



**Environmental Impact Study**  
**Charleston Homes Subdivision**  
**Town of Collingwood County of Simcoe**

Prepared for:  
Charleston Homes

Prepared by:  
Azimuth Environmental  
Consulting, Inc.

December 2015

AEC 14-217



Environmental Assessments & Approvals



December 18, 2015

AEC 14-217

Charleston Homes  
143 Dennis Street, P.O. Box 760  
Rockwood,  
ON N0B 2K0

Attention: Charlie Kuiken

Re: Scoped Environmental Impact Study 7972 and 8004 Poplar Sideroad and  
unaddressed parcel fronting onto High Street, Charleston Homes Subdivision,  
Town of Collingwood, County of Simcoe

Dear Mr. Kuiken:

Azimuth Environmental Consulting Inc. has attended the property identified above to document natural heritage features associated with the property. This EIS comprises a portion of the submission associated with the construction of a proposed multi-unit subdivision in the Town of Collingwood.

Our investigation has identified five natural heritage features with potential to be considered significant within the study area which require consideration as defined within the *Provincial Policy Statement, 2014*: Significant Woodland, Fish Habitat, Habitat for Endangered or Threatened Species, Significant Wildlife Habitat, and Habitat for Species of Special Concern

Based on the results of this EIS, we have determined that the proposed development will conform with the natural heritage policies of the Town and Province as they relate to the abovementioned features as the study has demonstrated that no negative impact will occur to these features, provided that the recommended mitigation measures are implemented. Additional discussions with the MNRF are required in order to quantify impact and identify appropriate compensation measures for works that may affect Butternut (Endangered) individuals, in accordance with the standard regulatory process.



If you have any questions or concerns regarding the information presented in this report, please do not hesitate to contact us.

Yours truly,

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

A handwritten signature in blue ink that reads "Melissa Fuller".

Melissa Fuller, (H) B.Sc. Bio  
Terrestrial Ecologist

Attach:



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## **1.0 INTRODUCTION**

Azimuth Environmental Consulting Inc. (Azimuth) has been retained by Charleston Homes to assist with the completion of an Environmental Impact Study (EIS) for a property located on 7972 and 8004 Poplar Sideroad and an unaddressed parcel fronting onto High Street, Town of Collingwood, County of Simcoe (Town; Figure 1). Azimuth has prepared this EIS as part of the submission associated with the construction of a proposed subdivision.

The EIS documents the environmental conditions present on the property. Information collected by Azimuth ecologists during the summer of 2014 and background information available from Ministry of Natural Resources and Forestry (MNRF) have been used to address the potential impacts associated with the proposed land use change and associated development.

It is our understanding that an EIS was requested by the Town and Nottawasaga Valley Conservation Authority (NVCA) in order demonstrate the conformity of the project with municipal and provincial natural heritage policies. The EIS assesses the potential presence of key/sensitive natural heritage features associated with the proposed development and outlines strategies to mitigate any potential impacts to the identified natural heritage features and their habitat values.

## **2.0 STUDY APPROACH**

For this study, our focus was centered primarily upon potential impact to the natural features on site and on adjacent lands. This evaluation considered available literature and was augmented with our existing knowledge and familiarity with the Town of Collingwood. The following tasks were completed for the finalization of this EIS and the terms of reference for the project was confirmed with the Conservation Authority (Appendix A):

- Contacted the NVCA to confirm the proposed scope of work for the completion of the EIS;
- Evaluated vegetation communities in summer 2014 using protocols of the Ecological Land Classification for Southern Ontario (Lee *et al.* 1998. Ecological land classification for southern Ontario: first approximation and its applications. SCSS Field Guide FG-02);
- Conducted a Top-of-Bank (TOB) feature staking with the NVCA (Dave Featherstone and Chris Hibberd) and C. C. Tatham and Associates (Jeff Akitt) (June 2014);
- Conducted a single season vegetation survey in June 2014;



- Characterized the aquatic habitat within the riparian corridor in order to determine a suitable development setback from the feature;
- Contacted the MNRF for an initial species screening under the *Endangered Species Act*, 2007;
- Completed a Butternut Health Assessment for individuals identified on the property (August 2014);
- Recorded other wildlife observations and assessed wildlife habitat function of the property;
- Mapped vegetation communities and other environmental features (watercourses, wetlands, areas of ground water discharge, etc.) on ortho-air photos;
- Assessed the potential direct and indirect impacts of the proposed development on the sensitive or significant environmental features as described above; and
- Developed an appropriate avoidance/mitigation/restoration strategy to address the potential environmental impacts.

### **3.0 PLANNING CONTEXT**

In the following sections we summarize the range of federal, provincial, county, and local planning policies and regulations related to natural heritage that apply to the proposed development for the purpose of the EIS.

#### **3.1 Provincial Planning Policy**

The *Planning Act* (1990) requires that planning decisions shall be consistent with the PPS. Section 2.1 of the *Provincial Policy Statement*, 2014 (PPS) specifies policy related to the protection of natural heritage features and functions.

According to the PPS development and site alteration shall not be permitted in:

- Significant wetlands (in coastal areas or in Ecoregions 5E, 6E and 7E), and
- Significant coastal wetlands.

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

- Significant woodlands (south and east of the Canadian Shield),
- Significant valley lands (south and east of the Canadian Shield),
- Coastal wetlands;
- Significant wildlife habitat, and
- Significant Areas of Natural and Scientific Interest (ANSI).





According to the Natural Heritage Reference Manual for Natural Heritage Policies of the *Provincial Policy Statement, 2005* (MNR, 2010) Significant Wildlife Habitat includes:

- Habitats of seasonal concentrations of animals;
- Rare vegetation communities or specialized habitat for wildlife;
- Habitat of species of conservation concern; and
- Animal movement corridors.

No development or site alteration will be permitted on lands adjacent to the areas defined above unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated there will be no negative impacts on the natural features and ecological functions.

The PPS also states that development and site alteration is not permitted in fish habitat or habitat of endangered and threatened species except in accordance with federal and provincial requirements.

The term development (as defined in the PPS) is defined as the creation of a new lot, a change in land use or the construction of buildings and structures, requiring approval under the Planning Act.

### **3.2 Endangered Species Act**

Ontario's *Endangered Species Act, 2007* (ESA) provides regulatory protection to endangered and threatened species and prohibits harassment, harm and/or killing of protected individuals and destruction of their habitats. Habitat is broadly characterized within the ESA as the area prescribed by a regulation as the habitat of the species, or, an area on which the species depends, directly or indirectly, to carry on its life processes, including reproduction, rearing of young, hibernation, migration or feeding.

The various schedules of the ESA identify SAR in Ontario. These include species listed as extirpated, endangered, threatened and special concern. As noted above, only species listed as endangered and threatened receive protection from harm and destruction to habitat on which they depend.

### **3.3 Migratory Birds Convention Act**

The *Migratory Birds Convention Act, 1994* is federal legislation that makes provision for the protection of nesting migratory bird species. Specifically, Regulation 5(6) a) states that "no person shall disturb, destroy or take a nest, egg, nest shelter, eider duck shelter or duck box of a migratory bird [Migratory Birds Regulations (C.R.C., c. 1035)]." The proposed works should proceed in a manner that ensures nesting migratory species are



not disturbed during the avian breeding season. Information available from Environment Canada indicates that the breeding season in this location, and for the applicable habitat types, extends from April 20th to August 10th of any given year (Environment Canada 2015).

### **3.4 County of Simcoe**

The study area is located within the Settlement designation associated with the Town of Collingwood settlement area, as per Schedule 5.1 of the August 2007 consolidation of the County's Official Plan, as well as Schedule 5.1 of the new, partially approved County Official Plan. More specifically, the Town of Collingwood is a Primary Settlement Area as identified on Schedule 5.1.2 of the partially approved County Official Plan.

Settlement areas are the focus of population and employment growth, with residential, commercial and other uses permitted on such lands, in accordance with the local municipal official plan.

### **3.5 Town of Collingwood**

The subject property has been designated primarily as Residential and Environmental Protection, with a small portion designated Rural according to Schedule A of the Town of Collingwood Official plan (Appendix B; December 2014). The Residential designation permits a range of residential land uses dependent on the more specific residential density classification.

The Environmental Protection Area (EPA) designation has been assigned to the riparian corridor bordering the western limit of the property due to the presence of Fish Habitat, Category 1 Valleylands and Category 2 Woodlands (Schedule B of the Town's OP). Permitted uses within the EPA include conservation uses, fish and wildlife management, public/private road, public/private utility, public parks, pedestrian (walking/jogging/bicycling/crosscountry skiing) trails, accessory parking lots or other similar passive recreational uses. Generally, development is prohibited within Category 1 lands excluding works required for flood or erosion control, passive public recreation, public/private roads and public/private utilities (Section 4.1.3.1 of the Town's OP). Development is permitted on lands adjacent to Category 1 EPA lands, provided that an EIS is prepared that thoroughly demonstrates the mitigation of potential impacts to the feature to the satisfaction of the Town and NVCA.

Category 2 lands encompass less significant features than Category 1 lands, and thus limited forms of development may be permitted, subject to the findings and recommendations of an EIS (Section 4.1.3.12.3 of the Town's OP).



Development is permitted on lands adjacent to Category 1 and 2 EPA lands, provided that an EIS is prepared that thoroughly demonstrates the assessment and mitigation of potential impacts to the feature(s) to the satisfaction of the Town and NVCA.

The Town generally encourages implementation of 30m naturalized buffers from the limit of Category 1 or 2 features (Policy 4.1.3.13), but states that the precise nature of the buffer should be determined through the completion of an EIS.

### **3.6 Nottawasaga Valley Conservation Authority**

A portion of the property is located within lands under Regulation 172/06 (Appendix C). A permit will be required prior to development and/or site alteration as the development limit extends into regulated lands.

## **4.0 EXISTING CONDITIONS**

The following description of existing conditions was compiled based on background data available for the Study Area and adjacent lands (Figure 1) through the County of Simcoe's on-line GIS mapping, communication from the NVCA and site specific surveys completed in summer 2014.

### **4.1 Land Use**

#### **4.1.1 Subject Property**

The property is currently vacant and under cash crop production. The western limit of the property is contained within a wooded riparian corridor of Black Ash Creek.

#### **4.1.2 Adjacent Lands**

Lands south and west of the study area have been developed for crop production and with rural residential dwellings. Lands east and north of the property are contained within the developed residential component of the Town of Collingwood. The property is bound by Poplar Sideroad to the south and High Street to the east.

### **4.2 Vegetation**

Vegetation community mapping was completed during two site visits conducted on May 29 and June 13, 2015, with the vegetation survey occurring on the latter of these dates. The Ecological Land Classification for Southern Ontario [ELC; (Lee *et al.*, 1998)] was used as a general guide to the classification of the vegetation community types. Based on these site investigations, four vegetation communities were identified on site. These communities are generally described below and are depicted on Figure 2. A list of



species identified in each of the vegetation units present on the property is included in Table 1.

The majority of the subject property is under agricultural land use for cash crop production. Two lowland areas were identified within the field; these areas have been classified as marginal Cattail Meadow Marsh (MAM). There is evidence of regular tilling and planting within the meadow marsh areas, however, wet conditions in 2014 inhibited crop growth and allowed for preliminary establishment of wet tolerant species. Typical wetland functions are not well established within these communities due to the frequent disturbance associated with farming activities.

The forested area located adjacent to Black Ash Creek is vegetated predominantly by a Fresh-Moist Poplar Deciduous Forest Type (FOD8-1). A small area of Willow Mineral Deciduous Swamp (SWDM4-1) was present in a low plateau area within the deciduous forest. The deciduous forest was the predominant vegetation community observed within the valley feature and was composed largely of Trembling Aspen with Paper Birch, Balsam Poplar, Green Ash, American Elm, Butternut and Crack Willow (Figure 2). The shrub and groundcover layers include species such as Red Osier Dogwood, Alternate-Leaved Dogwood, Nannyberry, Poison Ivy, asters and rushes.

The willow swamp community was comprised of similar species to those observed within the deciduous forest, with a larger proportion of wet tolerant species, and Crack Willow dominant in the canopy.

A small pocket of Cultural Meadow (CUM-1) is present north of the riparian corridor (Figure 2). This community is dominated by forbs, such as New England Aster, Canada Goldenrod, Virginia Strawberry, Kentucky Blue Grass and Queen Anne's Lace.

Fifteen Butternut were identified during the course of the site visits. Fourteen were identified on the property, and one was noted just north, on the adjacent lands (Figure 2). No additional plant species of federal or provincial rarity were documented as part of the field investigations.

#### 4.2.1 Feature Assessment – Woodlands

##### Town of Collingwood

The town has identified the deciduous riparian forest as Category 2 habitat, thus locally significant.



### Provincial Policy Statement

Direction for establishment of woodland significance according to the PPS is also provided within the Natural Heritage Reference Manual for Natural Heritage Policies of the *Provincial Policy Statement*, 2005 (OMNR 2010). Table 2 presents a description of the woodland feature in relation to the significant criteria outlined by the PPS (MNRF, 2010). The woodland would be considered as a candidate provincially significant woodland based on these criteria for the purpose of the PPS.

## **4.3 Wildlife Habitat**

### 4.3.1 Mammals

Wildlife species utilizing the property were identified from direct observation and through interpretation of sign (i.e. tracks, scats, vocalizations, etc.) while conducting the field surveys. White-tailed Deer (*Odocoileus virginianus*), Red Squirrel (*Sciurus vulgaris*), Beaver (*Castor canadensis*), and Coyote (*Canis latrans*) were observed to be utilizing the property. These species are not of conservation concern.

Given the property location in proximity to both forested sites and well-travelled roads, it is expected that the following species could be utilizing the property: Raccoon (*Procyon lotor*), Grey Squirrel (*Sciurus carolinensis*), Eastern Chipmunk (*Tamias striatus*), Eastern Cottontail (*Sylvilagus floridanus*), Striped Skunk (*Mephitis mephitis*), and several species of mice, voles and shrews. These species are not of conservation concern. Several species of at risk bats could potentially utilize the site as well; they are discussed in Section 4.5.

### 4.3.2 Reptiles and Amphibians (Herpetofauna)

No specific amphibian breeding surveys have been conducted on the property as no suitable amphibian breeding habitat was identified within the property limits. The Ontario Nature's Ontario Reptile and Amphibian Atlas (ORAA; Ontario Nature 2015) was consulted to identify species that could be utilizing the area. Data for the atlas is presented in 100km<sup>2</sup> squares, each with a unique identifier. The property is located within the 17NK62 square. One species of turtle (Snapping Turtle), one species of snake (Milksnake), and eight species of amphibians (American Toad, Gray Treefrog, Green Frog, Mink Frog, Northern Leopard Frog, Spring Peeper, Western Chorus Frog and Wood Frog) have been recently (< 20 years ago) recorded in the general area. Historic records within the square also include Eastern Gartersnake (1960) and Massasauga (1994). Of these species, only Massasauga is protected under the ESA. Herpetofauna Species at Risk (SAR) identified by ORAA and MNRF as potentially occurring in the area are further addressed below.



#### 4.3.3 Birds

The requirement for the completion of avian breeding surveys was discussed by the consultant and the NVCA during the TOB staking exercise. It was determined that no surveys would be necessary for the completion of the EIS for this development application. Incidental species observations were recorded during all site visits and included:

- Red-tailed Hawk (*Buteo jamaicensis*);
- Song Sparrow (*Melospiza melodia*);
- Eastern Wood-Pewee (*Contopus virens*);
- Red Bellied Woodpecker (*Melanerpes carolinus*);
- Broad-winged Hawk (*Buteo platypterus*);
- Indigo Bunting (*Passerina cyanea*);
- Mallard (*Anas platyrhynchos*);
- Chimney Swift (*Chaetura pelagica*);
- Song Sparrow (*Melospiza melodia*);
- American Redstart (*Setophaga ruticilla*);
- Common Yellowthroat (*Geothlypis trichas*);
- Black-and-White Warbler (*Mniotilta varia*);
- Rose-breasted Grosbeak (*Pheucticus ludovicianus*);
- Gray Catbird (*Dumetella carolinensis*);
- Northern Flicker (*Colaptes auratus*); and
- American Robin (*Turdus migratorius*).

Two of these species (Eastern Wood-Pewee and Chimney Swift) have been identified as species of conservation concern within the province.

In addition to this, the Ontario Breeding Bird Atlas (OBBA; BSC 2009) was consulted to identify sensitive avian species that could be utilizing the area for breeding purposes. A full species list for the 100km<sup>2</sup> data square (17NK62) that encompasses the property is appended (Appendix D). Twelve SAR were identified as occurring within these squares. Species listed under the ESA as Special Concern, Threatened or Endangered are considered further in Section 4.5 below.

#### 4.3.4 Feature Assessment - Significant Wildlife Habitat

The Significant Wildlife Habitat Technical Guide (MNR, 2000) states that lands can be considered candidate Significant Wildlife Habitat (SWH) based on the presence of:

- Seasonal concentration areas of animals;
- Rare vegetation communities;
- Specialized habitat for wildlife;



- Habitat for species of Conservation Concern; and
- Animal movement corridors.

Table 3 presents a detailed evaluation of each one of these criteria as it relates to the subject property, based on the specific recommendations outlined within the EcoRegion 6E Schedules (MNR 2015). Based on this assessment and data collected to date, our findings indicate that there is Candidate Significant Wildlife Habitat for the following within the study lands:

- Candidate Seasonal concentration areas of animals (bat maternity colony and snake hibernacula); and
- Candidate Habitat for species of special concern (Eastern Wood-pewee, Eastern Milksnake, Red-headed Woodpecker, Wood Thrush)

#### **4.4 Fish Habitat**

An aquatic habitat assessment was completed within the study limits on June 13, 2014 by Azimuth. The main branch of Black Ash Creek runs through the northwestern portion of the property in a forested valley area, flowing south to north. Black Ash Creek originates from the Niagara Escarpment and is known to have minor groundwater contributions (NVCA, 2011). Historic alterations for drainage and flooding purposes have occurred near Collingwood (NVCA, 2011), although the segment of Black Ash Creek within the property limits appears to largely untouched. From the property limits, the stream continues north where it flows through Collingwood and into Georgian Bay. A beaver dam is located at the western edge of the property where the stream enters the study area, which causes slow flow and high turbidity upstream. Downstream of the beaver dam, in the forested valley, the stream is approximately 1.5-3.0 m wide, with a bankfull width of 4.0-4.5 m. Depths range from 0.2-0.4 m, with approximately 80% canopy cover. Substrate consists predominantly of cobble, boulder, and gravel, with minimal sand. A complex morphology exists within the forested valley, with riffles, runs, and pools present, along with overhanging vegetation and undercut banks. Riparian vegetation consists of a deciduous forest, and there is an abundance of woody debris from fallen trees and branches. An old road crossing/bridge pier is a potential barrier to fish under low flow conditions. The segment of Black Ash Creek within the study area provides permanent direct fish habitat, and is likely inhabited by a tolerant baitfish community or other warmwater species. This is supported by the Town of Collingwood Natural Heritage System report, which states that the main branch of Black Ash Creek provides habitat for a variety of warmwater fish species (NVCA, 2011).





## 4.5 Species at Risk

The OBBA identifies Black Tern, Common Nighthawk, Chimney Swift, Whip-poor-will, Red-Headed Woodpecker, Loggerhead Shrike, Barn Swallow, Bank Swallow, Wood Thrush, Eastern Wood Pewee, Bobolink, and Eastern Meadowlark as occurring in the area (Appendix D).

MNRF's Natural Heritage Information Center (NHIC) Database (MNRF, 2014) and the ORAA were consulted to determine if there are historic SAR records within the vicinity of the subject properties. The query indicated that Massasauga, Shining-Branch Hawthorn, and Stiff yellow Flax have been historically recorded in the general area.

Azimuth contacted the Midhurst MNRF Office on December 10<sup>th</sup>, 2015, requesting additional SAR information for the area (Appendix A). No response has been received at this time. Additional information obtained from the MNRF will be addressed upon receipt.

Eastern Small-Footed Myotis, Northern Myotis, Little Brown Myotis, Butternut, and Milksnake are also considered within the report as the property is located within their respective occurrence ranges. Of these species, only Butternut has been positively confirmed on the property. Fourteen individuals were documented within the property limits and one individual was identified immediately north. All individuals have been located during the completion of a topographic survey. A Butternut Health Assessment was conducted in August 2014 for the individuals within the property limits (Appendix E) and this assessment has also been forwarded to Midhurst District MNRF.

Table 4 presents a habitat assessment for all abovementioned SAR, as it relates to the property.

### 4.5.1 Species at Risk Summary

A habitat assessment of the property (Table 4) has shown that the following species have potential habitat present within the property limits:

- Milksnake;
- Barn Swallow;
- Chimney Swift;
- Butternut;
- Eastern Wood-Pewee;
- Red-headed Woodpecker;
- Wood Thrush;
- Bats (Eastern Small-footed, Little Brown and Northern Long-eared).





## **5.0 NATURAL HERITAGE FEATURE ASSESSMENT**

The following natural features have either been confirmed or have potential to be associated with the property, based on an assessment of the existing conditions of the property:

### *Confirmed*

- Significant Woodland
- Fish Habitat
- Habitat for Endangered or Threatened Species (Butternut)

### *Potential*

- Candidate Significant Wildlife Habitat (Bat Maternity Colony, Snake Hibernacula)
- Candidate Significant Wildlife Habitat (Habitat for Species of Special Concern – Eastern Wood-pewee, Eastern Milksnake, Red-headed Woodpecker, Wood Thrush)
- Habitat of Endangered or Threatened Species (Eastern Small-footed, Little Brown and Northern Long-eared Myotis, Barn Swallow, Chimney Swift)

## **6.0 PROPOSED DEVELOPMENT**

The proposed development calls for the creation of a residential subdivision with single detached and townhouse homes. The subdivision will be serviced with municipal water and sewer. A setback to the valleylands has been proposed that considers the protection of the majority of the Butternut trees identified within the riparian corridor, steep slopes and erosion hazards, floodplain hazards and Black Ash Creek proper. The setback ranges from 2m to 36m in width. All but three of the documented Butternut have protection zones located outside of the proposed development limit. The established limit is indicated on Figure 3.

Stormwater runoff for the subdivision will be directed to at-source soakaway pits, an enhanced grassed swale along the western development limit, or one of two stormwater ponds proposed within the central and northern part of the development (Figure 3). Stormwater will be treated to Enhanced level, as per the Ministry of the Environment and Climate Change criteria will be released at allowable rates to the adjacent Black Ash Creek corridor (C. C. Tatham 2015). The discharge points of the proposed ponds will be fitted with a level spreader, natural stone and live plantings to reduce the erosion potential of the valley wall at the outlet. Further details regarding the stormwater



management component of the project are contained within the Stormwater Design Report prepared by C. C. Tatham and Associates Ltd. (2015).

## **7.0 IMPACT ASSESSMENT**

The following presents an assessment of the impact of the proposed development on the natural heritage features identified in Section 5.

### **7.1 Significant Woodland**

Category 2 Woodlands have been identified along the western limit of the property. This woodland will continue to maintain the ecological functions that are associated with the feature as no development is proposed outside of a setback to the feature. Indirect impact to the woodland can be mitigated through the installation of fencing along the rear yard limits that abut the EPA lands, direction of artificial lighting away from the feature and restriction of access, to prevent establishment of unofficial pedestrian footpaths/trails within the corridor, subject to additional natural heritage analysis conducted by the Town/NVCA regarding a potential future pedestrian trail in the area. All storm water runoff to be released to the riparian corridor will be released at rates comparable to pre-development conditions and will be treated to Enhanced level according to the accepted standards of the Ministry of the Environment and Climate Change.

Therefore, the proposed development can occur and maintain the current ecological functions of the feature within the protected lands with no negative impacts, provided that the suggested mitigations are implemented.

### **7.2 Fish Habitat**

No direct modifications are proposed to the Black Ash Creek, as no works are proposed in or around the feature. The limit of the proposed development is outside of the top-of bank and erosion setback limit, which was determined during the site visit and through geotechnical calculations. The proposed development would occur outside of the woodland area on the property, resulting in no net loss of riparian buffer. A stormwater swale is also being created along the development limit adjacent to the woodland area (Figure 3), which will assist with infiltration and water quality controls.

Two stormwater ponds are proposed on the property to control the quantity and quality of flow to Black Ash Creek. Stormwater released runoff will be treated to the Enhanced protection level, which should protect the creek from deleterious materials entering the waterway. Additionally, the pond outlet should originate outside of the proposed



setback limits to assist with filtration and cooling of water before it enters the tributary. The outlet channels from the two wet ponds should consist of river rock and a vegetated buffer (tree planting) to assist with dispersing outflow energy and shading of the storm effluent.

Therefore, the proposed development can occur and maintain the current fish habitat within Black Ash Creek, provided that the suggested mitigations are implemented.

### **7.3 Significant Wildlife Habitat**

An evaluation of the property based on the MNRF Ecoregion 63 Criterion Schedules for SWH has identified the following SWH functions:

- Seasonal concentration areas of animals (bat maternity colony and snake hibernacula); and
- Habitat for species of special concern (Eastern Wood-pewee, Eastern Milksnake, Red-headed Woodpecker, Wood Thrush)

These functions are further addressed below.

#### **7.3.1 Seasonal Concentration Area of Animals: Bat Maternity Colony**

The forested lands within the riparian valley corridor have the potential to function as maternity roosting habitat for bats as the riparian corridor is comprised of a mature deciduous forest. MNRF advises that forests with a standing snag (DBH >25cm) density of >10/ha should be considered potential maternity roosting habitat. If the forest meets this minimum density criteria, then acoustic surveys are recommended. No snag density or acoustic surveys have been conducted at this time, thus the function of the habitat as bat maternity roosting habitat is currently unknown. Regardless, the forest feature, plus a setback, will be retained on the landscape, in its entirety, so no loss of standing snags, and therefore potential habitat, will occur as a result of the proposed development. Indirect impact to the feature, which may result from such activities as lot encroachment, establishment of invasive species, and the creation of unofficial trails, can be mitigated through clear delineation of the limit of residential lots that abut the feature, and restriction of pedestrian and motor vehicle access. Thus, no negative impact to potential bat maternity habitat is anticipated as a result of the proposed development.

#### **7.3.2 Snake Hibernacula**

The SWH Criteria for Ecoregion 6E (MNRF 2015) state that snake species will hibernate within sites located below frost lines in burrows, rock crevices and other natural or naturalized locations. No specific surveys for hibernacula were conducted during the course of the field surveys, however, habitat features (rock piles, concrete abutments)



noted within the riparian forest offer hibernacula potential for the species. No alterations to these features will occur during the development. Thus, no negative impact to potential snake hibernacula is anticipated as a result of the proposed development.

### 7.3.3 Habitat for Species of Conservation Concern

#### Milksnake

Eastern Milksnake commonly utilizes a wide variety of habitats. The COSEWIC Assessment and Status Report (COSEWIC, 2002), describes Milksnake as a species that utilizes everything from rock outcrops to natural meadows, and agricultural hayfields. Milksnake is also commonly identified within a broad diversity of forest types. The COSEWIC Report concludes that Eastern Milksnake can live in almost any habitat that provides shelter and a source of food (COSEWIC, 2002). Therefore, there is potential for the animal to utilize the riparian corridor and adjacent meadow habitat to carry out its life processes. It is unlikely that the species is dependent upon the cash crop portion of the property given the intensive disturbance regime associated with cash crop production. Therefore, development within the agricultural lands will not result in a loss of habitat features which are necessary or would provide for the long term maintenance of viable populations of Milksnake. Sufficient habitat will remain beyond the footprint of the proposed works and within the general area to maintain the species. Thus, no negative impact to the species, or their habitat, is anticipated during or post-development.

#### Eastern Wood-pewee

Eastern Wood-pewee was identified on the property during a fall 2015 site visit to assess the Butternut compensation area. This species typically lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is most abundant in intermediate-age mature forest stands with little understory vegetation (MNR, 2014). Habitat for the species is contained within the riparian deciduous forest, which will be retained post development. Indirect impact to the habitat, which may result from such activities as lot encroachment, establishment of invasive species, and the creation of unofficial trails, can be mitigated through clear delineation of residential lots that abut the feature, and restriction of pedestrian and motor vehicle access. Thus, no negative impact to the species, or their habitat, is anticipated during or post-development.

#### Red-headed Woodpecker

The Red-headed Woodpecker lives in open woodland and woodland edges, and is often found in parks, golf courses and cemeteries. These areas typically have many dead trees, which the species uses for nesting and perching (MNR, 2015b). All forest habitat on the property will be retained post development. Indirect impact to the habitat, which may result from such activities as lot encroachment, establishment of invasive species, and the creation of unofficial trails, can be mitigated through clear delineation of residential lots



that abut the feature, and restriction of pedestrian and motor vehicle access. Thus, no negative impact to the species, or their habitat, is anticipated during or post-development.

### Wood Thrush

The Wood Thrush lives in mature deciduous and mixed forests. It is most abundant in moist stands of trees with well-developed undergrowth and tall trees, which are utilized as singing perches (MNRF, 2015c). Habitat for the species is contained within the riparian deciduous forest areas and will be retained post development. Indirect impact to the habitat, which may result from such activities as lot encroachment, establishment of invasive species, and the creation of unofficial trails, can be mitigated through clear delineation of residential lots that abut the feature, and restriction of pedestrian and motor vehicle access. Thus, no negative impact to the species, or their habitat, is anticipated during or post-development.

## **7.4 Species at Risk**

### 7.4.1 Butternut

Fourteen Butternut trees were identified within the deciduous riparian forest (Figure 2). The location of each tree was surveyed and a Butternut Health Assessment of the trees was completed and submitted to MNRF in late summer 2014 (Appendix E). All were assessed as Category 2 trees, excluding Tree #10, which was assessed as a Category 1 tree. Category 2 trees are trees that are "not affected by Butternut canker or ... affected by Butternut canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of [the species] in the area in which the tree is located" while Category 1 trees are trees "affected by Butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of [the species] in the area in which the tree is located" (Ontario Regulation 242/08 Section 23.7 (2)). The MNRF generally accepts that a 25m setback to the tree would be sufficient to protect the individual from adjacent development. The proposed draft plan has been designed to respect the setback of all but three of the identified individuals (1, 6 and 7; Figure 3). Development, which includes site grading activities, can occur within the setback of the affected trees, provided that the activity is registered with MNRF under Ontario Regulation 242/08 prior to project initiation. The registration of the activity represents a commitment on the part of the proponent to adhere to the section of the regulation that facilitates the registry submission - Section 23.7 of O. Reg 242/08. Section 23.7 dictates a requirement to plant a prescribed number of compensation Butternut saplings and companion trees/shrubs for each of the impacted trees and a commitment to regular monitoring of the planted individuals to ensure successful establishment. The total quantity required for compensation planting depends on the degree to which the impacted trees will be affected. Further details regarding the compensation requirements for the project will be determined during the detail design



phase, when the specific grading details within the trees' root zones become available. This will allow for a thorough analysis of the impact to the root zone of the affected trees and allow for a more accurate prediction of tree impact. The area of the subject property to the northwest of Black Ash Creek has been identified as a viable location for the required plantings, subject to the detailed analysis outlined above. The proposed development will proceed in accordance with provincial requirements associated with Butternut trees, as per O. Reg 242/08.

#### 7.4.2 Chimney Swift

Chimney Swift was observed flying over the property during a site visit in May 2014. The species utilizes chimneys and tree cavities for nesting and roosting, and forages for insects at high altitudes. In urban settings, the species is known to forage near street lights (MNR General Habitat Description for Chimney Swift). No suitable nesting habitat for the species is present within the proposed development limits of the property. Given the species history of tolerance of urban landscapes (MNR General Habitat Description for Chimney Swift), Azimuth does not anticipate that the proposed development will negatively impact the species, as foraging habitat will remain within the property limits and on adjacent lands.

#### 7.4.3 Barn Swallow

The species is known to occur in the area, specifically in rural landscapes with an abundance of open timber structures, and grassed meadows or open water habitats. The species utilizes these landscape features for nesting and foraging, respectively. No Barn Swallow were observed on the property, but given the existing property conditions and those present on adjacent lands, there is potential for the species to occur in the area. Azimuth has identified potential nesting habitat immediately south of the subject property and north of Poplar Sideroad (Figure 2). General habitat guidance documents prepared by MNR dictate that areas within 200m of a confirmed nest are considered general habitat of the species. A portion of the development is occurring within this 200m radius (Figure 3). The foraging habitat to be altered is currently within cash crop production which is considered to be marginal foraging habitat for the species, given that the field is typically planted in a monocultural 'stand' of vegetation typically treated with various pesticides and herbicides. Thus, the proposed development can proceed with no negative impact to quality foraging habitat for the species. Additionally, no negative impact to the remainder of the potential foraging habitat is anticipated post development. Incidental impact to the species can be mitigated through the implementation of worker awareness training at project outset, in accordance with Provincial requirements.



#### 7.4.4 Bat Species

Eastern Small-footed Bat, Little Brown Bat and Northern Long-eared Bat are designated Endangered under the ESA and could potentially be present within the property limits. Potential habitat for the species is contained within the riparian deciduous forest which will be retained post development. Indirect impact to the habitat, which may result from such activities as lot encroachment, establishment of invasive species, and the creation of unofficial trails, can be mitigated through clear delineation of residential lots that abut the feature and restriction of pedestrian and motor vehicle access. Thus, no negative impact to the species, or their habitat, is anticipated during or post-development.

## 8.0 RECOMMENDATIONS AND MITIGATION

### 8.1 General

There should be no development outside of the approved development limit.

Low impact development measures, if suitable given site conditions, should be incorporated into the development detail design to improve local ground water contributions.

All disturbed areas within the setback area to the riparian corridor should be stabilized with a native seed mix and planted with native tree and shrub species to improve native species diversity and assist in mitigation of indirect impact of the proposed development.

Equipment maintenance and refuelling should be completed away from the natural features and storm water facilities that could convey the spill off-site. Appropriate spill containment materials should be kept on-site.

Construction activities involving the removal of vegetation should be restricted from occurring between April 15th and August 10th in accordance with the *Migratory Birds Convention Act*, 1994, and the Migratory Birds Regulations, to avoid impacting migratory birds, nests and eggs during the breeding season. Alternatively, a nest survey can be conducted by qualified avian biologist during the breeding bird nesting season to determine if nests are present within the development footprint prior to any vegetation removal.

The pond outlet should originate outside of the proposed setback limits to assist with filtration and cooling of water before it enters the tributary. The outlet channels from the two wet ponds should consist of river rock and a vegetated buffer (tree planting) to assist with dispersing outflow energy and shading of the storm effluent.





## **8.2 Sediment and Erosion Control**

To prevent construction generated sediments from entering the storm sewers or leaving the site via overland flow, the following measures should be implemented during the construction phase:

- Temporary sediment control fencing should be erected around the perimeter of grading activities;
- Temporary sediment fabric and stone filters should be installed on existing and proposed catch basins until surface cover has been stabilized;
- A temporary construction access mud mat should be implemented to reduce the amount of materials that may be transported off site;
- All disturbed areas not under immediate construction for 30 days, or not intended for building activities within a 3-month period, should be stabilized with seeding.

## **8.3 Species at Risk**

### **8.3.1 General**

Due to the potential presence of SAR within the general area, all on-site construction workers should be informed of all SAR that are to be considered species of environmental concern. This information would be best conveyed during a pre-construction meeting on-site by someone knowledgeable of the SAR issues. Individuals working on site should ensure that SAR are not harmed during construction or killed by heavy machinery, vehicles, or other equipment. The local MNRF office for this project is the Midhurst District Office; the office should be contacted if SAR encounters occur.

### **8.3.2 Butternut**

Damage or destruction of the Butternuts observed or alteration of lands within 25m of the individuals is not permitted without prior authorization from MRNF. The Activity must be registered with MNRF under Section 23.7 of Ontario Regulation 242/08. The proponent will be required to plant compensation Butternut saplings and companion trees/shrubs for works within 25m of the impacted trees and a commitment to regular monitoring of the planted individuals to ensure successful establishment. Compensation plantings are proposed to occur within the CUM community north of the riparian corridor. The compensation requirements for the proposed development should be confirmed once the site grading plan has been finalized. If works occur without u registration, the activity will be in contravention of the ESA and the proponent would be open to charges under the Act.





### 8.3.3 Non-detected Species of Concern

Given the dynamic character of the natural environment, there is a constant temporal variation in habitat use by SAR. Care should be taken in the interpretation of presence of species of concern including those listed under the ESA. Changes to policy, or the natural environment, could result in shifts, removal, or addition of new areas to the list of areas currently considered being Key Natural Heritage features. This report is intended as a point in time assessment of the potential to impact SAR; not to provide long term 'clearance' for SAR. While there is no expectation that the assessment should change significantly, it is the responsibility of the proponent to ensure that they are not in contravention of the ESA at the time that site works are undertaken. A review of the assessment provided in this report by a qualified person should be sufficient to provide appropriate advice at the time of the onset of future site works.

## 9.0 POLICY CONFORMITY

### 9.1 Provincial Policy Statement

The proposed development results in no negative direct or indirect impacts to significant natural heritage features or functions (i.e., wetlands, woodlands, valleylands, ANSIs, wildlife habitat functions; Policy 2.1.4, 2.1.5, 2.1.6 & 2.1.8), including potential animal movement corridors/habitat linkages (Policy 2.1.2) and can be achieved with no impact to habitat of endangered and threatened species through adherence to provincial requirements of the ESA (see below). – **Conforms.**

### 9.2 Ontario's Endangered Species Act, 2007

Proposed development may impact individuals or habitat of SAR. Species confirmed to be present (Butternut) are eligible for Activity Registration under Ontario Regulation 242/08. Mitigation measures have been provided to ensure that no incidental species are impacted during the development activity. - **Conforms**

### 9.3 Migratory Birds Convention Act, 1994

Mitigation measures have been provided which indicate that removal of vegetation should be restricted from occurring between April 15 and August 10 of any given year to avoid impact to nesting migratory bird species or nest structures. Alternatively, a nest survey is conducted by a qualified person during the breeding bird nesting season to determine if nests are present prior to any vegetation removal and protect such nests as necessary. If either of these two mitigation measures are implemented, the proposed development will not contravene the MBCA. - **Conforms**



#### **9.4 County of Simcoe**

The proposed development is within the Town of Collingwood settlement and adheres to the local municipality policies (See Below) - **Conforms**

#### **9.5 Town of Collingwood**

Development or site alteration adjacent to Natural Heritage (Environmental Protection) – Category 1 and 2 Lands is permitted, provided that it can be demonstrated, through an EIS, that proposed works will not negatively impact the natural features and associated ecological functions. The Impact Assessment section of this report (Section 7.0) confirms that the proposed development will have no negative impact on natural heritage features within the subject lands or their ecological functions, provided that the mitigation measures recommended herein are implemented – **Conforms**.

### **10.0 CONCLUSION**

Our investigation has revealed the confirmed and/or potential presence of five natural heritage features as defined within the *Provincial Policy Statement, 2014*: Significant Woodland, Fish Habitat, Habitat for Endangered or Threatened Species, Significant Wildlife Habitat, and Habitat for Species of Special Concern

Based on the results of this EIS, we have determined that the proposed development will conform with the natural heritage policies of the Town and Province as they relate to the abovementioned features as the study has demonstrated that no negative impact will occur to these features, provided that the recommended mitigation measures are implemented. Additional discussions with the MNRF are required in order to quantify impact and identify appropriate compensation measures for works that may affect Butternut (Endangered) individuals. In this regard, an appropriate area of the site has been set aside for potential compensation measures, and the development application can proceed while the technical aspects associated with the compensation are determined.



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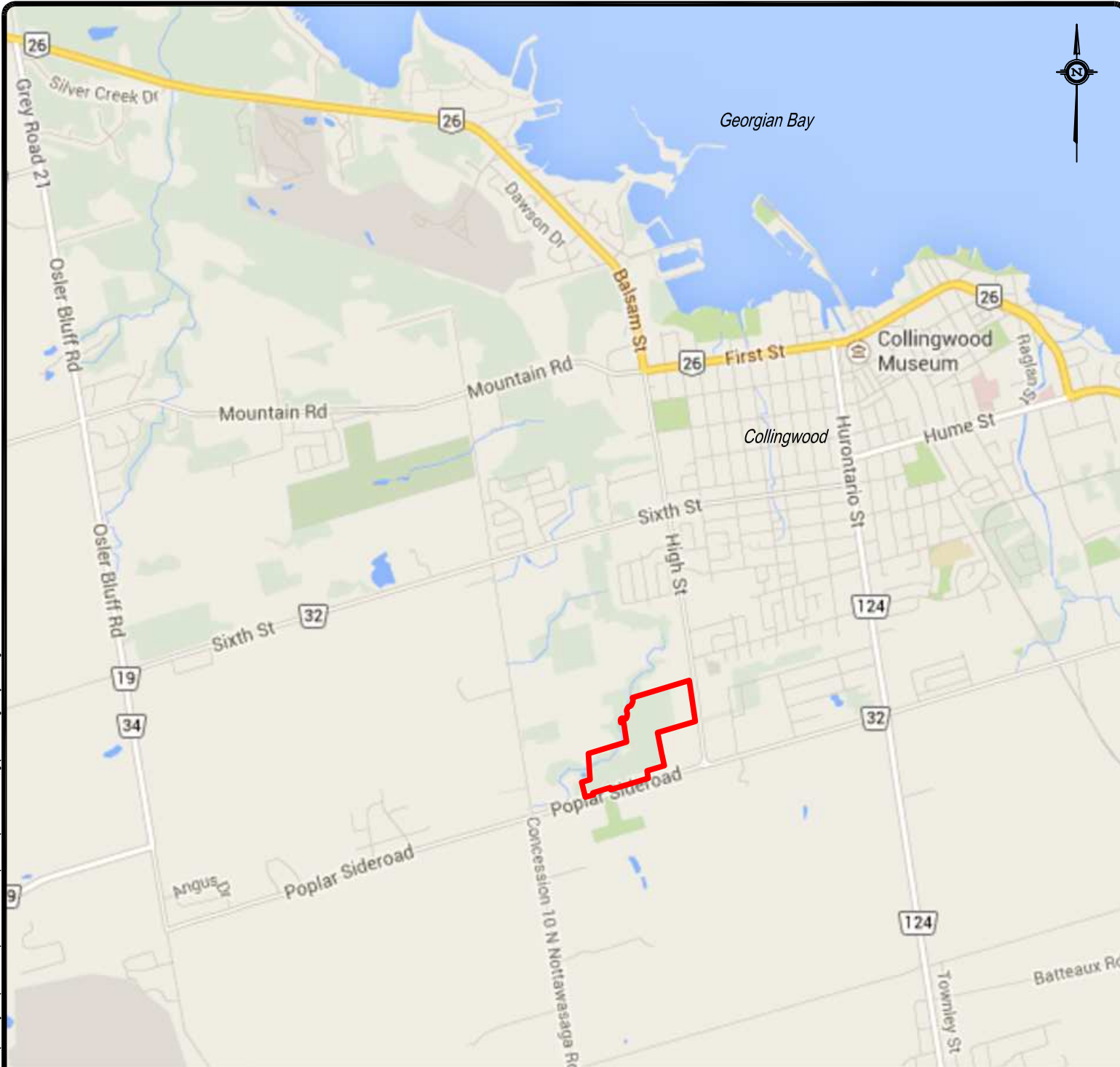
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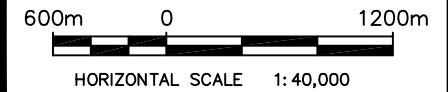
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**LEGEND:**

— *Approx. Property Boundary*

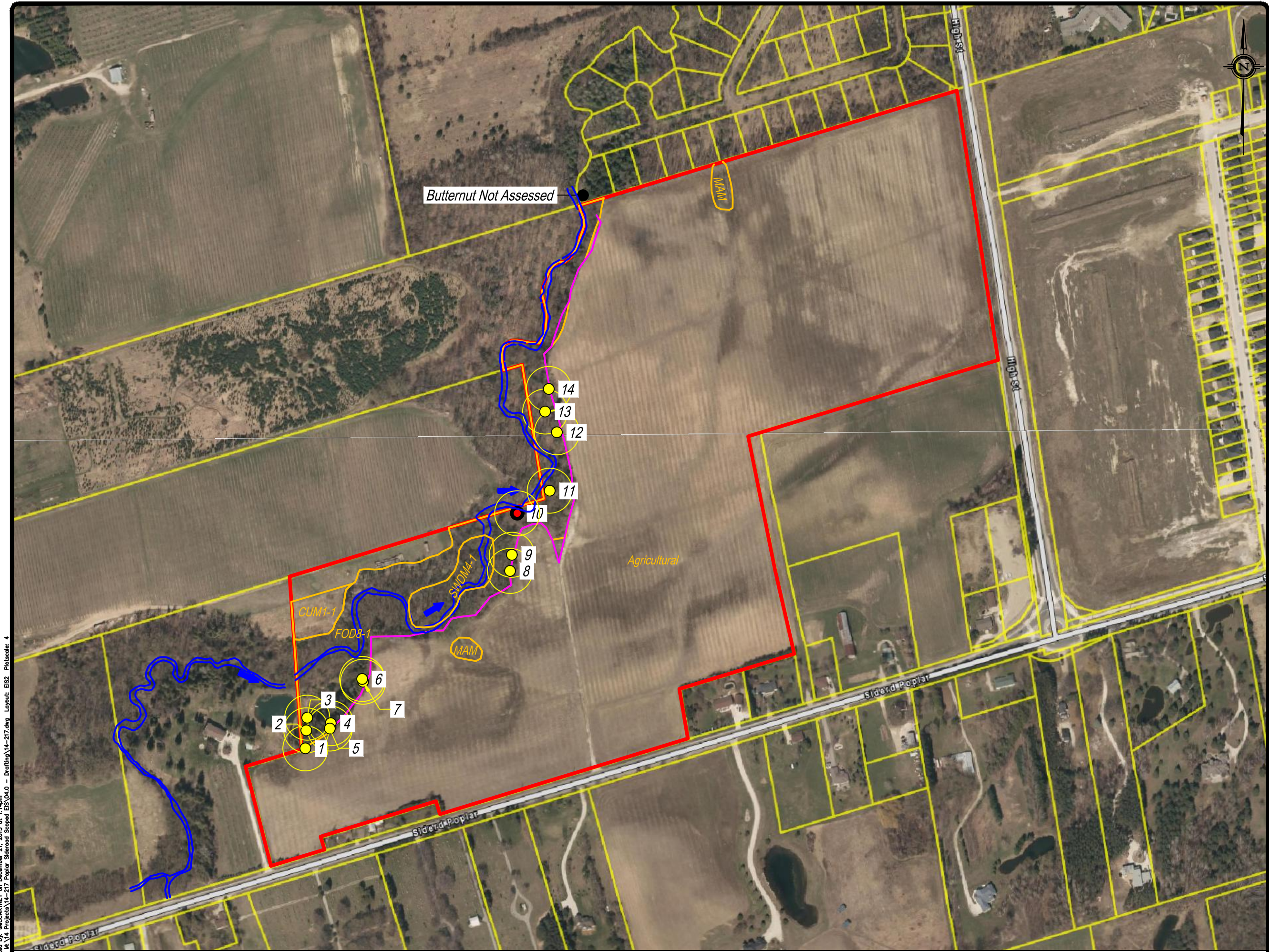


Study Area Location

Poplar Sideroad,  
Collingwood, ON

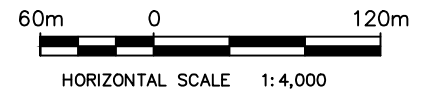
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PROJECT NO.: 14-217	
REFERENCE: Google Maps	1





**LEGEND:**

- Approx. Property Boundary
- Black Ash Creek
- Flow Direction
- Top of Bank
- Category 1 Butternut Location
- Retainable Butternut Locations
- 25m Butternut Setback
- Vegetation Communities
- CUM1-1 Old Field Cultural Meadow
- FOD8-1 Fresh Moist Deciduous Forest
- MAM Cattail Meadow Marsh
- SWDM4-1 Willow Mineral Deciduous Swamp



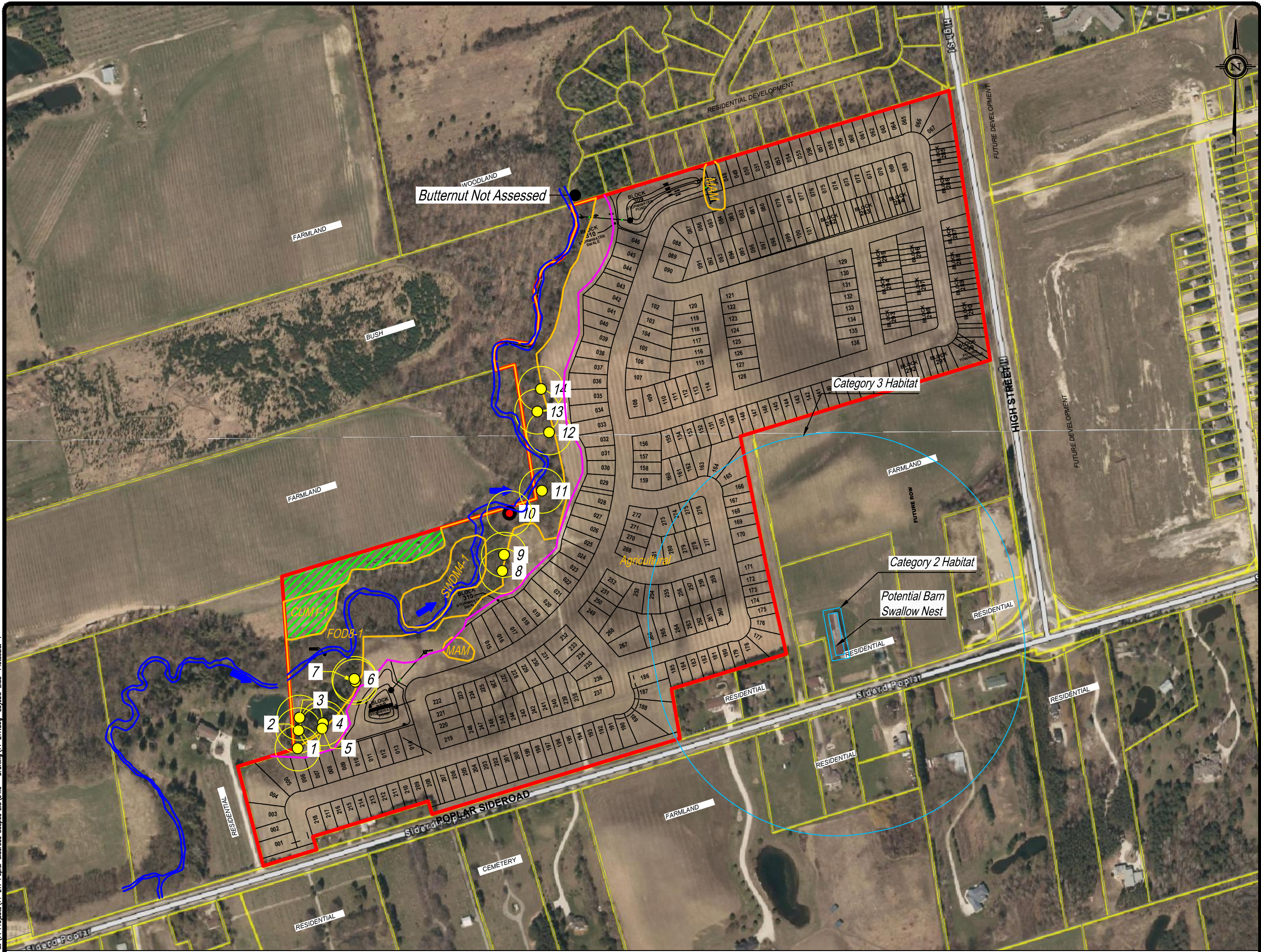
Environmental Features

Poplar Sideroad,  
Collingwood, ON

DATE ISSUED: December 2015	Figure No.
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PROJECT NO.: 14-217	
REFERENCE: First Base Solutions	

Plotted by: MCCARTNEY on December 21, 2015 at 11:46am  
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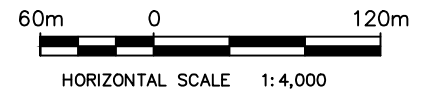




**LEGEND:**

- Approx. Property Boundary
- Black Ash Creek
- Flow Direction
- Category 1 Butternut Location
- Retainable Butternut Locations
- 25m Butternut Setback
- Butternut Compensation Area
- Setback
- Barn Swallow Habitat
- Vegetation Communities

CUM1-1 Old Field Cultural Meadow  
 FOD8-1 Fresh Moist Deciduous Forest  
 MAM Cattail Meadow Marsh  
 SWDM4-1 Willow Mineral Deciduous Swamp



Proposed Development Plan

Poplar Sideroad,  
Collingwood, ON

DATE ISSUED:	December 2015	Figure No.
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PROJECT NO.:	14-217	
REFERENCE:	First Base Solutions	

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**Table 1. Vascular plant species list**

14-217 Poplar Sideroad EIS

FAMILY	SCIENTIFIC NAME	COMMON NAME	Vegetation Community <sup>1</sup>				Coservation Rank <sup>2</sup>	
			FOD8-1	SWDM4-1	CUM	MAM	GRANK	SRANK
Aceraceae	<i>Acer negundo</i>	Manitoba Maple	X				G5	S5
Aceraceae	<i>Acer rubrum</i>	Red Maple	X				G5	S5
Aceraceae	<i>Acer spicatum</i>	Mountain Maple	X				G5	S5
Anacardiaceae	<i>Rhus typhina</i>	Staghorn Sumac	X				G5	S5
Anacardiaceae	<i>Toxicodendron radicans</i>	Climbing Poison Ivy	X	X			G5	S5
Apiaceae	<i>Daucus carota</i>	Wild Carrot			X		GNR	SE5
Araceae	<i>Arisaema triphyllum</i>	Jack-in-the-pulpit	X	X			G5	S5
Araliaceae	<i>Aralia nudicaulis</i>	Wild Sarsaparilla	X				G5	S5
Asclepiadaceae	<i>Asclepias syriaca</i>	Common Milkweed			X		G5	S5
Asteraceae	<i>Ambrosia artemisiifolia</i>	Annual Ragweed			X		G5	S5
Asteraceae	<i>Arctium minus</i>	Common Burdock	X				GNR	SE5
Asteraceae	<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod			X	X	G5	S5
Asteraceae	<i>Eutrochium maculatum var. maculatum</i>	Spotted Joe Pye Weed	X	X		X	G5T5	S5
Asteraceae	<i>Solidago canadensis var. canadensis</i>	Canada Goldenrod			X		G5T5	S5
Asteraceae	<i>Symphyotrichum novae-angliae</i>	New England Aster			X		G5	S5
Asteraceae	<i>Taraxacum erythrospermum</i>	Red-seeded Dandelion	X				GNR	SE5
Asteraceae	<i>Tussilago farfara</i>	Colt's-foot	X	X		X	GNR	SE5
Balsaminaceae	<i>Impatiens capensis</i>	Spotted Jewelweed	X	X			G5	S5
Betulaceae	<i>Betula papyrifera</i>	Paper Birch	X				G5	S5
Brassicaceae	<i>Alliaria petiolata</i>	Garlic Mustard	X				GNR	SE5
Caprifoliaceae	<i>Sambucus canadensis</i>	Common Elderberry	X	X			G5T5	S5
Caprifoliaceae	<i>Viburnum acerifolium</i>	Maple-leaf Viburnum	X	X			G5	S5
Cornaceae	<i>Cornus alternifolia</i>	Alternate-leaved Dogwood	X	X			G5	S5
Cornaceae	<i>Cornus stolonifera</i>	Red-osier Dogwood			X	X	G5	S5
Cupressaceae	<i>Thuja occidentalis</i>	Eastern White Cedar	X	X			G5	S5
Dennstaedtiaceae	<i>Pteridium aquilinum</i>	Bracken Fern	X	X			G5	S5
Dryopteridaceae	<i>Dryopteris intermedia</i>	Evergreen Wood Fern	X	X			G5	S5
Dryopteridaceae	<i>Matteuccia struthiopteris</i>	Ostrich Fern	X	X			G5	S5
Dryopteridaceae	<i>Onoclea sensibilis</i>	Sensitive Fern	X	X			G5	S5
Dryopteridaceae	<i>Polystichum acrostichoides</i>	Christmas Fern	X	X			G5	S5
Equisetaceae	<i>Equisetum pratense</i>	Meadow Horsetail	X	X			G5	S5
Fabaceae	<i>Amphicarpaea bracteata</i>	American Hog-peanut	X	X			G5	S5
Fabaceae	<i>Lathyrus latifolius</i>	Everlasting Pea	X	X			GNR	SE4
Fabaceae	<i>Robinia pseudoacacia</i>	Black Locust	X				G5	SE5
Fabaceae	<i>Trifolium aureum</i>	Yellow Clover	X				GNR	SE5
Fabaceae	<i>Vicia cracca</i>	Tufted Vetch			X		GNR	SE5
Fagaceae	<i>Fagus grandifolia</i>	American Beech	X				G5	S4
Geraniaceae	<i>Geranium maculatum</i>	Spotted Geranium	X				G5	S5
Grossulariaceae	<i>Ribes hirtellum</i>	Smooth Gooseberry	X	X			G5	S5
Juglandaceae	<i>Juglans cinerea</i>	Butternut	X				G4	S3?
Juglandaceae	<i>Juglans nigra</i>	Black Walnut	X				G5	S4
Liliaceae	<i>Asparagus officinalis</i>	Garden Asparagus			X		G5?	SE5
Liliaceae	<i>Convallaria majalis</i>	European Lily-of-the-valley	X				G5	SE5



**Table 1. Vascular plant species list**

14-217 Poplar Sideroad EIS

FAMILY	SCIENTIFIC NAME	COMMON NAME	Vegetation Community <sup>1</sup>				Coservation Rank <sup>2</sup>	
			FOD8-1	SWDM4-1	CUM	MAM	GRANK	SRANK
Liliaceae	<i>Maianthemum canadense</i>	Wild Lily-of-the-valley			X		G5	S5
Liliaceae	<i>Maianthemum racemosum</i>	False Solomon's-seal	X				G5	S5
Liliaceae	<i>Maianthemum stellatum</i>	Star-flowered False Solomon's-seal	X	X			G5	S5
Liliaceae	<i>Streptopus lanceolatus var. lanceolatus</i>	Eastern Rose Twisted-stalk	X				G5T5	S5?
Liliaceae	<i>Trillium grandiflorum</i>	White Trillium	X	X			G5	S5
Oleaceae	<i>Fraxinus pennsylvanica</i>	Green Ash	X	X			G5	S4
Onagraceae	<i>Circaea alpina</i>	Small Enchanter's Nightshade	X	X			G5	S5
Pinaceae	<i>Pinus resinosa</i>	Red Pine			X		G5	S5
Pinaceae	<i>Pinus strobus</i>	Eastern White Pine	X				G5	S5
Pinaceae	<i>Tsuga canadensis</i>	Eastern Hemlock	X				G5	S5
Poaceae	<i>Bromus inermis</i>	Awnless Brome	X				G5TNR	SE5
Poaceae	<i>Phragmites australis ssp. australis</i>	European Reed			X		G5T5	SE5
Poaceae	<i>Poa pratensis ssp. pratensis</i>	Kentucky Bluegrass			X		G5T5	S5
Primulaceae	<i>Trientalis borealis</i>	Northern Starflower	X				G5	S5
Ranunculaceae	<i>Anemone canadensis</i>	Canada Anemone	X				G5	S5
Ranunculaceae	<i>Thalictrum pubescens</i>	Tall Meadow-rue	X	X			G5	S5
Rhamnaceae	<i>Rhamnus cathartica</i>	Common Buckthorn	X	X	X		GNR	SE5
Rosaceae	<i>Agrimonia gryposepala</i>	Hooked Agrimony	X				G5	S5
Rosaceae	<i>Fragaria virginiana</i>	Wild Strawberry			X		G5	S5
Rosaceae	<i>Malus pumila</i>	Common Apple			X		G5	SE4
Rosaceae	<i>Prunus avium</i>	Sweet Cherry	X				GNR	SE4
Rosaceae	<i>Prunus serotina</i>	Wild Black Cherry	X				G5	S5
Salicaceae	<i>Populus balsamifera</i>	Balsam Poplar	X				G5	S5
Salicaceae	<i>Populus tremuloides</i>	Trembling Aspen	X	X	X		G5	S5
Salicaceae	<i>Salix euxina</i>	Crack Willow	X	X			GNR	SE
Salicaceae	<i>Salix nigra</i>	Black Willow	X	X			G5	S4?
Solanaceae	<i>Solanum dulcamara</i>	Climbing Nightshade			X		GNR	SE5
Thelypteridaceae	<i>Thelypteris palustris</i>	Eastern Marsh Fern	X	X			G5	S5
Typhaceae	<i>Typha latifolia</i>	Broad-leaved Cattail				X	G5	SE5
Ulmaceae	<i>Ulmus americana</i>	American Elm	X				G5?	S5
Vitaceae	<i>Parthenocissus quinquefolia</i>	Virginia Creeper	X	X			G5	S4?
Vitaceae	<i>Vitis riparia</i>	Riverbank Grape	X	X			G5	S5

**Table 2. Significant Woodland Assessment (PPS criteria)**

CRITERIA	STANDARDS	ASSESSMENT
<b>Woodland Size Criteria</b>		
<ul style="list-style-type: none"> <li>Size refers to the aerial (spatial) extent of the woodland (irrespective of ownership)</li> <li>Woodland areas are considered to be generally continuous even if intersected by narrow gaps 20m or less in width between crown edges.</li> <li>Size value is related to the scarcity of woodland in the landscape derived on a municipal basis with consideration of the differences in woodland coverage among physical sub-units (e.g., watersheds, biophysical regions).</li> <li>Size criteria should also account for differences in landscape-level physiography (e.g., moraines, clay planes) and community vegetation types.</li> </ul>	<p>Where woodlands cover:</p> <ul style="list-style-type: none"> <li>Is less than about 5% of land cover, woodlands 2ha in size or larger should be considered significant</li> <li>Is about 5-15% of land cover, woodlands 4ha in size or larger should be considered significant</li> <li><b>Is about 15-30% of land cover, woodlands 20ha in size or larger should be considered significant</b></li> <li>Is about 30-60% of land cover, woodlands 50ha in size or larger should be considered significant</li> <li>Occupies more than 60% of the land, a minimum size is not suggested, and other factors should be considered</li> </ul>	<ul style="list-style-type: none"> <li>The Town of Collingwood Natural Heritage System (Draft; NVCA 2011) states that the landscape forest cover within the municipality is approximately 20%. Therefore, the Natural Heritage Reference Manual (NHRM; MNR 2010) recommends that continuous patches of woodland cover in Wasaga Beach larger than 20ha should be considered significant.</li> <li>Tree cover of the subject lands is continuous with tree cover that extends onto adjacent properties. Accounting for linear canopy gaps narrower than 20m, the woodlot in the subject property forms part of a woodland patch of approximately 35ha.</li> <li><b>Therefore, based on size criteria, forest cover of the property would be considered part of a significant woodland in the context of the PPS.</b></li> </ul>
<b>Ecological Function Criteria</b>		
<b>Woodland Interior</b>		
<ul style="list-style-type: none"> <li>Interior Habitat more than 100m from the edge (as measured from the limits of a continuous woodland as defined above) is important for some species.</li> <li>For purposes of this criterion, a maintained public road would create an edge even if the opening was not wider than 20m and did not create a separate woodland.</li> <li></li> </ul>	<p>Woodlands should be considered significant if they have:</p> <ul style="list-style-type: none"> <li>Any interior habitat where woodlands cover less than about 15% of the land cover</li> <li><b>2 ha or more of interior habitat where woodlands cover about 15-30% of the land cover</b></li> <li>8 ha or more of interior habitat where woodlands cover about 30-60% of the land cover</li> <li>20 ha or more of interior habitat where woodlands cover about 60% of the land cover</li> </ul>	<ul style="list-style-type: none"> <li>Woodland present in the subject area no interior woodland habitat.</li> <li><b>Therefore, based on woodland interior criteria, forest cover of the property would not be considered part of a significant woodland in the context of the PPS.</b></li> </ul>
<b>Proximity to Other Woodlands or Other Habitats</b>		
<ul style="list-style-type: none"> <li>Woodlands that overlap, abut or are close to other significant natural heritage features or areas could be considered more valuable or significant than those that are not.</li> <li>Patches close to each other are of greater mutual benefit and value to wildlife.</li> </ul>	<p>Woodlands should be considered significant if:</p> <ul style="list-style-type: none"> <li>A portion of the woodland is located within a specific distance (e.g., 30m) of a significant natural feature or fish habitat likely receiving ecological benefit from the woodland and the entire woodland meets the minimum area threshold (e.g., 0.5-20ha, depending on circumstance)</li> </ul>	<ul style="list-style-type: none"> <li>Woodland present in the subject property abuts confirmed fish habitat..</li> <li><b>Therefore, based on the proximity to other woodlands or habitats criteria, forest cover of the property would be considered part of a significant woodland in the context of the PPS.</b></li> </ul>
<b>Linkages</b>		
<ul style="list-style-type: none"> <li>Linkages are important connections providing for movement between habitats.</li> <li>Woodlands that are located between other significant features or areas can be considered to perform an important linkage function as “stepping stones” for movement between habitats.</li> </ul>	<p>Woodlands should be considered significant if they:</p> <ul style="list-style-type: none"> <li>Are located within a defined natural heritage system or provide a connecting link between two other significant features, each of which is within a specified distance (e.g., 120m) and meets minimum area thresholds (e.g., 1-20ha, depending on circumstance)</li> </ul>	<ul style="list-style-type: none"> <li>Woodland present in the subject property is located within the Town's natural heritage system.</li> <li><b>Therefore, based on the linkages criteria, forest cover of the property would be considered part of a significant woodland in the context of the PPS.</b></li> </ul>
<b>Water Protection</b>		

**Table 2. Significant Woodland Assessment (PPS criteria)**

<ul style="list-style-type: none"> <li>• Source water protection is important.</li> <li>• Natural hydrological processes should be maintained.</li> </ul>	<p>Woodlands should be considered significant if they:</p> <ul style="list-style-type: none"> <li>• Are located within a sensitive or threatened watershed or a specific distance (e.g., 50m or top of valley bank if greater) or a sensitive groundwater discharge, sensitive recharge, sensitive headwater area, watercourse or fish habitat and meet minimum area thresholds (e.g., 0.5-10ha, depending on circumstance)</li> </ul>	<ul style="list-style-type: none"> <li>• Woodland present in the subject property is located adjacent to fish habitat.</li> <li>• <b><i>Therefore, based on the water protection criteria, forest cover of the property would be considered part of a significant woodland in the context of the PPS.</i></b></li> </ul>
<b>Woodland Diversity</b>		
<ul style="list-style-type: none"> <li>• Certain woodland species have had major reductions in representation on the landscape and may need special consideration.</li> <li>• More native diversity is more valuable than less diversity.</li> </ul>	<p>Woodlands should be considered significant if they have:</p> <ul style="list-style-type: none"> <li>• A naturally occurring composition of native forest species that have declined significantly south and east of the Canadian Shield and meet minimum area thresholds (e.g., 1-20ha, depending on circumstance)</li> <li>• A high native diversity through a combination of composition and terrain (e.g., a woodland extending from a hilltop to a valley bottom or to opposite slopes) and meet minimum area thresholds (e.g., 2-20ha, depending on circumstance)</li> </ul>	<ul style="list-style-type: none"> <li>• Woodland present in the subject property is not composed of a declining native forest species. Specie diversity is relatively high, due to the presence of a valley system.</li> <li>• <b><i>Therefore, based on the woodland diversity criteria, forest cover of the property would be considered part of a significant woodland in the context of the PPS.</i></b></li> </ul>
<b>Uncommon Characteristics Criteria</b>		
<ul style="list-style-type: none"> <li>• Woodlands that are uncommon in terms of species composition, cover type, age or structure should be protected.</li> <li>• Older woodlands (i.e., woodlands greater than 100 years old) are particularly valuable for several reasons, including their contributions to genetic, species and ecosystem diversity.</li> </ul>	<p>Woodlands should be considered significant if they have:</p> <ul style="list-style-type: none"> <li>• A unique species composition or the site is represented by less than 5% overall in woodland area and meets minimum area thresholds (e.g., 0.5ha, depending on circumstance)</li> <li>• A vegetation community with a provincial ranking of S1, S2 or S3 (as ranked by the NHIC and meet minimum area thresholds (e.g., 0.5ha, depending on circumstance)</li> <li>• Habitat (e.g., with 10 individual stems or 100m<sup>2</sup> of leaf coverage) of a rare, uncommon or restricted woodland plant species and meet minimum area thresholds (e.g., 0.5ha, depending on circumstance): vascular plant species for which the NHIC's Southern Ontario Coefficient of Conservatism is 8, 9 or 10; tree species of restricted distribution such as sassafras or rock elm; species existing only in a limited number of sites within the planning area</li> <li>• Characteristics of older woodlands or woodlands with larger tree size structure in native species meet minimum area thresholds (e.g., 1-10ha, depending on circumstance): older woodlands could be defined as having 10</li> </ul>	<ul style="list-style-type: none"> <li>• Woodland present in the subject property contains fifteen Butternut individuals within the assessed area.</li> <li>• <b><i>Therefore, based on the uncommon characteristics criteria, forest cover of the property would be considered part of a significant woodland in the context of the PPS.</i></b></li> </ul>

**Table 2. Significant Woodland Assessment (PPS criteria)**

	<p>or more trees/ha greater than 100 years old; larger tree size structure could be defined as 10 or more trees/ha at least 50cm in diameter, or a basal area of 8 or more m<sup>2</sup>/ha in trees that are at least 40cm in diameter</p>	
<p><b>Economic and Social Function Values Criteria</b></p>		
<ul style="list-style-type: none"> <li>Woodlands that have high economic or social values through particular site characteristics or deliberate management should be protected.</li> </ul>	<p>Woodlands should be considered significant if they have:</p> <ul style="list-style-type: none"> <li>High productivity in terms of economically viable products together with continuous native natural attributes and meet minimum area thresholds (e.g., 2-20ha, depending on circumstance)</li> <li>A high value in special services such as air-quality improvement or recreation at a sustainable level that is compatible with long-term retention and meet minimum area thresholds (e.g., 0.2-10ha, depending on circumstance)</li> <li>Important identified appreciation, education, cultural or historical value and meet minimum area thresholds (e.g., 0.2-10ha, depending on circumstance)</li> </ul>	<ul style="list-style-type: none"> <li>Forest communities of property do not generate economically viable forest products.</li> <li>No formal recreational use of license area and adjacent lands.</li> <li>Forests not identified as providing education, cultural or historical value.</li> <li>Economic and social values do not warrant identification as significant.</li> <li><i>Therefore, based on the economic and social function values criteria, forest cover of the property would not be considered part of a significant woodland in the context of the PPS.</i></li> </ul>

SWH Category	SWH Function	SWH Criteria	Assessment
Seasonal Concentration Area	Waterfowl Stopover & Staging Areas (Terrestrial)	Mixed waterfowl species aggregations of >100 birds within flooded field areas used annually during spring migration (mid-March to May).	No suitable habitat.
	Waterfowl Stopover & Staging Areas (Aquatic)	Ponds, marshes, lakes, bays, coastal inlets & watercourses used by aggregations of > 100 of listed waterfowl for 7 days during spring and autumn migration. Listed Species: Canada Goose, Cackling Goose, Snow Goose, American Black Duck, Northern Pintail, Northern Shoveler, American Wigeon, Gadwall, Green-winged Teal, Blue-winged Teal, Hooded Merganser, Scaup (Lesser & Greater), Long-tailed Duck, Surf Scoter, Black Scoter, Ring-necked Duck, Common Goldeneye, Bufflehead, Ruddy Duck, Red-breasted Merganser, Brant, Canvasback, Redhead.	No suitable habitat.
	ShoAzimuth1 rebird Migratory Stopover Area	Shorelines of lakes, rivers and wetlands including beach areas, bars, groynes and muddy/un-vegetated shoreline habitat used by 3 or more listed species demonstrating > 1000 “shorebird use days” (i.e., accumulated number of shorebirds over the course of the spring or autumn migration period) or sites used by >100 Whimbrel for 3 or more years. Listed Species: Greater Yellowlegs, Lesser Yellowlegs, Marbled Godwit, Hudsonian Godwit, Black-bellied Plover, American Golden Plover, Semipalmated Plover, Solitary Sandpiper, Spotted Sandpiper, Semipalmated Sandpiper, Pectoral Sandpiper, White-rumped Sandpiper, Baird’s Sandpiper, Stilt Sandpiper, Short-billed Dowitcher, Red-necked Phalarope, Whimbrel, Ruddy Turnstone, Sanderling, Dunlin.	No suitable habitat.
	Raptor Wintering Area	Combinations of fields and woodlands providing roosting, foraging and resting habitat utilized by at least 10 individuals of 2 listed species used regularly for at least 20 days in 3 of 5 years or used by one or more Short-eared Owls. Listed Species: Rough-legged Hawk, Red-tailed Hawk, Northern Harrier, American Kestrel, Snowy Owl, Short-eared Owl.	Use not likely - field are under cash crop production and are not appropriate upland community ELC types (CUM, CUT, CUS, CUW).
	Bat Hibernacula	Caves, mine shafts, underground foundations and Kart formations utilized by bat species during winter.	Not reported as hibernation site. No abandoned structures or mines on site that might provide suitable hibernation habitat.
	<b>Bat Maternity Colony</b>	<b>Wildlife cavity trees within deciduous or mixed forest communities having &gt;10, large diameter (i.e., &gt;25cm diameter at breast height) trees containing cavities or loose bark pockets of sufficient size to housing five or more adult bats</b>	<b>Possible. Riparian forest of age and species composition to provide sufficient density for maternity roosting. No maternity roosting surveys have been created. No works are proposed within suitable habitat.</b>
	Bat Migratory Stopover Area	No Criteria Established. Locations and characteristics of stopover habitats generally unknown.	Not applicable – no criteria to evaluate.
	Turtle Wintering Area	Areas of deep water associated with core habitat utilized by turtles throughout the year often in the vicinity of areas of concentrations of basking turtles noted on warm, sunny days in autumn (September – October) or spring (March – May)	No suitable habitat.
	<b>Snake Hibernacula</b>	<b>Animal burrows, rock fissures and other structures that allow underground access below frost and open wetlands containing sparse trees or shrubs cover providing hummocks or depressions with sphagnum moss or sedge ground cover. Areas of observed concentrations of five or more snakes or two or more</b>	<b>Not reported as snake hibernacula site. Potential habitat may be present within riparian corridor</b>

SWH Category	SWH Function	SWH Criteria	Assessment
		<b>snake species observed on sunny, warm days in spring (April-May) and autumn (September-October)</b>	
	Colonial Bird Nesting (Bank & Cliff)	Sites with exposed soil banks either natural (mainly along shorelines, rivers) or exposed as part of aggregate extraction/material stockpiling. Presence of 1 or more nesting sites with 8 or more pairs of Cliff Swallows or > 50 Bank Swallow or Northern Rough-winged Swallow during the breeding season.	No suitable habitat. No evidence of colonies within riparian corridor.
	Colonial Bird Nesting (Tree/Shrub)	Sites having live or dead trees in wetlands, lakes, islands or peninsulas having > 5 active Great Blue Heron nests or active heronries of other species (Black-crowned Night-heron, Great Egret, Green Heron).	No suitable habitat.
	Colonial Bird Nesting (Ground)	Nesting colonies of gulls and terns on islands or peninsulas having > 25 active nests for Herring Gulls or Ring-billed Gulls or > 5 active Common Tern nests or > 2 active Caspian Tern nests or any active nests of Little Gull or Great Blacked-backed Gull. Farm ditches or streams having low shrub cover utilized by 5 or more pairs of Brewer’s Blackbirds during the nesting season.	No suitable habitat.
	Migratory Butterfly Stopover Area	Meadows and thickets over 10ha in size with a combination of field and forest habitat located within 5km of Lake Ontario having > 5000 Monarch Use Days (MUD = number of days site used by Monarchs X number of Monarchs ) during autumn migration (August – October) or MUD > 3000 MUD if Painted Lady or White Admiral are observed.	No suitable habitat for a stopover area, and property not located within 5km of Lake Ontario.
	Landbird Migratory Stopover Area	Woodlots over 10ha in size located within 5km of Lake Ontario used by >200 birds/day with >35 species total with at least 10 species recorded on at least 5 different survey days during spring (April-May) and autumn (August-October) migration.	No suitable habitat and property not located within 5km of Lake Ontario.
	Deer Yarding Area	Conifer and mixed forest and swamp communities in areas typically having snow depths > 40cm for more than 60 days that are mapped as Stratum 1 (core) or Stratum 2 deer yard by the MNR and show winter accumulations of deer tracks.	Not likely. No mapped deer yards in the vicinity, according to the Midhurst District Deer Yard Survey (Allan et al., 2005).
	Deer Winter Concentration Area	Large (i.e., woodlots > 100ha) conifer and mixed forest and swamp communities in areas typically having relatively low snow accumulation that are utilized during winter by > 10 deer/km <sup>2</sup> and identified by the MNR.	No suitable habitat (total woodlot is less than 100ha in size, as calculated on the Discover Simcoe web explorer).
<b>Rare Vegetation Communities</b>	Cliffs & Talus Slopes	Any Ecological Land Classification (ELC) vegetation type for Cliffs or Talus Slopes associated with a vertical to near vertical rock face >3m high.	No cliffs and talus slopes in or adjacent to property.
	Sand Barren	Area of exposed sand with sparse vegetation and underlying rock protruding the surface in places. Site not dominated by exotic or introduces species (i.e., <50% vegetative cover by non-native plant species).	No sand barren on or adjacent to property.
	Alvar	Area of exposed calcareous bedrock sand with sparse vegetation and shallow soils. Site not dominated by exotic or introduces species (i.e., <50% vegetative cover by non-native plant species) and in excellent condition with few conflicting land uses.	No alvar on or adjacent to property.
	Old Growth Forest	Forest communities over 30ha with at least 10ha of “100m forest interior” dominated by trees over 140 years old with a mosaic of gaps establishing a multi-layered canopy with no evidence of forestry activities.	Woodlands of subject and adjacent lands do not have 10ha of 100m forest interior, nor are dominated by trees over 140 years old.
	Savannah	Tallgrass Prairie habitat having tree cover between 25% and 60%	No savannah on or adjacent to subject lands.
	Tallgrass Prairie	Open grassland having tree cover <25% containing one or more Prairie indicator plant species.	No Tallgrass Prairie on or adjacent to subject lands.

SWH Category	SWH Function	SWH Criteria	Assessment
	Other Rare Vegetation Community Type	Any ELC vegetation community having a sub-national (S Rank) of S1, S2 or S3 as assigned by the MNR.	No vegetation community with a S1, S2 or S3 sub-national rank on or adjacent to subject lands.
<b>Specialized Habitat for Wildlife</b>	Waterfowl Nesting Area	All lands adjacent (i.e., within 120m) of wetlands over 05ha in size or clusters of 3 or more small (<0.5) wetlands where waterfowl breeding is known to occur that contain 3 or more nesting pairs of listed species excluding Mallard or 10 or more nesting pairs including Mallard or any active nest site of American Black Duck. Listed Species: American Black Duck, Northern Pintail, Northern Shoveler, Gadwall, Blue-winged Teal, Green-winged Teal, Wood Duck, Hooded Merganser, Mallard.	Property not adjacent to wetlands over 05ha in size or clusters of 3 or more small (<0.5) wetlands.
	Bald Eagle & Osprey Nesting, Foraging & Perching Habitat	Forest and swamp wetlands directly adjacent to lakes, rivers, ponds and other wetlands where nesting by Osprey or Bald Eagle is confirmed. Within 300m of active Osprey nest or 400-800m of an active Bald Eagle nest.	No confirmed nesting information available.
	Woodland Raptor Nesting Habitat	Forests and conifer plantations >30ha with >10ha of "200m interior forest habitat" containing active nests of listed species. Within 400m of an active Red-shouldered Hawk or Northern Goshawk nest or 200m of an active Barred Owl nest or 100m of an active Broad-winged Hawk or Coopers Hawk nest or 50m of a Sharp-shinned Hawk nest. Listed Species: Northern Goshawk, Cooper's Hawk, Sharp-shinned Hawk, Red-shouldered Hawk, Barred Owl, Broad-winged Hawk.	No suitable habitat.
	Turtle Nesting Area	Areas of exposed sand and gravel in proximity to wetlands and waterbodies providing undisturbed shallow weedy areas utilized by turtles having 5 or more nesting Midland Painted Turtles or one or more nesting Northern Map Turtle or Snapping Turtle plus travel routes between wetlands and nesting areas.	No suitable habitat.
	Seeps & Springs	Forested headwaters of stream or river system containing 2 or more seeps/springs.	No seeps or springs evident in forests of subject lands.
	Amphibian Breeding Habitat (Woodland)	Forests and swamp wetlands containing permanent or vernal pools containing water in most years until mid-July having a breeding population of 1 or more listed species with at least 20 individuals (adults, juveniles, eggs/larval masses). Listed Species: Eastern Newt, Blue-spotted Salamander, Spotted Salamander, Gray Treefrog, Spring Peeper, Western Chorus Frog, Wood Frog.	No evidence of vernal pool habitat on site.
	Amphibian Breeding Habitat (Wetland)	Wetlands and pools (including vernal pools >0.05ha) located >120m from woodlands having a breeding population of 1 or more of the listed salamander species or 3 or more of the listed frog species with at least 20 breeding individuals or wetlands with confirmed breeding by Bullfrog. Listed Species: Eastern Newt, Blue-spotted Salamander, Spotted Salamander, Four-toed Salamander, Gray Treefrog, Spring Peeper, Western Chorus Frog, Wood Frog, Northern Leopard Frog, Pickerel Frog, Green Frog, Mink Frog, Bull Frog, American Toad.	No suitable habitat.
<b>Habitat of Species of Conservation Concern</b>	Marsh Bird Breeding Habitat	Wetlands containing 5 or more nesting pairs of Sedge Wren or Marsh Wren or breeding by any combination of 5 or more of the listed species or any wetland with breeding of 1 or more Black Tern, Trumpeter Swan, Green Heron or Yellow Rail. Listed Species: American Bittern, Virginia Rail, Sora, Common Moorhen, American Coot, Pied-billed Grebe, Marsh Wren, Sedge Wren, Common Loon, Sandhill Crane, Green Heron, Trumpeter Swan, Black Tern, Yellow Rail.	No suitable habitat.

SWH Category	SWH Function	SWH Criteria	Assessment
	Woodland Area-sensitive Bird Breeding Habitat	Large mature forest stands over 30ha having “200m interior habitat” with breeding pairs of 3 or more listed species or any site with breeding by Cerulean Warbler or Canada Warbler. Listed Species: Yellow-bellied Sapsucker, Red-breasted Nuthatch, Veery, Blue-headed Vireo, Northern Parula, Black-throated Green Warbler, Blackburnian Warbler, Black-throated Blue Warbler, Ovenbird, Scarlet Tanager, Winter Wren, Cerulean Warbler, Canada Warbler.	No suitable habitat.
	Open County Bird Breeding Habitat	Grasslands >30ha in size not actively used for farming (i.e., not Class 1 or 2 farmland) with breeding by 2 or more listed species or 1 or more breeding Short-eared Owls. Listed Species: Upland Sandpiper, Grasshopper Sparrow, Vesper Sparrow, Northern Harrier, Savannah Sparrow, Short-eared Owl.	No suitable habitat.
	Shrub/Early Successional Bird Breeding Habitat	Large field areas succeeding to thicket >10 in size not actively used for farming (i.e., not Class 1 or 2 farmland) with breeding by 1 of the listed species and at least 2 of the common species of a thicket having breeding Yellow-breasted Chat or Golden-winged Warbler. Listed Species: Indicator Spp.: Brown Thrasher, Clay-colored Sparrow; Common Spp: Field Sparrow, Black-billed Cuckoo, Eastern Towhee, Willow Flycatcher; Other Spp. Yellow-breasted Chat, Golden-winged Warbler.	No suitable habitat.
	Terrestrial Crayfish	Meadows and edges of shallow marshes containing 1 or more individuals or chimneys of Chimney or Devil Crayfish.	No suitable habitat.
	<b>Special Concern &amp; Rare Wildlife Species</b>	<b>Site containing wildlife species having a sub-national (S Rank) of S1, S2 or S3 as assigned by the MNR.</b>	<b>There is potential for species listed as 'Special Concern' to be present in the area (i.e. Milksnake, Wood Thrush, Eastern Wood Peewee).</b>
<b>Animal Movement Corridors</b>	Animal Movement Corridors	Movement corridors linking amphibian breeding habitat and summer habitat containing native vegetation and free of gaps such as fields, waterways, waterbodies or developed lands that are >200m wide and having gaps <20m wide. If following a riparian area corridor should include vegetation 15m of either side of watercourse.	Requires pre-requisite of identifying significant amphibian breeding habitat. None was documented, thus the property does not function as an animal movement corridor.
	Deer Movement Corridors	Forest habitat associated with watercourses and ridges that are >200m wide and having gaps <20m wide. If following a riparian area corridor should include vegetation 15m of either side of watercourse. Corridors leading to deer wintering yards should be unbroken by roads or residential areas.	No Deer Wintering habitat has been confirmed to be associated with this property, thus the property does not function as a significant deer movement corridor.



**Table 4 – Species at Risk Habitat Assessment**

Latin Name	Common Name	National Status	Provincial Status	G-Rank	S-Rank	Habitat Preference <sup>1</sup>	Habitat Present On-Site
<b>Plants</b>							
<i>Juglans cinerea</i>	Butternut	Endangered	Endangered	G4	S3?	Shade intolerant and prefer rich, moist, well-drained soils and gravel sites where limestone is present. Butternut is often found in open areas such as shallow valleys, edges of streams and rivers, fence lines or fields.	Butternut has been confirmed on site.
<i>Crataegus magniflora</i>	Shining-Branch Hawthorn	NA	NA	G3G5	S3	Woods, hedgerows and thickets on moist soils.	No individuals observed on site.
<i>Linum medium var. medium</i>	Stiff Yellow Flax	NA	NA	G5T3T4	S3?	Dry upland woods and beaches.	No individuals observed on site.
<b>Herpetofauna</b>							
<i>Sistrurus catenatus</i>	Massasauga	Threatened	Threatened	G3G4	S3	Use upland, old field in summer; marsh, shrub swamp or bog; rivers and streams that provide sedge or low vegetative growth; in fall and winter; hibernate underground in mammal burrows, under rotting stumps, in rock crevices.	No suitable habitat is available for the species.
<i>Lampropeltis triangulum</i>	Milksnake	Special Concern	Special Concern	G5	S3	Farmlands, meadows, hardwood or aspen stands; pine forest with brushy or woody cover; river bottoms or bog woods; hides under logs, stones, or boards or in outbuildings; often uses communal nest sites.	Potential habitat for the species is present.
<b>Birds</b>							
<i>Chlidonias niger</i>	Black Tern	NA	Special Concern	G4	S3B	Wetlands, coastal or inland marshes; large cattail marshes, marshy edges of rivers, lakes or ponds, wet open fens, wet meadows; returns to same	No suitable habitat is available for the species.

**Table 4 – Species at Risk Habitat Assessment**

Latin Name	Common Name	National Status	Provincial Status	G-Rank	S-Rank	Habitat Preference <sup>1</sup>	Habitat Present On-Site
						area to nest each year in loose colonies; must have shallow (0.5 to 1 m deep) water and areas of open water near nests; requires marshes >20 ha in size; feeds over adjacent grasslands for insects; also feeds on fish, crayfish and frogs	
<i>Riparia riparia</i>	Bank Swallow	Threatened	Threatened	G5	S4B	Sand, clay or gravel river banks or steep riverbank cliffs; sandy or gravel lakeshore bluffs; gravel pits, road-cuts, fields that are close to water; nesting sites are limiting factor for species presence.	No suitable habitat is available for the species.
<i>Hirundo rustica</i>	Barn Swallow	Threatened	Threatened	G5	S4B	<b>Farmlands or rural areas; cliffs, caves, rock niches; buildings or other man-made structures for nesting; open country near bodies of water.</b>	<b>No potential foraging habitat within the property limits, associated with potential nesting on adjacent lands.</b>
<i>Dolichonyx oryzivorus</i>	Bobolink	Threatened	Threatened	G5	S4B	Large, open expansive grasslands with dense ground cover; hayfields, meadows or fallow fields; marshes; requires tracts of grassland >50 ha.	No suitable grassed meadows were observed.
<i>Chaetura pelagica</i>	Chimney Swift	Threatened	Threatened	G5	S4B, S4N	<b>Commonly found in urban areas near buildings; nests in hollow trees, crevices of rock cliffs, chimneys; highly gregarious; feeds over open water</b>	<b>Species was observed flying over the property. No foraging habitat available within the property limits.</b>
<i>Chordeiles minor</i>	Common Nighthawk	Threatened	Special Concern	G5	S4B, S4N	Open ground; clearings in dense forests; ploughed fields, gravel beaches or barren areas with rocky soils, open woodlands; flat gravel roofs	No suitable habitat is available for the species.

**Table 4 – Species at Risk Habitat Assessment**

Latin Name	Common Name	National Status	Provincial Status	G-Rank	S-Rank	Habitat Preference <sup>1</sup>	Habitat Present On-Site
<i>Sturnella magna</i>	Eastern Meadowlark	Threatened	Threatened	G5	S4B	Open, grassy meadows, farmland, pastures, hayfields or grasslands with elevated singing perches; cultivated land and weedy areas with trees; old orchards with adjacent, open grassy areas >10 ha in size	No suitable grassed meadows were observed.
<i>Contopus virens</i>	<b>Eastern Wood-Pewee</b>	Special Concern	Special Concern	G5	S4B	Open, deciduous, mixed or coniferous forest; predominated by oak with little understory; forest clearings, edges; farm woodlots, parks	<b>Potential habitat for the species is present. Species was observed on site, out of the nesting season.</b>
<i>Lanius ludovicianus</i>	Loggerhead Shrike	Endangered	Endangered	G4	S2B	Grazed pasture, marginal farmland with scattered hawthorn shrubs, hedgerows; fence posts, wires and associated low-lying wetland; located on core areas of limestone plain adjacent to Canadian Shield; probably needs at least 25 ha of suitable habitat	No suitable habitat is available for the species.
<i>Melanerpes carolinus</i>	<b>Red-Headed Woodpecker</b>	<b>Threatened</b>	<b>Special Concern</b>	<b>G5</b>	<b>S4B</b>	<b>Open, deciduous forest with little understory; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; feeds on insects and stores nuts or acorns for winter; loss of habitat is limiting factor; requires cavity trees with at least 40 cm dbh; require about 4 ha for a territory</b>	<b>Potential habitat for the species is present within and adjacent to the property limits.</b>
<i>Caprimulgus vociferus</i>	Whip-poor-will	Threatened	Threatened	G5	S4B	Dry, open, deciduous woodlands of small to medium trees; oak or beech with lots of clearings and shaded leaf litter; wooded edges, forest clearings	Woodland understory is quite dense with minimal canopy openings, likely too

**Table 4 – Species at Risk Habitat Assessment**

Latin Name	Common Name	National Status	Provincial Status	G-Rank	S-Rank	Habitat Preference <sup>1</sup>	Habitat Present On-Site
						with little herbaceous growth; pine plantations; associated with >100 ha forests; may require 500 to 1000 ha to maintain population	dense to support the species.
<i>Hylocichla mustelina</i>	Wood Thrush	Threatened	Special Concern	G5	S4B	<b>Carolinian and Great Lakes-St. Lawrence forest zones; undisturbed moist mature deciduous or mixed forest with deciduous sapling growth; near pond or swamp; hardwood forest edges; must have some trees higher than 12 m</b>	<b>Potential habitat for the species is present.</b>
Mammals							
<i>Myotis leibii</i>	<b>Eastern Small-footed Bat</b>	Endangered	Endangered	G3G4	S2S3	Variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. <sup>6</sup>	<b>Potential spring/summer habitat for species is present (maternity colony). No potential hibernacula.</b>
<i>Myotis lucifugus</i>	<b>Little Brown Bat</b>	Endangered	Endangered	G3G4	S4	Trees, building, attics, caves and mines. <sup>7</sup>	
<i>Myotis septentrionalis</i>	<b>Northern Long-eared Bat</b>	Endangered	Endangered	G1G2	S3	Boreal forests, roosting under loose bark or cavities of trees. Caves and abandoned mines. <sup>8</sup>	

<sup>1</sup> Ministry of Natural Resources – Fish and Wildlife Branch. 2000. Significant Wildlife Habitat Technical Guide.



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## **APPENDICES**

**Appendix A: Agency Correspondence**

**Appendix B: Municipal Background Information**

**Appendix C: Nottawasaga Valley Conservation Authority Regulation**

**Appendix D: Provincial Background Information**

**Appendix E: Butternut Health Assessment**

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**APPENDIX A**

**Agency Correspondence**

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## Melissa Fuller

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**From:** Dave Featherstone [dfeatherstone@nvca.on.ca]  
**Sent:** December-14-15 8:36 AM  
**To:** Melissa Fuller  
**Cc:** Chris Hibberd  
**Subject:** RE: Poplar Side Road (Collingwood) Scope of Work Confirmation

Hi Melissa. Thanks for the memory jog! The terms of reference is satisfactory - I recall there were several butternut along the forest edge on this site.

Best regards,

David Featherstone, B.Sc.  
Manager, Watershed Monitoring Program  
Nottawasaga Valley Conservation Authority  
8195 8th Line, Utopia, ON  
L0M 1T0  
(705) 424-1479 Ext. 242  
[dfeatherstone@nvca.on.ca](mailto:dfeatherstone@nvca.on.ca)

-----Original Message-----

**From:** Melissa Fuller [<mailto:MFuller@Azimuthenvironmental.Com>]  
**Sent:** December-11-15 10:26 AM  
**To:** Dave Featherstone  
**Subject:** Poplar Side Road (Collingwood) Scope of Work Confirmation

Dave,

This project is ramping back up again. Going through the file, I see I do not have record of your confirmation of the scope of work discussed during our site walk. Can you please review the email below and confirm? Thanks,

(Mapping attached to help jog your memory)

Melissa Fuller H. B.Sc.  
Terrestrial Ecologist, ISA Certified Arborist

Merry Christmas and Happy Holidays!  
Please note that the Azimuth office will be closed from Dec 25, 2015 and reopening on January 4, 2016.

Please note, our office has moved:  
Azimuth Environmental Consulting, Inc  
642 Welham Street  
Barrie, ON, L4N 9A1

office: (705) 721-8451 ext. 216  
fax: (705) 721-8926  
cell: 705-795-8451  
[mfuller@azimuthenvironmental.com](mailto:mfuller@azimuthenvironmental.com)

Providing services in hydrogeology, terrestrial and aquatic ecology & environmental engineering

-----Original Message-----

From: Melissa Fuller  
Sent: June-05-14 10:58 AM  
To: 'Dave Featherstone'  
Cc: Chris Hibberd; 'Andrew Mulder'  
Subject: RE: Poplar Sideroad site walk

Dave,

As a follow up to the site meeting, I'd like to confirm the NVCA's scope of work for the EIS for the Poplar Road development.

We will be completing the following items as part of the EIS:

- Evaluate vegetation communities in summer 2014 using protocols of the Ecological Land Classification for Southern Ontario (Lee et al. 1998. Ecological land classification for southern Ontario: first approximation and its applications. SCSS Field Guide FG-02. This item can be completed in conjunction with the field investigations outlined above;
- Conduct one in season vegetation survey (July);
- Characterize the aquatic habitat presented by the mapped water course
- Contact MNR for an initial species screening under the Endangered Species Act, 2007;
- Record other wildlife observations and assess wildlife habitat function of the property;
- Map vegetation communities and other environmental features (watercourses, wetlands, areas of ground water discharge, etc.) on ortho-air photos;
- Assess the potential direct and indirect impacts of the proposed development on the sensitive or significant environmental features as described above;
- Develop an appropriate avoidance/mitigation/restoration strategy to address the potential environmental impacts; and
- Prepare one EIS report, to circulate to approval agencies.

Please confirm acceptance of this Scope of Work at your earliest convenience.

Thanks Dave.

Melissa Fuller H. B.Sc.  
Terrestrial Ecologist

Azimuth Environmental Consulting, Inc  
85 Bayfield Street, Suite 400  
Barrie, ON L4M 3A7  
office: (705) 721-8451  
fax: (705) 721-8926  
cell: 705-795-8451  
[mfuller@azimuthenvironmental.com](mailto:mfuller@azimuthenvironmental.com)

Providing services in hydrogeology, terrestrial and aquatic ecology & environmental engineering





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Environmental Assessments & Approvals

December 10, 2015

AEC 14-217

Ministry of Natural Resources and Forestry  
Midhurst District  
2284 Nursery Road  
Midhurst, Ontario  
L0L 1X0

Attention: Jodi Benvenuti, Management Biologist

**RE: Species at Risk Information Request for 8008-7896 Poplar Sideroad, Town of Collingwood, County of Simcoe**

Dear Ms. Benvenuti:

Azimuth Environmental Consulting (Azimuth) has been retained to prepare a Species at Risk Assessment for a property located in the Town of Collingwood (please see attached mapping). The purpose of this letter is to request additional species information regarding Species at Risk that should be considered during the completion of a Species at Risk screening for this property.

The Ontario Breeding Bird Atlas was consulted to determine the potential for avian Species at Risk to be utilizing the property. Square 17NK62 was queried and it was determined that Black Tern, Common Nighthawk, Chimney Swift, Whip-poor-will, Red-Headed Woodpecker, Loggerhead Shrike, Barn Swallow, Bank Swallow, Wood Thrush, Wood Pewee, Bobolink, and Eastern Meadowlark have been observed within the 100km<sup>2</sup> data square. The OBBA data is provided as attached.

Based on habitat observed on the property, our SAR screening will also focus on the potential presence of habitat for Butternut and Milksnake. Butternut has been confirmed on the property, and a health assessment of the individuals was submitted to MNRF September 4, 2014.

The purpose of this letter is to request additional information regarding Species at Risk and sensitive areas associated with the Study Area, aside from those identified above.



Thank you very much for your assistance in this matter. If you have any questions regarding this project please do not hesitate to contact us.

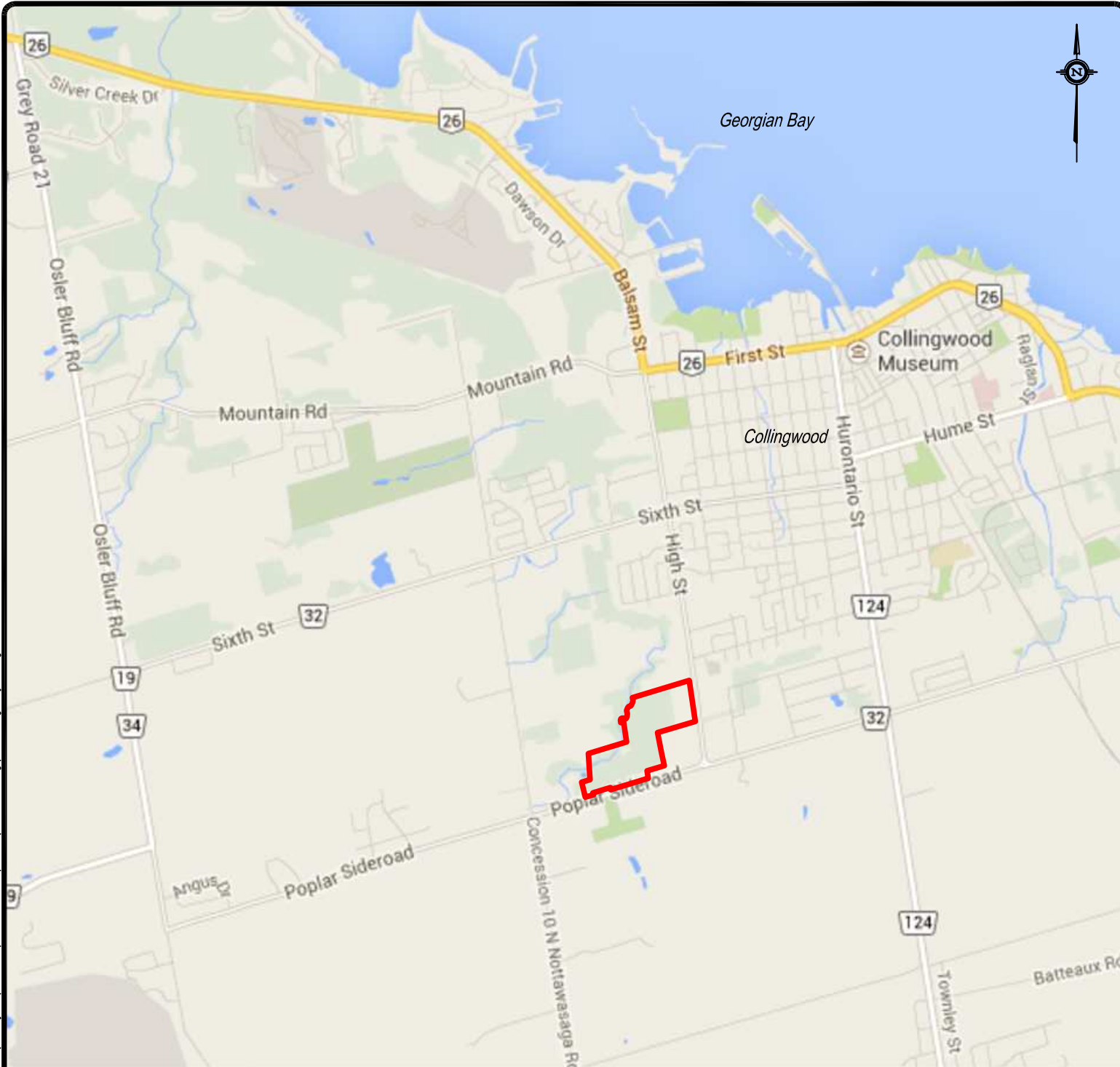
Yours truly,  
AZIMUTH ENVIRONMENTAL CONSULTING, INC.

A handwritten signature in blue ink that reads "Melissa Fuller". The signature is written in a cursive, flowing style.

Melissa Fuller, H.B.Sc  
Terrestrial Ecologist

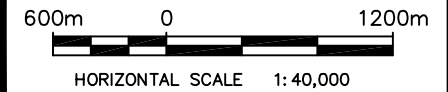
MMF

Attach: Ontario Breeding Bird Atlas Data Summary (17NK62)



**LEGEND:**

— *Approx. Property Boundary*



Study Area Location

Poplar Sideroad,  
 Collingwood, ON

DATE ISSUED: May 2014	Figure No.
CREATED BY: JLM	
PROJECT NO.: 14-217	
REFERENCE: Google Maps	1



### Square Summary (17NK62)

#species (1st atlas)				#species (2nd atlas)				#hours		#pc done	
poss	prob	conf	total	poss	prob	conf	total	1st	2nd	road	offrd
21	28	41	90	29	41	46	116	28	103	50	2

### Region summary (#13: Simcoe County)

#squares	#sq with data		#species		#pc done	target #pc
	1st	2nd	1st	2nd		
68	63	65	181	190	2075	850

**Target number of point counts in this square:** 23 road side, 2 off road (2 in deciduous forest). Please try to ensure that each off-road station is located such that the entire 100m radius circle is within the prescribed habitat.

SPECIES	Code		%	
	1st	2nd	1st	2nd
Canada Goose		AE	58	95
Trumpeter Swan †		FY	0	43
Wood Duck			76	78
Gadwall ‡			6	4
American Wigeon		P	6	12
American Black Duck	P		44	47
Mallard	FY	FY	93	95
Blue-winged Teal	P	P	79	53
Northern Shoveler		P	11	10
Northern Pintail			14	7
Green-winged Teal			0	18
Redhead †			3	1
Ring-necked Duck		H	4	21
Lesser Scaup ‡			1	1
Hooded Merganser		P	25	30
Common Merganser	FY	FY	36	46
Red-breast Merganser		D	9	20
Gray Partridge ‡			0	1
Ring-necked Pheasant			15	10
Ruffed Grouse	T	T	92	81
Wild Turkey		FY	0	81

SPECIES	Code		%	
	1st	2nd	1st	2nd
Black-crown N.-Heron † §	H	H	12	9
Yellow-crn N.-Heron †			0	0
Turkey Vulture		D	77	84
Osprey			42	53
Northern Harrier		H	76	66
Sharp-shinned Hawk		A	50	60
Cooper's Hawk		H	17	47
Northern Goshawk		H	15	27
Red-should Hawk †		H	17	44
Broad-winged Hawk			58	66
Red-tailed Hawk	H	P	92	81
American Kestrel	P	T	85	76
Merlin ‡	CF		1	21
Yellow Rail †			3	3
King Rail †			3	3
Virginia Rail			36	47
Sora	S		31	43
Common Moorhen			17	12
American Coot			15	12
Coot/Moorhen			0	0
Sandhill Crane ‡			0	21

SPECIES	Code		%	
	1st	2nd	1st	2nd
Caspian Tern †			1	3
Black Tern † §	H		30	21
Common Tern §	AE	P	34	23
Forster's Tern † §			0	1
Mourning Dove	NY	NE	95	95
Yellow-billed Cuckoo			6	18
Black/Yell-billed Cuckoo			0	18
Black-billed Cuckoo		S	58	75
Eastern Screech-Owl		H	12	49
Great Horned Owl	FY	D	74	55
Barred Owl		H	20	49
Long-eared Owl ‡			3	4
Short-eared Owl †			1	4
North Saw-whet Owl			9	12
Common Nighthawk	H	S	63	40
Whip-poor-wil		T	60	38
Chimney Swift	H	T	63	32
Ruby-thr Hummingbird	T	D	88	95
Belted Kingfisher	AE	AE	95	92
Red-headed Woodpecker †	AE	N	65	29
Yellow-bellied Sapsucker	H	S	80	95

Common Loon		H	28	52
Pied-billed Grebe		P	22	32
Double-crest Cormorant §			11	27
American Bittern			50	44
Least Bittern †			12	23
Great Blue Heron §	H	NY	77	63
Great Egret †			0	1
Green Heron §	H	A	84	70

Killdeer	FY	DD	96	96
Rock Dove	NY	NY	87	84
Spotted Sandpiper	FY	A	95	78
Upland Sandpiper	P	D	60	38
Common Snipe	D	S	79	61
American Woodcock	A	D	79	72
Ring-billed Gull §		NY	6	33
Herring Gull §	H	NY	49	38

Downy Woodpecker	AE	AE	95	96
Hairy Woodpecker	H	H	95	93
Northern Flicker	AE	N	98	95
Pileated Woodpecker	H	FY	80	93
Olive-sided Flycatcher			22	20
Eastern Wood-Pewee	V	T	96	96
Alder Flycatcher	S	H	47	76
Willow Flycatcher			42	55

[next page >>](#)

Ontario Breeding Bird Atlas - Summary Sheet for Square 17NK62 (page 2 of 3)

SPECIES	Code		%	
	1st	2nd	1st	2nd
Least Flycatcher		T	88	89
Eastern Phoebe	FY	CF	95	96
Gr Crested Flycatcher	T	AE	98	96
Eastern Kingbird	CF	AE	98	95
Loggerhead Shrike †	H		15	3
Yellow-throated Vireo ‡			30	26
Blue-headed Vireo			9	38
Warbling Vireo	A	AE	92	93
Philadelphia Vireo ‡			1	4
Red-eyed Vireo	A	NU	93	96
Blue Jay	A	CF	96	96
American Crow	FY	AE	98	96
Common Raven			7	55
Horned Lark	CF		68	47
Purple Martin	FY	NY	61	27

SPECIES	Code		%	
	1st	2nd	1st	2nd
Marsh Wren	H		42	33
Golden-crown Kinglet			7	21
Ruby-crown Kinglet			6	7
Blue-gr Gnatcatcher ‡			14	24
Eastern Bluebird		FY	57	73
Veery	T	T	95	96
Swainson's Thrush			14	20
Hermit Thrush		H	39	69
Wood Thrush	NY	S	90	92
American Robin	FY	NY	98	96
Gray Catbird	CF	CF	98	96
Northern Mockingbird			6	18
Brown Thrasher	T	A	96	92
European Starling	FY	AE	98	96
Cedar Waxwing	P	NB	98	96

SPECIES	Code		%	
	1st	2nd	1st	2nd
Kirtland's Warbler †			1	0
Prairie Warbler †			6	9
Bay-breasted Warbler ‡			1	3
Cerulean Warbler †			12	16
Black-white Warbler	A	S	84	93
American Redstart	T	T	85	90
Ovenbird	S	T	98	96
North Waterthrush		S	61	86
Mourning Warbler		T	63	81
Common Yellowthroat	DD	T	92	95
Canada Warbler			46	56
Eastern Towhee		S	53	73
Chipping Sparrow	CF	NY	96	96
Clay-colored Sparrow			14	36
Field Sparrow	P	S	84	87

Tree Swallow	AE	NY	98	96
North Rgh-wing Swallow	NU	H	68	56
<b>Bank Swallow §</b>	AE	AE	88	58
Cliff Swallow §	AE	NY	82	63
<b>Barn Swallow</b>	AE	AE	96	95
Black-capped Chickadee	FY	CF	96	96
Tufted Titmouse †			1	0
Red-breast Nuthatch	H	P	52	90
White-breast Nuthatch	CF	NY	87	93
<u>Brown Creeper</u>	H		55	60
Carolina Wren ‡			1	6
House Wren	NY	NY	87	95
Winter Wren	FY	S	68	95
Sedge Wren			19	20

Blue-winged Warbler			4	24
Golden-winged Warbler			30	43
Blue/Gold-wing Warbler ‡			0	15
Brewster's Warbler †			0	3
Nashville Warbler		S	74	84
Northern Parula			12	21
Yellow Warbler	NE	AE	98	92
Chestn-sided Warbler		S	68	95
Magnolia Warbler		H	20	58
<u>Black-thr Blue Warbler</u>			22	63
Yellow-rumped Warbler		D	41	78
<u>Black-thr Green Warbler</u>			34	90
Blackburnian Warbler		H	28	58
Pine Warbler			26	80

Vesper Sparrow	DD	P	84	70
Savannah Sparrow	CF	D	88	81
Grasshopper Sparrow	S		38	41
Song Sparrow	FY	NY	98	96
Swamp Sparrow	S	T	84	86
White-throat Sparrow	T	T	95	87
<u>Dark-eyed Junco</u>	H		25	21
Scarlet Tanager		S	79	86
Northern Cardinal	T	NE	66	84
Rose-breast Grosbeak	T	T	95	93
Indigo Bunting	T	T	90	93
<b>Bobolink</b>	FY	P	87	83
Red-wing Blackbird	A	NE	96	96
<b>Eastern Meadowlark</b>	T	T	88	83

[<< previous page](#)

[next page >>](#)

**Ontario Breeding Bird Atlas - Summary Sheet for Square 17NK62 (page 3 of 3)**

SPECIES	Code		%	
	1st	2nd	1st	2nd
Western Meadowlark ‡			6	1
Yellow-h Blackbird †			1	0
Rusty Blackbird ‡			1	1
Brewer's Blackbird ‡			3	7
Common Grackle	FY	NY	96	96
Brown-head Cowbird	P	FY	98	95
Orchard Oriole ‡			0	1
Baltimore Oriole	AE	NU	96	96
Purple Finch	T	NB	66	73
House Finch		NE	3	72

Red Crossbill ‡			7	1
White-winged Crossbill ‡			1	3
Pine Siskin		P	17	18
American Goldfinch	N	CF	98	96
Evening Grosbeak		H	15	15
House Sparrow	FY	AE	88	75

This list includes all species found during the Ontario Breeding Bird Atlas (1st atlas: 1981-1985, 2nd atlas: 2001-2005) in the region #13 (Simcoe County). Underlined species are those that you should try to add to this square. They have not yet been reported during the 2nd atlas, but were found during the 1st atlas in this square or have been reported in more than 50% of the squares in this region during the 2nd atlas so far. In the species table, "BE 2nd" and "BE 1st" are the codes for the highest breeding evidence for that species in square 17NK62 during the 2nd and 1st atlas respectively. The % columns give the percentage of squares in that region where that species was reported during the 2nd and 1st atlas (this gives an idea of the expected chance of finding that species in region #13). Rare/Colonial Species Report Forms should be completed for species marked: § (Colonial), ‡ (regionally rare), or † (provincially rare). Current as of 5/08/2011. An up-to-date version of this sheet is available from <http://www.birdsontario.org/atlas/summaryform.jsp?squareID=17NK62>

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**APPENDIX B**

**Municipal Background Information**

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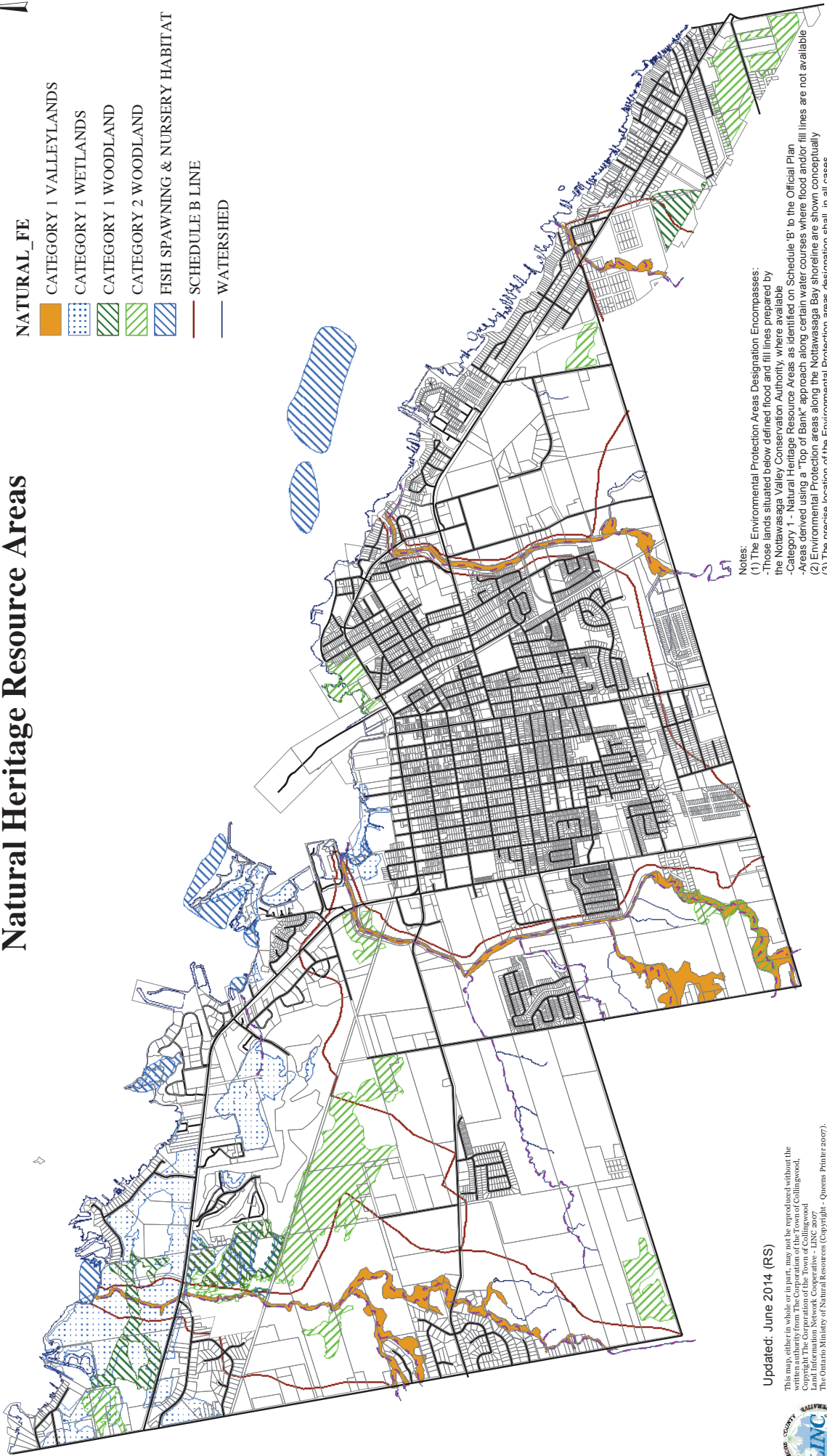


# Official Plan of the Town of Collingwood

## SCHEDULE 'B' - Environmental Protection- Natural Heritage Resource Areas

### Legend

- - - Fish
- SCHEDULE B**
- NATURAL\_FE**
- CATEGORY 1 VALLEYLANDS
- CATEGORY 1 WETLANDS
- CATEGORY 1 WOODLAND
- CATEGORY 2 WOODLAND
- FISH SPAWNING & NURSERY HABITAT
- SCHEDULE B LINE
- WATERSHED



Notes:

- (1) The Environmental Protection Areas Designation Encompasses:
  - Those lands situated below defined flood and fill lines prepared by the Nottawasaga Valley Conservation Authority, where available
  - Category 1 - Natural Heritage Resource Areas as identified on Schedule 'B' to the Official Plan
  - Areas derived using a "Top of Bank" approach along certain water courses where flood and/or fill lines are not available
- (2) Environmental Protection areas along the Nottawasaga Bay shoreline are shown conceptually
- (3) The precise location of the Environmental Protection areas designation shall, in all cases, be determined as development proceeds in consultation with The County of Simcoe (Nottawasaga Valley Conservation Authority) and the Town of Collingwood.

Updated: June 2014 (RS)

This map, either in whole or in part, may not be reproduced without the written authority from The Corporation of the Town of Collingwood.  
 Copyright: The Corporation of the Town of Collingwood  
 Land Information Network Cooperative - LINC 2007  
 © Ferrel Enterprises Inc. and its suppliers all rights reserved, and  
 Members of the Ontario Geospatial Data Exchange.  
 THIS IS NOT A PLAN OF SURVEY.





# Official Plan of the Town of Collingwood

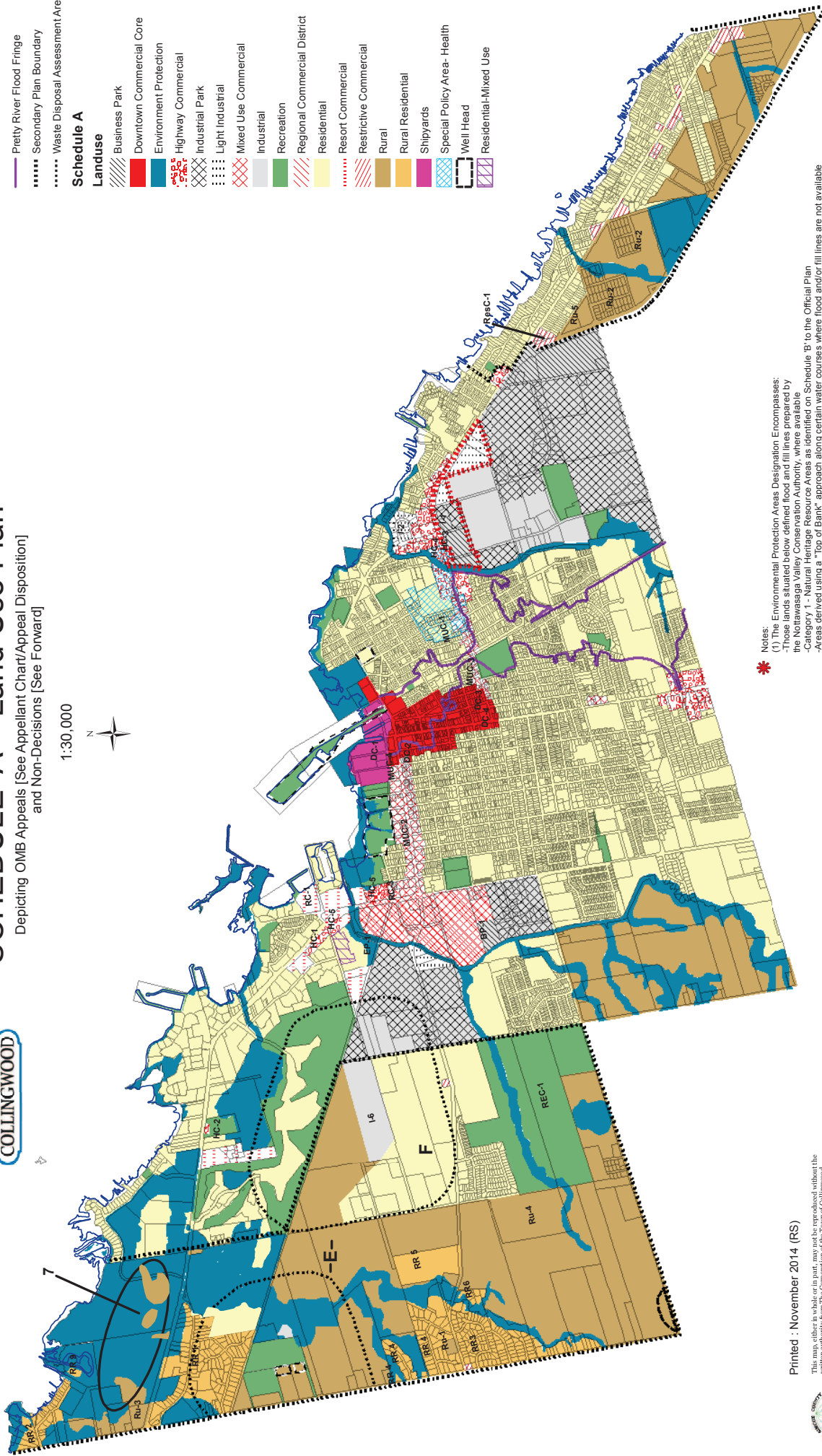
## SCHEDULE 'A' - Land Use Plan

Depicting OMB Appeals [See Appellant Chart/Appeal Disposition] and Non-Decisions [See Forward]

1:30,000



- Legend**
- Industrial Fringe
  - Inactive Private Landfill
  - Pretty River Flood Fringe
  - Secondary Plan Boundary
  - Waste Disposal Assessment Areas
- Schedule A**
- Landuse**
- Business Park
  - Downtown Commercial Core
  - Environment Protection
  - Highway Commercial
  - Industrial Park
  - Light Industrial
  - Mixed Use Commercial
  - Industrial
  - Recreation
  - Regional Commercial District
  - Residential
  - Resort Commercial
  - Restrictive Commercial
  - Rural
  - Rural Residential
  - Shipyards
  - Special Policy Area- Health
  - Well Head
  - Residential-Mixed Use



**Notes:**

- (1) The Environmental Protection Areas Designation Encompasses:
  - Areas identified by the Nottawasaga Valley Conservation Authority, where available
  - Category 1 - Natural Heritage Resource Areas as identified on Schedule 'B' to the Official Plan
  - Areas derived using a "Top of Bank" approach along certain water courses where flood and/or fill lines are not available
- (2) Environmental Protection areas along the Nottawasaga Bay shoreline are shown conceptually
- (3) The precise location of the Environmental Protection areas designation shall, in all cases, be determined as development proceeds in consultation with The County of Simcoe (Nottawasaga Valley Conservation Authority) and the Town of Collingwood.

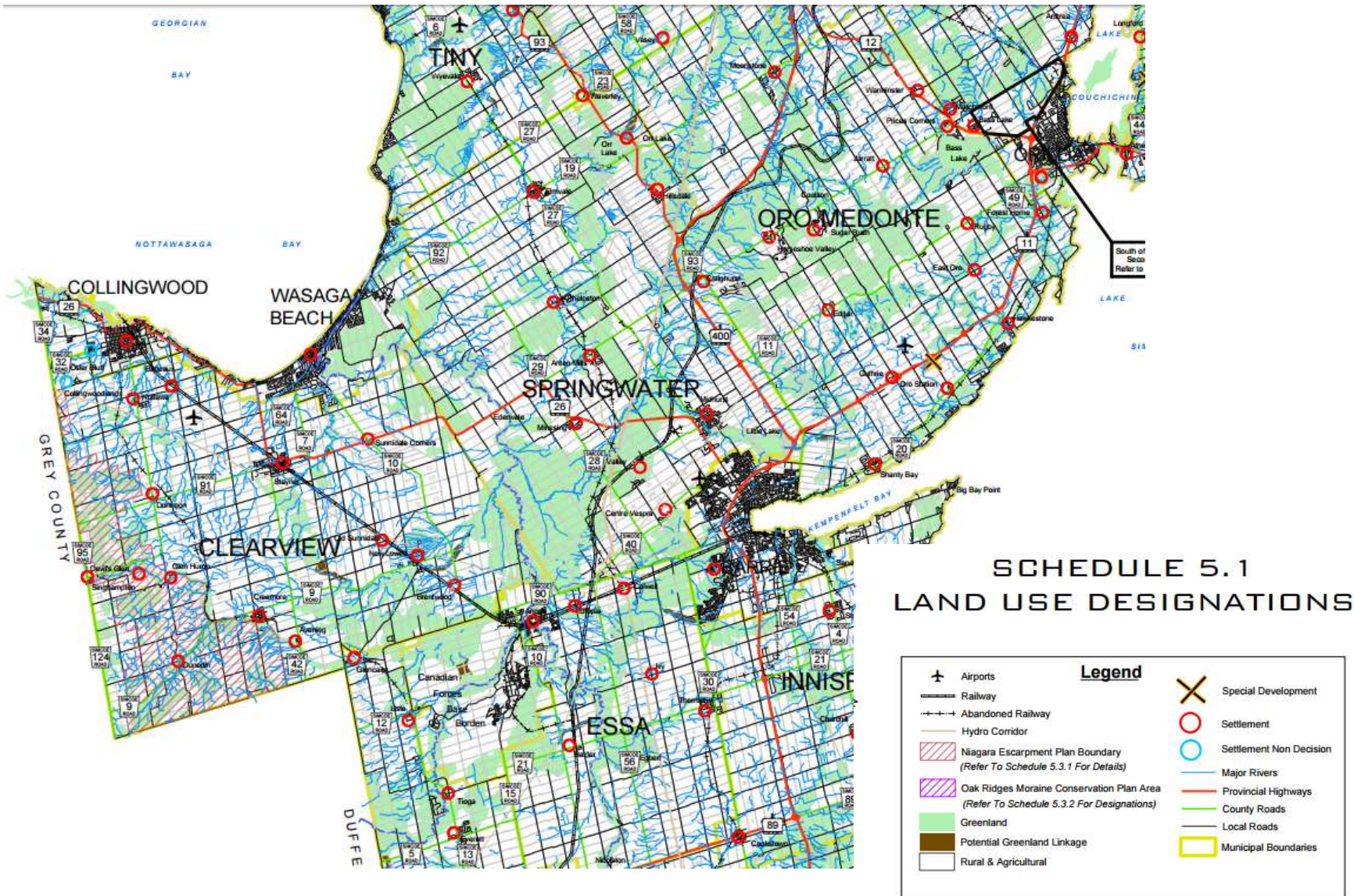
Printed : November 2014 (RS)

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# County of Simcoe Land Use Mapping





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**APPENDIX C**

**Nottawasaga Valley Conservation Authority Regulation**

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# NVCA Regulation Mapping

The screenshot displays the NVCA Regulation Mapping web application. The interface includes a top navigation bar with the Nottawasaga Valley Conservation Authority logo and a search bar labeled "Search NVCA...". Below the navigation bar is a "Layers" panel on the left, which contains several layer options: "Parcels (Assessment)" (checked), "Address Range Labels", "Base Mapping", "Watershed Monitoring", "Source Water Protection Vulnerability Mapping", "NVCA Regulated Areas", and "Map Tools". A "Transparency" slider is located below the layers panel. A "FILTER" section contains a search box for "Find Layers & Tools..." and a dropdown menu currently set to "-- All Layers --". Below the filter are buttons for "Expand All", "Collapse All", and "Reset All".

The main map area shows a topographic map with various roads and land parcels. Key roads labeled include "Tenth line", "Sixth St", "High St", "Huronario St", "Poplar Sideroad", "Poplar Srd.", "36/37-Srd-Nottawasaga", "Bateaux Rd.", "Nottawa", "Bateaux", "Region St", "Sandford Fleming Dr.", and "Concession 5 North Nottawasaga". A scale bar at the bottom left indicates 1 km and 0.5 mi. The bottom status bar shows "Latitude: 44.482", "Longitude: -80.236", and "Scale: 1 : 36,112". A copyright notice at the bottom right reads "© Copyright County of Simcoe - This is not a legal survey".



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**APPENDIX D**

**Provincial Background Information**

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### Square Summary (17NK62)

#species (1st atlas)				#species (2nd atlas)				#hours		#pc done	
poss	prob	conf	total	poss	prob	conf	total	1st	2nd	road	offrd
21	28	41	90	29	41	46	116	28	103	50	2

### Region summary (#13: Simcoe County)

#squares	#sq with data		#species		#pc done	target #pc
	1st	2nd	1st	2nd		
68	63	65	181	190	2075	850

**Target number of point counts in this square:** 23 road side, 2 off road (2 in deciduous forest). Please try to ensure that each off-road station is located such that the entire 100m radius circle is within the prescribed habitat.

SPECIES	Code		%	
	1st	2nd	1st	2nd
Canada Goose		AE	58	95
Trumpeter Swan †		FY	0	43
Wood Duck			76	78
Gadwall ‡			6	4
American Wigeon		P	6	12
American Black Duck	P		44	47
Mallard	FY	FY	93	95
Blue-winged Teal	P	P	79	53
Northern Shoveler		P	11	10
Northern Pintail			14	7
Green-winged Teal			0	18
Redhead †			3	1
Ring-necked Duck		H	4	21
Lesser Scaup ‡			1	1
Hooded Merganser		P	25	30
Common Merganser	FY	FY	36	46
Red-breast Merganser		D	9	20
Gray Partridge ‡			0	1
Ring-necked Pheasant			15	10
Ruffed Grouse	T	T	92	81
Wild Turkey		FY	0	81

SPECIES	Code		%	
	1st	2nd	1st	2nd
Black-crown N.-Heron † §	H	H	12	9
Yellow-crn N.-Heron †			0	0
Turkey Vulture		D	77	84
Osprey			42	53
Northern Harrier		H	76	66
Sharp-shinned Hawk		A	50	60
Cooper's Hawk		H	17	47
Northern Goshawk		H	15	27
Red-should Hawk †		H	17	44
Broad-winged Hawk			58	66
Red-tailed Hawk	H	P	92	81
American Kestrel	P	T	85	76
Merlin ‡	CF		1	21
Yellow Rail †			3	3
King Rail †			3	3
Virginia Rail			36	47
Sora	S		31	43
Common Moorhen			17	12
American Coot			15	12
Coot/Moorhen			0	0
Sandhill Crane ‡			0	21

SPECIES	Code		%	
	1st	2nd	1st	2nd
Caspian Tern †			1	3
Black Tern † §	H		30	21
Common Tern §	AE	P	34	23
Forster's Tern † §			0	1
Mourning Dove	NY	NE	95	95
Yellow-billed Cuckoo			6	18
Black/Yell-billed Cuckoo			0	18
Black-billed Cuckoo		S	58	75
Eastern Screech-Owl		H	12	49
Great Horned Owl	FY	D	74	55
Barred Owl		H	20	49
Long-eared Owl ‡			3	4
Short-eared Owl †			1	4
North Saw-whet Owl			9	12
Common Nighthawk	H	S	63	40
Whip-poor-wil		T	60	38
Chimney Swift	H	T	63	32
Ruby-thr Hummingbird	T	D	88	95
Belted Kingfisher	AE	AE	95	92
Red-headed Woodpecker †	AE	N	65	29
Yellow-bellied Sapsucker	H	S	80	95

Common Loon		H	28	52
Pied-billed Grebe		P	22	32
Double-crest Cormorant §			11	27
American Bittern			50	44
Least Bittern †			12	23
Great Blue Heron §	H	NY	77	63
Great Egret †			0	1
Green Heron §	H	A	84	70

Killdeer	FY	DD	96	96
Rock Dove	NY	NY	87	84
Spotted Sandpiper	FY	A	95	78
Upland Sandpiper	P	D	60	38
Common Snipe	D	S	79	61
American Woodcock	A	D	79	72
Ring-billed Gull §		NY	6	33
Herring Gull §	H	NY	49	38

Downy Woodpecker	AE	AE	95	96
Hairy Woodpecker	H	H	95	93
Northern Flicker	AE	N	98	95
Pileated Woodpecker	H	FY	80	93
Olive-sided Flycatcher			22	20
Eastern Wood-Pewee	V	T	96	96
Alder Flycatcher	S	H	47	76
Willow Flycatcher			42	55

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Ontario Breeding Bird Atlas - Summary Sheet for Square 17NK62 (page 2 of 3)

SPECIES	Code		%	
	1st	2nd	1st	2nd
Least Flycatcher		T	88	89
Eastern Phoebe	FY	CF	95	96
Gr Crested Flycatcher	T	AE	98	96
Eastern Kingbird	CF	AE	98	95
Loggerhead Shrike †	H		15	3
Yellow-throated Vireo ‡			30	26
Blue-headed Vireo			9	38
Warbling Vireo	A	AE	92	93
Philadelphia Vireo ‡			1	4
Red-eyed Vireo	A	NU	93	96
Blue Jay	A	CF	96	96
American Crow	FY	AE	98	96
Common Raven			7	55
Horned Lark	CF		68	47
Purple Martin	FY	NY	61	27

SPECIES	Code		%	
	1st	2nd	1st	2nd
Marsh Wren	H		42	33
Golden-crown Kinglet			7	21
Ruby-crown Kinglet			6	7
Blue-gr Gnatcatcher ‡			14	24
Eastern Bluebird		FY	57	73
Veery	T	T	95	96
Swainson's Thrush			14	20
Hermit Thrush		H	39	69
Wood Thrush	NY	S	90	92
American Robin	FY	NY	98	96
Gray Catbird	CF	CF	98	96
Northern Mockingbird			6	18
Brown Thrasher	T	A	96	92
European Starling	FY	AE	98	96
Cedar Waxwing	P	NB	98	96

SPECIES	Code		%	
	1st	2nd	1st	2nd
Kirtland's Warbler †			1	0
Prairie Warbler †			6	9
Bay-breasted Warbler ‡			1	3
Cerulean Warbler †			12	16
Black-white Warbler	A	S	84	93
American Redstart	T	T	85	90
Ovenbird	S	T	98	96
North Waterthrush		S	61	86
Mourning Warbler		T	63	81
Common Yellowthroat	DD	T	92	95
Canada Warbler			46	56
Eastern Towhee		S	53	73
Chipping Sparrow	CF	NY	96	96
Clay-colored Sparrow			14	36
Field Sparrow	P	S	84	87



Tree Swallow	AE	NY	98	96
North Rgh-wing Swallow	NU	H	68	56
<b>Bank Swallow §</b>	AE	AE	88	58
Cliff Swallow §	AE	NY	82	63
<b>Barn Swallow</b>	AE	AE	96	95
Black-capped Chickadee	FY	CF	96	96
Tufted Titmouse †			1	0
Red-breast Nuthatch	H	P	52	90
White-breast Nuthatch	CF	NY	87	93
<u>Brown Creeper</u>	H		55	60
Carolina Wren ‡			1	6
House Wren	NY	NY	87	95
Winter Wren	FY	S	68	95
Sedge Wren			19	20

Blue-winged Warbler			4	24
Golden-winged Warbler			30	43
Blue/Gold-wing Warbler ‡			0	15
Brewster's Warbler †			0	3
Nashville Warbler		S	74	84
Northern Parula			12	21
Yellow Warbler	NE	AE	98	92
Chestn-sided Warbler		S	68	95
Magnolia Warbler		H	20	58
<u>Black-thr Blue Warbler</u>			22	63
Yellow-rumped Warbler		D	41	78
<u>Black-thr Green Warbler</u>			34	90
Blackburnian Warbler		H	28	58
Pine Warbler			26	80

Vesper Sparrow	DD	P	84	70
Savannah Sparrow	CF	D	88	81
Grasshopper Sparrow	S		38	41
Song Sparrow	FY	NY	98	96
Swamp Sparrow	S	T	84	86
White-throat Sparrow	T	T	95	87
<u>Dark-eyed Junco</u>	H		25	21
Scarlet Tanager		S	79	86
Northern Cardinal	T	NE	66	84
Rose-breast Grosbeak	T	T	95	93
Indigo Bunting	T	T	90	93
<b>Bobolink</b>	FY	P	87	83
Red-wing Blackbird	A	NE	96	96
<b>Eastern Meadowlark</b>	T	T	88	83

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**Ontario Breeding Bird Atlas - Summary Sheet for Square 17NK62 (page 3 of 3)**

SPECIES	Code		%	
	1st	2nd	1st	2nd
Western Meadowlark ‡			6	1
Yellow-h Blackbird †			1	0
Rusty Blackbird ‡			1	1
Brewer's Blackbird ‡			3	7
Common Grackle	FY	NY	96	96
Brown-head Cowbird	P	FY	98	95
Orchard Oriole ‡			0	1
Baltimore Oriole	AE	NU	96	96
Purple Finch	T	NB	66	73
House Finch		NE	3	72

Red Crossbill ‡			7	1
White-winged Crossbill ‡			1	3
Pine Siskin		P	17	18
American Goldfinch	N	CF	98	96
Evening Grosbeak		H	15	15
House Sparrow	FY	AE	88	75

This list includes all species found during the Ontario Breeding Bird Atlas (1st atlas: 1981-1985, 2nd atlas: 2001-2005) in the region #13 (Simcoe County). Underlined species are those that you should try to add to this square. They have not yet been reported during the 2nd atlas, but were found during the 1st atlas in this square or have been reported in more than 50% of the squares in this region during the 2nd atlas so far. In the species table, "BE 2nd" and "BE 1st" are the codes for the highest breeding evidence for that species in square 17NK62 during the 2nd and 1st atlas respectively. The % columns give the percentage of squares in that region where that species was reported during the 2nd and 1st atlas (this gives an idea of the expected chance of finding that species in region #13). Rare/Colonial Species Report Forms should be completed for species marked: § (Colonial), ‡ (regionally rare), or † (provincially rare). Current as of 5/08/2011. An up-to-date version of this sheet is available from <http://www.birdsontario.org/atlas/summaryform.jsp?squareID=17NK62>

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**APPENDIX E**

**Butternut Health Assessment**

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