern Hog-nosed Snake	<i>Heterodon platirhinos</i>	THR	Forests, sand barrens and wetlands providing breeding habitat for primary prey (i.e., American Toad and other amphibians)	Yes	No	No	No
Reptile	Eastern Foxsnake (Georgian Bay Population)	<i>Pantherophis gloydi</i>	END	Rocky habitats with trees and shrubs within, usually within 150 m of a shoreline	No	No	No	No
Reptile	Snapping Turtle	<i>Chelydra serpentina</i>	SC	Lakes, ponds, marshes and slow moving rivers, various wetlands with open water	Yes	Yes	No	No
Reptile	Eastern Ribbonsnake	<i>Thamnophis sauritus</i>	SC	Wetlands with open water	Yes	No	No	No
Reptile	Northern Map Turtle	<i>Graptemys geographica</i>	SC	Lakes	No	No	No	No
Reptile	Eastern Musk Turtle	<i>Sternotherus odoratus</i>	SC	Ponds, lakes, marshes and rivers with an abundance of emergent vegetation and muddy bottoms	Yes	No	No	No
Reptile	Five-lined Skink (Georgian Bay Population)	<i>Plestiodon fasciatus</i>	SC	Shorelines, rock barrens.	No	Yes	No	No

¹Comprehensive list compiled based on Species at Risk in Simcoe County - MNRF, Midhurst District (October 19, 2017)

²Based on the SARO List descriptions (<https://www.ontario.ca/page/species-risk-ontario>)

³Based on following sources: Species at Risk Ontario (<https://www.ontario.ca/environment-and-energy/species-risk-ontario-list>); Land Information Ontario (<https://www.ontario.ca/page/land-information-ontario>); Make a Natural Heritage Map - Natural Heritage Information Centre (http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US); Ontario Breeding Bird Atlas (<http://www.birdsontario.org/atlas/maps.jsp?lang=en>); Ontario Reptile and Amphibian Atlas (<https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas/>), eBird (<https://ebird.org/explore>); Fisheries and Oceans Canada (<http://www.dfo-mpo.gc.ca/species-especies/index-eng.htm>); Fish Online (<https://www.gisapplication.lrc.gov.on.ca/FishONLine/Index.html?site=FishONLine&viewer=FishONLine&locale=en-US>); Ontario Butterfly Atlas (http://www.ontarioinsects.org/atlas_online.htm); and Atlas of the Mammals of Ontario (Dobbyn, J. 1994. Federation of Ontario Naturalists).

Table 2. Community Description, Barzo lands (Everett), 2020

Ecological Land Classification (ELC)			Composition and Structure		
System	ELC Code	Community Type	Canopy	Shrub Layer	Ground Cover
Agriculture	IAG	Agricultural Infrastructure	NA	NA	NA
Agriculture	IAGM1	Annual Row Crops	NA	NA	NA
Agriculture	OAGM1	Agricultural Buildings	NA	NA	NA
Terrestrial	FOD6-5	Fresh-Moist Sugar Maple-Hardwood Deciduous Forest	80% cover; Sugar Maple >> American Beech = Black Cherry = American Basswood = White Birch; Sub-canopy 30% cover; Eastern Hemlock	50% cover; Sugar Maple, White Ash, Red Raspberry, Eastern Hemlock	15% cover; fern, Wild Lily-of-the-valley, Jack-in-the-pulpit; Mountain Rice-grass
Terrestrial	FOD8-1	Fresh-Moist Poplar Deciduous Forest	80% cover; Trembling Aspen > Sugar Maple, Black Cherry, White Ash, Red Maple, White Elm	60% cover; Trembling Aspen > Sugar Maple, Black Cherry	80% cover; Bracken Fern, sedge, Poison Ivy, Enchanter's Nightshade
Terrestrial	FOD5-7	Dry-Fresh Sugar Maple-Black Cherry Deciduous Forest	90% cover; Sugar Maple >> Black Cherry, Large-tooth Aspen, White Ash, White Birch, Ironwood	20% cover; Sugar Maple > White Ash, Black Cherry, Large-tooth Aspen	50% Cover; Mountain Rice Grass, Wildl Lily-of-the-valey, Trilium
Terrestrial	CUM1	Mineral Cultural Meadow	NA	NA	90% cover; Timothy, Wild Carrot, Hawkweed, Goldenrod, Flerabane, Bracken Fern
Terrestrial	FOD3-1/CUP3-1	Dry-Fresh Poplar Deciduous Forest/Red Pine Coniferous (inclusion)	75% cover; Large-tooth Aspen>>Sugar Maple, Trembling Aspen, White Birch, Red Oak, Hemlock, CUP3-1 (inclusion) - Red Pine	50% cover; Sugar Maple>> White Ash	80% cover; Bracken Fern, Enchanter's Nightshade, Mountain Rice Grass
Terrestrial	FOM8-1	Fresh-Moist Poplar Mixed Forest	60% cover; Trembling Aspen>White Birch>>Red Maple; Sub-canopy 60% cover Balsam Fir, White Cedar	80% cover; Alternate Dogwood, Trembling Aspen, Balsam Fir	60% cover; Bracken Fern, Enchanter's Niteshade
Terrestrial	FOD3-1	Dry-Fresh Poplar Deciduous Forest	70% cover; Trembling Aspen>Balsam Poplar	70% cover; Red Raspberry, Sumac, Alternate Dogwood	80% cover; Goldenrod, Orchard Grass, Wild Carrot
Terrestrial	CUP3-1	Red Pine Coniferous Plantation	70% cover; Red Pine	30% cover; Choke Cherry, Red Pine, White Pine, White Spruce	70% cover; grass>forbs
Wetland	SWD3-1	Red Maple Mineral Deciduous Swamp	70% cover; Red Maple > Black Ash = Yellow Birch	30% cover; Black Ash > Elderberry = Red Maple > Balsam Fir	90% cover; Spotted Jewelweed >> Sensitive Fern > Fowl Manna Grass
Wetland	MAM2/CUT1	Mineral Meadow Marsh/Mineral Cultural Thicket	NA	CUT1 - Trembling Aspen, Basswood, willow	90% cover; MAM2 - Cattail, Phragmites, sedge, Boneset; CUT1 - Bracken Fern, Red Raspberry, goldenrod
Wetland	SWT3	Organic Thicket Swamp	NA	willow, Red-osier Dogwood, White Cedar	Not Assessed
Wetland	MAM3/SWT3	Organic Meadow Marsh/Organic Thicket Swamp	NA	20% cover; willow>Red-osier Dogwood	90% cover; Reed Canary Grass
Wetland	SWM4-1	White Cedar-Hardwood Organic Mixed Swamp	White Cedar, ash, poplar, Red Maple, Balsam Fir	Not Assessed	Not Assessed
Wetland	SAM/CUT1	Mixed Shallow Aquatic/Mineral Cultural Thicket	NA	Red-osier Dogwood, willow	cattail, Reed Canary Grass

Table 3. Vascular Plant List, Barzo lands (Everett), 2020

FAMILY	SCIENTIFIC NAME	COMMON NAME	System													Conservation Rank ¹			
			Terrestrial							Wetland						S_RANK	G_RANK	SARO_STATUS	
			FOD6-5	FOD8-1	FOD5-7	FOD3-1 /CUP3-1	FOM8-1	FOD3-1	CUP3-1	CUM1	SWD3-1	SWM4-1	SWT3	MAM3 /SWT3	MAM2 /CUT1				SAM /CUT1
Aceraceae	<i>Acer negundo</i>	Manitoba Maple						X									S5	G5	
Aceraceae	<i>Acer rubrum</i>	Red Maple		X				X			X						S5	G5	
Aceraceae	<i>Acer saccharum</i>	Sugar Maple	X	X	X	X	X										S5	G5	
Aceraceae	<i>Acer spicatum</i>	Mountain Maple				X											S5	G5	
Aceraceae	<i>Acer tataricum</i>	Tatarian Maple								X							SNA	GNR	
Anacardiaceae	<i>Rhus typhina</i>	Staghorn Sumac		X				X	X								S5	G5	
Anacardiaceae	<i>Toxicodendron radicans</i>	Poison Ivy		X		X			X	X							S5	G5	
Apiaceae	<i>Daucus carota</i>	Wild Carrot						X	X	X							SNA	GNR	
Apocynaceae	<i>Apocynum androsaemifolium</i>	Spreading Dogbane						X		X							S5	G5	
Araceae	<i>Arisaema triphyllum</i>	Jack-in-the-pulpit	X	X				X									S5	G5	
Araliaceae	<i>Aralia nudicaulis</i>	Wild Sarsaparilla			X												S5	G5	
Asteraceae	<i>Erigeron canadensis</i>	Canada Horseweed								X							S5	G5	
Asteraceae	<i>Erigeron philadelphicus</i>	Philadelphia Fleabane							X	X							S5	G5	
Asteraceae	<i>Eupatorium perfoliatum</i>	Common Boneset											X	X	X		S5	G5	
Asteraceae	<i>Eurybia macrophylla</i>	Large-leaved Aster						X									S5	G5	
Asteraceae	<i>Hieracium vulgatum</i>	Common Hawkweed								X							SNA	GNR	
Asteraceae	<i>Solidago canadensis</i>	Canada Goldenrod						X		X					X		S5	G5	
Balsaminaceae	<i>Impatiens capensis</i>	Spotted Jewelweed									X	X	X	X			S5	G5	
Betulaceae	<i>Betula alleghaniensis</i>	Yellow Birch									X						S5	G5	
Betulaceae	<i>Betula papyrifera</i>	Paper Birch	X		X	X	X					X					S5	G5	
Betulaceae	<i>Ostrya virginiana</i>	Eastern Hop-hornbeam			X												S5	G5	
Brassicaceae	<i>Alliaria petiolata</i>	Garlic Mustard			X												SNA	GNR	
Brassicaceae	<i>Turritis glabra</i>	Tower-mustard								X							S5	G5	
Caprifoliaceae	<i>Sambucus canadensis</i>	Common Elderberry	X								X	X					S5	G5	
Cornaceae	<i>Cornus alternifolia</i>	Alternate-leaved Dogwood			X	X	X	X									S5	G5	
Cornaceae	<i>Cornus sericea</i>	Red-osier Dogwood										X	X	X		X	S5	G5	
Cupressaceae	<i>Thuja occidentalis</i>	Eastern White Cedar						X				X	X	X			S5	G5	
Cyperaceae	<i>Carex aquatilis</i>	Water Sedge									X	X	X	X			S5	G5	
Cyperaceae	<i>Carex communis</i>	Fibrous-root Sedge			X												S5	G5	
Cyperaceae	<i>Carex gracillima</i>	Graceful Sedge	X			X											S5	G5	
Cyperaceae	<i>Carex intumescens</i>	Bladder Sedge	X														S5	G5	
Cyperaceae	<i>Carex vulpinoidea</i>	Fox Sedge									X	X		X	X		S5	G5	
Cyperaceae	<i>Schoenoplectus tabernaemontani</i>	Soft-stemmed Bulrush										X		X	X		S5	G5	
Dennstaedtiaceae	<i>Pteridium aquilinum</i>	Bracken Fern	X	X		X	X			X							S5	G5	
Dryopteridaceae	<i>Athyrium filix-femina</i>	Common Lady Fern	X				X										S5	G5	
Dryopteridaceae	<i>Dryopteris cristata</i>	Crested Wood Fern	X														S5	G5	
Dryopteridaceae	<i>Gymnocarpium dryopteris</i>	Common Oak Fern									X						S5	G5	
Dryopteridaceae	<i>Matteuccia struthiopteris</i>	Ostrich Fern	X									X					S5	G5	
Dryopteridaceae	<i>Onoclea sensibilis</i>	Sensitive Fern	X								X	X	X	X	X		S5	G5	
Fabaceae	<i>Melilotus albus</i>	White Sweet-clover						X	X								SNA	G5	
Fabaceae	<i>Vicia cracca</i>	Tufted Vetch						X									SNA	GNR	
Fagaceae	<i>Fagus grandifolia</i>	American Beech	X		X												S4	G5	
Fagaceae	<i>Quercus rubra</i>	Northern Red Oak				X											S5	G5	
Geraniaceae	<i>Geranium robertianum</i>	Herb-Robert			X												S5	G5	
Liliaceae	<i>Maianthemum canadense</i>	Wild Lily-of-the-valley	X	X	X		X										S5	G5	
Liliaceae	<i>Maianthemum racemosum</i>	Large False Solomon's Seal			X		X										S5	G5	
Liliaceae	<i>Trillium grandiflorum</i>	White Trillium	X		X	X											S5	G5	
Oleaceae	<i>Fraxinus americana</i>	White Ash	X	X	X	X											S4	G5	
Oleaceae	<i>Fraxinus nigra</i>	Black Ash					X				X	X		X			S3	G5	
Oleaceae	<i>Fraxinus pennsylvanica</i>	Green Ash						X				X					S4	G5	
Onagraceae	<i>Circaea alpina</i>	Small Enchanter's Nightshade	X	X		X	X										S5	G5	
Onagraceae	<i>Epilobium hirsutum</i>	Hairy Willowherb									X	X		X			SNA	GNR	
Orchidaceae	<i>Epipactis helleborine</i>	Eastern Helleborine				X	X										SNA	GNR	

FAMILY	SCIENTIFIC NAME	COMMON NAME	System													Conservation Rank ¹			
			Terrestrial							Wetland						S_RANK	G_RANK	SARO_STATUS	
			FOD6-5	FOD8-1	FOD5-7	FOD3-1 /CUP3-1	FOM8-1	FOD3-1	CUP3-1	CUMI	SWD3-1	SWM4-1	SWT3	MAM3 /SWT3	MAM2 /CUT1				SAM /CUT1
Oxalidaceae	<i>Oxalis stricta</i>	Upright Yellow Wood-sorrel								X							S5	G5	
Pinaceae	<i>Abies balsamea</i>	Balsam Fir					X				X	X	X				S5	G5	
Pinaceae	<i>Picea glauca</i>	White Spruce					X										S5	G5	
Pinaceae	<i>Pinus resinosa</i>	Red Pine				X				X							S5	G5	
Pinaceae	<i>Pinus strobus</i>	Eastern White Pine					X			X			X				S5	G5	
Pinaceae	<i>Pinus sylvestris</i>	Scots Pine					X										SNA	GNR	
Pinaceae	<i>Tsuga canadensis</i>	Eastern Hemlock	X			X											S5	G5	
Plantaginaceae	<i>Plantago lanceolata</i>	English Plantain														X	SNA	G5	
Plantaginaceae	<i>Plantago major</i>	Common Plantain								X						X	SNA	G5	
Poaceae	<i>Bromus inermis</i>	Smooth Brome							X								SNA	G5	
Poaceae	<i>Dactylis glomerata</i>	Orchard Grass						X									SNA	GNR	
Poaceae	<i>Glyceria striata</i>	Fowl Mannagrass									X	X	X	X	X		S5	G5	
Poaceae	<i>Oryzopsis asperifolia</i>	White-grained Mountain-ricegrass	X		X	X											S5	G5	
Poaceae	<i>Phalaris arundinacea</i>	Reed Canary Grass										X	X	X	X	X	S5	G5	
Poaceae	<i>Phleum pratense</i>	Common Timothy								X	X						SNA	GNR	
Poaceae	<i>Phragmites australis</i>	Common Reed													X		S4?	G5	
Poaceae	<i>Poa compressa</i>	Canada Bluegrass								X							SNA	GNR	
Poaceae	<i>Poa pratensis</i>	Kentucky Bluegrass								X							S5	G5	
Poaceae	<i>Triticum aestivum</i>	Common Wheat								X							SNA	GNR	
Polygonaceae	<i>Fallopia convolvulus</i>	Black Bindweed								X							SNA	GNR	
Polygonaceae	<i>Rumex acetosella</i>	Sheep Sorrel								X							SNA	GNR	
Polygonaceae	<i>Rumex crispus</i>	Curly Dock													X		SNA	GNR	
Ranunculaceae	<i>Actaea pachypoda</i>	White Baneberry			X		X										S5	G5	
Ranunculaceae	<i>Clematis virginiana</i>	Virginia Virgin's-bower					X					X					S5	G5	
Ranunculaceae	<i>Ranunculus acris</i>	Tall Buttercup								X	X						SNA	G5	
Rosaceae	<i>Aruncus dioicus</i>	Common Goatsbeard						X									SNA	G5	
Rosaceae	<i>Fragaria virginiana</i>	Wild Strawberry								X							S5	G5	
Rosaceae	<i>Geum canadense</i>	White Avens				X				X		X					S5	G5	
Rosaceae	<i>Potentilla recta</i>	Sulphur Cinquefoil								X	X						SNA	GNR	
Rosaceae	<i>Prunus serotina</i>	Black Cherry	X	X	X	X											S5	G5	
Rosaceae	<i>Prunus virginiana</i>	Choke Cherry								X	X						S5	G5	
Rosaceae	<i>Rubus idaeus</i>	Common Red Raspberry	X					X		X		X				X	S5	G5	
Rosaceae	<i>Rubus occidentalis</i>	Black Raspberry	X			X				X							S5	G5	
Rosaceae	<i>Spiraea alba</i>	White Meadowsweet								X	X						S5	G5	
Rubiaceae	<i>Mitchella repens</i>	Partridge-berry	X				X										S5	G5	
Salicaceae	<i>Populus balsamifera</i>	Balsam Poplar					X	X	X			X	X	X		X	S5	G5	
Salicaceae	<i>Populus grandidentata</i>	Large-toothed Aspen			X	X	X										S5	G5	
Salicaceae	<i>Populus tremuloides</i>	Trembling Aspen		X		X	X	X	X			X	X	X		X	S5	G5	
Salicaceae	<i>Salix discolor</i>	Pussy Willow								X		X	X			X	S5	G5	
Scrophulariaceae	<i>Verbascum thapsus</i>	Common Mullein								X							SNA	GNR	
Thymelaeaceae	<i>Dirca palustris</i>	Eastern Leatherwood				X											S4	G4	
Tiliaceae	<i>Tilia americana</i>	American Basswood	X													X	S5	G5	
Typhaceae	<i>Typha angustifolia</i>	Narrow-leaved Cattail										X		X	X		SNA	G5	
Ulmaceae	<i>Ulmus americana</i>	American Elm		X				X				X					S5	G5	
Vitaceae	<i>Parthenocissus quinquefolia</i>	Virginia Creeper	X	X			X	X				X		X			S4?	G5	
Vitaceae	<i>Vitis riparia</i>	Riverbank Grape				X	X	X				X	X	X			S5	G5	

¹Conservation Rank - From MNRF, NHIC

Table 4. Bird List, Barzo lands (Everett), 2020

FAMILY	SCIENTIFIC NAME	COMMON NAME	Point Count Station (see Figure 2 for locations)								Breeding Evidence ¹	Conservation Rank ²		
			1	2	3	4	5	6	7	8		S RANK	G RANK	SARO STATUS
Anatidae	<i>Branta canadensis</i>	Canada Goose	FO		FO,	X					None	S5	G5	
Cardinalidae	<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak			S,						Possible	S4B	G5	
Cardinalidae	<i>Passerina cyanea</i>	Indigo Bunting	S,		,S	S,				,S	Possible	S4B	G5	
Cardinalidae	<i>Cardinalis cardinalis</i>	Northern Cardinal	,S	S,S ³		,S					Probable	S5	G5	
Charadriidae	<i>Charadrius vociferus</i>	Killdeer	C,								Possible	S5B,S5N	G5	
Columbidae	<i>Columba livia</i>	Rock Pigeon								H,	Possible	SNA	G5	
Columbidae	<i>Zenaida macroura</i>	Mourning Dove	,S								Possible	S5	G5	
Corvidae	<i>Corvus brachyrhynchos</i>	American Crow	C,	C,C	C,C	,C	C,				Probable	S5B	G5	
Corvidae	<i>Cyanocitta cristata</i>	Blue Jay		C,C	C,	,C				C,	Probable	S5	G5	
Corvidae	<i>Corvus corax</i>	Common Raven	C								Possible	S5	G5	
Cuculidae	<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo	S,S								Probable	S5B	G5	
Emberizidae	<i>Zonotrichia albicollis</i>	White-throated Sparrow	S,					,S		,S	Possible	S5B	G5	
Emberizidae	<i>Melospiza melodia</i>	Song Sparrow	S,S	S,S	,S	,S		S,	S,S	S,	Probable	S5B	G5	
Emberizidae	<i>Poocetes gramineus</i>	Vesper Sparrow						S,			Possible	S4B	G5	
Emberizidae	<i>Spizella passerina</i>	Chipping Sparrow	,S							,S	Possible	S5B	G5	
Fringillidae	<i>Carduelis tristis</i>	American Goldfinch	C,H		,C			C,	C,H		Probable	S5B	G5	
Icteridae	<i>Quiscalus quiscula</i>	Common Grackle	H,	H,H							Probable	S5B	G5	
Icteridae	<i>Icterus galbula</i>	Baltimore Oriole		S,							Possible	S4B	G5	
Icteridae	<i>Agelaius phoeniceus</i>	Red-winged Blackbird						P,S	,S		Probable	S4	G5	
Icteridae	<i>Molothrus ater</i>	Brown-headed Cowbird						C,			Possible	S4B	G5	
Mimidae	<i>Dumetella carolinensis</i>	Gray Catbird	,S	C,C						,S	Probable	S4B	G5	
Mimidae	<i>Toxostoma rufum</i>	Brown Thrasher	S,								Possible	S4B	G5	
Paridae	<i>Poecile atricapillus</i>	Black-capped Chickadee				,C				S,	Possible	S5	G5	
Parulidae	<i>Geothlypis philadelphia</i>	Mourning Warbler		S,S		S,				S,	Probable	S4B	G5	
Parulidae	<i>Setophaga ruticilla</i>	American Redstart	S,	S,S	,S	S,	S,			S,	Probable	S5B	G5	
Parulidae	<i>Seiurus aurocapilla</i>	Ovenbird			S,S	S,S	S,				Probable	S4B	G5	
Parulidae	<i>Geothlypis trichas</i>	Common Yellowthroat	,S	,S				S,S	,S		Probable	S5B	G5	
Parulidae	<i>Parkesia noveboracensis</i>	Northern Waterthrush					S,				Possible	S5B	G5	
Parulidae	<i>Setophaga petechia</i>	Yellow Warbler	,S								Possible	S5B	G5	
Phasianidae	<i>Meleagris gallopavo</i>	Wild Turkey			H,	H,H					Probable	S5	G5	
Picidae	<i>Colaptes auratus</i>	Northern Flicker				H,				C,	Possible	S4B	G5	
Picidae	<i>Picoides villosus</i>	Hairy Woodpecker			,C	H,	C,				Possible	S5	G5	
Picidae	<i>Sphyrapicus varius</i>	Yellow-bellied Sapsucker	,H								Possible	S5B	G5	
Picidae	<i>Dryocopus pileatus</i>	Pileated Woodpecker			,C						Possible	S5	G5	
Sittidae	<i>Sitta carolinensis</i>	White-breasted Nuthatch					S,				Possible	S5	G5	
Sturnidae	<i>Sturnus vulgaris</i>	European Starling	H,	,H				,H		H,H	Probable	SNA	G5	
Troglodytidae	<i>Troglodytes aedon</i>	House Wren	S,S	S,S	,S	S,	,S		S,	S,S	Probable	S5B	G5	
Turdidae	<i>Catharus fuscescens</i>	Veery	,S	S,	,S	S,	,S				Possible	S4B	G5	
Turdidae	<i>Turdus migratorius</i>	American Robin	S,S	,S	S,S	,H	S,			,H	Probable	S5B	G5	

FAMILY	SCIENTIFIC NAME	COMMON NAME	Point Count Station (see Figure 2 for locations)								Breeding Evidence ¹	Conservation Rank ²		
			1	2	3	4	5	6	7	8		S RANK	G RANK	SARO STATUS
Turdidae	<i>Hylocichla mustelina</i>	Wood Thrush				S,S					Probable	S4B	G5	SC
Tyrannidae	<i>Myiarchus crinitus</i>	Great Crested Flycatcher			C,C	C,C	C,		C,		Probable	S4B	G5	
Tyrannidae	<i>Tyrannus tyrannus</i>	Eastern Kingbird	S,								Possible	S4B	G5	
Tyrannidae	<i>Contopus virens</i>	Eastern Wood-pewee			S,	S,S	S,S				Probable	S4B	G5	SC
Tyrannidae	<i>Empidonax alnorum</i>	Alder Flycatcher	S,S	S,							Probable	S5B	G5	
Tyrannidae	<i>Empidonax minimus</i>	Least Flycatcher				S,S	S,S				Probable	S4B	G5	
Tyrannidae	<i>Sayornis phoebe</i>	Eastern Phoebe								H,H	Probable	S5B	G5	
Vireonidae	<i>Vireo olivaceus</i>	Red-eyed Vireo			S,S	,S	S,		,S		Probable	S5B	G5	
Vireonidae	<i>Vireo gilvus</i>	Warbling Vireo	,S								Possible	S5B	G5	

Survey Conditions:

Survey 1: Date: June 5, 2020; Start Time 0639hr; End Time 0845hr; Air Temp. +16C start +22C end; Wind B0 start, B0 end; Cloud Cover <5%, 40% end; Precip. nil; Surveyor J. Broadfoot

Survey 1: Date: June 19, 2020; Start Time 0639hr; End Time 1030hr; Air Temp. +20C start +23C end; Wind B0 start, B0 end; Cloud Cover 15% start, 60% end; Precip. nil; Surveyor J. Broadfoot

¹Highest level of breeding evidence for property based on Ontario Breeding Bird Atlas (OBBA) criteria and Breeding Evidence Codes

²Conservation Rank - from Ontario Ministry of Natural Resources & Forestry, Natural Heritage Information Centre and Species at Risk in Ontario Lists

S-rank - S1 - Extremely Rare, S2 - Very Rare, S3 - Rare to Uncommon, S4 - Common, S5 - Very Com; SC - Special Concern

G-Rank - G1 - Critically Imperiled, G2 - Imperiled, G3 - Vulnerable, G4 - Apparently Secure, G5 - Sec NAR - Not at Risk

³Breeding Evidence Codes: Entry examples S,S - Singing Male detected during first survey and second survey; S, Singing male detected during first survey only ,S Singing male detected during second survey only

Breeding Evidence Codes

None FO - Species observed Flying Over showing no signs of use of subject or adjacent lands

None X - Species observed, no evidence of breeding

Possible H - Species observed in its breeding season in suitable nesting habitat

see Note S or C - Singing male(s) present (S), or breeding calls heard (C), in suitable nesting habitat in breeding season

Probable P - Pair observed in suitable nesting habitat in nesting season

Probable D - Courtship or display, including interaction between a male and a female or two males, including courtship feeding or copulation.

Probable V - Visiting probable nest site

Probable A - Agitated behaviour or anxiety calls of an adult

Probable B - Brood Patch on adult female or cloacal protuberance on adult male

Probable N - Nest-building or excavation of nest hole.

Note: Possible if only one observation of S or C, Probable if evidence of S or C in same place on two or more dates a week or more apart

Confirmed DD - Distraction display or injury feigning.

Confirmed NU - Used nest or egg shells found (occupied or laid within the period of the survey)

Confirmed FY - Recently fledged young (nidicolous species) or downy young (nidifugous species), including incapable of sustained flight

Confirmed AE - Adult leaving or entering nest sites in circumstances indicating occupied nest

Confirmed FS - Adult carrying fecal sac.

Confirmed CF - Adult carrying food for young.

Confirmed NE - Nest containing eggs.

Confirmed NY - Nest with young seen or heard



APPENDICES

- Appendix A: Background Mapping**
 - Appendix B: Air Photos**
 - Appendix C: Woodland & Wetland Mapping**
 - Appendix D: Site Photos**
 - Appendix E: Draft Plan**
-
-



APPENDIX A

Background Mapping

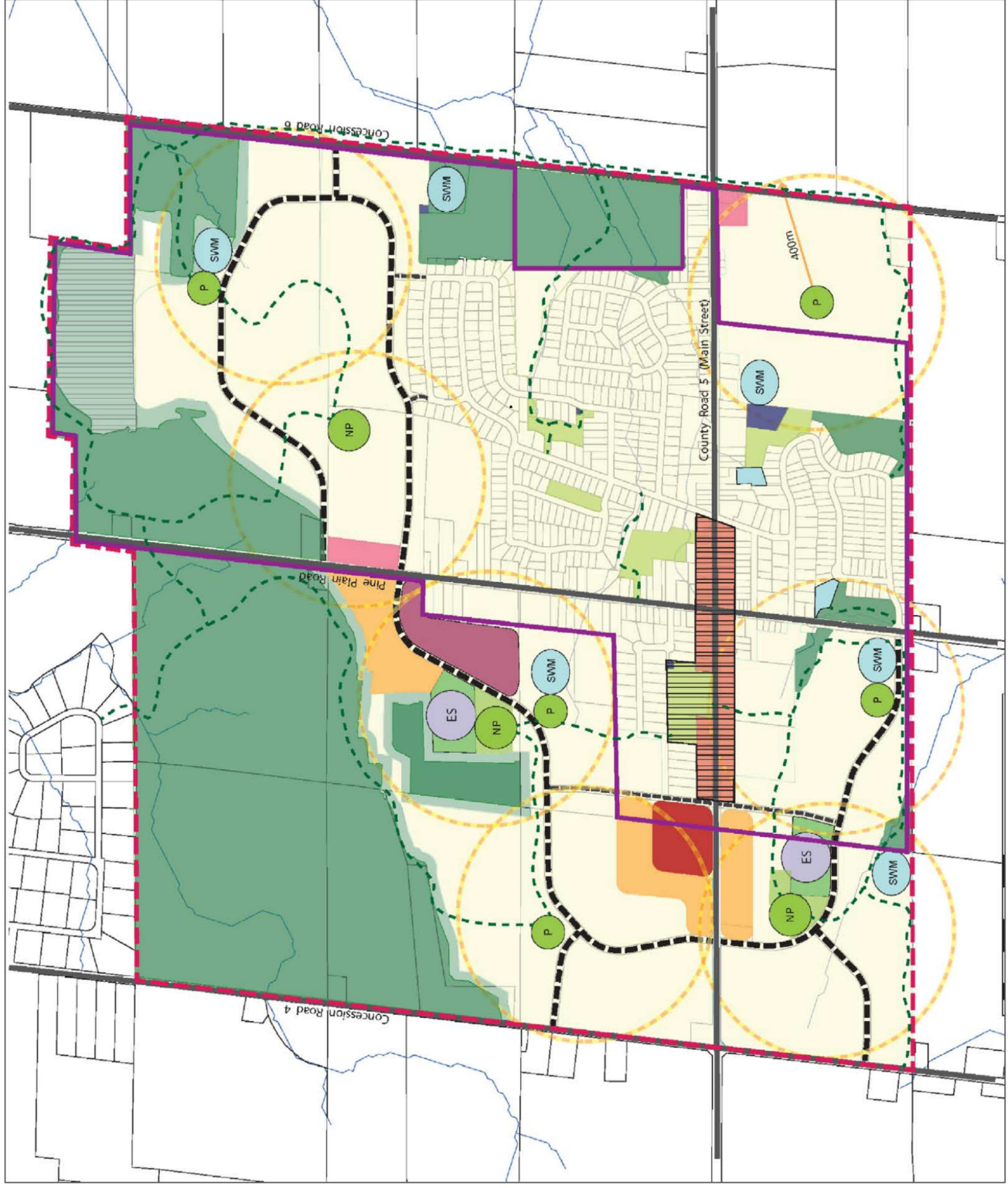
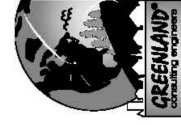
FIGURE A-1 Everett Secondary Plan Township of Adjala-Tosrontio

Conceptual Land Use Legend

- Proposed Secondary Plan Boundary
- Low Density Residential
- Medium Density Residential
- Convenience Commercial
- Main Street
- Neighbourhood Commercial
- Community Centre
- Existing Parks / Open Space
- Proposed Neighbourhood Park
- Proposed Parkette
- Proposed Elementary / School
- Existing SWM
- Proposed SWM
- Natural Heritage System
- 30.0m buffer
- Lands for further Study
- Proposed Local Road (20.0m)
- Proposed Collector Road (23.0m)
- Utilities
- Community Improvement Areas
- 400m Radius (5 minute walking distance)
- Proposed Trail Network

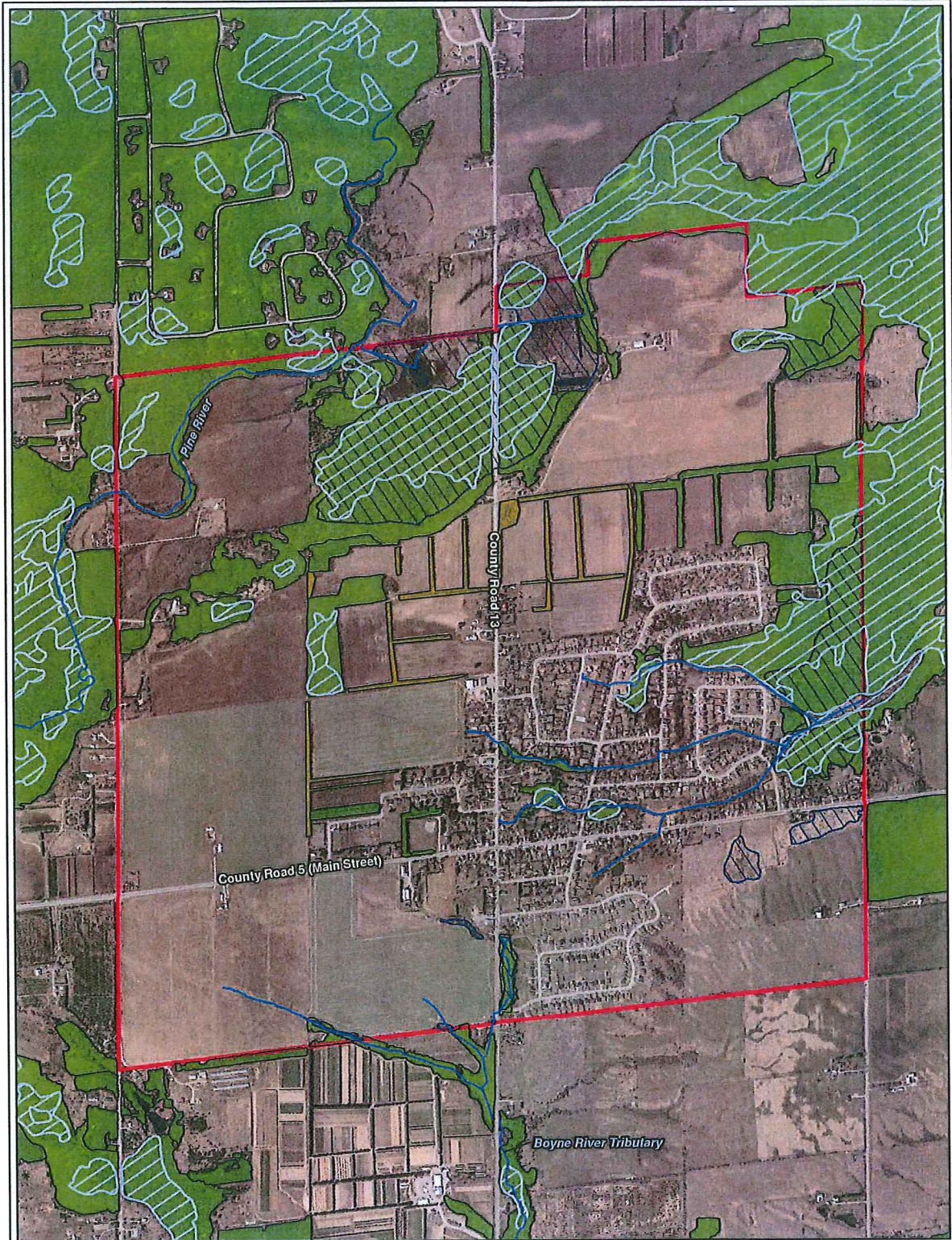


SCALE
1:5000



FROM: PLAN B. 2012. NATURAL ENVIRONMENT
 BACKGROUND REPORT - PROPOSED EVERETT SECONDARY
 PLAN AREA

PLAN
 AREA



Legend

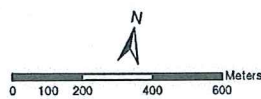
- Study Area
- Watercourse (NVCA & Plan B)
- Unevaluated Wetland (MNR)
- Wetland (NVCA)
- Woodlands (MNR)
- Hedgerows

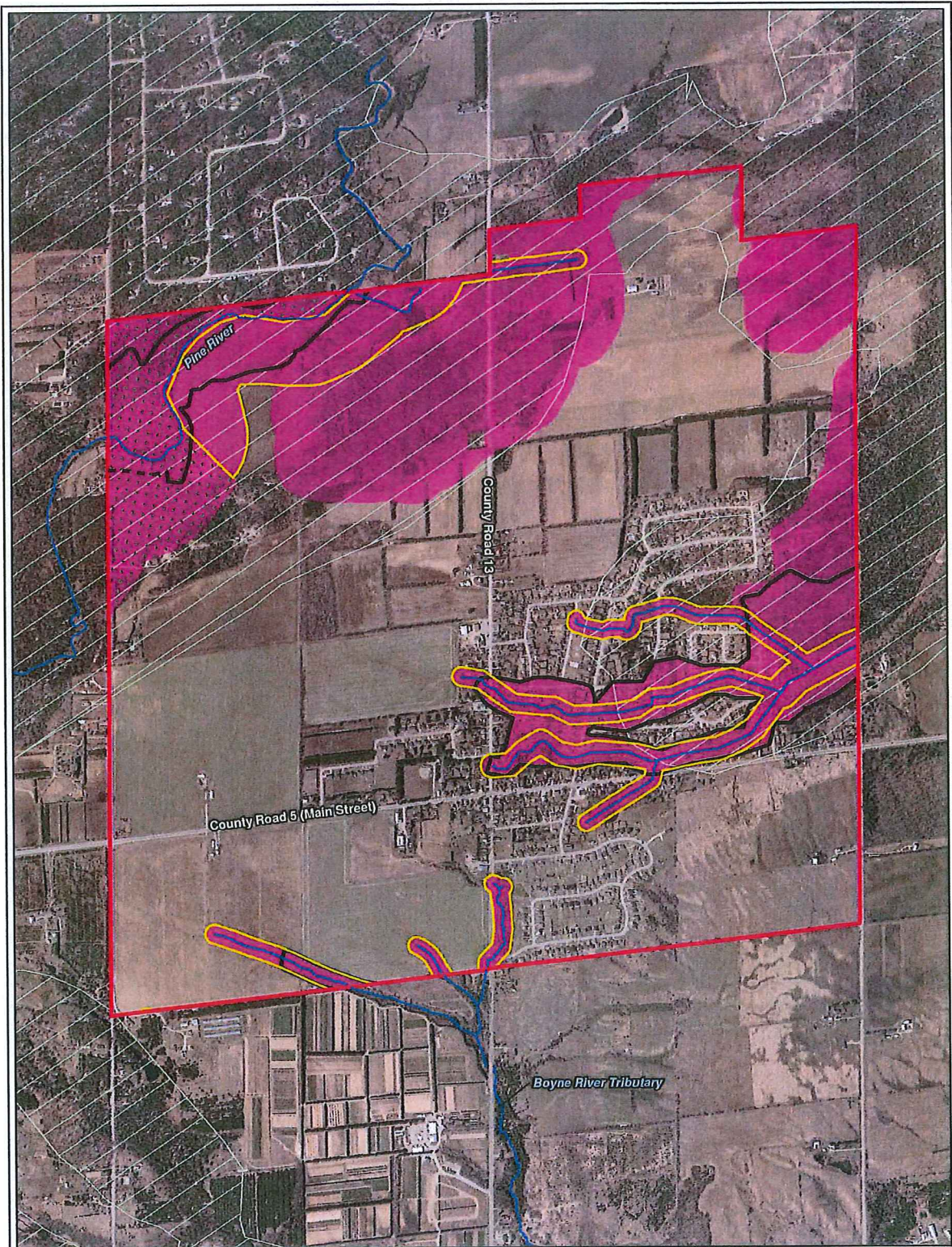
PLAN B Natural Heritage
 Landscape Ecology & Natural Heritage Planning

178 Filbert Street
 Weyburn, ON
 LCR 2K2

Everett Secondary Plan
 Existing Conditions

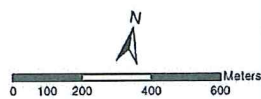
Project #	2012-50	Figure #	1
Date	October 2012		
Scale	1:12,500		
Prepared By: JJ	Reviewed By: BDB		





Legend

- Study Area
- Watercourse (NVCA & Plan B)
- Meanderbelt (NVCA)
- Flood Lines (NVCA)
- Flood Lines (Township)
- Slope (NVCA)
- Regulated Area (NVCA)
- Greenland (Simcoe County)

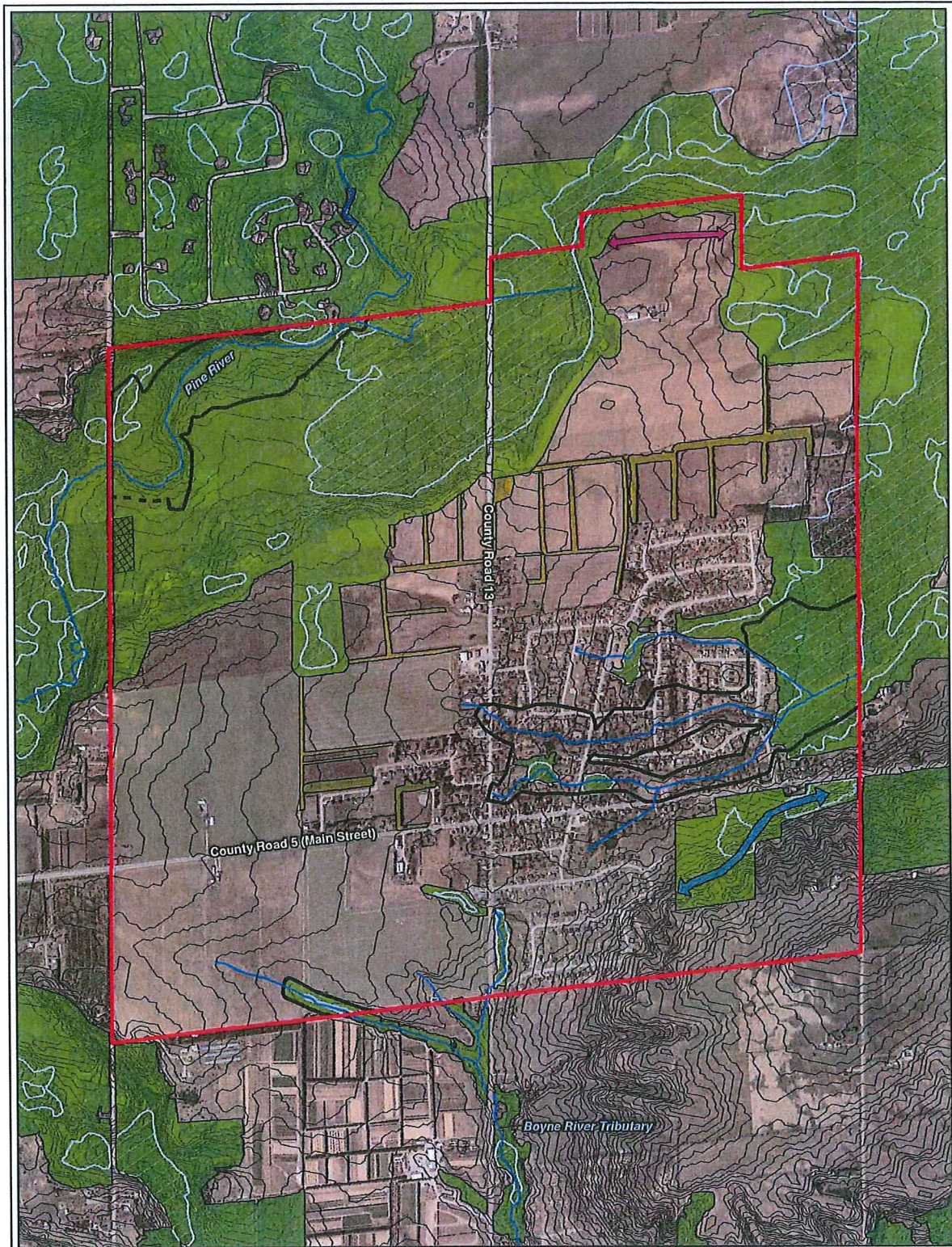


PLAN B Natural Heritage
 Landscape Ecology & Natural Heritage Planning
176 Fiddlers Crossing
 Watford, ON
 L0R 2J0

Everett Secondary Plan
Environmental Policy Areas

Project #	2012-50
Date	October 2012
Scale	1:12,500
Prepared By: JJJ	Reviewed By: BDB

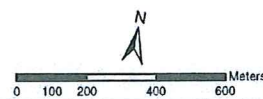
Figure #
2



Legend

- Study Area
- Watercourse (NVCA)
- Flood Lines (NVCA)
- Flood Lines (Township)
- 1 m Contour Lines (Greenland Consulting Engineers)
- Natural Heritage System* (Natural Heritage Feature plus 30 m buffer)
- Hedgerow (Mature, Planted Conifers, retain where feasible)
- Sloping Topography with Ground Water Seepage, Wetlands and Erosion
- Corridor Enhancement Opportunity
- Wetlands (NVCA and MNR)
- Prior Development Approval

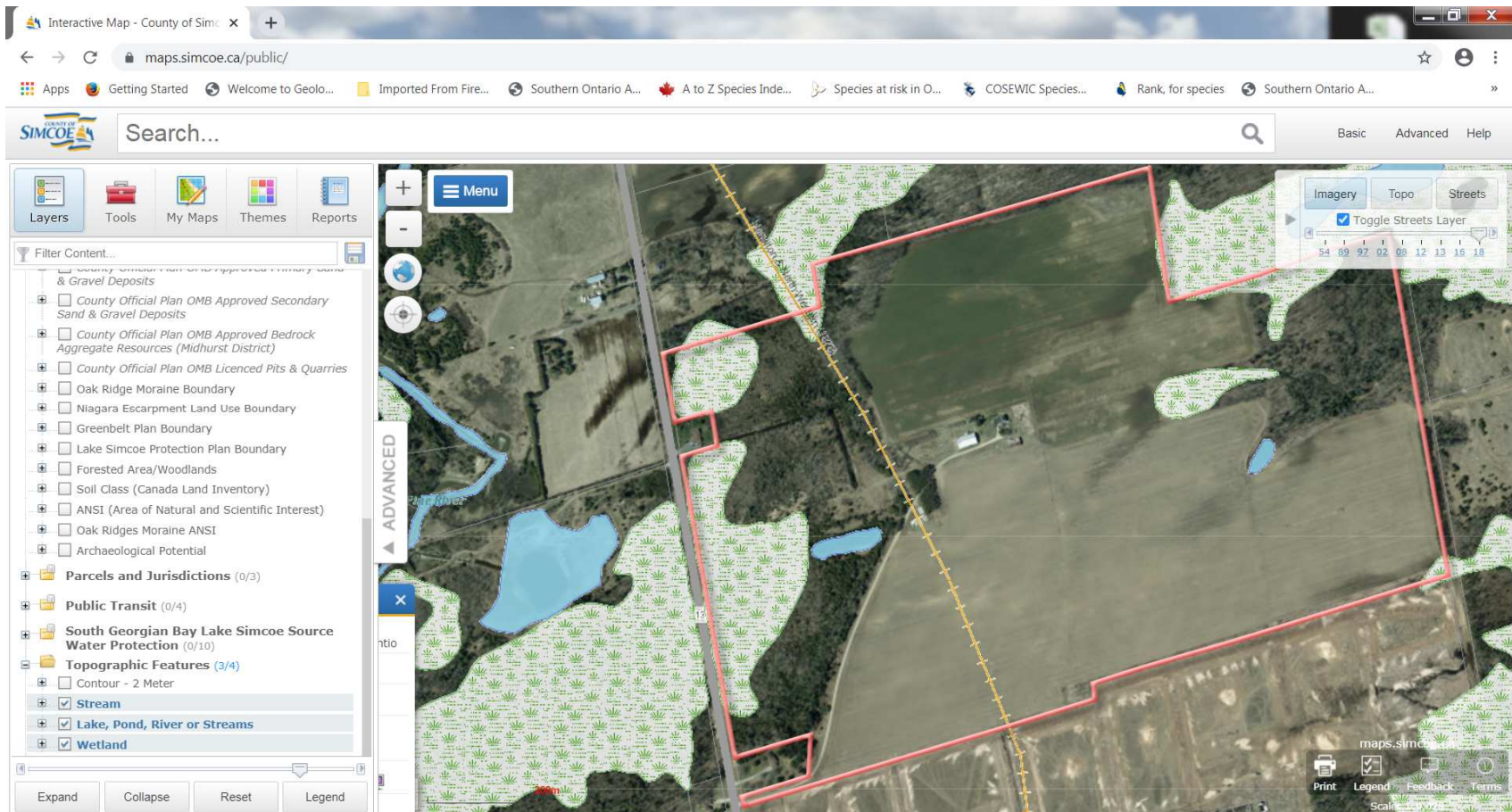
* Natural Heritage System is comprised of Simcoe County Core Greenlands, NVCA regulated wetlands, woodlands, floodplain/meander belt, linkages and enhancements to core natural areas and linkages



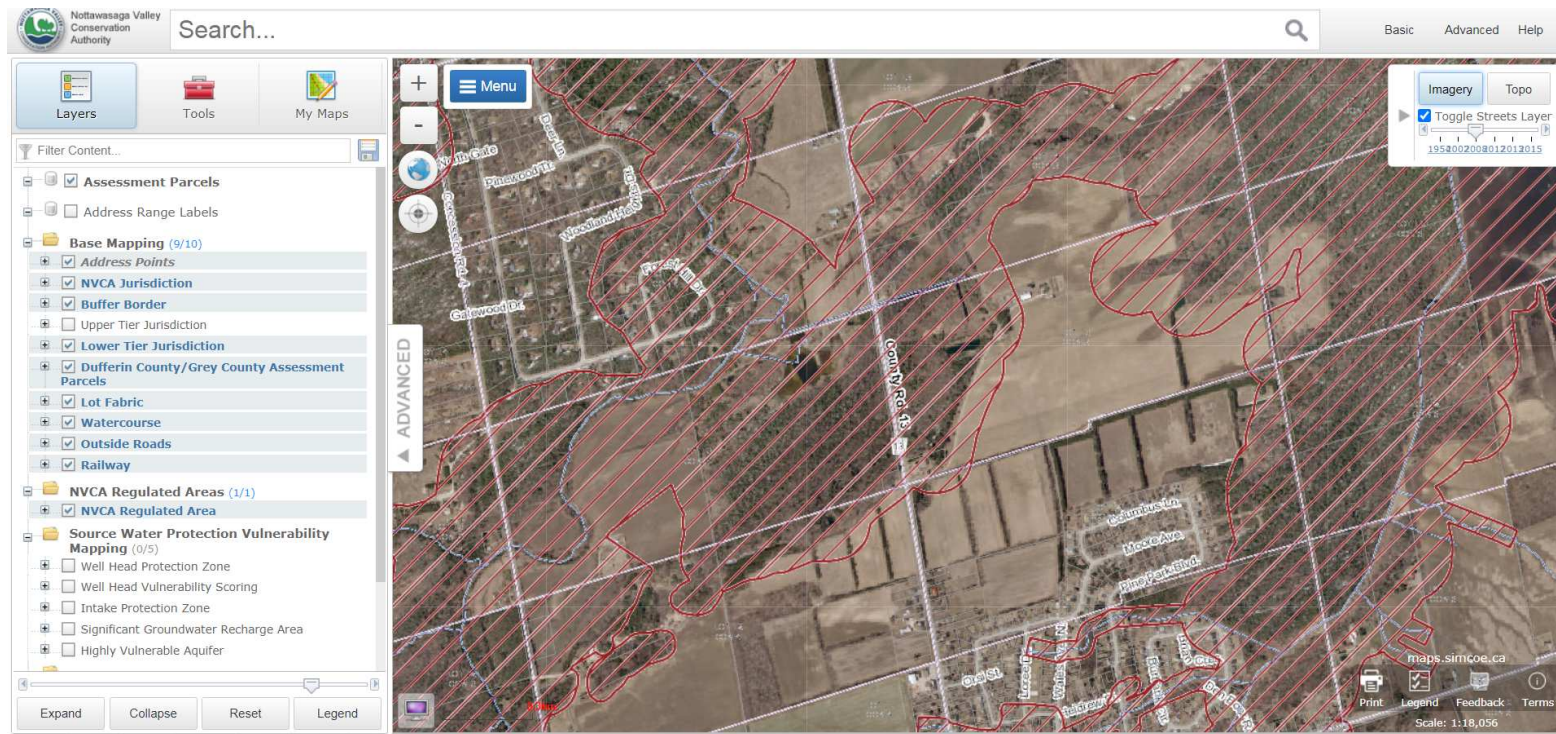
PLAN B Natural Heritage
Landscape Ecology & Natural Heritage Planning
176 F.Ross Crescent
Waterloo, ON
N2L 2G5

Everett Secondary Plan
Natural Heritage System

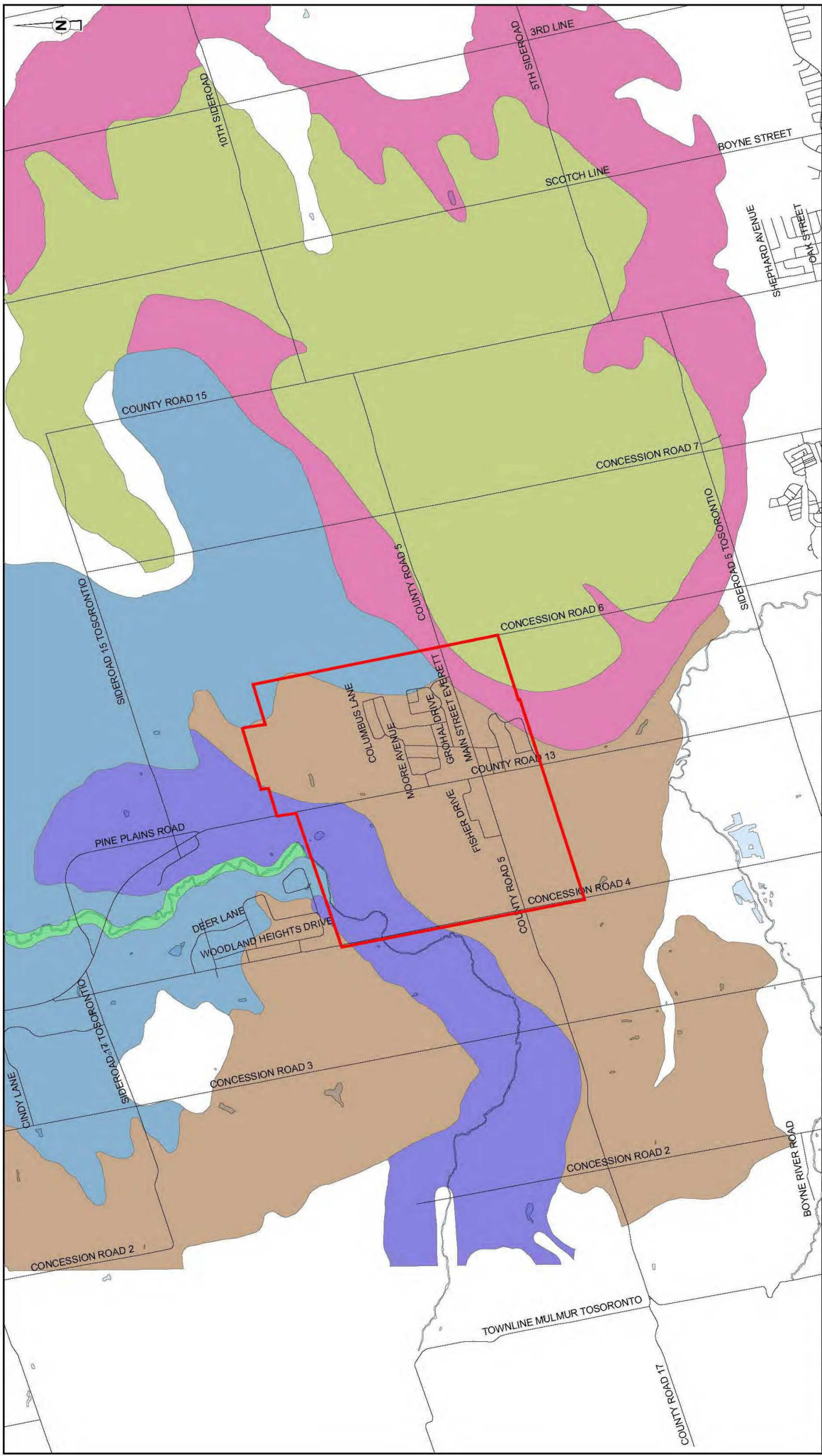
Project #	2012-50	Figure #
Date	October 2012	3
Scale	1:12,500	
Prepared By: JJJ	Reviewed By: BDB	



Streams, Wetlands, Watercourses, Ponds, Historic Railway (source - <https://maps.simcoe.ca/public/>)



NVCA Regulation Limit Mapping (source - <https://maps.simcoe.ca/NVCA/>)



2
 Kilometers
 0

ASI PROJECT NO.: 127S-125
 DATE: AUG-2012
 DRAWN BY: BWJ/D
 FILE: 127S-125-FIGURE3.A

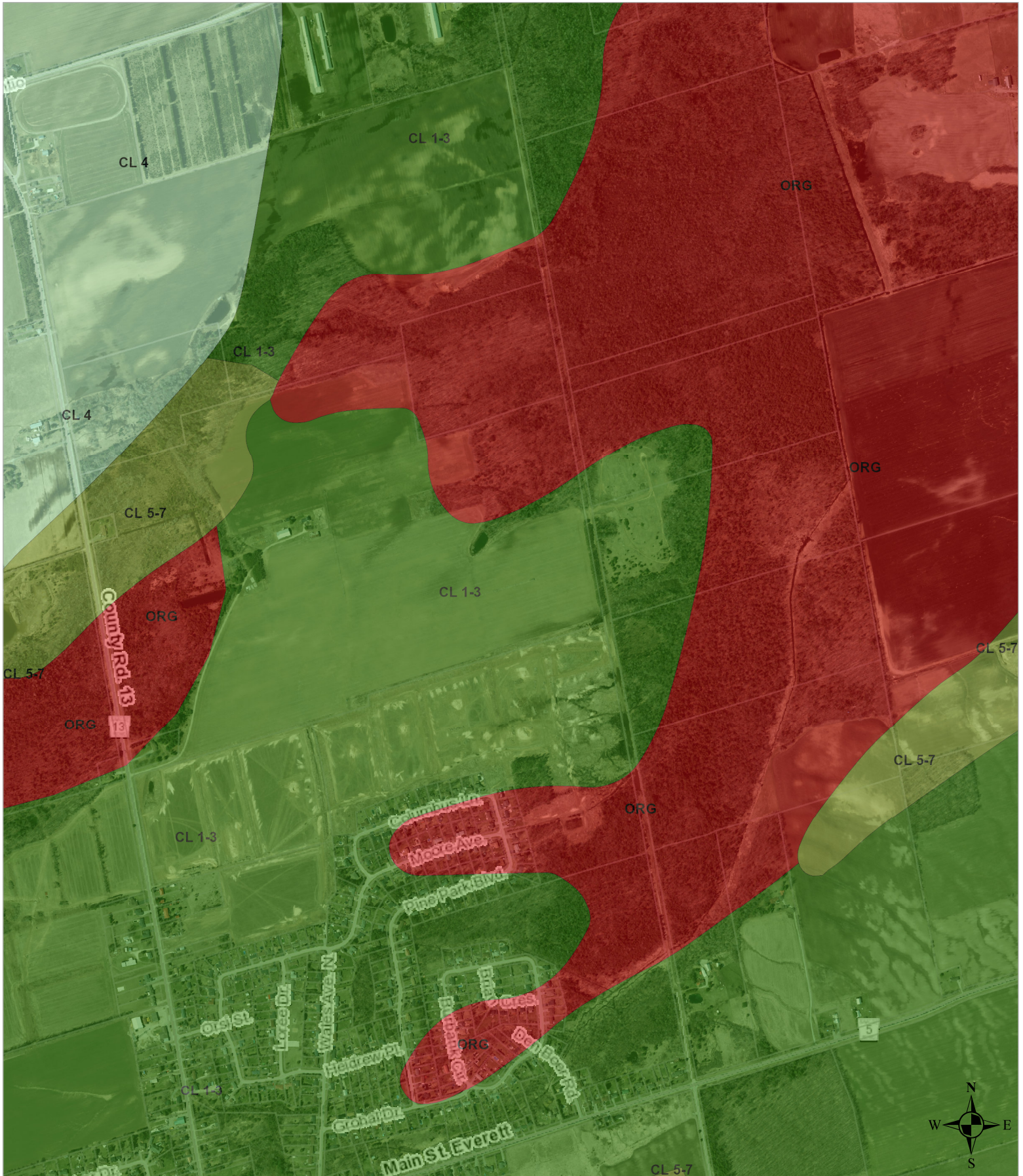
LEGEND

- STUDY AREA BOUNDARY
- GRAVEL, SAND, SILT, CLAY- MODERN FLOODPLAIN
- GRAVEL, SAND, SILT, CLAY- POST-GLACIAL RIVER DELTA
- SAND, SILT, CLAY- GLACIAL NEARSHORE FLATS (LAKE ALGONQUIN)
- SILT AND CLAY GLACIAL DEPOSITS (DRUMLIN)
- SAND AND GRAVEL-NEARSHORE INLAND DEPOSITS
- SANDY SILT TO SAND TILL- STRATIFIED LAKEBEDS

Archaeological Services Inc.
 528 Bathurst St.
 Toronto, Ontario
 Canada, M5S 2P9
 T 416-966-1069
 F 416-966-9723
 info@ASI.to / www.ASI .to

Figure 3: The Surficial Geology of the Everett Secondary Plan, Township of Adjala-Toronto, Simcoe County

Barzo Lands



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0 0.275 0.55 1.1 km

1:18,056



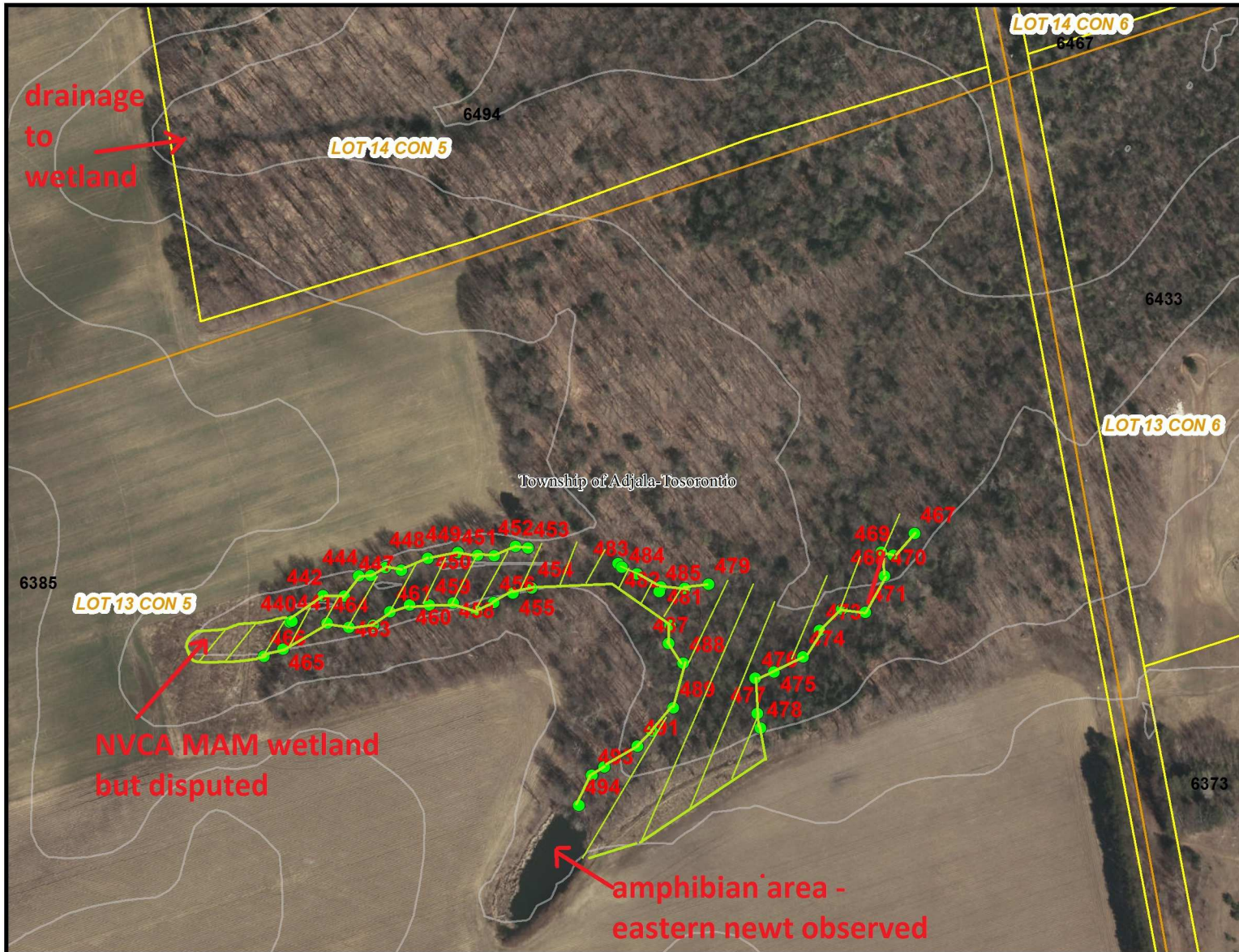
August 11, 2020



Farsight/Barzo Wetlands Oct 6/16 Site Visit



Date: 07-Oct-2016

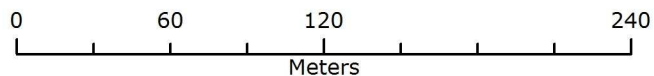


Legend

- oct6_16_everettsites
- adjalaTos_1mContours
- Jurisdiction Boundary
- Municipal Boundary
- LotConcessions
- Parcel Boundary (Reference Data)
- Watercourse by size
- 2
- 3
- 4
- 5
- 6

Notes

Nottawasaga Valley Conservation Authority
 8195 8th Line
 Utopia, ON L0M 1T0
 www.nvca.on.ca



1:2,954

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APPENDIX B

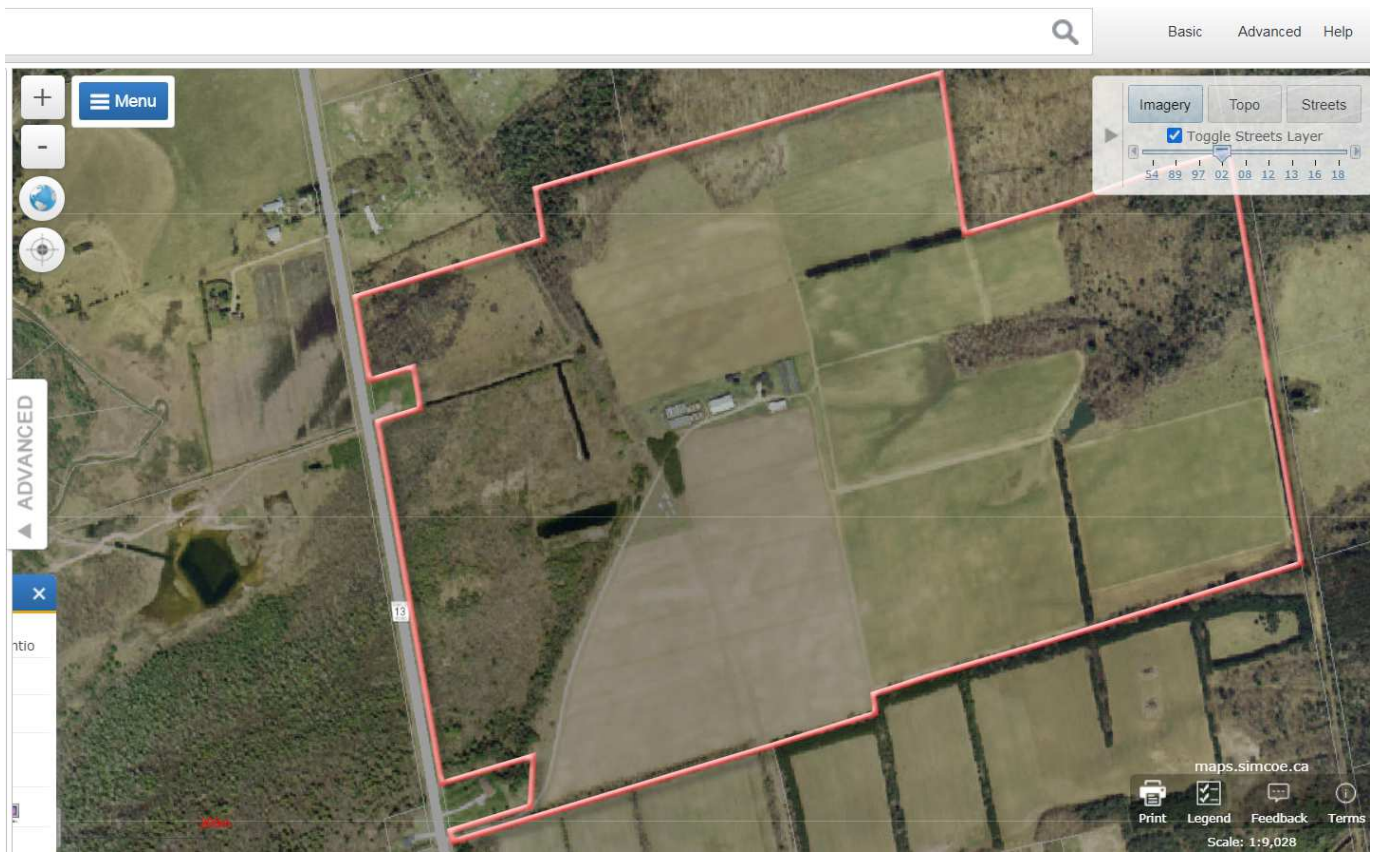
Air Photos



1954 Air Photo (source - <https://maps.simcoe.ca/public/>)



1989 Air Photo (source - <https://maps.simcoe.ca/public/>)



2002 Air Photo (source - <https://maps.simcoe.ca/public/>)

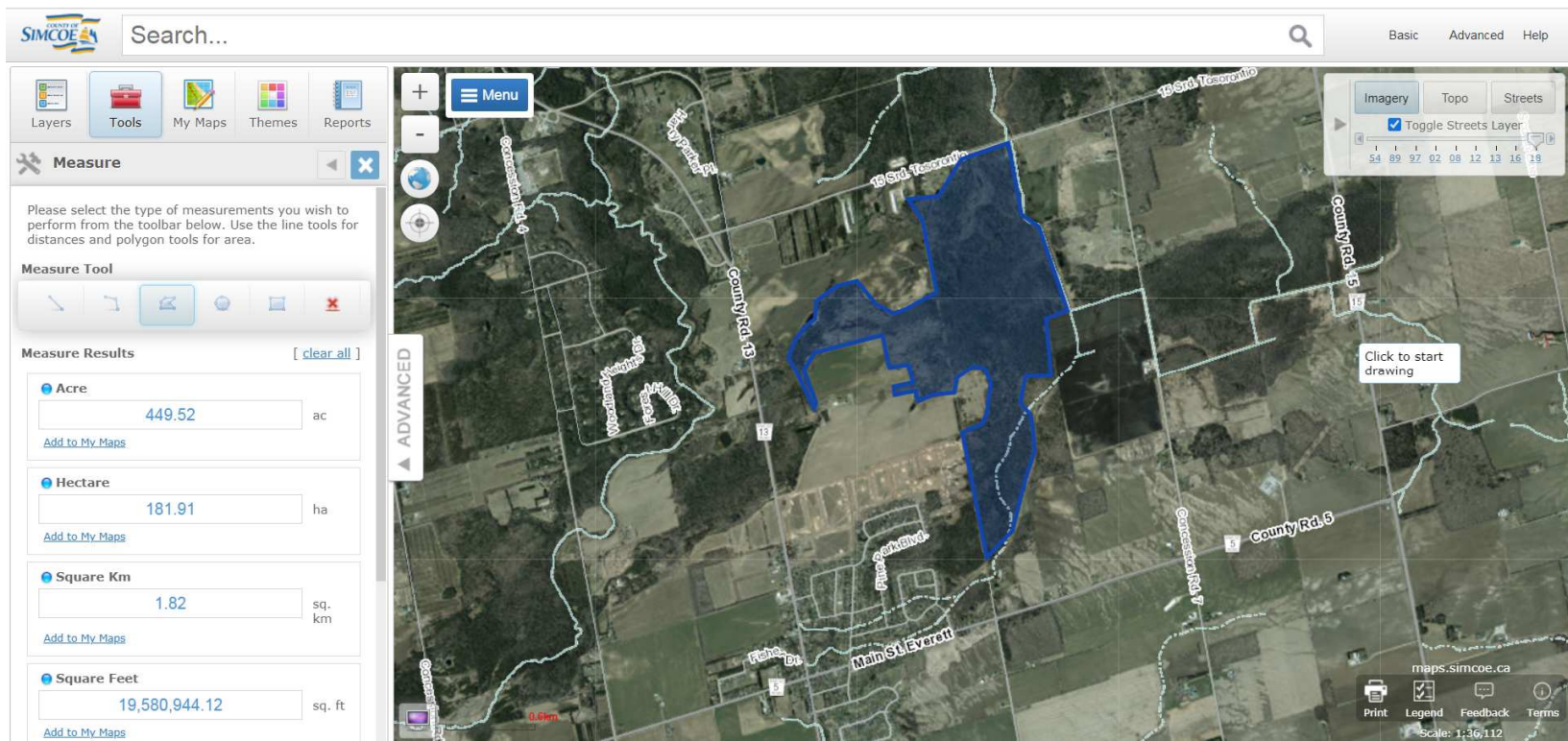


2018 Air Photo (source - <https://maps.simcoe.ca/public/>)



APPENDIX C

Woodland & Wetland Mapping

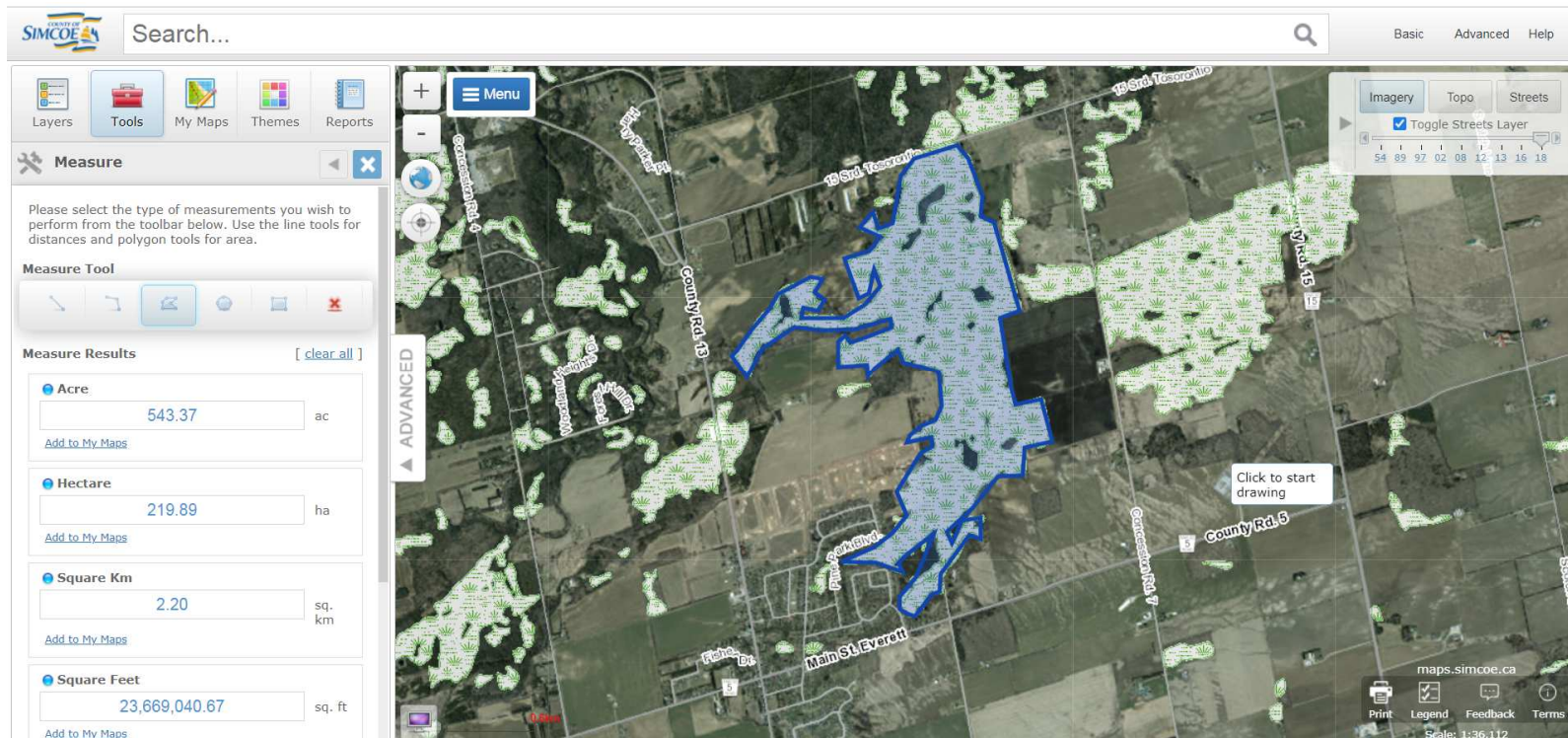


Continuous woodland north and east of property > 180ha

The screenshot displays the Simcoe County Maps web application interface. At the top left is the Simcoe County logo and a search bar. Below the logo are navigation tabs for Layers, Tools, My Maps, Themes, and Reports. The main interface is divided into a left sidebar and a central map area. The sidebar contains a 'Measure' tool section with instructions, a 'Measure Tool' toolbar, and 'Measure Results' for four units: Acre (19.46), Hectare (7.88), Square Km (0.08), and Square Feet (847,673.29). The map area shows an aerial view of a rural landscape with roads labeled '19th Truscott Dr', '18th Truscott Dr', '17th Truscott Dr', '16th Truscott Dr', '15th Truscott Dr', '14th Truscott Dr', '13th Truscott Dr', '12th Truscott Dr', '11th Truscott Dr', '10th Truscott Dr', '9th Truscott Dr', '8th Truscott Dr', '7th Truscott Dr', '6th Truscott Dr', '5th Truscott Dr', '4th Truscott Dr', '3rd Truscott Dr', '2nd Truscott Dr', '1st Truscott Dr', 'Main St Everett', 'Rt 27', 'Rt 26', 'Rt 25', 'Rt 24', 'Rt 23', 'Rt 22', 'Rt 21', 'Rt 20', 'Rt 19', 'Rt 18', 'Rt 17', 'Rt 16', 'Rt 15', 'Rt 14', 'Rt 13', 'Rt 12', 'Rt 11', 'Rt 10', 'Rt 9', 'Rt 8', 'Rt 7', 'Rt 6', 'Rt 5', 'Rt 4', 'Rt 3', 'Rt 2', 'Rt 1'. A blue polygon highlights a property on the west side of the map. A white box with the text 'Click to start drawing' is positioned over the map. The bottom right corner of the map area shows the URL 'maps.simcoe.ca', a scale of '1:36,112', and icons for Print, Legend, Feedback, and Terms.

Continuous woodland on west side of property approx. 7ha

<https://maps.simcoe.ca/public/>



Unevaluated Wetlands, continuous wetland area east of Barzo/WWTP lands – Source Simcoe County GIS (<https://maps.simcoe.ca/public/>)



APPENDIX D

Site Photos



Photos 1. Field/forest edge looking west (June 19, 2020)



Photo 2. Pond 2 looking east (June 19, 2020).



Photo 3. Drainage ditch looking north (June 19, 2020).



Photo 4. Pine plantation, looking southwest from farmyard (June 19, 2020).



Photo 5. Field/forest edge looking south (June 5, 2020).



Photo 6. Field/forest edge looking north (June 5, 2020).



Photo 7. Cultural Meadow/forest edge looking northwest (June 19, 2020).



Photo 8. Field/forest edge looking south (June 5, 2020).



Photo 9. OAG (Agriculture Infrastructure)/forest edge looking south – note rotary irrigator track (June 5, 2020).



Photo 10. IAG (Agriculture Infrastructure)/forest edge looking east (June 5, 2020).



Photo 11. Row crop (potatoes) looking west toward farm buildings (June 5, 2020).



Photo 12. OAG (Agriculture Infrastructure)/forest edge looking north – note rotary irrigator track (June 19, 2020).



Photo 13. Watercourse W1 looking west/upstream (June 19, 2020).



Photo 14. Watercourse W1 looking west/upstream (June 19, 2020).



Photo 15. Pond P1 looking northeast (June 5, 2020).

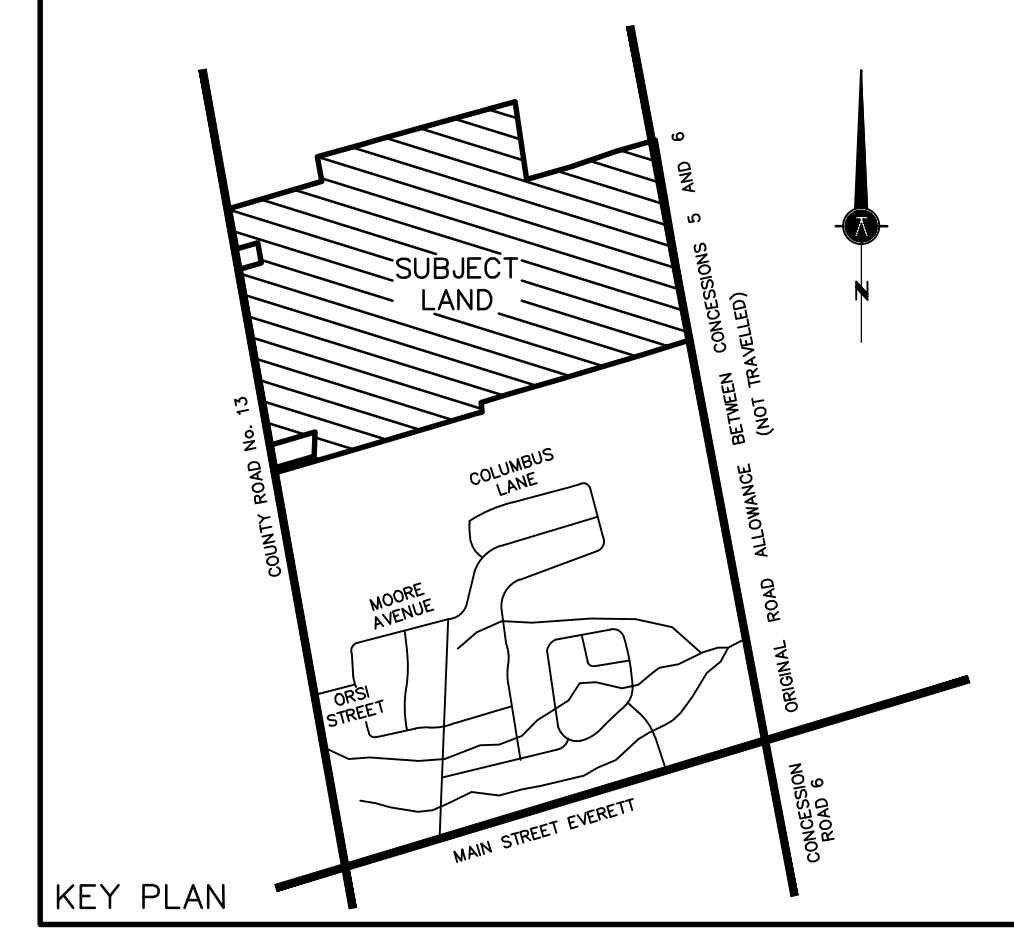


Photo 16. Mineral Meadow Marsh/forest edge looking north (June 19, 2020).



APPENDIX E

Draft Plan



DRAFT PLAN OF SUBDIVISION
**PART OF LOTS 13 AND 14
 CONCESSION 5**
 (GEOGRAPHIC TOWNSHIP OF TORONTO)
TOWNSHIP OF ADJALA-TORONTO
 COUNTY OF SIMCOE
 SCALE 1:1250
 KRCMAR SURVEYORS LTD. 2021

BEARING
 BEARINGS SHOWN HEREON ARE GRID BEARINGS DERIVED FROM GPS OBSERVATIONS OF OBSERVED REFERENCE POINTS 1, 2 AND 3 USING THE LEICA SMARTNET RTK NETWORK AND ARE REFERRED TO THE 6° UTM COORDINATE SYSTEM, ZONE 17, CENTRAL MERIDIAN 81°00' WEST LONGITUDE, (NAD 83 (CSRS)(2010)).
 DISTANCES SHOWN HEREON ARE GROUND DISTANCES AND CAN BE CONVERTED TO GRID DISTANCES BY MULTIPLYING BY A CORRECTED SCALE FACTOR OF 0.999491.

INTEGRATION DATA

6° UTM ZONE 17 COORDINATES
 NAD 83 (CSRS)(2010) (CENTRAL MERIDIAN 81°00' WEST LONGITUDE)
 THE UTM COORDINATES SHOWN BELOW ARE TO 5-DIGIT ACCURACY AND COMPLY WITH SECTION 14(3) OF THE REGULATION OF PROFESSIONAL SURVEYORS ACT.

OBSERVED REFERENCE POINTS			
MONUMENT ID.	NORTHING	EASTING	
(A) SB(735)	4 895 593.78	584 293.44	
(B) SB(735)	4 894 811.56	584 444.27	
REFERENCE POINTS			
POINT	NORTHING	EASTING	
1	4 895 818.97	585 554.29	
2	4 895 227.44	585 666.43	

COORDINATE VALUES SHOWN ARE TO 5-DIGIT ACCURACY. SYSTEM INTEGRATION ONLY. COORDINATE VALUES IN ITALICS ARE USED TO RE-ESTABLISH CORNER OF BOUNDARIES SHOWN ON THIS PLAN.

- ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51(7) OF THE PLANNING ACT.**
- A) AS SHOWN ON DRAFT PLAN
 - B) AS SHOWN ON KEY PLAN
 - C) AS SHOWN ON THE KEY PLAN
 - D) AS SHOWN IN LAND USE SCHEDULE
 - E) AS SHOWN ON DRAFT PLAN
 - F) AS SHOWN ON DRAFT PLAN
 - G) AS SHOWN ON DRAFT PLAN
 - H) MUNICIPAL SERVICES TO BE PROVIDED
 - I) CLAY LOAM
 - J) AS SHOWN ON DRAFT PLAN
 - K) MUNICIPAL SERVICES TO BE PROVIDED
 - L) AS SHOWN ON DRAFT PLAN

DEVELOPMENT STATISTICS TABLE

RESIDENTIAL LOTS	LOTS	AREA
10.0m SINGLES	213	6.6 ha
11.0m SINGLES	380	14.0 ha
13.0m SINGLES	230	11.4 ha
6.0m TOWNHOUSES	BLOCK 924 TO 905 (415 UNITS)	8.3 ha

STORM WATER MANAGEMENT FACILITY BLOCK 906 1.2 ha
 ENVIRONMENTAL PROTECTION (WOODLAND) BLOCK 907 10.4 ha
 OPEN SPACE (PARK) BLOCK 908 3.0 ha
 ENVIRONMENTAL PROTECTION (WOODLAND) BLOCK 909 24.4 ha
 INTERNAL CONSTRUCTION ACCESS) BLOCK 910 0.3 ha
 FUTURE RESIDENTIAL-PART LOTS BLOCKS 911 AND 912 0.3 ha
 0.30 RESERVES BLOCKS 913 TO 916 0.01 ha

ROADS (STREET 'A' TO 'L') 16.5 ha

TOTAL AREA OF SUBDIVISION 96.6 ha

ROAD
 20.00 m P.O.W. 8070m

SURVEYOR'S CERTIFICATE
 I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LANDS BEING SUBDIVIDED AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN ON THIS PLAN.

DATE: 2021 TOM KRCMAR
 Krcmar Surveyors Ltd.
 Ontario Land Surveyors

OWNER'S CERTIFICATE
 I HEREBY AUTHORIZE KRCMAR SURVEYORS LTD. TO PREPARE AND SUBMIT THIS DRAFT PLAN OF SUBDIVISION FOR APPROVAL.

DATE: 2021 FOR: - A.S.D.
 I HAVE AUTHORITY TO SIGN THE CORPORATION

PLAN AVAILABLE AT www.ProtectYourBoundaries.ca

FIELD	DRAWN	CHECKED	JOB NO.
DWG NAME: 20-53303001	PLAT INFO: 10-13-14-09-2021	WORK ORDER NO: 34353	
1137 Centre Street, Thornhill, ON L4J 3M6 905.738.0053 F.905.738.9221 www.krcmar.ca			

