

Environmental Impact Study- Walter Property

Final Report

**Prepared for:
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Acronyms and Abbreviations

ANSI	Area of Natural and Scientific Interest
bgs	below ground surface
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
COSSARO	Committee on the Status of Species at Risk in Ontario
DBH	Diameter (of a tree) at breast height
EIS	Environmental Impact Study
ELC	Ecological Land Classification
EP	Environmental Protection
ESA	Endangered Species Act (Ontario)
ha	hectare(s)
masl	meters above sea level
MECP	Ministry of Environment Conservation and Parks
MNRF	Ministry of Natural Resources and Forestry
NHS	Natural Heritage System
NHIC	Natural Heritage Information Centre
OBBA	Ontario Breeding Bird Atlas
OARA	Ontario Amphibian and Reptile Atlas
OP	Official Plan
PBS	Proposed Building Site
PSW	Provincially Significant Wetland
SAR	Species at Risk
SARA	Species at Risk Act (Canada)
SOCC	Species of Conservation Concern
SWH	Significant Wildlife Habitat

1.0 INTRODUCTION

1.1 Background

1.1.1 Property Description

This Environmental Impact Study (EIS) report is in reference to the ~16.3 hectare (ha) property located at 1321 Sandy Bay Road in the Town of Penetanguishene, County of Simcoe. The property is legally known as Lot 23 and Part Lot 22 Military Reserve Tay. The property is currently owned by Janet and Daniel Walter. For the purposes of this report, this land is referred to hereafter as the "Walter Property", or simply the "Property". The location of the Walter Property is depicted in Figure 1.

At present, the large majority of the Property is occupied by a mix of woody and non-woody vegetation that has gradually established over the last 30 to 40 years since the cessation of agricultural use. Near the front of the Property, there is an existing single-family residence and associated infrastructure (garage, septic, out buildings) located in a maintained open area measuring a bit less than 0.1 ha (see Figure 2).

As per the Simcoe County Official Plan (OP), the Property lies within an area with a land-use designation of "Settlement". Under the Town of Penetanguishene Zoning By-Law (2022-17), the Walter Property is zoned as "rural". The Town of Penetanguishene OP (Schedule B-1) also identifies wooded areas within and adjacent to the front part of the Property as part of the Environmental Protection (EP) Overlay. The EP overlay is applied to lands where development may be permitted, subject to the preparation of an EIS.

1.1.2 Development Proposal

The Walter family intends to seek planning approval for a second structure with residential function in close proximity to the existing residence. The new structure will measure about 110 m² and will be located within the existing 0.1-ha residential clearing. The Proposed Building Site (PBS) is situated about 15 m from the Property's west boundary and is set back about 100 m from the front boundary along Sandy Bay Road. Figure 2 approximately illustrates the PBS and surrounding features and conditions. A copy of the Site Plan sketch is provided in Appendix A.

1.1.3 EIS Rationale and Objectives

The PBS is within 120 m of the woodlands encompassed within the EP lands along the north and west edges of the Property. As noted in a pre-consultation meeting with the Town on 30 October 2023, policies of the Town of Penetanguishene OP require an EIS

where development is proposed within the "adjacent lands" (i.e., within 120 m) of areas within the EP overlay.

This EIS has been undertaken with the main technical objective of determining whether the proposed new residence can be created and occupied without adverse impacts on Natural Heritage (NH) features and ecological functions associated with the EP areas.

This EIS has been prepared specifically in support of the planning application, but is also intended to inform and support the approval process in general. The EIS provides focused assessment of the risk that the proposed development may pose to NH features and functions associated with the EP area, as well as those associated with the Adjacent Lands. The EIS characterizes and assesses all potentially relevant NH features and functions, as specified in the County and Municipal OPs and/or the Provincial Policy Statement (PPS). The EIS provides analysis of potential effects of the proposed development on any NH features/functions deemed relevant within or near the Property, regardless of association specifically with the EP lands. This serves to demonstrate full policy adherence relating to NH features and functions.

1.1.4 Relevant Natural Heritage Features

The NH features and functions listed for initial consideration in this EIS include any such features within the confines of the full Property. Features and functions outside of the Property boundary, but in relatively close proximity (i.e., within about 1 km) to the PBS, have also been initially considered.

The initial list of NH features/functions of possible relevance was determined through desktop review of formal NH constraint mapping from a few primary sources, including:

- the Simcoe County and Penetanguishene OPs and supporting mapping resources,
- Natural Heritage mapping available from the Ministry of Natural Resources and Forestry (MNR) or Land Information Ontario (LIO).

Copies of relevant constraint maps are provided in Appendix B. The review of constraint mapping has revealed the following in regard to NH features of potential relevance to the EIS:

- the nearest Area of Natural and Scientific Interest (ANSI) is Penetang Lake, about 700 m southwest of the PBS.
- the nearest Provincially Significant Wetland (PSW) is a small pocket of the St. Andrew's Marsh, about 550 m west-southwest of the PBS at the most proximate point.
- there are two small (≤ 0.5 ha) unevaluated wetlands located between 300 m and 350 m from the PBS.

- there are two small watercourses, northwest and east of the Property, with minimum separation distances from the PBS in the range of 350 to 450 m.

As per relevant OP policies, the separation distances of these mapped features from the PBS are such that they would NOT require consideration in an EIS as a development constraint. Accordingly, these features (PSW, ANSI, watercourses and unevaluated wetlands) are not subject to detailed analysis in this EIS.

In regard to Significant Wildlife Habitat (SWH) or critical habitat for Species at Risk (SAR), comprehensive mapping of these features is not available. The potential presence of SAR and/or SWH is subject to focused assessment as part of this EIS.

The only other natural heritage feature identified within or near the Property which could generally be subject to NH-related policies, and the need for an EIS, is the presence of wooded vegetation communities within or near the Property which could be recognized as *Significant Woodlands*. The presence of *Significant Woodlands*, mapped as EP in Schedule B1 of the Town OP, is confined to small (≤ 0.5 ha) pockets on the outer edges of the Walter Property.

In summary, SAR, SWH and Significant Woodlands are the primary focus of this EIS, while other features/functions (wetlands, watercourses) are subject to brief high-level assessment.

1.2 Scope of Work

The scope and content of this EIS reflect the general requirements specified in Section 3.10.8 of the Penetanguishene OP (2018), and also pre-consultation comments provided by the Town's Planning Department. Based on this information, and also the findings of on-site surveillance, Terms of Reference (ToR) were prepared and submitted to the Town's planning department for review. Copies of correspondence pertaining to the ToR are attached as Appendix C.

The scope and content of this EIS are site-specific and have been developed to address concerns related to the NH features identified as relevant to the proposed development at the Walter Property. Key factors in determining EIS scope and content include the following:

- the nature and scale of development (i.e., ~ 120 m² single-family residence within an existing and occupied residential clearing),
- as per the Site Plan, an absence of any direct impacts on the features of interest (i.e., EP lands),
- the NH features/functions of focused concern include woodlands, SAR and SWH (as outlined in Section 1.1.4),

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Given these factors, the level of detail necessary to demonstrate conformity with relevant policies is less than typically required for higher level approvals (e.g. approval of a plan of subdivision). Accordingly, this EIS has been conducted as a "Scoped" EIS, with primary focus on a defined Study Area, which includes all lands within about 100 m of the PBS (see Figure 2), and secondary focus on adjacent lands and features within a radius of about 1 km. The details of the approach and methodology adopted for this EIS are discussed in Section 2.

2.0 METHODOLOGY

The methodology adopted for this EIS was developed to provide results appropriate to the stated objectives. The work undertaken to allow the preparation of this EIS Report has included two main components;

1. a desktop review of previously recorded information regarding the NH characteristics of the Walter Property and adjacent lands, and
2. direct on-site monitoring of the Property, with a focus on the confines of the Study Area.

The assessment herein collectively considers the findings of the desktop review and the on-site monitoring in a weight-of-evidence manner, with prioritization on site-specific data where available.

A handheld GPS unit (Garmin model “GPSmap 76”) was used to delineate key features, to measure areas of features, and to provide the geographic coordinates of any key natural heritage features of relevance. All coordinates have been obtained and reported using the Universal Transverse Mercator (UTM) coordinate system and NAD83 datum.

2.1 Review of Existing Information

A review of existing information of relevance to the Walter Property was completed prior to completion of on-site monitoring. Several sources of information have been consulted for this purpose, including:

- Simcoe County’s web-based interactive GIS mapping tool,
- the Natural Heritage Information Centre (NHIC) on-line database,
- on-line natural feature mapping available from Land Information Ontario (LIO),
- the Ontario Breeding Bird Atlas (OBBA) (Cadman et al, 2007) and associated database (Bird Studies Canada (BSC) *et al.*, 2021),
- the Ontario Reptile and Amphibian Atlas on-line database (Ontario Nature),
- the Soil Survey of Simcoe County (Hoffman, Wicklund and Richards, 1962), and
- the iNaturalist on-line database.

In addition to these standard NH data sources, the results of focused monitoring of neighbouring properties bordering Sandy Bay Road (i.e., Part Lots 14 and 15) have also been included in the initial review of existing information. This monitoring was completed as part of other EIS (Azimuth, 2003, Morris, 2019 and 2021) undertaken in support of separate planning applications (submitted or pending) for the those properties. For the purposes of these other EIS, multiple site visits have been completed in the past

five years (June and July 2019, June and September 2021, April 2022). The three-season monitoring has included breeding bird surveillance, full botanical inventory, incidental surveillance of other fauna (reptiles, amphibians, mammals), as well as ELC assessment. All monitoring was completed in accordance standard accepted protocol (e.g. BSC, 2003, Lee et al., 1998) where such protocol have been established. This recent monitoring was conducted within forested lands that are effectively contiguous with the Walter Property, and mostly within about 500 m of the PBS.

Information from several of the sources noted above was also used to complete initial screening in regard to the possible presence of Species at Risk (SAR). The available information of relevance has ultimately been combined with results of direct surveillance of the Property to assess SAR presence (see Section 4.6).

2.2 On-Site Monitoring

The on-site surveillance reported herein was conducted during a single site visit to the Walter Property on 06 December 2023. The timing of this visit is recognized as not in keeping with the standard timing of floral and faunal inventories for typical EIS purposes. However, in combination with the three-season information collected in the immediate area during previous studies, the monitoring data provide a characterization of local conditions that is deemed to be adequate for this scoped EIS.

The on-site surveillance of the Walter Property has included:

- Direct examination of slope/topography, conveyance features (ditches, swales, streams), and overburden characteristics to understand hydrological processes and potential connectivity between the area of potential development and any nearby hydrological features.
- Inventory of terrestrial biota with a focus on identification of SAR or species of conservation concern (SOCC) that may be present.
- Direct assessment of forest communities within the Study Area, including community composition (e.g. species, age/size class, relative density), forest strata characteristic, soil characteristics, and wildlife presence and utilization.

2.2.1 Ecological Land Classification

The delineation of vegetation communities within the Walter Property is intended to identify communities at a scale that has meaning and relevance to the overall objectives of the EIS. To facilitate the delineation, vegetation communities within the Property have been approximated following the Ecological Land Classification (ELC) system of Lee *et al.* (1998). ELC mapping generally identifies distinct community patches of 0.5 ha or larger, with patches measuring less than 0.2 ha typically not delineated. For the purpose of this EIS, patches <0.2 ha in size have been delineated and described to ensure that all features and functions of possible relevance are considered in the assessment.

ELC of the Walter Property was completed through the following task sequence:

- initial delineation of vegetation community distribution using satellite imagery and aerial photos for a first approximation of ELC, and
- site reconnaissance to examine major characteristics (plant species assemblages, topography, soil characteristics) and refine initial ELC approximation.

To facilitate characterizations of soil conditions (texture, moisture regimes) vertical soil profiles were completed in multiple locations within each distinct community type. Soil profiles were completed to a depth of 0.5 to 1 m below ground surface (bgs) using a hand-auger.

The detailed site monitoring included examination of physiographic attributes such as topography/slope, surface soil profiles, and the possible presence of elevated water table. Within each identified unit, the following information regarding vegetation cover was recorded:

- Relative species composition and percent cover of trees and shrubs, where present
- Caliper and height range of trees in wooded units, and
- General under-storey and ground level characteristics.

Through other specific monitoring efforts and/or review of existing information, the potential habitat function of each unit was also assessed.

2.2.2 Surveillance of Flora and Fauna

The vascular plant inventory was conducted to provide coverage of each distinct ecological community delineated within the Study Area (see Section 4.2). The inventory was conducted during the period of winter senescence, and was therefore focused on woody species. To the extent feasible, the species composition of non-woody ground cover was also examined.

During the site visit, all observations of birds and mammals on or near the Property were recorded, along with any other evidence of faunal presence (e.g. bird nest remnants, tracks, scat, burrows).

For both flora and fauna, focused attention was given to the possible presence of any SAR or SOCC that have been identified as possibly present within or near the Property (see Section 4.6) and also the possible presence of SWH indicator species (see Section 4.7).

3.0 PHYSICAL CHARACTERISTICS

3.1 Topography

The peak elevation within the Walter Property is about 242 meters above sea level (masl) in the far southeast corner. From here to the Property frontage along Sandy Bay Road, elevation decreases to about 222 masl. Almost half of the net decline of ~20 m elevation occurs within about 50 m of the road. This distinct slope traverses the forested band across the front of the Property, exhibiting grades in the range of 15 to 20% down toward the road.

Outside of this localized slope, the overall average grade over the long axis of the Property is about 2%, with little small-scale variability or complex micro-topography. The PBS lies within this area of low relief, where slope is not expected to be a factor in ecological characteristics or function.

3.2 Soils and Geology

Overburden in the area of the Walter Property consists of well-sorted outwash materials developed primarily on calcareous bedrock. The Simcoe County soil survey (Hoffman et al., 1962) indicates the presence of Vasey Sandy Loam (VaSL) throughout much of the Property, including the entirety of the Study Area. This is a calcareous and non-calcareous sandy loam till with good drainage. The Vasey soils are somewhat prone to erosion but soil loss can be prevented if relatively steep areas remain vegetated.

Portions of the southern half of the Walter Property are mapped as Tioga Sandy Loam, which is a grey calcareous outwash sand with good drainage. The mapped presence of the Tioga soil type is outside of the defined Study Area. Direct examination of soils within the Property as part of this EIS has confirmed the presence of a sandy loam soil profile throughout the Study Area.

3.3 Hydrology

Within the Walter Property, drainage is assumed to more-or-less follow the local topographical gradient, which is effectively toward Sandy Bay Road. Subsequently, any discharge from the Property is expected to follow the overall hydraulic gradient in the area, which is generally to the north or northeast, ultimately toward Georgian Bay.

In the presence of well-drained sandy loam soils, stormwater within the Walter Property is likely subject to relatively rapid infiltration, and the extent to which drainage would be in the form of surface flow is expected to be very low. On-site surveillance within the Property revealed no evidence (e.g. rills, swales, wash-out deposits) of concentrated surface runoff conveyance within the Walter Property. In the neighbouring property to

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the west, there is a drainage swale that conveys seasonal runoff through forest cover toward the roadside ditch along Sandy Bay Road.

As noted in Section 1.1.4, the nearest wetlands and permanent watercourses are at least 300 m from the PBS. The seasonal drainage feature within the neighbouring Property is about 65 m from the PBS at the most proximate point. None of these features are directly down-gradient of the PBS, and there is no evidence to indicate any meaningful hydrological connectivity, either surface or subsurface, between the PBS and any of these features.

4.0 ECOLOGICAL CHARACTERISTICS

The following sections describe the ecological characteristics of the Walter Property. Available information pertaining to presence of flora and fauna within or near the Property is summarized in Tables 1 to 8. Figures 2 and 3 depict various relevant features discussed herein.

The findings presented below are a combined reflection of the site-specific data for the Walter Property, collected in 2023, and other data collected previously in the area surrounding the Property. For the purpose of this scoped EIS, the pooled data provide an effective ecological characterization of the Study Area.

4.1 Vegetation Communities

Under the ELC system, a total of six distinct community types have been identified within and immediately adjacent to the Study Area. Each community type and its ecological functions are briefly described in the following sections.

4.1.1 Cultural Communities

The nature of existing vegetation communities within the Walter Property is in large part reflective of the past patterns of anthropogenic land-use. Based on available aerial imagery, the majority of the Property was previously under agricultural use and effectively devoid of natural vegetation, particularly woody cover. The imagery indicates a cessation of agricultural use and gradual onset and natural succession and regeneration starting around the early 1990s. In the 30-35 years since, there has been a gradual establishment of what is now extensive shrub cover, and a subsequent establishment of trees to a lesser extent.. The Property still exhibits relatively open areas of dense herbaceous ground cover and is still considered to be in relatively early stages of succession. For the purpose of this EIS, these successional communities in their various current states are delineated and described as *Cultural* community types in the ELC context.

Cultural Meadow (CUM)

The area encompassing and immediately surrounding the PBS and the existing elements of residential development is generally clear of woody vegetation, except ornamental trees. The patch, measuring about 1 ha, is subject to some level of ongoing maintenance as an open space. For the purpose of this EIS, this area is delineated and described herein as a Cultural Meadow (CUM) community. This community encompasses the entirety of the existing residential clearing.

Outer portions of this patch appear to be less maintained and are occupied by a dense layer of relatively tall herbaceous groundcover. This cover appears to be comprised of a

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mix of grasses and various dicots, including species that are non-native and typical of disturbed or culturally modified sites. Within and immediately around the PBS, the herbaceous groundcover appears to be subject to regular cutting and its form is effectively a residential lawn. The species mix differs slightly from the taller surrounding vegetation, but remains a mix of largely non-native grasses and dicots typical of cultural sites.

Cultural Thicket (CUT) and Cultural Woodland (CUW)

Outside of the CUM community, almost the entirety of the Walter Property is occupied by a mix of early succession trees and shrubs. Within 200 m of the PBS, the tree and shrub cover within the Property is predominantly deciduous. Common tree species include White Ash, Trembling Aspen, and also clusters of Sugar Maple saplings.

Trees are generally young and somewhat patchy in their distribution. The percent of total cover consisting of non-sapling trees is variable. In places, the estimated average level of tree cover appears to be sufficient to warrant a designation as *Woodland* (i.e., tree cover >35%). In other areas, shrubs dominate and tree cover is below that threshold, warranting a designation as *Thicket*. For current purposes, this woody cover is referred to as a blend of Cultural Thicket (CUT) and Cultural Woodland (CUW). It is recognized that this community is in a state of transition, expected to eventually exhibit characteristics and functions that would be associated with established Deciduous Forest (FOD) communities described in the ELC system. It is most likely that the eventual FOD community would be comparable to the existing Sugar Maple (FOD5) communities that are present in the surrounding area.

Cultural Plantation (CUP)

There are two small but distinct pockets within and adjacent to the Walter Property that are occupied by relatively uniform stands of planted trees, and are classed as Cultural Plantations (CUP) under the ELC system.

The woodland patch occupying the western half of the Property's frontage along Sandy Bay Road consists of well-established stand non-native Norway Spruce. For this EIS, this stand of non-native spruce is designated simply as Coniferous Plantation (CUP3). This community constitutes the entirety of land within the Property boundary that is mapped as EP. The CUP3 patch extends about 25-30 m in from the road and has a total area of about 0.4 ha. Aerial imagery and tree size indicates that tree cover has persisted in this area for at least 70 years. As with most plantations, the canopy trees are even-aged, measuring mostly in the range of 45-60 cm diameter at breast height (DBH). These trees form a dense and continuous canopy, generally limiting the establishment of under-storey layering. The sub-canopy is sparse and also predominantly composed of Norway Spruce, measuring in the range of 15 to 30 cm DBH. Scattered young specimens of White Ash and Sugar Maple are also present in the under-storey, but are not meaningful constituents of this stand. The shrub layer is also sparse, consisting of species typical of forests in the region (e.g. Alternate-leaved Dogwood, Choke Cherry). The floor is

covered by a heavy layer of conifer needles. In combination with the heavy and persistent shading of the canopy, this appears to have significantly inhibited the establishment of groundcover.

To the immediate west of the PBS, lands within the neighbouring property are occupied by a small block (~0.5 ha) of planted Scots Pine. Aerial imagery and field observations (i.e., tree size and branch ring counts) indicates a planting date of approximately 30 years ago. This is an even-aged stand of Scotch Pine (mostly < 20 cm DBH) with limited establishment of secondary trees, both coniferous and deciduous. The canopy of this plantation area is relatively open, allowing for the establishment of under-storey shrubs and ground cover. Under the ELC system, this patch is consistent with the Scots Pine Coniferous Plantation (CUP3-3) community type

4.1.2 Forest Communities

Within the neighbouring property to the west, abutting the CUP3-3 patch, there is a more-or-less continuous patch of relatively mature deciduous forest cover. The patch is about 100 m wide and has a total area of about 4 ha. Sugar Maple is a dominant canopy constituent. The Maples are variable in size and density, and occur with a varying mix of other deciduous tree species (e.g. White Ash, Red Oak, White Birch, and Trembling Aspen). This forest cover is consistent with the Dry Fresh Sugar Maple Deciduous Forest Ecosite (FOD5) ELC community type. Throughout this community type, there is variability in tree size/age, with scattered clusters and individual specimens in the range of 30 to 60 cm DBH. There is a discernable structural layering within this forest.

Within the immediate confines of the Property, there is very limited tree cover which warrants ELC categorization as "Forest". Along the south perimeter of the CUP3, there is a band of deciduous trees extending about 10 m toward the existing residence. Sugar Maple is the dominant species, accompanied by a secondary presence of White Ash, Pin Cherry, Red Oak, a cluster of Trembling Aspen, and a couple of specimens of White Birch. A few tree specimens measure 30 - 35 cm DBH, but most are <15 cm DBH. This small (~0.1 ha) band of trees exhibits some basic consistencies with the FOD5 community, but is lacking in a number of ways typical of natural forms of this forest type. There is no discernable forest structure, with trees having simply encroached on the lawn extending from the residential space. Mainly for illustrative purposes, this patch is delineated as a distinct ELC unit (see Figure 3). However, because of the very small size and otherwise atypical characteristics, this patch is not expected to support ecological functions typical of larger natural deciduous forest stands.

4.2 Vascular Plants

The detailed plant species list for the area of the Walter Property is provided in Table 1. This list reflects limited on-site monitoring outside of the growing season as well as three-season surveillance of properties immediately adjacent to the Walter Property.

A total of 116 vascular plant species have been identified within or near the Property. Of those that are native to Ontario, all are ranked as “Secure” (S5) or “Apparently Secure” (S4) in the Province. Black Ash is the only plant species observed within the area that has been subject to assessment by either COSEWIC or COSSARO as a possible Species at Risk (SAR). Black Ash has been assessed as *Endangered* by COSSARO and it added to Schedule 2 of Ontario Regulation 230/08 as of 26 January 2022. The Provincial Ranking of this relatively common species is “Apparently Secure” (S4). The local presence of this tree as a *Priority Species* is discussed further in Section 4.6.

The terrestrial plants found within and around the Property consist of a mix of native and non-native species. A total of 33 (29%) of the plant species previously identified within adjacent properties are non-native, and 17 of these are considered by various sources to be invasive in Ontario. The invasive species found in close proximity to the Walter Property include substantial patches of several that are considered highly invasive, and which generally warrant management efforts (e.g. Japanese Knotweed, Lily-of-the-valley, and Dog-strangling Vine). These species were not confirmed as present within the Walter Property, but a few other non-native or invasive species were observed (e.g. Scots Pine, Common Mullein, Wild Carrot).

About 19% of the vascular plant species previously encountered within adjacent properties are species which grow primarily in wet conditions (i.e., coefficient of wetness (CW) is -3 or lower). These plants are generally limited in distribution, associated primarily with watercourses and riparian wetland areas that are not within the Walter Property. Hydrophytes were not observed during the limited direct surveillance of the Walter Property. The only exception is Eastern White Cedar, which has a CW of -3 but can readily grow in relatively dry conditions. Otherwise, the general lack of hydrophytes in the Study Area reflects the relatively well-drained nature of the Property.

Only six of the plant species recorded in lands adjacent to the Property have a Coefficient of Conservatism of 7 or higher. None of these species were abundant or widespread outside of the Property, and none were confirmed as present within the Study Area. The implications are that the immediate area is generally occupied by plant species that are not typical of long-standing communities. Even within the most mature forest cover, most species are not indicative of communities that are long-standing or reflective of later stages of succession.

4.3 Birds and Bird Habitat

A full list of all bird species that have been observed at or near the Property is provided in Table 2. The species listed in Table 2 include those observed during on-site monitoring in December 2023, as well as species reported from previous study of the adjoining property to the immediate north of the Walter Property.

In total, 50 species of bird have been observed within or near the Property. This includes 18 species observed immediately within the confines of the Walter Property, and 25 which have been observed during surveillance of adjacent lands during separate studies.

The Provincial ranking of 37 of the species observed at or near the Property is "secure" (S5), and the remaining 13 species are ranked as "apparently secure" (S4). In terms of breeding habitat preference, 24 of the species observed are considered forest species and 22 are habitat generalists or early succession species. Seven of the species on record are recognized as area-sensitive and/or a forest interior species. The Study Area does NOT encompass any forest cover that meets the standard criterion for interior forest (i.e., more than 100 m from forest edge). The potential presence of interior habitat and area-sensitive bird communities is discussed as a candidate Significant Wildlife Habitat (SWH) function in Section 4.7

The Walter Property lies within Ontario Breeding Bird Atlas (OBBA) square 17NK86. Data have been obtained for this square and considered as regional context for the Property. The local breeding status determined through the OBBA is included as context in Table 2. The OBBA surveillance of square 17NK86 has identified 123 species of bird with some evidence of breeding within the 100-km² area of this square. Of these species, 20 have been subject to assessment by COSEWIC and/or COSSARO. As of the date of this report, eight of the 20 have been deemed to be *Not at Risk*. The 12 species on record for the area in question that are currently identified as Endangered, *Threatened* or *Special Concern* are summarized in Table 3. The OBBA data indicate most of these species are either "possible" or "probable" breeders in square 17NK86, with the Barn Swallow being the only "confirmed" breeder during the last atlas period (2001-2005). The Eastern Wood-pewee was the only species that was observed during the surveillance of adjacent properties in 2019 and 2021, and this species is considered to be a "probable" breeder within those lands. Further discussion of the Eastern Wood-pewee as a Priority Species is provided in Section 4.6.

4.4 Amphibians and Reptiles

A review of the Ontario Amphibian and Reptile Atlas (OARA) indicates the presence of number of species or amphibian and reptile within NHIC square 17NK86. Table 4 summarizes the 16 reptile and 13 amphibian species that are have been recently recorded for this area (i.e., within 10 km of the Walter Property).

In absence of vernal pools or other areas of standing water, the conditions within the Study Area are generally not supportive of any of the turtle and amphibian species reported for the area. There is no expectation of the presence of turtles or amphibians in significant number during critical life-cycle processes (e.g. reproduction). For some snake species, the absence of water or wetlands is also a limiting factor in habitat suitability. For other snake species not as associated with wetlands or water bodies, it can be conservatively assumed that there is a theoretical potential for their presence within the Study Area from time to time.

4.5 Mammals

Monitoring of the Walter Property has revealed direct evidence of the presence of three mammal species within the immediate confines of the Property. This includes Porcupine (*Procyon lotor*), (Tamias striatus), Red Squirrel (*Tamiasciurus hudsonicus*) and Grey Squirrel (*Sciurus carolinensis*). The Porcupine is also reported in the iNaturalist database, with a record of occurrence within 1 km of the PBS. The noted mammal species are ranked as “secure” (S5) in the province of Ontario and are common in Simcoe County. None of the mammals evidenced in the general vicinity of the Property are considered to be SOCC or SAR. It is considered likely that several other regionally common species of mammal (e.g. raccoon, skunk, coyote, white-tailed deer, various small rodents) are occasionally present within the Property.

In regard to bats, there are several species which are regionally present and which include a number of SAR. The vegetation communities found within the Study Area are mostly young, and there is an absence of larger dead or dying trees that might contain hollows, cavities, large bark flakes and crevices that could function as roosting or hibernation sites. The density of large (>25 cm DBH) snag trees is estimated as less than 10 per hectare, which is considered a threshold for potential function as maternal roosting habitat for local bat species. Rock outcrops, caves or other sites that could serve as hibernation sites are not found on or near the Property. The presence of bats is discussed further as potential Priority Species (Section 4.6).

Overall, the likelihood of presence within the Property of mammal species that are of conservation concern is considered to be very low, and not likely to be meaningful to the viability of the local or regional populations.

4.6 Priority Species

For the purpose of this EIS, the term "Priority Species" includes:

1. any species with a provincial (sub-national) conservation status rank (SRank) of S1, S2, S3 or SH, or otherwise considered rare in Ontario, and
2. any species that has been designated as either *Endangered*, *Threatened*, or *Special Concern* by either the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or the Committee on the Status of Species at Risk in Ontario (COSSARO).

The term "Species at Risk" (SAR) is applied to those included in regulatory listings as *Threatened* or *Endangered*, and thus subject to certain regulatory prohibitions. The term "Species of Conservation Concern" (SOCC) is generally applied to species other than those legally designated as *Threatened* and *Endangered*. Species of any of the noted designations are all tracked by the Natural Heritage Information Centre (NHIC).

The potential presence of SAR within or near the Property was initially examined in a manner consistent with guidance prepared by the Ministry of Environment, Conservation and Parks (MECP, 2019). Several sources of existing information were consulted to identify SAR that are on record for the area within a few km of the Property. This includes:

- the most recent results of the Ontario Breeding Bird Atlas (OBBA) for the 10-km x 10-km Square 17NK86, which encompasses the Property, as summarized in Table 3,
- the results of the Ontario Amphibian and Reptile Atlas (OARA) for Square 17NK86 as summarized in Table 4,
- the NHIC Element Occurrences (EO) for the area within 3 km of the Property, as summarized in Table 5, and
- verified observations recorded in the iNaturalist Database within 1 km of the PBS, summarized in Table 6.

In addition to the species identified in these existing databases, direct on-site monitoring of neighbouring properties has revealed the presence of two other Priority Species: 1) Black Ash, and 2) the Monarch.

In total, the existing information sources that have been consulted indicate the presence of 24 Priority Species in relatively close proximity to the Walter Property, as summarized in Table 7. The potential for occurrence of each of these Priority Species within the Study Area has been assessed in consideration of the specific habitat requirements of each species, and also their local abundance and distribution, as indicated by the available data.

Direct surveillance of adjacent properties from 2019 to 2022 included a series of specific monitoring efforts that address the possible presence of these and any other Priority Species. Through site surveillance, the presence of only three of the 24 species listed in Table 7 was indicated within those adjacent properties; 1) the Eastern Wood-pewee, 2) Black Ash, and 3) the Monarch.

Black Ash is a hydrophyte that occurs in wetlands or lowlands. In absence of these conditions, there is no expectation of the presence of Black Ash within the Study Area or elsewhere within the Walter Property.

The Monarch is commonly encountered in any open habitats with flowering plants that will support nectar foraging. It is considered likely that Monarchs might use the CUM and CUT communities within and near the Study Area for foraging purposes to some extent. However, it is considered unlikely that the Study Area would serve as significant habitat for any critical life stages of the Monarch.

The Eastern Wood-pewee may nest in many types of wooded habitats, but it is most commonly associated with the mid-canopy layer in forest stands of intermediate age and

in mature stands with little under-story vegetation. The woodland cover within the Study Area is not ideal, but can be conservatively assumed to potentially host the Eastern Wood-pewee for nesting purposes. The presence of multiple nesting pairs is considered highly unlikely.

Aside from the three above-noted species, there are six other species with habitat needs that might be met, at least in part, within or near the Study Area. This includes three snake species (Milksnake, Massasauga, Hog-nosed Snake) and four bird species (Golden-winged Warbler, Wood Thrush, Chimney Swift, and Barn Swallow). For each of these, there is a theoretical potential for occurrence within the Study Area. However, the local abundance and distribution of most of these species is quite limited, and other factors are such that the likelihood of their occurrence in locations where they might be directly affected by development is considered to be very low. The potential for nesting presence of the Golden-winged Warbler is judged to be higher compared to the other species, but is still rated as "low". Any nesting occurrence of this species would likely be associated with the eastern margins of the Study Area, away from the PBS. The presence of multiple nesting pairs within the Study area is considered highly unlikely.

Both the Barn Swallow and Chimney swift are reliant primarily on man-made structures for use as nesting sites. It is not known if either species has recently nested within the Study Area, but any possible nest sites would be associated with existing structure and would be at least 30 m from the PBS.

Otherwise, the habitat requirements of the other 13 species listed in Table 7 are generally not met to any meaningful extent within the Walter Property.

In regard to general concerns regarding species-at-risk bats, there are no data confirming their presence in or near the Study Area. However, there are several bat species that can be found, at least on occasion, in Simcoe County. This includes four that are listed as Endangered: Tricolored Bat (*Perimyotis subflavus*), Little Brown Myotis bat (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and the Eastern Small-footed Myotis (*Myotis leibii*). The Northern Myotis is generally encountered in coniferous forest, while the three other species-at-risk bats are each common to deciduous or mixed forest habitat. All four species could theoretically be found within or immediately adjacent to the Property. The likelihood of presence of maternal colonies is dependent on the local abundance of large (≥ 25 cm DBH) snags/cavity trees. Within and the Study Area, there are few tree specimens that could be regarded as favorable snag trees. The density of snag trees does not meet the density requirement for high quality maternity roost habitat (i.e., >10 snags/hectare). The Property does not encompass or border any occurrences of Cliff-Cave ecosites and does not contain any features (caves, crevices) that could serve as hibernacula. Overall, there is some possibility of occasional and intermittent presence of species-at-risk bats within or near the Property, but there is no reason to expect the concentrated presence of bats for hibernation or maternal roosting purposes.

4.7 Significant Wildlife Habitat

The information available for the purpose of this EIS has been reviewed in specific consideration of the potential presence and implications of Significant Wildlife Habitat (SWH) within the Walter Property. The analysis of potential SWH presence and impacts is based on guidance provided by the MNR (MNR 2000, MNR 2015). There are several categories and specific types of designated SWH. These various SWH types each have generally recognized associations with specific ELC community types, indicator species, and other specified criteria (often related to patch size). The determination of SWH habitat is ultimately based on direct evidence of presence of the class of wildlife in question.

The Cultural community types (CUM, CUT, CUW, CUP) that occupy almost the entirety of the Walter Property (see Section 4.1.1) and the patch of deciduous forest (FOD) that slightly overlaps the Study Area can generally support a number of SWH functions. The candidate SWH functions of relevance to these ELC categories are summarized in Table 8. The characteristics of the noted ELC categories within and around the Walter Property and the lists of wildlife species recorded within or near the Property have been reviewed in context of the specifications for each of these candidate SWH functions. In consideration of this information and various defining criteria, the Walter Property has a reasonable potential to support two specific SWH functions; 1) Bat Maternity Colonies, and 2) Shrub/Early Successional Bird Breeding Habitat. It can also be conservatively assumed that the Study Area might have some level of function as Special Concern and Rare Wildlife Species. Each of these candidate SWH functions is discussed below.

4.7.1 Bat Maternity Colonies

Bat Maternity Colonies are generally associated with deciduous or mixed forest communities. The FOD5 community that partly overlaps the Study Area can be considered as a candidate location for this SWH function. A detailed assessment of potential roost sites was not completed as part of this EIS. However, the FOD5 community on the west side of the Study Area is relatively mature and characterized by the presence of numerous trees exceeding 25 cm DBH. For the purpose of this EIS, it is conservatively assumed that some level of maternal roosting might occur in the FOD5 area, at least 50 m from the PBS.

4.7.2 Shrub/Early Successional Bird Breeding Habitat

The Walter Property encompasses almost 15 ha of currently or previously open land that is succeeding to shrub and thicket habitats, exceeding the 10 ha size criterion for this SWH function. Data for the area indicate the presence of several of the indicator species in close proximity to the Property during the breeding season. It is not unreasonable to assume the potential nesting presence of at least some of these species in parts of the Walter Property. The vast majority of suitable habitat is outside of the Study Area, which limits the likelihood of this SWH function occurring within close proximity to the PBS.

4.7.3 Special Concern and Rare Wildlife Species

As discussed in Section 4.7, there are only three species Provincially designated as *Special Concern* and/or with a Provincial Rank of S3 that have some reasonable likelihood of being present within the Study Area. This includes the Eastern Wood-pewee, Golden-winged Warbler and the Monarch. None of these species is expected to occur within the Study Area at a level of abundance or for life cycle requirements that would warrant the assignment of this SWH function.

5.0 ANALYSIS OF POTENTIAL IMPACTS

The current proposal for the Walter Property calls for the construction of a new structure with residential function. In general consideration of this case of development, and without accounting for any planning adjustments or other mitigating measures, an initial high-level assessment identifies several potential natural heritage implications, as follows;

- direct loss of about 0.01 ha of non-woody cultural community (CUM) and any associated ecological functions,
- possible indirect impairment of ecological functions of wooded cultural communities (CUT, CUW, CUP),
- possible direct harm or indirect disturbance of up to three Priority Species that have been assumed as potentially present within or near the PBS,
- possible impairment of SWH function potentially associated with the Property.

The following analysis further examines the potential impacts listed above. For each of the specific natural features of concern, the likelihood and significance of adverse effects due to the proposed development of the Property are qualitatively assessed. The assessed potential for adverse effects is based in part on the characteristics and functions of the features themselves. The assessment considers various aspects of development, including the extent of site alteration and various conditions that might be encountered within the Property both during and after construction. A Site Plan has been developed (see Appendix B), illustrating the location of the PBS, and the PBS location is also approximately illustrated in Figures 2 and 3 of this report.

Conclusions and recommendations drawn from this analysis, including mitigation recommendations, are provided in Section 6.

5.1 Priority Species

In summary, there are a total of 24 Priority Species (*i.e.*, SOCC or SAR) on recent record in the general vicinity of the Walter Property. The Property generally does not exhibit the characteristics or specific habitat elements that would support local populations of most of the Priority Species that have been observed in the area. When considering habitat limitations and available abundance and distribution data for the area around the Property, there are only three species that are considered to have reasonable potential to be present within the Study Area where they might be subject to direct or indirect impacts of development. This includes the Monarch, Eastern Wood Pewee, and Golden-winged Warbler.

For these species, the potential for direct impacts or indirect impacts due to creation of the very small residential structure in an existing residential clearing combined area is inherently limited in terms of frequency and numbers affected. Any such impacts would not be meaningful from a population perspective, either regional or local. Overall, the risk associated with potential impacts to these Priority Species is considered to be very low, and mitigation measures are available to further reduce the low level of risk (see Section 6.3).

Otherwise, there is no expectation of meaningful presence of any other Priority Species within the Walter Property, and thus there is effectively no risk of adverse effects on such species.

5.2 Significant Wildlife Habitat

Assessment of potential SWH (see Section 4.7), indicates that there are three candidate SWH categories that may be supported to some extent within the Property. These SWH functions are associated almost entirely with the woody vegetation communities, and there are no confirmed SWH functions associated with the open area that immediately surrounds the PBS. As a result, no direct impacts on SWH functions are expected.

In regard to possible indirect impacts on any possible SWH function, there is no expectation that the construction and occupation of a new residential structure would result in significant increase in the stimuli (light, sound, movement) that might have some effect on nearby wildlife. It is also noted that the wildlife species (primarily bats and several common bird species) associated with the assumed SWH functions are not generally sensitive to those stimuli at the relevant distances. The FOD5 community has the greatest potential for SWH function, and the minimum separation distance of this forest community from the PBS is 50 m.

Overall, the risk of meaningful adverse impacts on SWH within or near the Study Area is deemed to be very low.

5.3 Significant Woodlands

The Provincial Policy Statement (PPS) defines significant woodland as "an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history". Regional assessments are undertaken by various agencies using criteria derived from this general definition to identify woodland areas for initial designation as "significant". The Natural Heritage Reference Manual (MNR, 2010) provides detailed recommendations for criteria and standards to be used in the assessment of woodland significance.

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The current assessment of potential impacts on the woodlands found within the Walter Property is conducted in consideration of several of the core functional categories identified in the MNR's Natural Heritage Reference Manual. These categories overlap with the stated criteria for designation of "Significance" in the PPS and the County OP. This includes woodland size, forest cover characteristics, the presence of SAR or SOCC, ecological functions and linkages, and water protection functions.

The woodland areas designated as EP and closest to the PBS are non-native plantation communities that are expected to have limited ecological function. Analysis indicates that these functions do not include Priority Species, SWH, or water -protection function. The Site Plan indicates a very small (~0.01 ha) building footprint that is separated from woodlands by about 20 m or more. There will be no direct encroachment of the PBS on these woodlands. The likelihood of indirect effects of construction and occupation of the proposed residence on woodlands is greatly limited by the very small scale of development, and also the absence of ecological functions that might be considered sensitive. Overall, the proposed severance is not expected to adversely affect the overall integrity and function of Significant Woodlands within and surrounding the Property.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Summary of Existing Conditions

Almost the entirety of the Walter Property is occupied by early succession vegetation communities that would be classed as *Cultural* under the ELC system. This includes the most proximate areas of EP designation, which are Coniferous Plantation (CUP3) communities. These communities are comprised primarily of non-native tree species with limited structural layering and limited floral diversity. These plantations are expected to support a relatively limited abundance diversity of fauna species that are regionally common and typical of cultural or disturbed sites. These wildlife species are generally from secure populations and not considered to be of conservation concern. There is no expectation of meaningful presence of Priority Species or SWH within the Study Area. There are few Priority Species and SWH functions which could be associated with the Study Area, but not to a meaningful extent. Overall, the Study Area does not appear to support species or functions which would be considered as sensitive or as conservation priorities.

6.2 Summary of Potential Impacts

An understanding of the risk of potential impacts potentially associated with the proposed new residence within the Walter Property is derived in part from the analysis presented in Section 5. The likelihood and significance of each category of potential impact are relatively ranked (e.g. low, medium, high). The likelihood and significance of any possible impacts of proposed development are dependent on the natural heritage characteristics of the Property and also the specific aspects of the proposed development. For each environmental feature of interest, the overall risk is a function of both *likelihood* and *significance*.

Priority Species

Based on information obtained and reviewed in this EIS, there is a very low likelihood of occurrence of SAR or SOCC within the Property in meaningful number, for meaningful duration, or for critical aspects of their life cycle. The risk of loss or disturbance of these species or their habitat is deemed to be very low, and any potential impacts would not have significant implications in context of the local population of these species or in regard to the functional integrity of the local Natural Heritage System.

Significant Wildlife Habitat

There are no instances of confirmed SWH function within the Study Area. As a precaution, this EIS conservatively assumes that three SWH functions could be associated with select woody vegetation communities within the Study Area. The PBS is located in an area devoid of woody vegetation where no SWH is anticipated. The overall

risk of the proposed development in regard to these SWH elements is deemed to be very low.

Significant Woodlands

The Property encompasses or abuts small patches of woodlands that can be broadly considered to be Significant Woodlands, including the EP lands within the Study Area. Residential development plans do require any alteration of these woodlands. The very small (~0.01 ha) footprint of development is separated from woodlands by a minimum of 20 m, and there is no indication that the woodlands are functionally connected to the PBS ore would be sensitive to indirect effects of anthropogenic stimuli. Overall, the proposed development is not expected to have any meaningful adverse effect on the overall integrity and function of Significant Woodlands within and surrounding the Property.

6.3 Mitigation and Enhancement Recommendations

Regardless of the overall low level of risk, there should be efforts to further mitigate the risk of any impacts potentially associated with proposed development of the Property. Recommendations are provided herein to avoid, limit or otherwise mitigate the potential impacts that have been identified.

6.3.1 Woodlands

As noted in Section 5.3, there is no expectation of loss or impairment of woodlands within the Walter Property. As a precaution to mitigate the risk of unintended loss or damage of woodlands, there are various standard measures that could be considered for adoption at the time of construction to protect trees on the margins of woodlands in proximity to the PBS. This includes installation of protective barriers and management of construction traffic to avoid inadvertent damage to trees or their root systems.

6.3.2 Priority Species

The EIS has revealed the potential presence of two Priority Species of bird within the Study Area. Eastern Wood-pewee and Golden-winged Warbler may be present within woodland or thicket communities that are within the Study Area. The Site Plan does not indicate that there will be any removal or direct disturbance of woody vegetation. However, in the event that there comes a need to of some areas of tree cover within the Study Area, this could directly affect individual nests of the noted species. Under this circumstance, the risk of impacts on the Wood-pewee and Golden-winged Warbler, or any other breeding birds which would be subject to prohibitions of the Migratory Bird Convention Act, could be largely mitigated by timing any clearing of trees or shrubs to avoid the active bird nesting period (i.e., from May to August, inclusive). If a barrier was installed to prevent inadvertent damage to trees (see Section 6.3.1), this would also serve to reduce any remote risk of harm to priority species that may be present near the construction area.

6.3.3 Significant Wildlife Habitat

The EIS concludes that there is effectively no risk of direct or indirect impacts on any of the SWH functions that might be associated with portions of the Study Area. The PBS is spatially separated and functionally isolated from the ELC community types (FOD5, CUT) with some potential for SWH function.

6.3.4 Restoration and Enhancement

There are various invasive species present within the Walter Property, mostly outside of the Study Area. This would include self-seeded specimens of Scots Pine scattered. Efforts to control or remove these species would be beneficial.

The installation of down-cast lighting systems on the new structure would reduce the intensity of ambient light, and would be a means to lower the level of wildlife exposure to anthropogenic stimuli.

In addition, the installation and maintenance of wildlife supporting features (e.g. bird nest boxes, bat roosting boxes) on the perimeter of the residential clearing could be considered as an enhancement measure.

All measures above are provided as optional considerations.

6.4 Policy Interpretation

The Provincial Policy Statement (PPS) serves as the foundation for the various policies contained in the County and Municipal OPs, including those that are intended to protect and maintain the natural environment and its functions. The following summaries address the PPS and OP natural heritage policy elements that are of relevance to the Property.

Significant Woodlands

No development or site alteration may occur within Significant Woodlands or their adjacent lands (within 120 m) unless it has been demonstrated through an EIS that there will be no negative impacts on the natural features or their ecological functions. In addition, fragmentation of significant woodlands is generally discouraged.

Eventual development within the Walter Property will not result in direct loss or impairment of woodlands designated a EP or any other woodland areas within or near the Study Area. This EIS concludes that development will not fragment or otherwise result in adverse impacts on Significant Woodlands as a functional component of the NHS that overlaps the Property and surrounding lands.

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Habitat of Threatened/Endangered Species

The PPS states that no development or site alteration will be permitted within the habitat of Threatened or Endangered species except in accordance with provincial and federal requirements. No development or site alteration will be permitted within the adjacent lands (120 m) to these areas unless it has been demonstrated through an EIS that there will be no negative impacts on the natural features or their ecological functions.

There is no current evidence of meaningful presence of provincially *Threatened* or *Endangered* Species or their habitat within the Walter Property, and thus development will not have negative impacts on any such species.

Significant Wildlife Habitat

In the PPS, development and site alteration is not permitted within Significant Wildlife Habitat (SWH) and adjacent lands (120 m) unless it has been demonstrated through an EIS that there will be no negative impacts on the natural features or their ecological functions.

The EIS has identified the candidate SWH function potentially associated with woody vegetation within the Study Area. There is no expectation that the construction or occupancy of the proposed new residence will have any direct or indirect impacts on any area of woody vegetation or their habitat functions. No impacts on SWH function are expected.

Summary

Overall, the proposed new residential structure at the Walter Property meets policy requirements and there is no expectation of any negative impacts on several specific NH features of interest or the NH system that they comprise.

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TABLES

Table 1: Plant Species Observed at or near the Walter Property

Common Name	Scientific Name	Location of Record		Provincial Status (S-RANK) ¹	Native vs Non-Native Status	Coefficient of Conservatism ²	Wetness Coefficient ²
		Adjacent Lands ¹	Walter Property ²				
Alternate-leaved Dogwood	<i>Cornus alternifolia</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	6	3
American Basswood	<i>Tilia americana</i>	<input checked="" type="checkbox"/>		S5	Native	4	3
American Beech	<i>Fagus grandifolia</i>	<input checked="" type="checkbox"/>		S4	Native	6	3
Balsam Poplar	<i>Populus balsamifera</i>	<input checked="" type="checkbox"/>		S5	Native	4	-3
Bitter Dock*	<i>Rumex obtusifolius</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	-3
Black Ash	<i>Fraxinus nigra</i>	<input checked="" type="checkbox"/>		S4	Native	7	-3
Black Locust*	<i>Robinia pseudoacacia</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3
Black Medic	<i>Medicago lupulina</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3
Black Raspberry	<i>Rubus occidentalis</i>	<input checked="" type="checkbox"/>		S5	Native	2	5
Black Walnut	<i>Juglans nigra</i>	<input checked="" type="checkbox"/>		S4	Native	5	3
Bladder Campion	<i>Silene cucubalus</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	5
Blue Cohosh	<i>Caulophyllum thalictroides</i>	<input checked="" type="checkbox"/>		S5	Native	5	5
Calico Aster	<i>Symphotrichum lateriflorum</i>	<input checked="" type="checkbox"/>		S5	Native	3	0
Canada Anemone	<i>Aneomone canadensis</i>	<input checked="" type="checkbox"/>		S5	Native	3	-3
Canada Goldenrod	<i>Solidago canadensis</i>	<input checked="" type="checkbox"/>		S5	Native	1	3
Canada Mayflower	<i>Maianthemum canadense</i>	<input checked="" type="checkbox"/>		S5	Native	5	0
Catnip	<i>Nepeta cataria</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3
Celandine*	<i>Chelidonium majus</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	5
Chicory	<i>Chicorium intybus</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	5
Choke Cherry	<i>Prunus virginiana</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	2	3
Climbing Nightshade	<i>Solanum dulcamara</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	0
Coltsfoot	<i>Tussilago farfara</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3
Common Buttercup	<i>Ranunculus acris</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	0
Common Cinquefoil	<i>Potentilla simplex</i>	<input checked="" type="checkbox"/>		S5	Native	3	3
Common Dandelion	<i>Taraxacum officinale</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NA	Non-native	NA	3
Common Elderberry	<i>Sambucus nigra</i>	<input checked="" type="checkbox"/>		S5	Native	5	-3
Common Milkweed	<i>Asclepias syriaca</i>	<input checked="" type="checkbox"/>		S5	Native	0	5
Common Mullein*	<i>Verbascum thapsis</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NA	Non-native	NA	5
Common Plantain	<i>Plantago major</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3
Common Ragweed	<i>Ambrosia artemisiifolia</i>	<input checked="" type="checkbox"/>		S5	Native	0	3
Common Scouring Rush	<i>Equisetum hyemale</i>	<input checked="" type="checkbox"/>		S5	Native	2	-2
Common Strawberry	<i>Fragaria virginiana</i>	<input checked="" type="checkbox"/>		S5	Native	2	3
Common Yarrow	<i>Achillea millefolium</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3
Dog Violet	<i>Viola conspersa</i>	<input checked="" type="checkbox"/>		S5	Native	3	0
Dog-strangling vine*	<i>Vincetoxicum nigrum</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	5
Domestic Apple	<i>Malus pumila</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	5
Eastern White Cedar	<i>Thuja occidentalis</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	4	-3
Enchanter's Nightshade	<i>Circaea lutetiana ssp. canadensis</i>	<input checked="" type="checkbox"/>		S5	Native	2	3
European Buckthorn	<i>Rhamnus cathartica</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	0
European Vervain	<i>Verbena officinalis</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3
False Solomon's-seal	<i>Maianthemum racemosum</i>	<input checked="" type="checkbox"/>		S5	Native	4	3
Field Horsetail	<i>Equisetum arvense</i>	<input checked="" type="checkbox"/>		S5	Native	0	0
Flat-topped White Aster	<i>Doellingeria umbellata</i>	<input checked="" type="checkbox"/>		S5	Native	6	-3
Garlic Mustard*	<i>Alliaria petiolata</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	0
Green Ash	<i>Fraxinus pennsylvanica</i>	<input checked="" type="checkbox"/>		S4	Native	3	-3
Herb-Robert	<i>Geranium robertianum</i>	<input checked="" type="checkbox"/>		S5	Native	2	3
Hog-Peanut	<i>Amphicarpaea bracteata</i>	<input checked="" type="checkbox"/>		S5	Native	4	0
Ironwood	<i>Ostrya virginiana</i>	<input checked="" type="checkbox"/>		S5	Native	4	3
Jack-in-the-pulpit	<i>Arisaema triphyllum</i>	<input checked="" type="checkbox"/>		S5	Native	5	-3
Japanese Knotweed	<i>Reynoutria japonica</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3
Lamb's Quarter*	<i>Chenopodium album</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3
Lance-leaved Goldenrod	<i>Euthamia graminifolia</i>	<input checked="" type="checkbox"/>		S5	Native	2	0
Large-leaved Aster	<i>Eurybia macrophylla</i>	<input checked="" type="checkbox"/>		S5	Native	5	5
Large-tooth Aspen	<i>Populus grandidentata</i>	<input checked="" type="checkbox"/>		S5	Native	5	5
Lily-of-the-valley*	<i>Convallaria majalis</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	5
Marginal Wood Fern	<i>Dryopteris marginalis</i>	<input checked="" type="checkbox"/>		S5	Native	5	3
Meadow Horsetail	<i>Equisetum pratense</i>	<input checked="" type="checkbox"/>		S5	Native	8	-3
Norway Spruce	<i>Picea abies</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NA	Non-native	NA	5
Ostrich Fern	<i>Matteuccia struthiopteris</i>	<input checked="" type="checkbox"/>		S5	Native	5	0
Oxeye Daisy*	<i>Leucanthemum vulgare</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	5
Partridge Berry	<i>Mitchella repens</i>	<input checked="" type="checkbox"/>		S5	Native	6	3
Pin Cherry	<i>Prunus pensylvanica</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	3	3
Poison Ivy	<i>Toxicodendron radicans</i>	<input checked="" type="checkbox"/>		S5	Native	2	0

Table 1: Plant Species Observed at or near the Walter Property

		Location of Record		Provincial			
Prickly Gooseberry	<i>Ribes cynosbati</i>	<input checked="" type="checkbox"/>		S5	Native	4	3
Red Baneberry	<i>Actaea rubra</i>	<input checked="" type="checkbox"/>		S5	Native	NA	3
Red Clover*	<i>Trifolium pratense</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3
Red Maple	<i>Acer rubrum</i>	<input checked="" type="checkbox"/>		S5	Native	4	0
Red Oak	<i>Quercus rubra</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	6	3
Red Trillium	<i>Trillium erectum</i>	<input checked="" type="checkbox"/>		S5	Native	6	3
Red-osier Dogwood	<i>Cornus sericea</i>	<input checked="" type="checkbox"/>		S5	Native	2	-3
Rough-fruited Cinquefoil	<i>Potentilla recta</i>	<input checked="" type="checkbox"/>		NA	Non-native	0	5
Rough-stemmed Goldenrod	<i>Solidago rugosa</i>	<input checked="" type="checkbox"/>		S5	Native	4	0
Round-leaved Dogwood	<i>Cornus rugosa</i>	<input checked="" type="checkbox"/>		S5	Native	6	5
Sarsaparilla	<i>Aralia nudicaulis</i>	<input checked="" type="checkbox"/>		S5	Native	4	3
Scots Pine*	<i>Pinus sylvestris</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NA	Non-native	NA	3
Self-heal	<i>Prunella vulgaris</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	0
Sensitive Fern	<i>Onoclea sensibilis</i>	<input checked="" type="checkbox"/>		S5	Native	4	-3
Serviceberry	<i>Amelanchier arborea</i>	<input checked="" type="checkbox"/>		S5	Native	5	3
Silver Maple	<i>Acer saccharinum</i>	<input checked="" type="checkbox"/>		S5	Native	5	-3
Small White Aster	<i>Symphyotrichum lateriflorum</i>	<input checked="" type="checkbox"/>		S5	Native	NA	-3
Smooth Blackberry	<i>Rubus canadensis</i>	<input checked="" type="checkbox"/>		S5	Native	2	5
Solomon's-seal	<i>Polygonatum biflorum</i>	<input checked="" type="checkbox"/>		S4	Native	8	-3
Spinulose Wood Fern	<i>Dryopteris carthusiana</i>	<input checked="" type="checkbox"/>		S5	Native	5	-3
Spotted Jewelweed	<i>Impatiens capensis</i>	<input checked="" type="checkbox"/>		S5	Native	4	-3
Spreading Dogbane	<i>Apocynum androsaemifolium</i>	<input checked="" type="checkbox"/>		S5	Native	3	5
Squawroot	<i>Conopopholis americana</i>	<input checked="" type="checkbox"/>		S4	Native	9	5
Staghorn Sumac	<i>Rhus typhina</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	1	3
Starflower	<i>Lysimachia borealis</i>	<input checked="" type="checkbox"/>		S5	Native	6	0
Starry False Solomon's-seal	<i>Maianthemum stellatum</i>	<input checked="" type="checkbox"/>		S5	Native	6	1
Sugar Maple	<i>Acer saccharum</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	4	3
Swamp Aster	<i>Symphyotrichum puniceum</i>	<input checked="" type="checkbox"/>		S5	Native	6	-5
Tall Rattlesnakeroot	<i>Nabalus altissimus</i>	<input checked="" type="checkbox"/>		S5	Native	5	3
Trembling Aspen	<i>Populus tremuloides</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	2	0
Tufted Vetch*	<i>Vicia cracca</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	5
Viper's Bugloss	<i>Echium vulgare</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	5
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S4	Native	6	3
Watercress*	<i>Nasturtium officinale</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	-5
White Ash	<i>Fraxinus americana</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S4	Native	4	3
White Avens	<i>Geum canadense</i>	<input checked="" type="checkbox"/>		S5	Native	3	0
White Baneberry	<i>Actaea pachypoda</i>	<input checked="" type="checkbox"/>		S5	Native	6	5
White Birch	<i>Betula papyrifera</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	2	3
White Elm	<i>Ulmus americana</i>	<input checked="" type="checkbox"/>		S5	Native	3	-3
White Spruce	<i>Picea glauca</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	6	3
White Trillium	<i>Trillium grandiflorum</i>	<input checked="" type="checkbox"/>		S5	Native	5	3
White Vervain	<i>Verbena urticifolia</i>	<input checked="" type="checkbox"/>		S5	Native	4	0
Wild Carrot*	<i>Daucus carota</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NA	Non-native	NA	5
Wild Grape	<i>Vitis riparia</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	0	0
Wild Parsnip*	<i>Pastinaca sativa</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3
Wild Raspberry	<i>Rubus idaeus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S5	Native	2	5
Wood Sorrel	<i>Oxalis montana</i>	<input checked="" type="checkbox"/>		S5	Native	7	3
Woodland Agrimony	<i>Agrimonia striata</i>	<input checked="" type="checkbox"/>		S4	Native	3	3
Woodland Horsetail	<i>Equisetum sylvaticum</i>	<input checked="" type="checkbox"/>		S5	Native	7	-3
Woodland Strawberry	<i>Fragaria vesca</i>	<input checked="" type="checkbox"/>		S5	Native	4	3
Yellow Avens	<i>Geum aleppicum</i>	<input checked="" type="checkbox"/>		S5	Native	2	0
Yellow Birch	<i>Betula alleghaniensis</i>	<input checked="" type="checkbox"/>		S5	Native	6	0
Yellow Wood-sorrel	<i>Oxalis europaea</i>	<input checked="" type="checkbox"/>		NA	Non-native	NA	3

* - species marked with an asterisk are considered by various sources to be invasive in Ontario

1. Provincial Rank: S4 - Apparently Secure, S5 - Secure, NA = not applicable (non-native species)

2. Coefficients as reported by Oldham et al., 1995

Table 2: Bird Species Observed at or near the Walter Property

Species		Location of Record		Breeding Status		Conservation Status			Breeding Habitat Preference ⁸
Common name	Scientific name	Adjacent Lands ¹	Walter Property ²	Local Area ³	OBBA ⁴	SRANK ⁵	COSEWIC ⁶	COSSARO ⁷	
American Crow	<i>Corvus brachyrhynchos</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S5	-	-	general
American Goldfinch	<i>Carduelis tristis</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S5	-	-	general
American Redstart	<i>Setophaga ruticilla</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S5	-	-	early succession
American Robin	<i>Turdus migratorius</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Confirmed	Confirmed	S5	-	-	general
American Woodcock	<i>Scolopax minor</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Possible	Possible	S4	-	-	early succession
Barred Owl	<i>Strix varia</i>	<input checked="" type="checkbox"/>		Possible	Probable	S5	-	-	forest
Black-capped Chickadee	<i>Poecile atricapillus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Confirmed	Confirmed	S5	-	-	general
Black-throated Blue Warbler	<i>Setophaga caerulescens</i>	<input checked="" type="checkbox"/>		Possible	Probable	S5	-	-	forest (area -sensitive)
Black-throated Green Warbler	<i>Setophaga virens</i>	<input checked="" type="checkbox"/>		Possible	Probable	S5	-	-	forest (area -sensitive)
Blue Jay	<i>Cyanocitta cristata</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Probable	Probable	S5	-	-	forest
Broad-winged Hawk	<i>Buteo platypterus</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S5	-	-	forest
Brown-headed Cowbird	<i>Molothrus ater</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S4	-	-	general
Chestnut-sided Warbler	<i>Setophaga pensylvanica</i>	<input checked="" type="checkbox"/>		Possible	Probable	S5	-	-	early succession
Chipping Sparrow	<i>Spizella passerina</i>	<input checked="" type="checkbox"/>		Probable	Confirmed	S5	-	-	general
Common Grackle	<i>Quiscalus quiscula</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S5	-	-	general
Common Raven	<i>Corvus corax</i>	<input checked="" type="checkbox"/>		Possible	Probable	S5	-	-	forest
Common Yellowthroat	<i>Geothlypis trichas</i>	<input checked="" type="checkbox"/>		Possible	Probable	S5	-	-	early succession or wetland
Dark-eyed Junco	<i>Junco hyemalis</i>		<input checked="" type="checkbox"/>	Observed	Not reported	S5	-	-	forest
Downy Woodpecker	<i>Picoides pubescens</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Possible	Probable	S5	-	-	forest
Eastern Bluebird	<i>Sialia sialis</i>		<input checked="" type="checkbox"/>	Observed	Confirmed	S5	NAR	NAR	grassland, open
Eastern Phoebe	<i>Sayornis phoebe</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S5	-	-	general
Eastern Towhee	<i>Pipilo erythrophthalmus</i>		<input checked="" type="checkbox"/>	Possible	Possible	S4	-	-	early succession
Eastern Wood-pewee	<i>Contopus virens</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S4	SC	SC	forest
Golden-crowned Kinglet	<i>Regulus satrapa</i>	<input checked="" type="checkbox"/>		Possible	Possible	S5	-	-	forest
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S5	-	-	forest
Mourning Dove	<i>Zenaidura macroura</i>	<input checked="" type="checkbox"/>		Possible	Probable	S5	-	-	general
Mourning Warbler	<i>Geothlypis philadelphia</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S4	-	-	forest
Northern Cardinal	<i>Cardinalis cardinalis</i>	<input checked="" type="checkbox"/>		Possible	Probable	S5	-	-	early succession
Northern Flicker	<i>Colaptes auratus</i>	<input checked="" type="checkbox"/>		Confirmed	Confirmed	S4	-	-	general
Northern Oriole	<i>Icterus galbula</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S5	-	-	general
Ovenbird	<i>Seiurus aurocapilla</i>	<input checked="" type="checkbox"/>		Probable	Probable	S4	-	-	forest (area -sensitive)
Pileated Woodpecker	<i>Dryocopus pileatus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Possible	Probable	S5	-	-	forest
Purple Finch	<i>Haemorhous purpureus</i>		<input checked="" type="checkbox"/>	Observed	Probable	S4	-	-	forest
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	<input checked="" type="checkbox"/>		Possible	Probable	S4	-	-	forest
Red-breasted Nuthatch	<i>Sitta canadensis</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Probable	Probable	S5	-	-	forest (area -sensitive)
Red-eyed Vireo	<i>Vireo olivaceus</i>	<input checked="" type="checkbox"/>		Probable	Probable	S5	-	-	forest
Red-tailed Hawk	<i>Buteo jamaicensis</i>		<input checked="" type="checkbox"/>	Observed	Possible	S5	NAR	NAR	open habitat
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S5	-	-	early succession
Ruffed Grouse	<i>Bonasa umbellus</i>	<input checked="" type="checkbox"/>		Possible	Possible	S4	-	-	forest
Song Sparrow	<i>Melospiza melodia</i>	<input checked="" type="checkbox"/>		Probable	Confirmed	S5	-	-	general
Tree Sparrow	<i>Spizella arborea</i>		<input checked="" type="checkbox"/>	Observed	Not reported	S4	-	-	forest
Veery	<i>Catharus fuscescens</i>	<input checked="" type="checkbox"/>		Possible	Probable	S4	-	-	forest (area -sensitive)
Warbling Vireo	<i>Vireo gilvus</i>	<input checked="" type="checkbox"/>		Possible	Probable	S5	-	-	early succession
White-breasted Nuthatch	<i>Sitta carolinensis</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Possible	Probable	S5	-	-	forest
Wild Turkey	<i>Meleagris gallopavo</i>		<input checked="" type="checkbox"/>	Observed	Probable	S5	-	-	forest
Winter Wren	<i>Troglodytes hiemalis</i>	<input checked="" type="checkbox"/>		Possible	Confirmed	S5	-	-	forest (area -sensitive)
Yellow Warbler	<i>Setophaga petechia</i>	<input checked="" type="checkbox"/>		Possible	Probable	S5	-	-	early succession
Yellow-bellied sapsucker	<i>Sphyrapicus varius</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Probable	Confirmed	S5	-	-	forest (area -sensitive)
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	<input checked="" type="checkbox"/>		Possible	Not reported	S4	-	-	early succession
Yellow-rumped Warbler	<i>Setophaga coronata</i>	<input checked="" type="checkbox"/>		Possible	Possible	S5	-	-	forest

1. based on previous EIS data for adjacent properties
2. based on direct observations at Walter Property, or as reported by owner as present during breeding season
3. the highest breeding status based on observations at adjacent properties during breeding season
4. the highest breeding status reported in the OBBA for Square 17NK86
5. Provincial Rank: S4 = Apparently Secure, S5 = Secure
6. Federal Status: NAR = Not at Risk, SC = Special Concern
7. Provincial Status: NAR = Not at Risk, SC = Special Concern
8. based on the Ontario Breeding Bird Atlas (OBBA)

Table 3: Priority Bird Species Reported for OBBA Square 17NK86

Species		SRank ¹	SARO Status ²	SARA Status ³	Primary Habitat Association ⁴
Common Name	Scientific Name				
Barn Swallow	<i>Hirundo rustica</i>	S4	SC	THR	manmade structures
Bobolink	<i>Dolichonyx oryzivorus</i>	S4	THR	THR	grasslands, hayfields (usually > 5 ha)
Canada Warbler	<i>Wilsonia canadensis</i>	S4	THR	SC	moist coniferous-deciduous forest (typically >10 ha) with well-developed understory
Cerulean Warbler	<i>Setophaga cerulea</i>	S3	THR	END	canopy of mature deciduous interior forest (>10 ha)
Chimney Swift	<i>Chaetura pelagica</i>	S4	THR	THR	manmade structures
Eastern Meadowlark	<i>Sturnella magna</i>	S4	THR	THR	grasslands, hayfields (usually > 5 ha)
Eastern Wood-pewee	<i>Contopus virens</i>	S4	SC	SC	deciduous and mixed forest with edges/openings
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	S4	SC	THR	early successional habitat patches within forest
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	S4	SC	SC	sparsely vegetated grasslands >30 ha
Least Bittern	<i>Ixobrychus exilis</i>	S4	THR	THR	expansive marsh habitat
Olive-sided Flycatcher	<i>Contopus cooperi</i>	S4	SC	THR	boreal forest, nesting mainly in coniferous trees
Wood Thrush	<i>Hylocichla mustelina</i>	S4	SC	THR	mature deciduous or conifer-deciduous forests

1 - Provincial Rank - S3 = Vulnerable, S4 = Apparently Secure

2 - Species at Risk in Ontario - SC = Special Concern, THR = Threatened

3 - Species at Risk Act (Canada) - SC = Special Concern, THR = Threatened, END = Endangered

4 - as reported in the Ontario Breeding Bird Atlas (OBBA)

Table 4: Reptile and Amphibian Species Reported for OARA Square 17NK86

Reported Species ¹		SRank ²	SARO Status ³	SARA Status ⁴	Primary Habitat Association ⁵
Common Name	Scientific Name				
Dekay's Brownsnake	<i>Storeria dekayi</i>	S5	NAR	NAR	diverse habitats, including forests, wetlands, forest clearings, edge habitats
Eastern Foxsnake (Georgian Bay population)	<i>Pantherophis gloydi</i>	S3	THR	END	shorelines, prairies, savannahs, rock barrens and wetlands (most commonly on shoreline edges)
Eastern Gartersnake	<i>Thamnophis sirtalis sirtalis</i>	S5	-	-	habitat generalist (forests, shrublands, wetlands, fields, rocky areas, urban areas).
Eastern Hog-nosed Snake	<i>Heterodon platirhinos</i>	S3	THR	THR	fields, forests, shrubland, beaches and old dune habitat - prefers sandy, well-drained soils
Eastern Milksnake	<i>Lampropeltis triangulum</i>	S4	NAR	SC	open habitats - rocky outcrops, fields and forest edge
Massasauga (Great Lakes / St. Lawrence population)	<i>Sistrurus catenatus</i>	S3	THR	THR	habitat generalist (forests, meadows, shoreline habitats, wetlands, rock barrens, grasslands and old fields) generally associated with water
Northern Ring-necked Snake	<i>Diadophis punctatus</i>	S4	-	-	forested areas, most common in areas with shallow soil and surface bedrock
Northern Watersnake	<i>Nerodia sipedon sipedon</i>	S5	NAR	NAR	in or near permanent bodies fresh water (lakes, rivers and wetlands)
Red-bellied Snake	<i>Storeria occipitomaculata</i>	S5	-	-	forest edge and fields with abundant ground cover (logs, rocks, scrap piles and building foundations)
Smooth Greensnake	<i>Opheodrys vernalis</i>	S4	-	-	various open habitatst (fields, wetland edges, forest clearings and open woodlands) most often in habitats with dense herbaceous vegetation
Five-lined Skink (Southern Shield population)	<i>Plestiodon fasciatus</i>	S3	SC	SC	found close to water (wetlands and the shorelines of lakes and rivers), generally near forests
Blanding's Turtle	<i>Emydoidea blandingii</i>	S3	THR	END	shallow lakes, ponds and wetlands with clean water and mucky bottoms
Eastern Musk Turtle	<i>Sternotherus odoratus</i>	S3	SC	SC	rivers, lakes and ponds with a slow current and soft bottom
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	S4	-	- ⁶	ponds, marshes, lakes, or slow moving creeks with soft substrates and basking sites
Northern Map Turtle	<i>Graptemys geographica</i>	S3	SC	SC	large rivers and lakes with slow-moving water and a soft bottom
Snapping Turtle	<i>Chelydra serpentina</i>	S4	SC	SC	most freshwater habitats, most often with slow-moving water, soft substrates and abundant vegetation
Four-toed Salamander	<i>Hemidactylium scutatum</i>	S4	NAR	NAR	sphagnum bogs, bog-based streams and flood plains in woodland areas - forage in nearby forests
Eastern Red-backed Salamander	<i>Plethodon cinereus</i>	S5	-	-	mature woodlands with lots of fallen logs, coarse woody debris and leaf litter
Blue-spotted Salamander	<i>Ambystoma laterale</i>	S4	-	-	variety of woodland habitats as well as swamps
Spotted Salamander	<i>Ambystoma maculatum</i>	S4	-	-	forest openings, specifically large rock outcrops
Red-spotted Newt	<i>Notophthalmus viridescens</i>	S5	-	-	ponds and lakes, and surrounding damp woodlands
American Bullfrog	<i>Lithobates catesbeianus</i>	S5	-	-	large permanent waterbodies
American Toad	<i>Anaxyrus americanus</i>	S5	-	-	variety of habitats, including heavily forested areas - breed in warm shallow waters
Gray Treefrog	<i>Hyla versicolor</i>	S5	-	-	various plant communities near permanent water
Green Frog	<i>Lithobates clamitans</i>	S5	-	-	shallow permanent waterbodies
Mink Frog	<i>Lithobates septentrionalis</i>	S5	-	-	large, cold, permanent ponds, lakes and slow-moving rivers with abundant vegetation
Northern Leopard Frog	<i>Lithobates pipiens</i>	S5	NAR	NAR	relatively permanent ponds without fish
Spring Peeper	<i>Pseudacris crucifer</i>	S5	-	-	temporary woodland ponds, or swamps
Wood Frog	<i>Lithobates sylvaticus</i>	S5	-	-	vernal woodland pools

1 - Includes only those species with more than one reported occurrence since 2000

2 - Provincial Rank - S3 = Vulnerable, S4 = Apparently Secure, S5 = Secure

3 - Species at Risk in Ontario - NAR = Not at Risk, SC = Special Concern, THR = Threatened

4 - Species at Risk Act (Canada) - NAR = Not at Risk, SC = Special Concern, THR = Threatened, END = Endangered

5 - as reported in the Ontario Amphibian and Reptile Atlas

6 - recently recommended as Special Concern by COSEWIC, but not yet listed under SARA

Table 5: NHIC Element Occurrences (EO) near the Walter Property

Common Name	Scientific Name	SRank ¹	SARO Status ²	SARA Status ³	Primary Habitat
Massasauga (Great Lakes / St. Lawrence population)	<i>Sistrurus catenatus (pop. 1)</i>	S3	THR	THR	habitat generalist, typically in areas associated with water
Snapping Turtle	<i>Chelydra serpentina</i>	S4	SC	SC	various freshwater habitats, most often with slow-moving water, soft substrates and abundant vegetation
Blanding's Turtle	<i>Emydoidea blandingii</i>	S3	THR	END	shallow lakes, ponds and wetlands with clean water and mucky bottoms
Northern Map Turtle	<i>Graptemys geographica</i>	S3	SC	SC	large rivers and lakes with slow-moving water and a soft bottom
Bobolink	<i>Dolichonyx oryzivorus</i>	S4	THR	THR	grasslands, hayfields (usually > 5 ha)
Eastern Wood-pewee	<i>Contopus virens</i>	S4	SC	SC	deciduous and mixed forest with edges/openings
Eastern Meadowlark	<i>Sturnella magna</i>	S4	THR	THR	grasslands, hayfields (usually > 5 ha)
Wood Thrush	<i>Hylocichla mustelina</i>	S4	SC	THR	mature deciduous or conifer-deciduous forests

1 - Provincial Rank - S3 = Vulnerable, S4 = Apparently Secure

2 - Species at Risk in Ontario - SC = Special Concern, END = Endangered, THR = Threatened

3 - Species at Risk Act (Canada) - SC = Special Concern, END - Endangered, THR = Threatened

EO records obtained for NHIC 1-km squares within ~ 2-km of the Property (12 squares total)

Table 6: Priority Species Records near the Walter Property from iNaturalist

Common Name	Scientific Name	SRank ¹	SARO Status ²	SARA Status ³	Primary Habitat
Massasauga (Great Lakes / St. Lawrence population)	<i>Sistrurus catenatus (pop. 1)</i>	S3	THR	THR	habitat generalist, typically in areas associated with water
Eastern Hog-nosed Snake	<i>Heterodon platirhinos</i>	S3	THR	THR	fields, forests, shrubland, beaches and old dune habitat - prefers sandy, well-drained soils
Five-lined Skink	<i>Plestiodon fasciatus</i>	S3	SC	SC	found close to water (wetlands and the shorelines of lakes and rivers), generally near forests
Northern Map Turtle	<i>Graptemys geographica</i>	S3	SC	SC	large rivers and lakes with slow-moving water and a soft bottom
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	S4	SC	SC	open, mixed forest (mature or second growth)

1 - Provincial Rank - S3 = Vulnerable, S4 = Apparently Secure

2 - Species at Risk in Ontario - SC = Special Concern, THR = Threatened

3 - Species at Risk Act (Canada) - SC = Special Concern, THR = Threatened

Records obtained within a radius of 1 km from PBS

Table 7: Summary of Priority Species Status at the Walter Property

Candidate Species ¹		Status in Ontario		Status within/near Property		
Common Name	Scientific Name	SRank ²	ESA Status ³	Habitat Available ⁴	Potential for Occurrence ⁵	Notes
Midland Painted Turtle	<i>Chrysemys picta marginata</i>	S4	NA	No	Very Low	No permanent standing water within Study Area to support any turtle species.
Blanding's Turtle	<i>Emydoidea blandingii</i>	S3	THR	No	Very Low	
Eastern Musk Turtle	<i>Sternotherus odoratus</i>	S3	SC	No	Very Low	
Northern Map Turtle	<i>Graptemys geographica</i>	S3	SC	No	Very Low	
Snapping Turtle	<i>Chelydra serpentina</i>	S4	SC	No	Very Low	
Eastern Milksnake	<i>Lampropeltis triangulum</i>	S4	NAR	Yes	Low	Small area of suitable open habitat is present within Study Area, but surrounding lands generally lacking in suitable habitat.
Massasauga (Great Lakes / St. Lawrence population)	<i>Sistrurus catenatus</i>	S3	THR	Yes	Very Low	Generally suitable habitat present, but water bodies are absent. Very few confirmed recent sightings in area, at least 700 m from PBS.
Eastern Hog-nosed Snake	<i>Heterodon platirhinos</i>	S3	THR	Yes	Very Low	Only one confirmed recent sighting in area, ~1 km from PBS.
Five-lined Skink (Southern Shield population)	<i>Plestiodon fasciatus</i>	S3	SC	No	Very Low	No water or wetlands within Study Area. Only one confirmed recent sighting in area, ~800 m from PBS
Bobolink	<i>Dolichonyx oryzivorus</i>	S4	THR	No	Very Low	Adequately sized patches of grassland habitat not available within property
Eastern Meadowlark	<i>Sturnella magna</i>	S4	THR	No	Very Low	
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	S4	SC	No	Very Low	
Barn Swallow	<i>Hirundo rustica</i>	S4	SC	Yes	Medium	
Chimney Swift	<i>Chaetura pelagica</i>	S4	THR	Yes	Very Low	Man-made structures present within Study Area, but at least 30 m from PBS
Canada Warbler	<i>Wilsonia canadensis</i>	S4	THR	No	Very Low	Suitable forest habitat not found within Study Area
Cerulean Warbler	<i>Setophaga cerulea</i>	S3	THR	No	Very Low	General nesting habitat available in treed portions of Study Area, but tree cover absent within and near PBS.
Eastern Wood-pewee	<i>Contopus virens</i>	S4	SC	Yes	Medium	
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	S4	SC	Yes	Low	Early successional habitat present on outer margins of Study Area.
Least Bittern	<i>Ixobrychus exilis</i>	S4	THR	No	Very Low	Marshland not present within Property
Olive-sided Flycatcher	<i>Contopus cooperi</i>	S4	SC	No	Very Low	Boreal forest not present within Property
Wood Thrush	<i>Hylocichla mustelina</i>	S4	SC	Yes	Low	Limited presence of suitable habitat (i.e., FOD5) within Study Area, well removed from PBS
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	S4	SC	No	Very Low	Species not typically present in area during breeding season. Only record of occurrence reported during winter.
Monarch Butterfly	<i>Danaus plexippus</i>	S2/S4	SC	Yes	Medium	Study Area could provide limited support for Monarchs, but not expected to be critical for any life stage.
Black Ash	<i>Fraxinus Nigra</i>	S4	END	No	Very Low	Absence of wetland or lowland conditions within Study Area

1 - Species has been identified through review of existing data as present within a few km of the Property

2 - Provincial Status (S-Rank) - S2 = Imperiled, S3 = Vulnerable, S4 = Apparently Secure

3 - END = Endangered, THR = Threatened, SC = Special Concern, NA = Not Assessed

4 - sufficient quantity of preferred habitat is present within Study Area

5 - likelihood of occurrence in Study Area that is meaningful (number, duration) - based on consideration of all available information

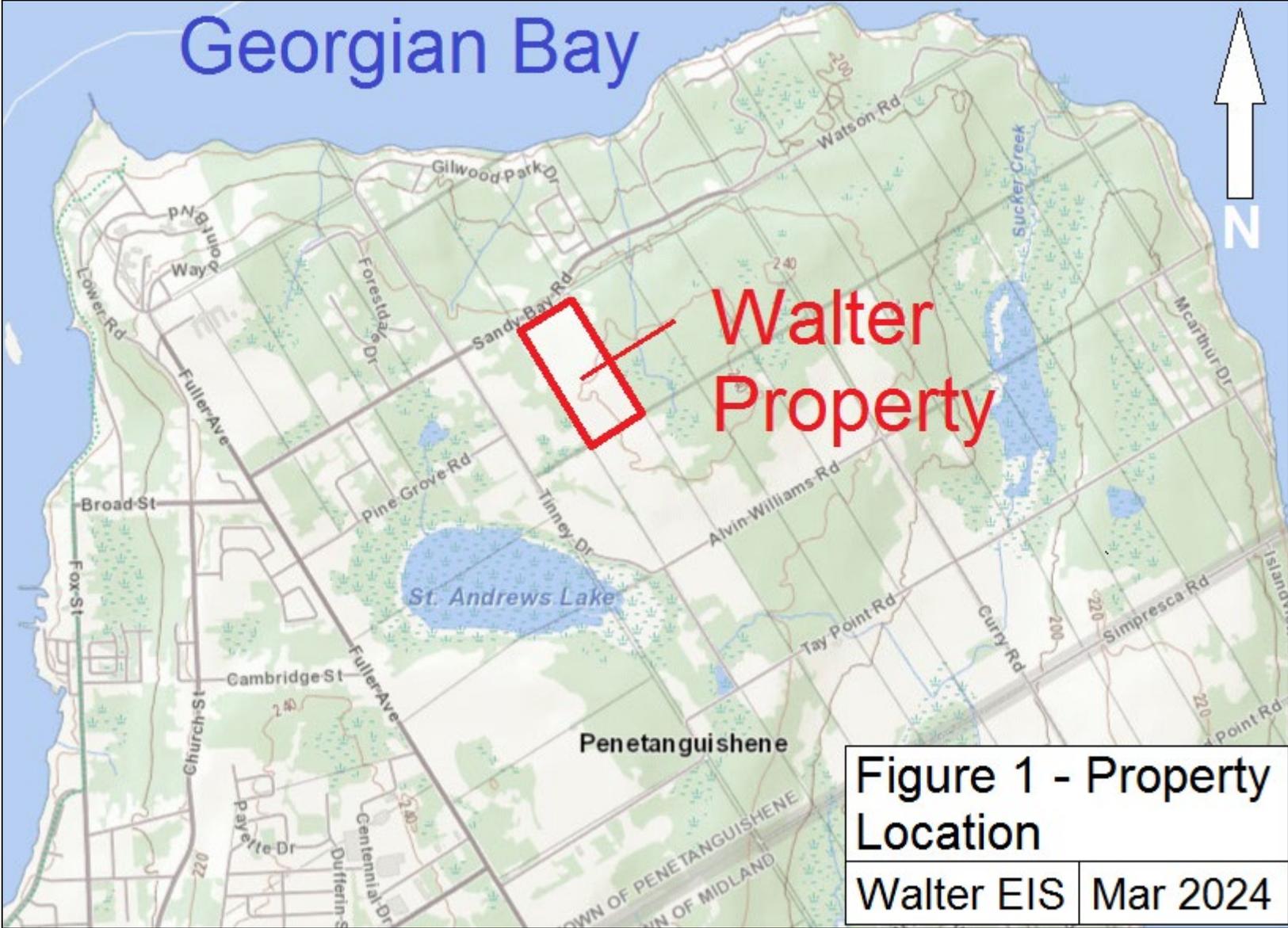
Table 8: Summary of SWH Assessment in Study Area

SWH Category	Candidate SWH	Relevant ELC Associations	Key Considerations
Seasonal Concentration Areas of Animals	Waterfowl Stopover and Staging Areas (Terrestrial)	CUM, CUT	Small patch size, lack of sheet flooding, no evidence of meaningful presence of indicator species
	Raptor Wintering Area	FOD mixed with CUM/CUT/CUW	Small patch size, very limited presence of indicator species, not mapped as a winter raptor area by LIQ/MNRF
	Bat Maternity Colonies	FOD	Conservatively assume some level of maternal roosting in the FOD5 area
	Colonially - Nesting Bird Breeding Habitat (Bank and Cliff)	CUM, CUT	Absence of specific habitat elements (cliff faces, eroding banks, sandy hills, borrow pits, steep slopes, and sand piles), small patch size
	Colonially - Nesting Bird Breeding Habitat (Ground)	CUM, CUT	Study Area lacks conditions suited to Brewers Blackbird colonies (i.e., low bushes in close proximity to streams and irrigation ditches within farmlands). Brewers Blackbird not on record for area around Property.
	Deer Yarding/Congregation Areas	CUT, CUP3, FOD	Patches are well under size criterion (100 ha) and isolated from any larger blocks of suitable coniferous or mixed tree cover. Nearest mapped winter yarding area is ~3 km north of property, on orth side of Penetang Harbour
Rare Vegetation Communities	Old Growth Forest	FOD	Patch within Study Area is not old growth and does not meet size criteria (i.e. >30 ha, with >10 ha in form of Interior Forest)
Specialized Habitat for Wildlife	Woodland Raptor Nesting Habitat	FOD, CUP3	Patch within Study Area is not old growth and does not meet size criteria (i.e. >30 ha, with >10 ha in form of Interior Forest). Only one of six indicator species (i.e., Barred Owl) <u>confirmed</u> as breeding in area. No stick nests observed during on-site surveillance.
	Seeps and Springs	FOD	No seeps or springs observed during surveillance. Property is very well drained.
	Amphibian Breeding Habitat (Woodland)	FOD	Property is very well drained. No ponds or vernal pools observed within or near Study Area
	Area-Sensitive Bird Breeding Habitat	FOD	Patches within and near Property not consistent with defining characteristics (i.e., typically large mature (>60 yrs old) forest stands or woodlots >30 ha with Interior forest at least 200 m from forest edge)
Habitats of Species of Conservation Concern	Open Country Bird Breeding Habitat	CUM	Patch does not meet size criterion (i.e., >30 ha)
	Shrub/Early Successional Bird Breeding Habitat	CUT, CUW	Property encompasses >10 ha of early succession habitat that has potential to support this SWH function. Available data indicate presence of some of the specified indicator species in area.
	Special Concern and Rare Wildlife Species	Any	Available data do not indicate a very low likelihood of meaningful presence of any Special Concern or Rare wildlife species within the Study Area (see Section 4.6)

Table 9: Overview of Environmental Risks Associated with Proposed Development

Affected Feature	Potential Impact	Likelihood	Potential Significance	Limiting and Mitigating Factors
Woodlands	Direct loss of forest cover	None	Very Low	No loss of tree cover expected. Woodland communities near PBS are common and support limited ecological function
	Indirect impairment of ecological function	Very Low	Very Low	Plant and animal communities are not rare or sensitive. No expectation of meaningful functional connectivity between PBS and woodlands
Priority Species	Direct harm	Very Low	Very Low	Limited expectation of Priority Species within and adjacent to the Property, especially within development envelope.
	Indirect impacts on Habitat	Very Low	Very Low	Potential habitat for Priority Species is very limited, and largely not within development envelope. Almost all potential habitat to be retained.
Significant Wildlife Habitat	Loss or impairment of habitat function	Very Low	Very Low	Candidate SWH elements not confirmed in association with Study Area. Minimal functional connectivity between PBS and areas with reasonable likelihood for SWH function (<i>i.e.</i> , FOD5)

FIGURES



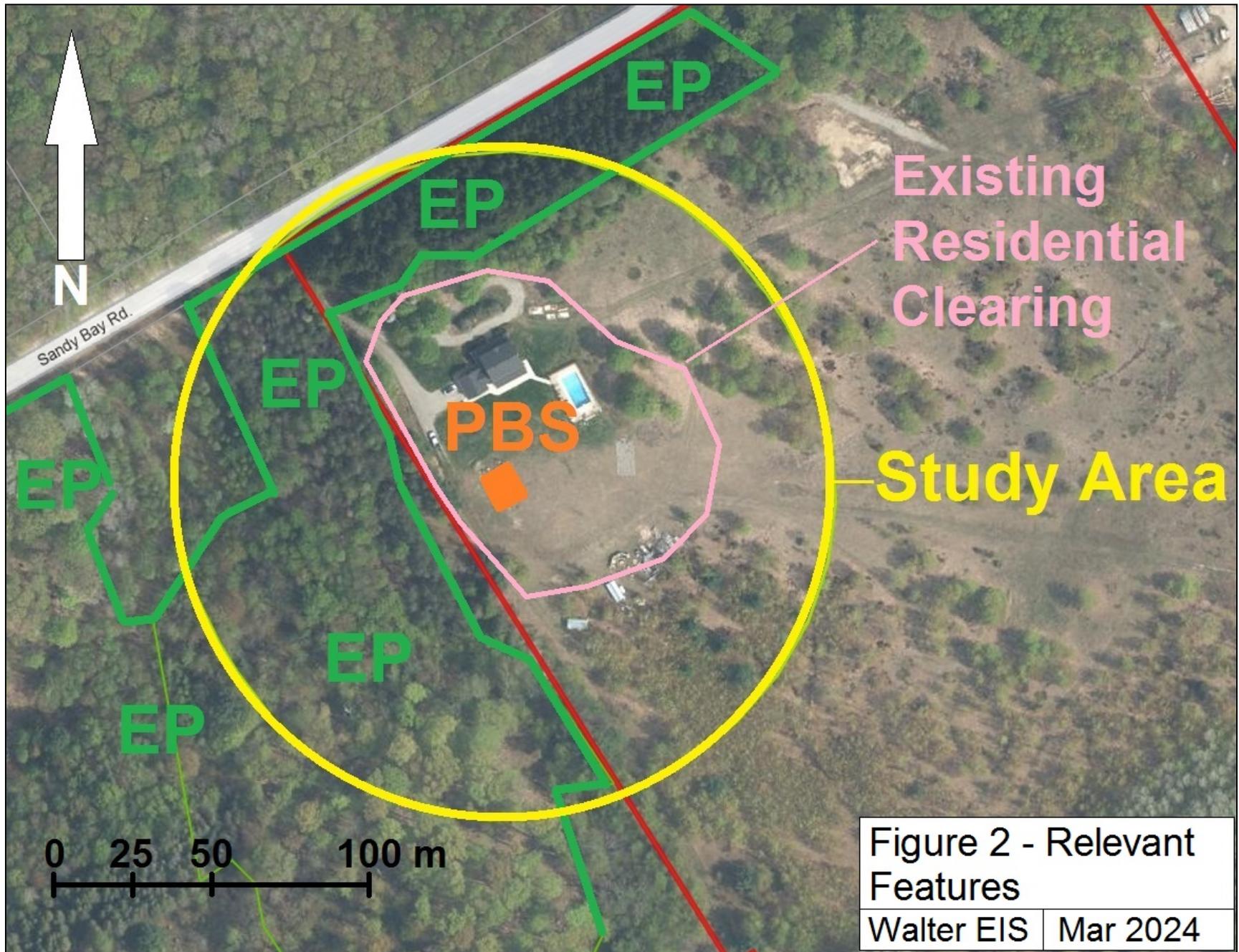


Figure 2 - Relevant Features

Walter EIS | Mar 2024

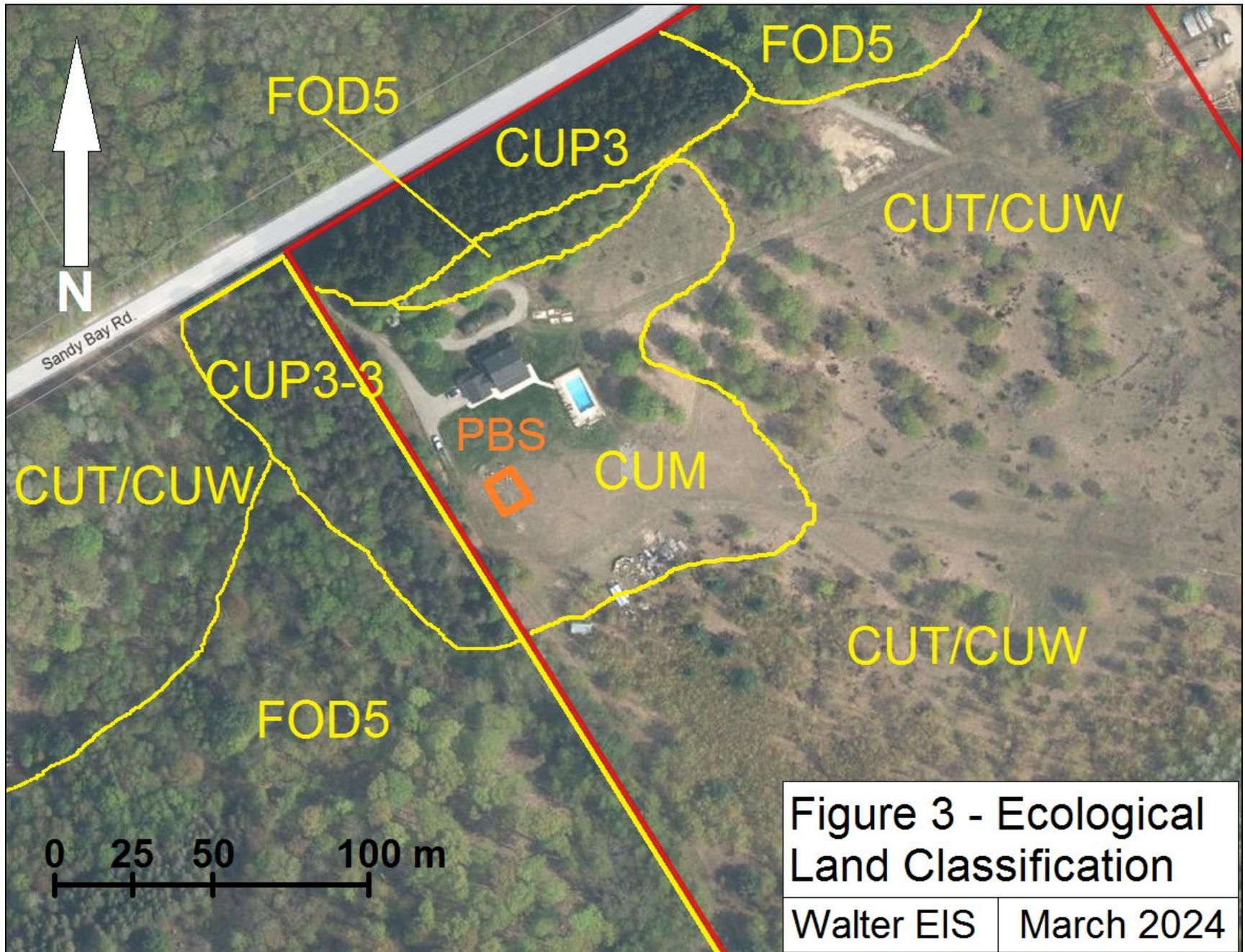


Figure 3 - Ecological Land Classification

Walter EIS

March 2024

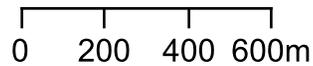
APPENDICES

Appendix A – Existing Constraint Mapping

Simcoe County - Mapped Features near Walter Property



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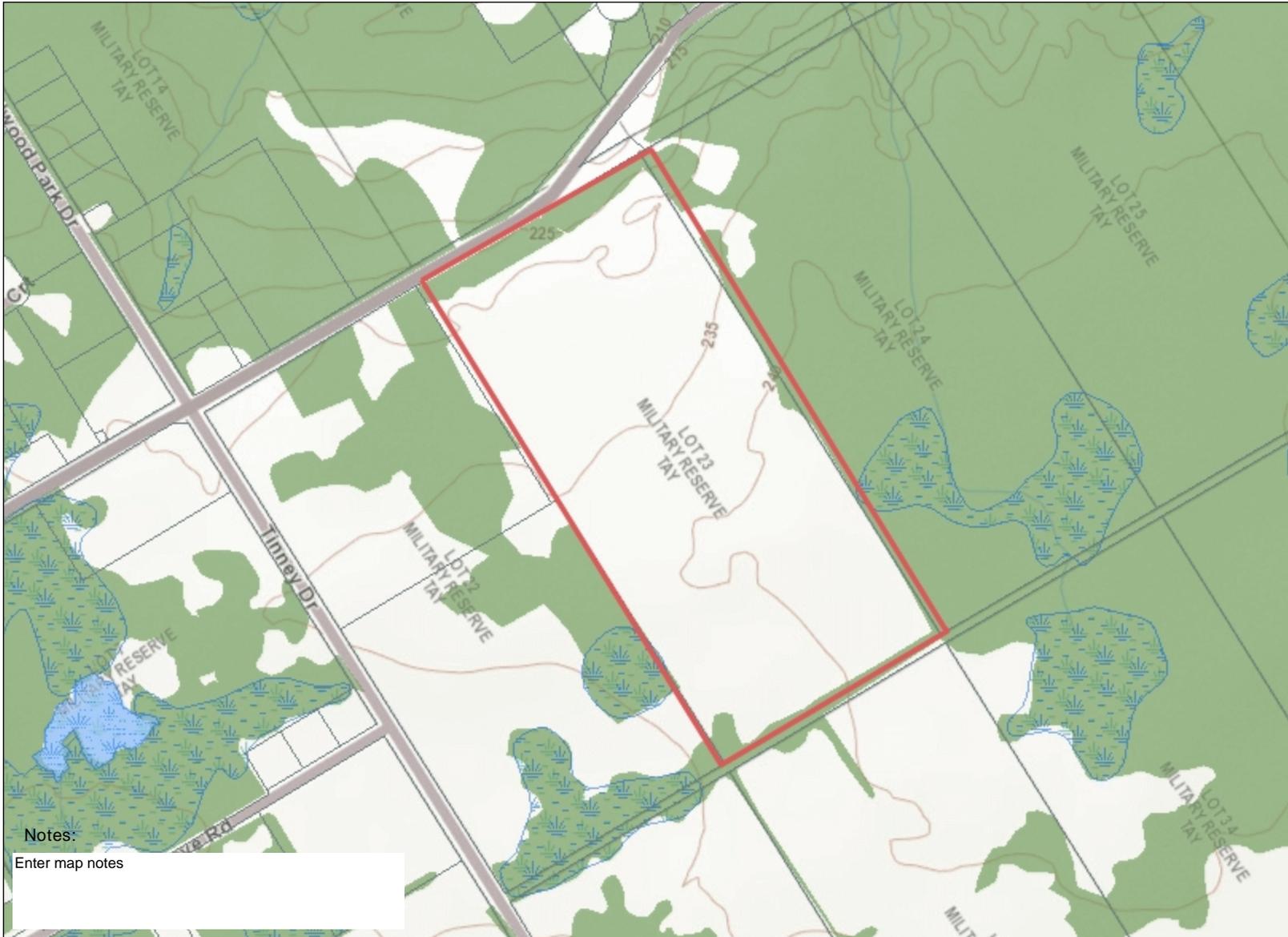
1 : 18,056



Mar. 4, 2024

Legend

-  Assessment Parcel
-  Evaluated Wetland
-  Provincially Significant/considérée d'importance provinciale
-  Non-Provincially Significant/non considérée d'importance provinciale
-  Unevaluated Wetland
-  Woodland



Notes:

Enter map notes



Absence of a feature in the map does not mean they do not exist in this area.

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

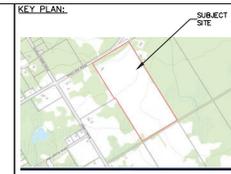
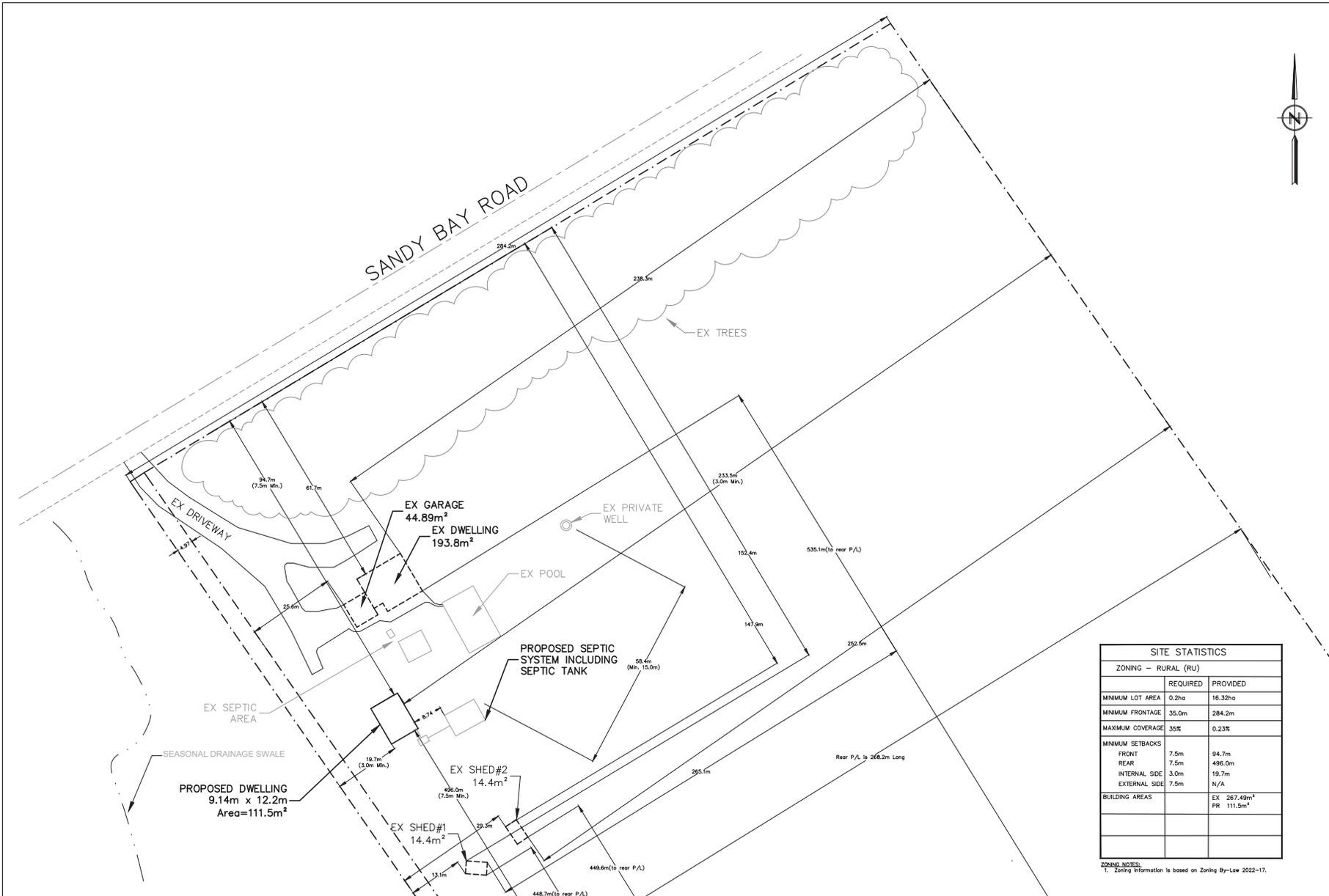
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Appendix B – Site Plan



SITE SPECIFIC NOTES:

LEGEND:

EXISTING FEATURES (EX)

- EX STB: EX STD IRON BAR
- EX IB: EX IRON BAR
- EX UP: EX UTILITY POLE
- EX BELL PED: EX BELL PED
- EX WS: EX WATER SERVICE
- EX HT: EX FIRE H/O
- EX ST NAME SIGN: EX ST NAME SIGN
- EX ELEVATION: EX ELEVATION
- EX FENCE: EX FENCE
- EX U/G GASMAIN: EX U/G GASMAIN
- EX U/G BELL: EX U/G BELL
- EX TOP OF SLOPE: EX TOP OF SLOPE
- EX BOTTOM OF SLOPE: EX BOTTOM OF SLOPE
- EX WATERMAIN & VALVE: EX WATERMAIN & VALVE
- EX SAN SEWER & MH: EX SAN SEWER & MH
- EX STM SEWER & MH: EX STM SEWER & MH

PROPOSED FEATURES (PR)

- PR NO PARKING SIGN: PR NO PARKING SIGN
- PR STOP SIGN: PR STOP SIGN
- PR FENCE: PR FENCE
- PR LIGHT (BY OTHERS): PR LIGHT (BY OTHERS)
- PR WATER SERVICE: PR WATER SERVICE
- PR SAN SERVICE: PR SAN SERVICE
- PR HYDRO TRANSFORMER: PR HYDRO TRANSFORMER
- PR FIRE HYDRANT: PR FIRE HYDRANT
- PR WATER VALVE: PR WATER VALVE
- PR SAN SEWER: PR SAN SEWER
- PR SANITARY MANHOLE: PR SANITARY MANHOLE
- PR STM SEWER & MH: PR STM SEWER & MH
- PR CATCHBASIN MANHOLE: PR CATCHBASIN MANHOLE
- PR MANHOLE: PR MANHOLE
- PR CATCHBASIN: PR CATCHBASIN
- PR SWALE: PR SWALE
- PR BARRIER FREE: PR BARRIER FREE
- PR STREET LIGHT: PR STREET LIGHT
- PR BUILDING ENTRANCE: PR BUILDING ENTRANCE
- SLOPE DIRECTION: SLOPE DIRECTION
- PR SWALE: PR SWALE
- PR SILT FENCE: PR SILT FENCE
- PR STRAW BALE: PR STRAW BALE
- PR MUDMAT: PR MUDMAT
- PR FINISH FLOOR ELEVATION: PR FINISH FLOOR ELEVATION
- PR TREE/SHURB: PR TREE/SHURB

SITE STATISTICS		
ZONING - RURAL (RU)		
	REQUIRED	PROVIDED
MINIMUM LOT AREA	0.2ha	16.32ha
MINIMUM FRONTAGE	35.0m	284.2m
MAXIMUM COVERAGE	35%	0.23%
MINIMUM SETBACKS		
FRONT	7.5m	94.7m
REAR	7.5m	496.0m
INTERNAL SIDE	3.0m	19.7m
EXTERNAL SIDE	7.5m	N/A
BUILDING AREAS		EX 267.49m ² PR 111.5m ²

ZONING NOTES:
1. Zoning information is based on Zoning By-Law 2022-17.

CAUTION
CONTRACTOR TO DETERMINE
LOCATION OF EXISTING UTILITIES
PRIOR TO CONSTRUCTION.

General Notes:

- All dimensions on this drawing are shown in metric, unless noted otherwise.
- This drawing has been prepared by DWG. Any unauthorized use is prohibited.
- Property boundary information is based on the references noted on the drawing.
- Utility locates are to be obtained by the contractor prior to the start of any construction.
- All elevations are based on the benchmark noted on the drawing.
- The contractor shall verify all existing and proposed dimensions and notify all parties of any discrepancies.
- Only the specialties for construction drawings shall be used by the contractor for construction.
- It is understood and acknowledged by the contractor that this drawing is to be included along with all other relevant documents related to the project.

Benchmark	Elevation=242.73
TOP OF IR AT SOUTHEAST CORNER OF THE SUBJECT PROPERTY.	

No.	Issue / Revision	Date	Drawing Title:
1	FIRST SUBMISSION	JAN 23, 2024	
2	SECOND SUBMISSION	MAR 16, 2024	

SITE PLAN

Project:
1321 SANDY BAY ROAD
PROPOSED ADDITIONAL
DWELLING UNIT

D. Walter
771 Dominion Avenue
Midland, ON
L4R 1S4

Drawn By	LW	Checked By	DW	Drawing No.	SP
Scale	1:500	Project	1321 SBR		

Appendix C – ToR Correspondence

26 January 2024

Owen Taylor, Planner
Town of Penetanguishene
10 Robert Street West,
PO Box 5009
Penetanguishene ON L9M 2G2

By E-mail

Mr. Taylor,

Re: 1321 Sandy Bay Rd.- Environmental Impact Study Terms of Reference

This letter is in regard to the ~16 hectare (ha) property located at 1321 Sandy Bay Road in the Town of Penetanguishene. The property is currently owned by Janet and Daniel Walter. For the purposes of this letter, this land is referred to hereafter as the "Walter Property", or simply the "Property". The purpose of this letter is to outline a scope of work for an Environmental Impact Study (EIS) that is anticipated to be required in support of pending planning applications for the Walter Property. This letter, and any amendments to it, can serve as the Terms of Reference (ToR) for the EIS.

Background

The Walter Property currently supports a privately serviced single-family residential dwelling and amenities, including driveway, attached garage, private septic servicing, in-ground pool, two small out-buildings). All elements of development are contained within a residential landscape patch measuring approximately 1 ha. This area is effectively devoid of established natural vegetation communities and would be considered a "Cultural" community under the Ecological Land Classification (ELC) system¹.

The area of the existing residence is zoned as Rural. A small wooded area bordering Sandy Bay Rd. along the front of the Property is zoned Environmental Protection (EP). There are also wooded lands zoned as EP bordering the west boundary of the Property, immediately adjacent to the existing residential area.

The owners are proposing to construct an additional detached residential dwelling within the existing area of residential landscape. The proposed dwelling will be located within 120 m of the EP lands along the north and west edges of the Property. As noted in a Pre-consultation meeting with the Town on 30 October 2023, policies of the Town of Penetanguishene Official Plan (OP) require an Environmental Impact Study (EIS) where development is proposed within 120 m of areas of EP designation.

¹ Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

Reference: 1321 Sandy Bay Road - EIS ToR

EIS Objectives

The primary purpose of the EIS is to provide an effective assessment of possible adverse effects of the specific development being proposed at the Walter Property on the noted features of interest (i.e., the EP lands).

EIS Work Scope

The development of the scope of work for the Walter Property EIS has given consideration to the following:

- relevant policy content of both the Simcoe County and Town of Penetanguishene OPs,
- the Town's record² of the pre-consultation meeting on 30 October 2023, and
- the findings of initial on-site surveillance of the Walter Property, completed on 06 December 2023.

In general, the scope of work of an EIS reflects the scale and location of proposed development as well as the specific natural heritage features and functions of relevance. In the case of the proposed residential dwelling at the Walter Property, there are several key factors that have been considered in the determination of work scope, as follows:

- the proposed building site (PBS) is in a location that is at least 15 m removed from EP areas or interest,
- the PBS is entirely within an area of Cultural vegetation, within an area already occupied by existing residential structures and amenities, and
- the scale of proposed residence is relatively small (i.e., ~112 m²), representing an increase of about 28% over the existing total built area within the Walter Property.

Based on these factors, it can be reasonably concluded *a priori* that there is negligible risk of direct adverse impacts on the EP areas. Accordingly, the EIS would be focused on the potential for indirect effects on EP areas that could be associated with a number of possible stressors (light, noise, motion) associated with both the construction and eventual occupancy of the new residence. Based on the size and location of the proposed residence, the levels of potential stressors after construction of the new residence are expected to be only marginally higher than they are at present, and relatively low overall.

The assessment of potential indirect effects requires characterization of the EP areas and their functions, as well as an understanding of any functional relationship between

² Town of Penetanguishene - Record of Meeting. Re 1321 Sandy Bay Road – Zoning By-law Amendment. Prepared 08 Nov. 2023 by Owen Taylor, Planner, Town of Penetanguishene

Reference: 1321 Sandy Bay Road - EIS ToR

those features and the nearby proposed building site (PBS). In general, the requisite information includes:

- physical environment characteristics (i.e., overburden, hydrological features and functions, and
- biological environment characteristics (i.e., plant community composition, wildlife community composition, wildlife habitat function)

Surveillance of the Walter Property in Dec. 2023 covered an area within a radius of about 120 m from the PBS. This area encompasses the PBS and the EP lands as well as lands in between where there may be some functional connectivity between the PBS and EP lands. The surveillance included characterization of overburden as well as general assessment of hydrological features and functions. This provides sufficient characterization of the physical environment for current EIS purposes. Observations were also collected regarding plant and animal presence, providing a basic understanding of the ecological functions within the study area. Detailed inventory of plant and animal species has not been completed at the Walter Property, and the data obtained to date on site would be limited in its use for EIS purposes. However, other local data are available to augment the ecological characterization of the Walter Property.. This includes available on-line data from a variety of sources (e.g. Natural Heritage Information Centre, Ontario Breeding Bird Atlas, Ontario Amphibian and Reptile Atlas, etc.). It also includes results of focused monitoring of neighbouring properties bordering Sandy Bay Road, completed as part of recent EIS conducted in support of separate planning applications for the those properties. For the purposes of those other EIS, multiple site visits have been completed over the past several years. The three-season monitoring has included breeding birds surveillance, full botanical inventory, incidental surveillance of other fauna (reptiles, amphibians, mammals), as well as ELC assessment. In combination, the site-specific data for the Walter Property and the other local data can provide an effective ecological characterization of the study area.

It is the intent to use the various sources of existing data, as noted above, to complete the EIS for the Walter Property. No additional site monitoring is deemed necessary to provide a reliable assessment of the potential impacts of the proposed new residence on the EP areas. As such, a scoped EIS report can be prepared using these data and scheduled for submission for Town review and comment early in 2024.

Reference: 1321 Sandy Bay Road - EIS ToR

Closing

Preliminary assessment of the Walter Property indicates that there is no risk of direct impacts on EP lands, and that both the likelihood and potential significance of indirect impacts is very low. A scoped EIS is proposed to address OP policy requirements to address all potential impacts, with a primary focus on indirect effects. In consideration of relevant data that are currently available, it is proposed that additional on-site data collection is not required to affectively assess the risk of impacts potentially associated with the construction and occupancy of the proposed residence.

When you have had opportunity to consider the proposed EIS scope of work, please advise as to the acceptability of that work scope. I am available at your convenience to answer any questions or provide additional information that you may need. Please feel free to provide this letter to any third party as required to facilitate the Town's review process.

Sincerely and respectfully,

A handwritten signature in black ink, appearing to read "Neil Morris".

Neil Morris, Consulting Ecologist
2480 Olde Baseline Rd.
Caledon, ON, L7C 0J3

cc: Janet and Daniel Walter

SSEA Comments re ToR

Comments from SSEA - conveyed in e-mail from Owen Taylor (Planner, Town of Penetanguishene) to Neil Morris (Consulting Ecologist). Re: EIS Terms of Reference - 1321 Sandy Bay Road. 21 Feb 2024

The Town retained the Severn Sound Environmental Association (SSEA) to review the proposed terms of reference. The SSEA provided the following comments:

Given that the proposed additional detached dwelling is to be within an existing area of residential landscape, a Scoped EIS is appropriate. The Memo indicates that an initial site visit was conducted in December 2023, and N. Morris indicates that no additional site visits are deemed necessary.

The Scoped EIS should include a Significant Wildlife Habitat (SWH) assessment and Species At Risk (SAR) assessment, with consideration of species with potential to occur based on range maps and habitat/features present and as identified through the field visit. If any SAR, SAR habitat or SWH is identified that may be impacted by the proposal, the approval agency must be notified as soon as possible - additional discussion may be needed, and further field work or targeted surveys during the appropriate season(s) may be required.

Additional notes and clarification:

- *In addition to background data sources referenced in the Memo, information from other sources such as iNaturalist should be incorporated into the Scoped EIS.*
- *The report should include mapping and description of natural heritage features (including candidate or confirmed Significant Wildlife Habitat) and habitat of endangered and threatened species identified for the subject property, if present.*
- *Information on the location of many federal and provincial SAR should be treated as sensitive data, and in these cases, information must be disclosed to the municipality and applicable agencies in a manner that does not make it part of public record (e.g., mapping/ information provided separate from the main report, subject to restricted access).*
- *The EIS report should include recommendations to avoid and/or mitigate the potential for negative environmental impacts on any features/ecological functions (including establishing appropriate buffers to natural heritage features based on an ecological rationale that will protect the features and their associated functions from anticipated or potential impacts of development), where appropriate.*
- *The Scoped EIS must be completed by appropriately qualified professional(s) with any applicable training or certification(s) relevant to the required work.*
- *The EIS report should be legible (e.g., font size of text in the report, figures, tables, and appendices must be reasonable, photocopies of field data sheets must be readable, etc.) and electronic formats must allow reviewers to copy and paste text, to facilitate commenting.*