



Environmental Impact Statement

Sandy Cove Drive,
Prince Edward County, Ontario

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EXECUTIVE SUMMARY

ASC Environmental Inc. (ASC) was retained by Krystofer Destun to complete an Environmental Impact Statement (EIS) for the property located along Sandy Cove Drive, Prince Edward County, Ontario. This EIS has been completed to support the severance of a new residential use that has already been determined on-site on the approximately 7.32-hectare (ha) parcel of the 33.39 ha subject property and was completed with reference to federal, provincial and municipal policies and guidelines, as applicable.

In support of this EIS a desktop review and a series of field investigations were completed in the late spring and early summer of 2025 to identify the presence or absence of natural heritage features and species at risk (SAR) on-site. The focus of the site investigations was to describe, in general, the natural and physical setting of the subject property with a focus on confirming the presence or absence of natural heritage features and potential SAR or their habitat as identified in the desktop review.

Following completion of the desktop review and site investigations the following natural heritage features were identified on-site or within the study area: significant woodlands, significant wildlife habitat, special concern and rare wildlife habitat for Canada Warbler, Eastern Wood-pewee, and Blanding's Turtle. The following SAR and their habitat were identified as having a potential to occur on-site: seven (7) Bat species (eastern small-foot myotis, little brown myotis, hoary bat, eastern red bat, silver-haired bat, northern myotis, and tri-coloured bat), Blanding's turtle and snapping turtle. No other SAR species were identified during the site investigations.

The proposed residential development is not anticipated to include the loss of significant woodlands; and the proposed development envelope (see Figure 4 in Appendix A) is positioned to accommodate future development without direct impacts to significant woodland habitat. We reserve the right to adjust proposed development envelope if significant wildlife habitat, breeding birds, nests, or species at risk are identified during site development. Otherwise, habitat shall be protected/mitigated in accordance with Section 7.0 and MECP protocols.

No provincially significant wetlands or local wetlands were identified within the proposed development property or within the study area, and therefore potential impacts to provincially significant wetlands and local wetlands from the proposed development are not anticipated. Impacts to significant wildlife habitat and SAR habitat are expected to be mitigated through the use of the prescribed development envelope and proposed setbacks. If significant wildlife habitat, species at risk, breeding birds, or nests are encountered during site development, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction. Furthermore, the mitigation measures outlined in Section 7.0 shall be undertaken to protect potential SAR and breeding bird species.



Potential impacts to the natural heritage features on-site are likely to be mitigated through the implementation development envelopes and setbacks from natural heritage features. Impacts to significant wildlife habitat and SAR habitat can be mitigated through the use of development envelopes.

Due to the potential for multiple SAR to occur on-site, the Ministry of Environment, Conservation and Parks (MECP) should be consulted prior to scheduled site alteration, disturbance or construction. Once detailed development plans are known an Information Gathering Form (IGF) should be submitted to the MECP for review and comment regarding potential impact to SAR and SAR habitat on-site.

Additionally, to provide protection to potential SAR and their habitat on-site, reptile and amphibian exclusion fencing should be installed around future construction areas prior to development or site alteration, to prevent the immigration of SAR turtles and other wildlife into construction areas. Should SAR be discovered during development on-site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction. Furthermore, to ensure compliance with applicable legislation, best management practices and adherence to vegetation clearing for birds and bats, outlined in Section 7 should be followed to ensure no negative impacts occur to natural heritage features on-site.

The proposed plan for land development complies with the natural heritage policies of the Provincial Policy Statement (20240 and Prince Edward County's Official Plan. No negative impacts to identified natural heritage features or their ecological functions are anticipated as a result of the proposed development as long as the mitigation measures presented in Section 7 are enacted and best management practices undertaken.



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1. INTRODUCTION

ASC Environmental Inc. (ASC) was retained by Krystofer Destun (Client) to conduct an Environment Impact Statement (EIS) in support of a potential severance for a parcel of land located along the west side of Sandy Cove Drive, Prince Edward County, Ontario (hereafter referred to as the “subject property”). A site location plan is shown on Figure 1 in Appendix A.

1.1. Purpose

The purpose of the Environmental Impact Statement is to support the severance of a new residential use that has already been determined on-site on the approximately 7.32-hectare (ha) severance on the 33.39 ha subject property. ASC understands that Prince Edward County’s Official Plan requires an EIS showing that the proposed development will not negatively impact potential natural heritage features, which may be present within the study area. The study area is defined as the property boundary and the adjacent lands encompassing an area of 120 metres beyond the development property boundary. The subject property, development property and the extents of the study area are shown on Figure 2 in Appendix A.

1.2. Objective

The 2024 Provincial Policy Statement (MMAH, 2024) issued under Chapter 4.1 states that “development and site alteration shall not be permitted in: significant wetlands in Ecoregions 5E, 6E, and 7E, significant coastal wetlands” Similarly “development and site alteration shall not be permitted in: significant woodlands in Ecoregions 6E and 7E, significant valleylands in Ecoregions 6E and 7E, significant wildlife habitat, or significant areas of natural and scientific interest unless it has evaluated and demonstrated that there will be no negative impacts on the natural heritage features or on their ecological functions.” Similarly, the 2024 Provincial Policy Statement dictates that “development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.”

The objective of the work presented herein is to; 1) to identify and evaluate the significance of natural heritage features, as defined in the Provincial Policy Statement (MMAH, 2024), on the subject development property and within the broader study area (120m) and; 2) to assess the potential impacts from the proposed development on natural heritage features identified and to recommend appropriate and defensible mitigation measures to ensure the long-term protection of natural heritage features identified.

To meet these objectives, the EIS presented herein has been completed in accordance with the following provincial and municipal regulations, policies and guidelines:

- Endangered Species Act (ESA, 2007), and Bill 5, Protect Ontario by Unleashing our Economy Act (Bill 5, 2025);



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- Species at Risk Act O.Reg 230/08 (SARA, 2007) and Species Conservation Act (SCA, 2025);
- Migratory Birds Convention Act (MBCA, 1994);
- Provincial Planning Statement (MMAH, 2024);
- Endangered Species Act (Ontario, 2007);
- Conservation Authorities Act (Ontario, 1990);
- Natural Heritage Reference Manual (OMNR, 2010); and
- Prince Edward County's Official Plan (PEC, 2021).

1.3. Applicable Legislation and Policies Review

1.3.1. Endangered Species Act and Bill 5: Protect Ontario by Unleashing our Economy Act

The purpose of the Endangered Species Act (ESA) is to: identify species at risk based on the best available scientific information, including information obtained from community knowledge and Aboriginal traditional knowledge, to protect species that are at risk and their habitats, and to promote the recovery of species that are at risk, and to promote stewardship activities to assist in the protection and recovery of species that are at risk.

If a species is listed on the Species At Risk in Ontario (SARO) list as an extirpated, endangered or threatened species, it receives protection under the ESA. Subsection 9(1) of the ESA states that: "No person shall: kill, harm, capture or take a living member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species." Subsection 10(1) of the ESA states that: "No person shall damage or destroy the habitat of: a species that is listed on the Species at Risk in Ontario List as an endangered or threatened species; or, a species that is listed on the Species at Risk in Ontario List as an extirpated species, if the species is prescribed by the regulations for the purpose of this clause."

Subsection 17(1) of the ESA states that: "After considering an application for a permit, the Minister may issue a permit to a person that, with respect to a species specified in the permit that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species, authorizes the person to engage in an activity specified in the permit that would otherwise be prohibited by section 9 or 10."

Subsection 17(3) of the ESA states that: "A permit issued under this section shall contain any requirements prescribed by the regulations and may contain such other conditions as the Minister considers appropriate." Subsection 17(4) of the ESA states that: "Without limiting the generality of subsection (3), conditions in a permit may: limit the time during which the permit applies, limit the circumstances in which the permit applies, require the holder of the permit to take steps specified in the permit, including steps that maybe be required to be taken before engaging in the activity authorized by the permit, require the



holder of the permit to provide security in an amount or in a form sufficient to ensure compliance with the permit, require the holder of the permit to take steps to ensure that the activity authorized by the permit, and the effects of the activity, are monitored in accordance with the permit, require the holder of the permit to rehabilitate or restore habitat damaged or destroyed by the activity authorized by the permit, or to provide alternative habitat for the species specified in the permit; or, require the holder of the permit to submit information and reports to the Minister.”

1.3.2. Migratory Birds Convention Act

The purpose of the Migratory Birds Convention Act is to implement the Convention by protecting and conserving Migratory Birds – as population and individual birds – and their nests. Section 5 of the Act states that: “Except as authorized by the regulations, no person shall, without lawful excuse: be in possession of a migratory bird or nest.” Section 12(1) of the Act states that: “The Governor in Council may make any regulations that the Governor in Council considers necessary to carry out the purposes and provisions of this Act and the Convention, including regulations: providing for the periods during which, and the areas in which: migratory birds may be killed, captured or taken, nests may be damaged, destroyed, removed or disturbed, or migratory birds or nests may be bought, sold, exchanged, given or made the subject of a commercial transaction”, as well as “for prohibiting the killing, capturing, injuring, taking or disturbing of migratory birds or the damaging, destroying, removing or disturbing of nests;” and “prescribing protection areas for migratory birds and nests, and for the control and management of those areas.”

1.3.3. Provincial Planning Statement

The Provincial Planning Statement (2024) provides policy direction on matters of provincial interest related to land use planning and development. As a key part of Ontario’s policy-led planning system, the Provincial Planning Statement sets the policy foundation for regulating the development and use of land province-wide, helping achieve the provincial goal of meeting the needs of a fast-growing province while enhancing the quality of life for all Ontarians.

Section 4.1 of the Provincial Planning Statement (PPS) states that “Natural features and areas shall be protected for the long term. The diversity and connectivity of natural features in an area, and the long term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features” The subject property is located in Ecoregion 6E, and in section 4.1.4.a/b of the PPS states that “Development and site alteration shall not be permitted in: Significant wetlands in Ecoregions 5E, 6E, and 7E, and significant coastal wetlands.” The PPS also states that “Development and site alteration shall not be permitted in significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E, significant woodlands in Ecoregions 6E and 7E, significant valleylands in Ecoregions 6E and 7E, significant wildlife habitat, significant areas of natural and scientific interest, and coastal wetlands in



Ecoregions 5E, 6E and 7E1 that are not subject to policy 4.1.4.b, unless it has been demonstrated that there will be no negative impacts on the natural heritage features or their ecological functions. Similarly, section 4.1.8 states that “Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 4.1.4, 4.1.5, and 4.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological function.”

Section 4.2.2 of the PPS states that “Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored, which may require mitigative measures and/or alternative development approaches.”

1.4. Physical Setting

The subject property is located along the west side of Sandy Cove Drive, in Prince Edward County, Ontario and is comprised of primarily Eastern Red Cedar coniferous forest, as well as sporadic areas of cultural thicket throughout the subject property. No water courses are present on the subject property. The subject development property is currently a vacant parcel of land approximately 7.32 ha in size in the eastern portion of the subject property along Sandy Cove Drive. At the time of the field investigation, the property was developed with a drinking water well, a gravel driveway and there was an area cleared of vegetation for the proposed residential building in the southern portion of the development property.

The subject property is situated in a rural area south of Belleville, Ontario within Prince Edward County, ON. The subject property is bound to the west by Massassauga Road, bound to the south by Sunrise Drive and bound to the east by Sandy Cove Drive. The subject area consists of rural residential properties and cottages to the west, south and east of the subject property and Massassauga Point Conservation Area is north adjacent of the subject property. The Bay of Quinte is located approximately 80 metres northwest of the subject property and approximately 280 metres east of the severed property.

Aerial photographs provide a visual chronology of previous land uses and activities on the entire property. Historic aerial photographs are available for review and reproduction from Google Earth. The available flight lines and satellite images were noted to have been collected in 2002, 2009, 2013, 2017, and 2023. Review of the aerial photos indicate that the entire subject property has been vacant, and no previous development has occurred on the subject property. From 2002 to 2023, the subject property had not undergone y significant changes, and the surrounding area is comprised of rural residential use properties with sporadic agricultural use properties. A copy of the aerial photographs can be found in Appendix B.



1.5. Land Use Context

Zoning for the subject property referencing the Prince Edward County Zoning Maps through Prince Edward County GIS and Mapping Services (PEC, 2025) the property is located within an area zoned as a Rural Area (RU2). The zoning map including the subject property can be found in Appendix C.



2. METHODOLOGY

2.1. Desktop Review

A desktop information gathering exercise was completed to aid in the scoping of field investigations and to gather information relating to natural heritage features which may be present on the subject project or within the study area. An additional component of the desktop review was to assess the potential presence of Species at Risk (SAR) to occur on the subject property or within the study area based on a review of publicly accessible occurrence records and a review of SAR habitat requirements and range maps.

Information regarding the potential presence of natural heritage features and SAR within the vicinity of the site was obtained from the following sources:

- Make a Map: Natural Heritage Areas (OMNRF, 2014a)
- Land Information Ontario (OMNRF, 2011);
- Ontario Geological Survey (OGS, 2019);
- Fisheries and Oceans Canada SAR Maps (DFO, 2019);
- Natural Heritage Information Centre Biodiversity Explorer (OMNRF, 2013);
- Breeding Bird Atlas of Ontario (Cadman et al., 2007)
- Ontario Herpetofauna Atlas (Oldham and Weller, 2000);
- Wildlife Values Area (OMNRF, 2020a);
- Wildlife Values Site (OMNRF, 2020b);
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019);
- Prince Edward County Official Plan (PEC, 2021);
- Prince Edward County GIS and Mapping (PEC Maps, 2025).

2.2. Field Investigations

Three (3) field investigations were undertaken to describe in general, the natural and physical setting of the subject property with a focus on natural heritage features and to identify potential SAR or their habitat that may exist at the subject property. The field investigations were conducted on May 22, 2025, May 27, 2025, and June 3, 2025. Bird surveys were conducted as a part of this EIS on May 27, 2025, and June 3, 2025. These field investigations were conducted half hour prior to sunrise (approximately 5:00 AM to approximately 8:00 AM) within the recommended seasonal timeframe (late May – First week of July). ASC is under the opinion that the field investigations provide significant evidence to ensure the proposed development envelope will not negatively impact the size and ecological functions of the remaining natural heritage features on-site.

The field investigation completed in support of this EIS are outlined in Table 1 below. Photographs taken during the Site investigations are included in Appendix D.



Table 1: Summary of Field Investigations

Date	Time	Weather	Purpose
May 22, 2025	10:00 AM – 12:30 PM	10°C, cloudy, light precipitation	Wetland Evaluation, Ecological Land Classification
May 27, 2025	5:00 AM – 8:00 AM	8°C - 15°C, partly cloudy and foggy changing to clear and sunny	Ecological Land Classification SAR identification, Bird Surveys
June 3, 2025	5:00 AM – 8:00 AM	10°C - 18°C, sunny	SAR identification, Bird Surveys

2.2.1. Ecological Land Classification

Vegetation communities on the subject property were delineated during the desktop review stage of this EIS using publicly available air photos and confirmed in the field on May 22 and 27, 2025, following the Ecological Land Classification System for Southern Ontario (Lee et al., 1998). Vegetation communities were confirmed in the field by employing the random meander methodology while documenting dominant vegetation species within the various vegetation community forms.

2.3. Data Analysis

An evaluation of the significance of natural heritage features, the sensitivity of identified flora and fauna and the potential impacts posed by the proposed development was undertaken through an analysis of desktop and field investigation data using the approaches and criteria outlines in the following documents:

- Natural Heritage Reference Manual (OMNR, 2010);
- Significant Wildlife Habitat Technical Guide (OMNR, 2000);
- Significant Wildlife Habitat Ecoregion Criterion Schedules (OMNRF, 2015); and
- Significant Wildlife Habitat Mitigation Support Tool (OMNRF, 2014b).



3. EXISTING ENVIRONMENT

3.1. Ecoregion

The site is situated Ecoregion 6E-15 (Lake Simcoe-Rideau), which extends from Lake Huron in the west to the Ottawa River in the east. The climate of Ecoregion 6E is categorized as humid, high to moderate temperate ecoclimate with a mean annual temperature range between 4.9°C to 7.8°C and an annual precipitation ranging between 759 mm to 1,087 mm (Crins et al., 2009).

The central portion of the Ecoregion, which the subject property is located, is underlain by glaciomarine deposits as a result of the brief post-glacial incursion of salt water from the Champlain Sea along the St. Lawrence Valley. This Ecoregion falls with Rowe's (1972) Great Lakes-St. Lawrence Forest Region, including its Huron-Ontario and Upper St. Lawrence sections, and a small part of the Middle Ottawa Forest section (Crins et al., 2009).

3.2. Landforms, Soils and Bedrock Geology

The topography of the site can be described as generally flat terrain with a slight slope downwards towards Sandy Cove Drive; with a topographical high of 88 mASL near the central portion and a topographical low of 83 mASL at the eastern boundary of the subject property.

Based on available physiography, geology, and topography information, the physiography in the study area can be described as a mixed of Limestone Plains and Clay Plains. The study area lies within an area of Paleozoic bedrock and areas of fine-textured glaciolacustrine deposits consisting of silt and clay, minor sand and gravel that is massive to well laminated, as well as organic deposits consisting of peat, muck, and marl.

The bedrock geology in the study area is characterized by Limestone, dolostone, shale, arkose, sandstone of the Ottawa Group; Simcoe Group; Shadow Lake Formation.

3.3. Surface Water, Groundwater and Fish Habitat

There are no surface water features on the subject property. The Bay of Quinte is located approximately 80 metres northwest of the subject property and approximately 215 metres east of the severed property.

A fisheries assessment was not conducted as part of this EIS, surface water features (i.e. The Bay of Quinte) was outside of the study area for the developmental property and is presumed to provide sufficient fish habitat for small and large-bodied fish species.

3.4. Vegetation Communities

Vegetation communities on-site were characterized by ASC on May 22, and 27, 2025, following protocols utilized in the Southern Ontario Ecological Land Classification System



(Lee et al., 1998). Vegetation at the site represents a mosaic of Eastern Red Cedar Coniferous Forest and sporadic areas of cultural thicket. Table 2 below provides a summary of the various vegetation communities identified on-site and Figure 3 in Appendix A provides an illustration of the various vegetation communities.

Table 2: Vegetation Communities On-Site

ELC Community Type	Description	Size (ha)
Dry-Fresh Red Cedar Coniferous Forest (FOC2-1)	This community was located throughout most of the subject property. This community was characterized by predominantly Eastern Red Cedar. Other species include common buckthorn, and northern prickly ash.	30.04 ha
Cultural Thicket (CUT)	Occurring in the southern, central and northern portions of the subject property, this community was characterized by dry soils, less than 25% tree cover, and dominated by low shrub species including Eastern Red Cedar. These areas have been historically altered by anthropogenic activities, including the northern area being cleared by the construction of hydro and telecommunication lines.	3.35 ha

3.5. Wildlife

Wildlife observed on-site and within the study area during field investigations completed in 2025 are summarized in Table 3 in Appendix E. During the site investigation, three (3) avian species of species concern were identified on the development property or within the study area (Canada Warbler, Eastern Wood-pewee, and Wood Thrush). Should SAR be discovered during development on-site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction. Furthermore, to ensure compliance with applicable legislation, best management practices and adherence to vegetation clearing for birds and bats, outlined in Section 7 should be followed to ensure no negative impacts occur to natural heritage features on-site.

4. NATURAL HERITAGE FEATURES

Natural heritage features are defined in the PPS as “*features and area, including significant wetlands, significant coastal wetlands, fish habitat, significant woodlands south and east of the Canadian Shield, significant valleylands south and east of the Canadian shield, significant habitats of endangered species and threatened species, significant wildlife habitat and significant areas of natural and scientific interest, which are important for their environmental and social values as a legacy of the natural landscape of an area*”.

4.1. Significant Wetlands

As described in the Ontario Wetland Evaluation System, Southern Manual (OWES, 2022), a wetland is defined as “Lands that are seasonally or permanently flooded by shallow water as well as lands where the water table is close to the surface; in either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic or water tolerant plants.” While significant in regard to wetlands means “an area identified as provincially significant by the Ontario Ministry of Natural Resources and Forestry using evaluation procedures established by the Province, as amended from time to time.”

No surface water features or wetlands were identified on the subject property by ASC staff during the site investigations on May 22, and May 27, 2025. In reference to the Ontario Wetland Evaluation System, wetland areas were assessed using the 50/50 wetland vegetation rule.

Wetland areas are evaluated by using the presence/absence of wetland indicator species. No wetlands were identified on the subject property during the field investigations and are not discussed or evaluated further in this EIS.

4.2. Significant Woodlands

Significant woodlands are defined in the natural heritage reference manual (OMNR, 2010) 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.”

At the local scale, significant woodlands are defined and designated by the local planning authority. Generally, most planning authorities have defined significant woodlands as woodland that contains any of the four criteria listed in Section 7.2 of the Natural Heritage Reference Manual (NHRM) (OMNR, 2010), including: woodland size, ecological functions, uncommon characteristics and economic and social functional values. Table 4 in Appendix E presents the screening rational for significant woodlands applied in this EIS.



Woodland size is evaluated across contiguous woodland, regardless of property divisions, and only divided by gaps over 20 metres wide. As laid out in the NHRM, significant woodland size is informed by the proportion of forested land cover in a region. The subject property is located in the Prince Edward Region Watershed, which is approximately 32% forested (Quinte Conservation, 2023). The NHRM directs that where forest cover is 30 to 60% of the land cover, woodlands 50 ha in size or larger should be considered significant. In this case, the contiguous woodland size on the development property and within the surrounding area north of Sunrise Drive, east of Massassauga Road, and west of Sandy Cove Drive is greater than 50 ha (approximately 55.57 ha) and should be considered significant.

Woodland interior is defined as woodland habitat more than 100 metres from the forest edge. For the purposes of this criterion, a maintained public road would create an edge even if the opening was not wider than 20 metres and did not create a separate woodland. The NHRM directs that where forest cover is 30 to 60% of the land cover, interior woodland habitat 8 ha or larger should be considered significant. In this case, the woodland interior habitat within the surrounding area of the development property is greater than 8 ha in size (approximately 11.39 ha) and should be considered significant.

The contiguous woodlands on the development property and the surrounding area provides ecological functions including linkages to other natural heritage features including the Bay of Quinte and the Huffs Island Coastal Wetland, and water protection from the Bay of Quinte.

Based on the results of the significant woodland screening presented in Table 4 Appendix E, significant woodlands are present on-site due to the contiguous size and ecological functions including the size of woodland interior, linkages to other natural heritage features and water protection. Significant woodlands are illustrated on Figure 3 Appendix A in relation to other site features.

Impacts to significant woodlands from the proposed development are discussed in Section 6.

4.3. Significant Valleylands

Valleylands are defined in the natural heritage reference manual (OMNR, 2010) as ‘a natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of time’. The identification and evaluation of significant valleys lands in Ontario is based on the recommended criteria from the MNRF and is the responsibility of local planning authorities.

In Southern Ontario, conservation authorities have identified valleylands as part of their regulation mapping (i.e., floodplain mapping); however, where valleys lands have not been defined, their physical boundaries are generally determined as the ‘top-of-bank’ or ‘top-of-slope’ associated with a watercourse. For less well-defined valleys, the physical boundary



may be defined by riparian vegetation, flooding hazard limits, ordinary high-water marks or the width of the stream meander belt (OMNR, 2010).

As discussed in Section 3.2, the topography of the site can be described as generally flat terrain with a slight slope downwards towards Sandy Cove Drive; with a topographical high of 88 mASL near the central portion and a topographical low of 83 mASL at the eastern boundary of the subject property. No valley lands were identified on-site during the desktop review or the site investigations. As such significant valleylands are not discussed or evaluated further in this EIS.

4.4. Significant Areas of Natural and Scientific Interest

The MNRF identifies two types of areas of natural and scientific interest (ANSI) in Ontario: life sciences ANSIs typically represent significant segments of Ontario's biodiversity and natural landscapes, while earth science ANSIs typically represent significant examples of bedrock, fossils or landforms in Ontario (OMNR, 2010).

No ANSI have been identified on-site or within the study area during the desktop review or during site investigation. The closest ANSI is the Huffs Island Coastal Wetland located approximately 850 m southeast of the subject property. Therefore, ANSIs are not discussed or evaluated further in this EIS.

4.5. Significant Wildlife Habitat

The natural heritage reference manual (OMNR, 2010), in combination with the significant wildlife habitat technical guide (MNRF, 2000) and the significant wildlife habitat ecoregion criterion schedules (MNRF, 2015) were used to identify and evaluated potential significant wildlife habitat on-site. The significant wildlife habitat is broadly categorized as habitats of seasonal concentration of animals, rare vegetation communities, specialized habitats for wildlife, habitats of species of conservation concern and animal movement corridors. Table 5, 6, 7, and 8 in Appendix E provide the screening rational for each category of significant wildlife habitat, respectively.

4.5.1. Habitats of Seasonal Concentrations of Animals

Seasonal concentration areas are habitats where large numbers of species congregate at one particular time of the year. The significant wildlife habitat technical guides (OMNR, 2000) and significant wildlife habitat ecoregion criterion schedules (OMNRF, 2015a) identify 12 types of seasonal concentration habitats that may be considered significant wildlife habitat. These 12 types of seasonal habitat are presented in Table 5 in Appendix E, including a brief description of the rationale as to why they are or are not assessed further in this EIS.

A snag density survey has not been completed at this time. The snag density (>10 snags/hectare) is a requirement to be considered significant wildlife habitat (SWH) for bat maternity colonies. Should bats be identified during development on- site, operations



should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction. Furthermore, to ensure compliance with applicable legislation, best management practices and adherence to vegetation clearing for bats, outlined in Section 7 should be followed to ensure no negative impacts occur to natural heritage features on-site.

Following review of Table 5 in Appendix E, no habitats of seasonal concentrations of animals have been identified on-site, as such they are not discussed or evaluated further in this EIS.

4.5.2. Rare Vegetation Communities

Rare vegetation communities in the province are described generally as those with an S1 to S3 ranking by the NHIC, and typically include communities such as sand barrens, alvars, old growth forests, savannahs and tallgrass prairies.

The vegetation communities identified on-site and described in Section 3.4 of this report are not ranked by the NHIC as S1, S2 or S3 and are therefore not considered to be rare vegetation communities. As such, rare vegetation communities are not discussed or evaluated further in this EIS.

4.5.3. Specialized Habitats for Wildlife

Specialized wildlife habitats are microhabitats that provide a critical resource to some groups of wildlife. The significant wildlife habitat technical guide (OMNR, 2000), defines eight specialized habitats that may constitute significant wildlife habitat, these eight types of specialized wildlife habitats are evaluated in Table 6 in Appendix E.

Following review of Table 6 in Appendix E, no specialized habitats for wildlife have been identified on-site or within the study area, as such they are not discussed or evaluated further in this EIS.

4.5.4. Habitats of Species of Conservation Concern

Provincial rankings are used by the Natural Heritage Information Centre to set protection priorities for rare species, similar to those described in Section 4.5.2 above for vegetation communities. Provincial rankings (S-ranks) are not legal designations such as those used to define the various protection statuses of species at risk, they are only intended to consider factors within the political boundaries of Ontario that might influence a particular species abundance, distribution or population trend.

Based on the guidance provided in the Significant Wildlife Habitat Ecoregion Criterion Schedules (MNR, 2015), when a plant or animal element occurrence is recorded for any species with an S- rank of S1 (extremely rare), S2 (very rare), S3 (rare to uncommon) or SH (historically present), the corresponding vegetation ecosite is considered to provide candidate habitat for species of conservation concern and further consideration within the



EIS is warranted.

The Significant Wildlife Habitat Ecoregion Criterion Schedules (OMNRF, 2015) provides five general habitat types known to support a wide range of species of conservation concern in Ontario. The five general habitat types for Ecoregion 6E-15 are provided in Table 7 in Appendix E, including a brief rationale as to why they are or are not considered further in this EIS.

Following review of Table 7 in Appendix E, general habitats of species of conservation concern have been identified on-site for special concern and rare wildlife species including Canada Warbler, Wood thrush, Grasshopper Sparrow, Eastern Wood-pewee, Western Chorus Frog, and Eastern Milksnake.

The SWH are discussed in detail in the subsections below.

4.5.5. Special Concern and Rare Wildlife Species SWH

Based on occurrence data from the Natural Heritage Information Centre (NHIC), Herp Atlas and observation data taken during field investigations, fourteen (14) species of special concern have the potential to occur on-site or within the broader study area; Canada Warbler, Wood thrush, Grasshopper Sparrow, Eastern Wood-pewee, Western Chorus Frog, Eastern Milksnake, Blanding's Turtle, Midland Painted Turtle, Northern Map Turtle, Snapping Turtle, and four (4) bat species. No other species of special concern or rare wildlife species were presumed to occur on-site or within the broader study area. Potential impacts to species at risk from the proposed development are discussed in Section 6.

Canada Warbler

The Canada Warbler is a small, brightly coloured songbird with bluish-grey upperparts and tail and bright yellow underparts. The head is bluish with a black forehead and "sideburns" which join to form a distinctive necklace of black stripes across its chest. The Canada Warbler breeds in a range of deciduous and coniferous, usually wet forest types, all with a well-developed, dense shrub layer. Dense shrub and understory vegetation help conceal Canada Warbler nests that are usually located on or near the ground on mossy logs, roots, or along stream banks and on hummocks. The Canada Warbler is most abundant in Ontario along the Southern Sheild. The Canada Warbler has an S-rank of S4B (uncommon but not rare) and is listed as a species of special concern in Ontario. Data occurrences from the NHIC provides occurrence records of the Canada Warbler occurring within 1 km of the Site. Canada Warblers were identified on-site during the site investigations on May 27, 2025, and June 3, 2025. Potential impacts to Canada Warbler habitat from the proposed residential development are discussed in Section 6.

Wood Thrush

The Wood Thrush is a medium-sized songbird, about 20cm long, and are generally rusty-brown on the upper parts with white under parts and large blackish spots on the breast and



sides. Males and females have similar appearance, and young birds look similar to adults, but have tawny streaks and spots on the back, neck, and wings. The wood thrush forages for food in leaf litter or on semi-bare ground feeding on larval and adult insects as well as plant material. The wood thrush lives in mature deciduous and mixed conifer-deciduous forests and seek moist stands of trees with well-developed undergrowth and tall trees for singing perches. These birds prefer large forests, but will also use smaller stands of trees, and build their nests in living saplings, trees or shrubs, usually in sugar maple or American beech. The wood thrush is found across southern Ontario and is also found along the north shore of Lake Huron and as far west as the southeastern tip of Lake Superior. The wood thrush has an S-rank of S4B (uncommon but not rare) and is listed as a species of special concern in Ontario. Data occurrences from the NHIC provides occurrence records of the Wood Thrush occurring within 1 km of the Site. Wood Thrush's were identified on-site during the site investigations on May 27, 2025, and on June 3, 2025. Potential impacts to Wood Thrush habitat from the proposed residential development are discussed in Section 6.

Grasshopper Sparrow

The Grasshopper Sparrow is a small brown songbird with a streaked back and buffy white underparts. It has a white stripe down the centre of its crown and a flat look to the top of its head. Its conical bill is beige. The male and female look similar to each other and the young have a streaked breast in the first fall. The grasshopper sparrow inhabits open grassland areas with well-drained, sandy soil. It will also nest in hayfields and pasture, as well as alvars, prairies and occasionally grain crops such as barley. It prefers areas that are sparsely vegetated. Its nests are well-hidden in the field and woven from grasses in a small cup-like shape. The grasshopper sparrow has an S-rank of S4 (uncommon but not rare) and is listed as a species of special concern in Ontario. Data occurrences from the NHIC provides occurrence records of the grasshopper sparrow occurring within 1 km of the site. Grasshopper sparrows were not identified or heard during the field investigations. Given the lack of suitable habitat on the subject property, there is a low chance of the grasshopper sparrow occurring on-site. There is more suitable grassland and open field habitat east of the subject property outside of the study area.

Eastern Wood-pewee

The Eastern Wood-pewee is a small forest bird that grows to about 15 cm long and is generally greyish-olive on their upper parts and pale on the under parts with pale bars on their wings. Males and females are similar in appearance. The eastern wood-pewee has a distinctive, clear, three-part sing, usually recorded as "pee-ah-wee". The eastern wood-pewee lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is most abundant in intermediate-age mature forest stands with little understory vegetation. The eastern wood-pewee is found across most of southern and central Ontario, an in northern Ontario as far as Red Lake, Lake Nipigon and Timmins. The eastern wood-pewee has and S-rank of S4B (uncommon but not rare) and is listed as a species of special concern in Ontario. Data occurrences from the NHIC provides occurrence records of the eastern wood-pewee occurring within 1 km of the site. Eastern wood-pewees were observed



on the site during the field investigations on May 27, 2025, and June 3, 2025. Potential impacts to Eastern Wood-pewee habitat from the proposed residential development are discussed in Section 6.

Western Chorus Frog

The western chorus frog is a small and smooth skinned frog that varies from green-grey to brown in colour. A dark stripe runs through the eye and a white stripe runs along the upper lip. They are distinguished by three dark stripes running down their back. Adult western chorus frogs grow to only three centimetres in body length. The western chorus frog inhabits forest openings around woodland ponds but can also be found in or near damp meadows, marshes, bottomland swamps, and temporary ponds in open country or urban areas. The western chorus frog breeds in almost any fishless pond with at least 10 centimetres of water, including quiet, shallow, usually temporary waterbodies with vegetation that is submerged or protrudes from the water, and especially in rain-flooded meadows and ditches, and in temporary ponds on floodplains. The western chorus frog overwinters underground or under surface cover, such as fallen logs. The western chorus frog has an S-rank of S4 (uncommon but not rare) and is listed as threatened in Ontario. Data occurrences from the NHIC provides occurrence records of the western chorus frog occurring within 1 km of the site. Western chorus frogs were not observed or heard during the field investigations. Given the availability of aquatic habitat north of the subject property, there is a moderate chance the western chorus frog occurring within the northern portion of the subject property to overwinter in the forested habitat. Potential impacts to the western chorus frog habitat from the proposed residential development are discussed in Section 6.

Eastern Milk Snake

The eastern milk snake grey or tan with alternating red or reddish-brown blotches that are distinctly outlined in black along its back and sides. The eastern milk snake has a white and black chequered belly and usually a distinct Y- or V-shaped mark on the back of its head. The eastern milk snake has smooth scales, is a long, narrow snake and can grow to over a metre in length, although most individuals are much smaller. The eastern milk snake has an S-rank of S4 (uncommon but not rare) and is listed as a species of special concern in Ontario. Data occurrence from the Ontario Herp and Reptile Atlas indicates the species occurring within the 10km² that encompasses the site. The NHIC provides occurrence records of eastern milk snake occurring within 1 km of site. Eastern milk snakes were not observed during the field investigations. Eastern milk snakes can be found in a variety of habitats but tend to use open habitats such as rocky outcrops, fields and forest edge. In rural areas this snake may be common, especially around barns where they thrive on the abundant mice. The milk snake hibernates underground, in rotting logs or in the foundations of old buildings. Given the availability of suitable habitat within the study area, there is a moderate chance of eastern milk snake occurring on-site. Potential impacts to candidate eastern milk snake habitat from the proposed development are discussed in Section 6.

Blanding's Turtle



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The Blanding's Turtle is a medium-sized turtle easily determined by its bright yellow throat and chin. Unlike most Ontario turtles that have wide, flatter shells, Blanding's Turtles have a domed shell that resembles an army helmet. The Blanding's turtle is an aquatic species with an S-rank of S3 (rare to uncommon) and is listed as a threatened species in Ontario. Blanding's turtles inhabit shallow water, usually in large wetlands and shallow lakes with lots of aquatic plants. Given the lack of surface water features on the subject property there is a low chance of Blanding's turtles occurring on site and are more likely to be found within the aquatic habitat outside of the study area.

Midland Painted Turtle

The midland painted turtle has an olive to black carapace (upper shell) with red or dark orange markings on the marginal scutes, as well as red and yellow stripes on the head and neck. The midland painted turtle has a yellow or dark tan plastron (low shell) with a darker, irregular "butterfly" marking along the midline. The midland painted turtle inhabits waterbodies such as ponds, marshes, lakes, and slow-moving creeks that have a soft bottom and provide abundant basking sites and aquatic vegetation. Midland painted turtles often bask on shorelines, logs, and rocks that protrude from the water. Midland painted turtles hibernate on the bottom of waterbodies. The midland painted turtle is of special concern in Ontario as of 2021 and ranked as S4 (uncommon but not rare). Midland painted turtles were not observed during the field investigations. Given the lack of suitable aquatic habitat on the subject property, there is a low chance of midland painted turtles occurring on the subject property and are more likely to be found within the aquatic habitat outside of the study area.

Northern Map Turtle

The northern map turtle inhabits rivers and lakeshores where it basks on emergent rocks and fallen trees. In winter, the turtles hibernate on the bottom of deep, slow-moving sections of river. The northern map turtle is of special concern and ranked as S3 (rare to uncommon) in Ontario. Northern map turtles were not observed on the subject property during the site investigations. Given the lack of suitable aquatic habitat on the subject property, there is a low chance of northern map turtles occurring on the subject property and are more likely to be found within the aquatic habitat outside of the study area.

Snapping Turtle

The Snapping turtle is a highly aquatic turtle species with an S-rank of S3 (rare to uncommon) and is listed as a species of special concern in Ontario. Snapping turtles are aquatic generalists, found in a variety of wetlands, water bodies and watercourses. As a highly aquatic species, Snapping turtles prefer wetlands and waterbodies to be permanently flooded. Given the lack of surface water features on the subject property there is a low chance of snapping turtles occurring on site and are more likely to be found within the aquatic habitat outside of the study area.

Bat Species



Seven (7) Ontario bat species (eastern small-foot myotis, little brown myotis, hoary bat, eastern red bat, silver-haired bat, northern myotis, and tri-coloured bat) were added to the Ontario Endangered Species Act because of the impact of White Nose Syndrome and not from habitat loss. The fungus grows in humid, cold environments, such as the caves and mines where many bats hibernate. The syndrome disrupts the hibernation cycle, so that bats use up body fat supplies before the spring when they can once again find food sources. In Ontario, bat populations dropped by more than 90% in eight hibernation sites with more than two years' exposure to white nose syndrome. The methodology outlined in MNR (2011) notes that if a site has more than 10 snags/ha. then it should be assessed with acoustic monitoring. A snag survey was not conducted during the site investigation on December 1, 2025. Potential impacts to bat habitat from the proposed development are discussed in Section 6.

Potential impacts to bat habitat from the proposed development are discussed in Section 6.

4.5.6. Animal Movement Corridors

Animal movement corridors are elongated areas used by wildlife to move from one habitat to another and allow for the seasonal migration of animals (OMNRF, 2015). The Significant Wildlife Habitat Ecoregion Criterion Schedules for Ecoregion 6E-11 (OMNRF, 2015), identifies two types of animal movement corridor: amphibian movement corridors and deer movement corridors. As per guidance presented in MNRF, 2015, animal movement corridors should only be identified as significant wildlife habitat when confirmed or candidate significant wildlife habitat has been identified by the MNRF district office or by the regional planning authority.

Following review of Table 8 in Appendix E, no animal movement corridors have been identified on-site. Furthermore, the MNRF has not identified animal movement corridors on the publicly available data sets for wildlife values area (OMNRF, 2020a) or wildlife values site (OMNRF, 2020b). As such, animal movement corridors are not discussed or evaluated further in this EIS.

4.6. Fish Habitat

The protection of fish and fish habitat is a federal responsibility and is administered by the Department of Fisheries and Oceans Canada (DFO). Fish habitat as defined in the Fisheries Act (Canada, 1985) means, "spawning grounds and nursery, rearing food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes."

When development is unable to avoid resulting in the harmful alteration, disturbance or destruction of fish habitat from typical project impacts such as temperature change, sedimentation, infilling, reduction of nutrient and food supply, etc., an authorization under the Fisheries Act is required for the project to proceed.



As discussed in Section 3.3, there are no surface water features on the subject property and fish habitat is not discussed further in this EIS.

4.7. Species at Risk

The probability of occurrence for species at risk to occur on-site and within the broader study area was determined through the desktop review stage of this EIS, as described in Section 2.1, and through the site-specific surveys conducted as part of this EIS, outlined in Section 2.2.

A review of publicly accessible occurrence records and a review of SAR habitat requirements and range maps, as well as the identified vegetation communities within the subject property. Based on publicly accessible occurrence records the following Species at Risk (SAR) to potentially occur on the development properties or within the study area are: snapping turtle, Blanding's turtle and seven (7) Bat species (eastern small-foot myotis, little brown myotis, hoary bat, eastern red bat, silver-haired bat, northern myotis, and tri-coloured bat).

Should SAR be discovered during development on-site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction. Furthermore, to ensure compliance with applicable legislation, best management practices and adherence to vegetation clearing for birds and bats, outlined in Section 7 should be followed to ensure no negative impacts occur to natural heritage features on-site.

Table 9 in Appendix E provides a summary of species at risk which were determined to have the potential to occur on-site or within the broader study area, their protection status under the provincial Endangered Species Act (Ontario, 2007), their regional distribution, their probability of occurrence and a brief rationale of that probability. Impacts to endangered or threatened SAR determined to have a moderate or high potential to occur on-site or within the broader study area are discussed further in the Section 6.3.



5. PROPOSED PROJECT

The proposed project assessed for potential impacts on the natural heritage features determined to be present on-site and within the broader study area includes the development of a vacant 7.32 ha parcel of land on the 33.39 ha property for single-family residential use.

The act of rezoning the property is not expected to result in physical alteration to the subject property. Future and existing development activities already included the preparation of a driveway and clearing of a building envelope for the location of a future dwelling. Additional activities include minor tree clearing and vegetation removal, granular engineered fill placement and/or elevation grading, driveway construction, excavation and pouring of building foundations, construction of a single-family residential building, installation of septic system and general landscaping activities.



6. IMPACT ASSESSMENT

Potential impacts to natural heritage features on-site and within the broader study area are assessed for direct, indirect and cumulative effects based on the proposed project outlined in Section 5. Natural heritage features identified in Section 4 of this report as present or likely to be present are discussed in the subsections below.

As discussed in Section 5, the proposed project supported by this EIS is for future single family residential development. It is presumed that potential future development activities on-site may include vegetation removal, disturbance of the natural soil mantle, increased noise generation, increased human disturbance, and increased storm water generation.

6.1. Significant Woodlands

As discussed in Section 4.2, the woodlands on-site are considered significant due to the contiguous size and ecological functions including the size of woodland interior, linkages to other natural heritage features and water protection from The Bay of Quinte.

The proposed development is not anticipated to include the loss of significant woodlands and the proposed development envelopes (see Figures in Appendix A) are positioned to accommodate the future development without direct impacts to significant woodland habitat. Based on the location of the proposed development envelopes these are not anticipated to result in increased fragmentation or increased human disturbance. Furthermore, a 15 to 30-metre buffer from the significant woodland habitat, ensures potential impacts to the significant woodland habitat are minimal and the significant woodlands maintain its ecological functions.

Avoidance and mitigation measures to reduce impacts to significant woodlands are outlined in Section 7.

6.2. Significant Wildlife Habitat

The potential presence of candidate and confirmed significant wildlife habitat on-site and within the study area was evaluated in Section 4.5. As a result of this assessment types of candidate significant wildlife habitat was determined to be present on-site or within the study area; candidate and confirmed special concern and rare wildlife species SWH for nine (9) species of special concern have the potential to occur on-site or within the broader study area; Canada Warbler, Wood thrush, Eastern Wood-pewee, Western Chorus Frog, Eastern Milk snake, and four Bat species (Eastern Small-footed Myotis, Little Brown Myotis, Tri-colored Bat, and Northern Myotis).

Potential impacts to each type of SWH are discussed in greater detail in the following subsections, while mitigation measures intended to prevent such impacts are presented in Section 7.



6.2.1. Habitats of Special Concern and Rare Wildlife Species

Canada Warbler

The Canada Warbler is a small, brightly coloured songbird with bluish-grey upperparts and tail and bright yellow underparts. The head is bluish with a black forehead and “sideburns” which join to form a distinctive necklace of black stripes across its chest. The Canada Warbler breeds in a range of deciduous and coniferous, usually wet forest types, all with a well-developed, dense shrub layer. Dense shrub and understory vegetation help conceal Canada Warbler nests that are usually located on or near the ground on mossy logs, roots, or along stream banks and on hummocks. The Canada Warbler is most abundant in Ontario along the Southern Sheild. In Ontario the Canada Warbler is listed as a species of special concern.

Threats to Canada Warblers are primarily related to a reduction in for in forest habitat with well-developed shrub-layer throughout its breeding range. The Canada Warbler also likely faces extensive pressure on its wintering grounds in South America, where deforestation is a widespread problem.

Two (2) Canada Warblers were observed calling within the study area during the site investigations in late May and early June 2025.

Impacts to Canada Warblers and their habitat from the proposed development are limited to the significant woodland habitat on-site (illustrated on Figure 3), which may provide suitable foraging, nesting and breeding habitat. A loss of 0.192 ha of significant woodland edge habitat on the development property is anticipated as part of the proposed development; therefore, impacts to the significant woodland habitat, including destruction of nesting habitat and woodland fragmentation are not anticipated.

Other potential impacts to Canada Warbler habitat include short duration construction impacts, including heavy machinery encroachment, fill placement and human disturbance such as noise generation, refuse, yard waste, and trampling, particularly during breeding season in late May to early June.

However, given the nature of the proposed single-family residential development; impacts from increased human presence and disturbance are anticipated to be minimal. Should Canada Warblers or nests be discovered during development on- site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.

Mitigation measures to protect Canada Warblers and their habitat are provided in Section 7.

Wood Thrush



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The Wood Thrush is a medium-sized songbird, about 20cm long, and are generally rusty-brown on the upper parts with white under parts and large blackish spots on the breast and sides. Males and females have similar appearance, and young birds look similar to adults, but have tawny streaks and spots on the back, neck, and wings. The wood thrush forages for food in leaf litter or on semi-bare ground feeding on larval and adult insects as well as plant material. The wood thrush lives in mature deciduous and mixed conifer-deciduous forests and seek moist stands of trees with well-developed undergrowth and tall trees for singing perches. These birds prefer large forests, but will also use smaller stands of trees, and build their nests in living saplings, trees or shrubs, usually in sugar maple or American beech. The wood thrush is found across southern Ontario and is also found along the north shore of Lake Huron and as far west as the southeastern tip of Lake Superior. The wood thrush is listed as a species of special concern in Ontario.

Threats to the Wood Thrush are primarily associated with the loss or breaking up of the bird's forest habitat from urban, suburban, and cottage development. Other threats to the wood thrush involve over-browsing by white-tailed deer causing a decrease in the number and type of plants and trees in the forest, including the number of saplings, where the wood thrush nests, as well as parasitic behaviour from brown-headed cowbirds, which lay their eggs in the nests of the wood thrush (and other birds), and whose young are fed by the host thrush at the expense of their own young.

Wood Thrush's were observed calling within the study area during the site investigations in late May and early June 2025.

Impacts to Wood Thrush and their habitat from the proposed development are limited to the significant woodland habitat on-site (illustrated on Figure 3), which may provide suitable foraging, nesting and breeding habitat. A loss of 0.192 ha of significant woodland edge habitat on the development is anticipated as part of the proposed development; therefore, impacts to the significant woodland habitat, including destruction of nesting habitat and woodland fragmentation are not anticipated.

Other potential impacts to Wood Thrush habitat include short duration construction impacts, including heavy machinery encroachment, fill placement and human disturbance such as noise generation, refuse, yard waste, and trampling, particularly during breeding season in Late May to Early June.

However, given the nature of the proposed single-family residential development; impacts from increased human presence and disturbance are anticipated to be minimal. Should Wood Thrushes or nests be discovered during development on-site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.

Mitigation measures to protect Wood Thrush and their habitat are provided in Section 7.



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Eastern Wood-pewee

The Eastern Wood-pewee is a small forest bird that grows to about 15 cm long and is generally greyish-olive on their upper parts and pale on the under parts with pale bars on their wings. Males and females are similar in appearance. The eastern wood-pewee has a distinctive, clear, three-part sing, usually recorded as “pee-ah-wee”. The eastern wood-pewee lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is most abundant in intermediate-age mature forest stands with little understory vegetation. The eastern wood-pewee is found across most of southern and central Ontario, an in northern Ontario as far as Red Lake, Lake Nipigon and Timmins. The Eastern Wood-pewee is listed as a species of special concern in Ontario.

Threats to the Eastern Wood-pewee are poorly known but may include the loss and degrading of habitat due to urban development and/or changes in how forests are managed, reductions in the availability of the flying insects they eat, the loss of eggs and fledging birds from increasing numbers of predators such as blue jays and red squirrels, and changes to the make-up of forests due to white-tailed deer over-browsing.

Eastern Wood-pewees were observed calling within the study area during the site investigations in late May and early June 2025.

Impacts to Eastern Wood-pewees and their habitat from the proposed development are limited to the significant woodland habitat on-site (illustrated on Figure 3), which may provide suitable foraging, nesting and breeding habitat. A loss of 0.192 ha of significant woodland edge habitat on the development property is anticipated as part of the proposed development; therefore, impacts to the significant woodland habitat, including destruction of nesting habitat and woodland fragmentation are not anticipated.

Other potential impacts to Eastern Wood-pewee habitat include short duration construction impacts, including heavy machinery encroachment, fill placement and human disturbance such as noise generation, refuse, yard waste, and trampling, particularly during breeding season in Late May to Early June.

Given the nature of the proposed, single-family residential development; impacts from increased human presence and disturbance are anticipated to be minimal. Should Eastern Wood-pewees or nests be discovered during development on- site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.

Mitigation measures to protect Eastern Wood-pewees and their habitat are provided in Section 7.

Western Chorus Frog



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The western chorus frog is a small and smooth skinned frog that varies from green-grey to brown in colour. A dark stripe runs through the eye and a white stripe runs along the upper lip. They are distinguished by three dark stripes running down their back. Adult western chorus frogs grow to only three centimetres in body length. The western chorus frog inhabits forest openings around woodland ponds but can also be found in or near damp meadows, marshes, bottomland swamps, and temporary ponds in open country or urban areas. The western chorus frog breeds in almost any fishless pond with at least 10 centimetres of water, including quiet, shallow, usually temporary waterbodies with vegetation that is submerged or protrudes from the water, and especially in rain-flooded meadows and ditches, and in temporary ponds on floodplains. The western chorus frog overwinters underground or under surface cover, such as fallen logs. The Western Chorus Frog is listed as a threatened species in Ontario.

Populations of western chorus frogs have been documented to have declined by 30 percent in Ontario over a 10-year period from 1995 through 2006. Threats to the western chorus frog include habitat loss and fragmentation in forests and seasonal wetlands where the western chorus frog use as breeding habitat.

Western Chorus Frogs were not observed or heard calling within the study area during the site investigations in late May and early June 2025.

Impacts to Western Chorus Frogs and their habitat from the proposed development are limited to the significant woodland habitat on-site (illustrated on Figure 3), which may provide suitable habitat. A loss of 0.192 ha of significant woodland edge habitat on the developmental property is anticipated as part of the proposed development; therefore, impacts to the significant woodland habitat in the northern portion of the subject property where the western chorus frog may inhabit and woodland fragmentation are not anticipated.

Other potential impacts to Western chorus frog habitat include short duration construction impacts, including heavy machinery encroachment, fill placement and human disturbance such as noise generation, refuse, yard waste, and trampling, particularly during breeding season in early spring.

However, given the nature of the proposed single-family residential development, and the distance from potential suitable habitat; impacts from increased human presence and disturbance are anticipated to be minimal. Should Western Chorus Frogs be discovered during development on-site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.

Mitigation measures to protect Western Chorus Frogs and their habitat are provided in Section 7.

Eastern Milk snake



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The eastern milk snake grey or tan with alternating red or reddish-brown blotches that are distinctly outlined in black along its back and sides. The eastern milk snake has a white and black chequered belly and usually a distinct Y- or V-shaped mark on the back of its head. The eastern milk snake has smooth scales, is a long, narrow snake and can grow to over a metre in length, although most individuals are much smaller. The eastern milk snake is listed as a species of special concern in Ontario.

Human persecution is a significant threat to the eastern milk snake. People often kill it on sight, mistaking it for a venomous massasauga rattlesnake due to its colour and tendency to vibrate its tail when disturbed. Other threats to the eastern milk snake include habitat loss due to urbanization, road construction and conversion of natural areas to agricultural uses. As well, like most other snakes in Ontario, milksnakes are commonly killed on roads. Eastern Milk snakes were not observed or heard calling within the study area during the site investigations in late May and early June 2025.

Impacts to Eastern Milk snakes and their habitat from the proposed development are limited to the significant woodland habitat on-site (illustrated on Figure 3), which may provide suitable habitat. A loss of 0.192 ha of significant woodland edge habitat on the developmental property is anticipated as part of the proposed development; therefore, impacts to the significant woodland habitat in the northern portion of the subject property where eastern milk snakes may inhabit and overwinter as well as woodland fragmentation are not anticipated.

Other potential impacts to Eastern Milk snake habitat include short duration construction impacts, including heavy machinery encroachment, fill placement and human disturbance such as noise generation, refuse, yard waste, and trampling.

However, given the nature of the proposed single-family residential development, and the distance from potential suitable habitat; impacts from increased human presence and disturbance are anticipated to be minimal. Should Eastern Milksnakes or basking areas be discovered during development on- site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.

Mitigation measures to protect Eastern Milk snakes and their habitat are provided in Section 7.

6.3. Species at Risk

As outlined in the Endangered Species Act (Ontario, 2007), only species listed as threatened or endangered and their general habitat receive automatic protection. When a species-specific recovery strategy is developed, a specific habitat regulation will be established, which eventually replaces the automatic habitat protection. Species of special concern and their habitat do not receive protection under the ESA.



Potential impacts associated with the proposed project to threatened or endangered species identified as having a moderate or high potential to occur on-site in Section 4.7, are discussed on a species-by-species basis in the subsections below.

6.3.1. Eastern Small-footed Myotis

Eastern small-footed Myotis (*Myotis leibii*) is the smallest (typically 3-5 g), insectivorous bat found in Ontario. The fur of an eastern small-footed Myotis is golden-brown in colour, with a distinct black mask across the face. The eastern small-footed Myotis is very similar in appearance to the little brown Myotis and is distinguishable by their small foot and keeled calcar (Fraser, MacKenzie & Davy, 2007).

The eastern small-footed Myotis is found throughout eastern North America. In Ontario the species has been observed in the areas south of Lake Superior across to the Ontario-Quebec border (Humphrey, 2017).

Eastern small-footed Myotis overwinter primarily in caves and abandoned mines with low humidity and temperatures and stable microclimates (Humphrey, 2017). In comparison to other Ontario bat species, they are able to tolerate much colder temperatures, drier conditions and draftier locations for hibernating (Humphrey, 2017). During the spring and summer months, they utilize a variety of habitats for roosting, including under rocks or rock outcrops, in buildings, under bridges, or in caves, mines or hollow trees (Ontario, 2021a).

The forest habitat on-site does not meet the requirements to support bat maternity colonies. There is low potential for eastern small-footed Myotis to occur on the property. Impacts to eastern small-footed Myotis are primarily associated with White Nose Syndrome, encroachment and increased wildlife-human interaction. Mitigation measures intended to protect eastern small-footed Myotis from impacts of the proposed development are discussed in Section 7.

6.3.2. Little Brown Myotis

Little brown Myotis (*Myotis lucifugus*) is a small (typically 4-11 g), insectivorous bat. The fur of a little brown Myotis is bi-coloured; fur is a glossy brown with a darker coloured base. The tragus of the Little Brown Myotis is long and thin, with a rounded tip (Fraser, MacKenzie & Davy, 2007).

In Canada, little brown Myotis' occur throughout all of the provinces and territories (except Nunavut), with its range extending south through the majority of the United States as well. In Ontario, the little brown Myotis is widespread in southern Ontario and has been found as far north as Moose Factory and Favourable Lake (Ontario, 2021b).

Little brown Myotis overwinter in caves and abandoned mines, they require highly humid conditions and temperatures that remain above the freezing mark (Ontario, 2021b). During

the summer months, maternity colonies are often located in buildings or large-diameter trees. Little brown *Myotis* roost in trees and buildings. Foraging occurs over water and along waterways, forest edges and in gaps in the forest. Open fields and clear-cuts are not typically utilized for foraging (COSEWIC, 2013).

The forest habitat on-site does not meet the requirements to support bat maternity colonies. There is low potential for little brown *Myotis* to occur on the property. Impacts to little brown *Myotis* are primarily associated with White Nose Syndrome, encroachment and increased wildlife-human interaction. Mitigation measures intended to protect little brown *Myotis* from impacts of the proposed development are discussed in Section 7.

6.3.3. *Tri-Colored Bat*

Tri-colored bat (*Perimyotis subflavus*) is a small (typically 5-7 g), insectivorous bat. The fur is uniformly coloured on the ventral and dorsal sides, however when parted fur shows three distinct colour bands. The base of the hair is blackish, with a blonde middle and brownish tip. The snout of the tri-coloured bat is also distinct, with swollen bulbous glands present (Fraser, MacKenzie & Davy, 2007).

In Canada, the tri-colored bat has only been recorded in southern parts of Nova Scotia, New Brunswick, Quebec and central Ontario. In Ontario it occurs primarily from the southern edge of Lake Superior across to the Ontario-Quebec border and south (COSEWIC, 2013).

Tri-colored bat overwinter in caves or mines and have very rigid habitat requirements; they typically roosting the deepest parts where temperatures are the least variable and have the strongest correlation with humidity levels and warmer temperatures (COSEWIC, 2013). In the spring and summer, tri-colored bat utilize trees, rock crevices and buildings for maternity colonies. Foraging is mainly done over watercourses and streamside vegetation (COSEWIC, 2013).

The forest habitat on-site does not meet the requirements to support bat maternity colonies. There is low potential for tri-colored bats to occur on the property. Impacts to tri-colored bat are primarily associated with White Nose Syndrome, encroachment and increased wildlife-human interaction. Mitigation measures intended to protect tri-colored bat from impacts of the proposed development are discussed in Section 7.

6.3.4. *Northern Myotis*

The Northern *Myotis* (*Myotis septentrionalis*) is a small (typically 6-9 g), insectivorous bat. The fur is dull yellow-brown with pale grey bellies. They have long (rounded) ears and can be distinguished by the fleshy projection that covers the entrance to the ear, which is long and thin, with a pointed tip (COSEWIC, 2013).

In Canada, the Northern *Myotis* is found in all Canadian provinces as well as the Yukon and

Northwest Territories. In Ontario it occurs primarily in forested areas throughout southern Ontario, to the north shore of Lake Superior and occasionally as far north as Moosonee, and west to Lake Nipigon (COSEWIC, 2013).

The Northern Myotis overwinter in caves or mines; they typically roost in under loose bark and in the cavities of trees (COSEWIC, 2013).

The forest habitat on-site does not meet the requirements to support bat maternity colonies. There is low potential for the Northern myotis to occur on the property. Impacts to the Northern Myotis are primarily associated with White Nose Syndrome, encroachment and increased wildlife-human interaction. Mitigation measures intended to protect Northern myotis from impacts of the proposed development are discussed in Section 7.

6.3.5. Hoary Bat

The Hoary Bat (*Lasiurus cinereus*) is a large-bodied bat and is the largest bodied bat in Canada. It is identified by light fur around its face and neck and white-tipped hairs over most of its body (COSSARO, 2024a).

The Hoary Bat is very widely distributed across Canada and Ontario and is a migratory bat species that migrates long distances between summer breeding habitat and winter range. During migration, it moves from Canada into the southern United States and Mexico (COSSARO, 2024a).

Threats to this species are considered significant and ongoing and identified as mortality from wind turbines, ongoing declines in insect prey abundance, loss of forest roosting habitat and pollution. Wind energy development is the most immediate and concerning threat to Hoary Bat (COSSARO, 2024a).

In Ontario hoary bats are found in coniferous or deciduous forests along edge habitat. They roost near the tops of trees and forage in clearings near sources of water. Mitigation measures intended to protect Hoary bat from impacts of the proposed developments are discussed in Section 7.

6.3.6. Eastern Red Bat

The Eastern Red Bat (*Lasiurus borealis*) is distinguished by fur that is usually orange but varies from yellowish-red to yellowish-grey. White hairs or white-tipped hairs give a frosted appearance. The skin is light-coloured on the face and along the margins of the arms and fingers but contrasts strongly with black wing membranes. Males are typically redder than females. Females are slightly larger than males (COSSARO b, 2024).

Eastern Red Bat are long-distanced migrants, with some individuals moving hundreds or thousands of kilometres between summer and winter months. Eastern Red Bat overwinter



in the southern United States, however migration routes are unknown (COSSARO, 2024b).

Major threats contribute cumulatively to suspected declines and include wind energy development, decline in prey availability, pollution, loss of roosting habitat and climate change. Wind energy development is identified as the greatest threat to migratory bat species (COSSARO, 2024b).

In Ontario eastern red bats are found in coniferous and mixed forests. They prefer to roost at the top of trees suspended from branches. Eastern red bats seem less susceptible to white nose syndrome. This may result from being less gregarious, as they migrate south in late summer or early fall and roost in trees rather than congregating in cool, damp caves which favours the white nose syndrome fungus (COSSARO, 2024b).

Mitigation measures intended to protect Eastern red bat from impacts of the proposed developments are discussed in Section 7.

6.3.7. Silver-Haired Bat

The Silver-haired bat is a dark coloured bat, with black skin membranes and black to dark brown fur. The fur often has grey or silver-frosted tips, giving it the silvery appearance for which it is named (COSSARO, 2024c).

The Silver-haired bat is found across Canada in the summer months and during fall migration. Some individuals overwinter in British Columbia and southern Ontario, but most migrate out of Canada annually (COSSARO, 2024c).

In Ontario, Silver-haired bats are found in forested areas adjacent to water for foraging. Silver-haired bats roost under loose tree bark alone or in small groups. Silver-haired bats have a geographical separation of the sexes — females, even when pregnant, migrate farther north while males remain in the vicinity of the Lower Great Lakes.

Mitigation measures intended to protect Silver haired bats from impacts of the proposed developments are discussed in Section 7.

6.3.8. Butternut

Butternut (*Juglans cinerea*) is a short lived, medium-sized tree that can reach heights of up to 30 m. It is easily distinguished by its compound leaves, made up of 11 to 17 leaflets, arranged in a feather-like pattern. Each leaflet is 9 to 15 centimetres in length. The bark is gray and smooth on young trees, becoming more ridged with age. Butternut is a member of the walnut family and produces edible nuts in the fall.

The Canadian range for Butternut extends through southern Ontario into southern Quebec, and New Brunswick (COSEWIC, 2003). Butternut is a shade intolerant tree that is commonly

found in riparian habitats, and sites in a regenerative state. Butternut can also be found on rich, moist, well-drained gravels, favouring those of limestone origin. Common associates of Butternut trees include basswood, black cherry, beech, black walnut, elm, hickory, oak, red maple, sugar maple, yellow poplar, white ash and yellow birch.

No butternut trees were observed on-site during the site investigations in 2025. As no butternuts were documented on-site no mitigation measures are provided in Section 7 in relation to butternut and they are not discussed or evaluated further in this EIS. Should Butternut trees be identified during development on-site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.

6.4. Cumulative Impacts

Potential cumulative impacts associated with the proposed project include an increase in storm water generation, and the loss of road front forest habitat, primarily for avian species.

Cumulative impacts to the natural environment at the site due to increased human presence, increased wildlife and human interaction and increased noise, are expected to be minimal given the nature of the project and amount of natural habitat in the immediate and surrounding area.

Cumulative impacts such as those listed above can be mitigated by implementing the proposed setbacks and recommended mitigation measures outlined in Section 7 below.



7. RECOMMENDED AVOIDANCE AND MITIGATION MEASURES

The following avoidance and mitigation measures have been recommended by ASC Environmental in order to minimize or eliminate environmental impacts identified in Section 6.

For the purposes of this report, a setback is defined as the minimum required distance between structures, development or disturbance and a specified line. A buffer for the purposes of this report, is defined as the area located between a natural heritage feature and the prescribed setback. For the purposes of the following subsections, buffers should be located between natural heritage features and lands subject to development or alteration, be permanently vegetated by native or non-invasive, self-sustaining vegetation and protect the natural heritage feature against the impact of the adjacent land use.

Vegetated buffers, particularly buffers that are vegetated with a mix of grassy herbaceous vegetation and shrubby or woody vegetation are most effective in mitigating impacts associated with anthropogenic activities in adjacent lands (Beacon, 2012). Buffers recommended in the following subsections and illustrated on Figure 4, are done so within the context of the existing environmental disturbances but also to promote reasonable natural rehabilitation. In the subsections below, where possible, literature references for studies used as the basis of the recommended buffer widths are provided.

Beacon Environmental Review of Ecological Buffers (2012) provides a range for buffer widths to protect various natural heritage features based on the current science. The buffers are presented in a way that determines the risk of not achieving the desired buffer function (i.e., high, moderate and low). The functions analysed include water quantity, water quality, screening or human disturbance/changes in land use, hazard mitigation zone and core habitat protection.

7.1. Significant Woodlands

The existing activities and future development is not anticipated to include the loss of significant woodlands and the proposed development envelope is positioned to accommodate the future development without direct impacts to significant woodland habitat. Existing activities include the development of a drinking water well, an entrance way and driveway, and general landscaping. To prohibit development within significant woodlands to the extent possible to accommodate a single a single-family dwelling, septic field, drinking water well and garage, site control by way of a prescribed development envelope is recommended and allowing a 150 to 30-metre setback from the significant woodland habitat ensures that the ecological functions of the woodlands are not negatively impacted.

The significant woodlands on-site and within the study area from the proposed residential development were identified to include potential impacts including but not limited to human



disturbance, domestic pets, and attenuation of runoff. To mitigate the potential impacts to significant woodlands, a vegetated buffer from the developmental property boundary ranging from 15 metres to 30 metres is sufficient to protect the existing significant woodlands on-site. A 15 to 30-metre buffer provides physical separation from the development to the significant woodlands reducing the penetration of light and noise, reduce the impact from domestic pets (especially cats) on the bird, small mammal, and amphibian populations, slow down surface runoff to protect the flushing of nests or eggs of woodland amphibian and avian species, as well as absorb nutrients and chemicals used for lawn care and construction activities. The development envelope prescribed permits the residential development to extend to the 15 to 30 metre setback.

Buffers should be comprised of a mixture of native, self-sustaining trees, shrubs and tall grasses. ASC recommends the 15 to 30-metre setback from significant woodlands be enhanced through infill plantings of native trees, shrubs and grasses. Shrubs should be provided approximately 2 square metres of space; trees should be provided approximately 5 square metres of space. Native seed mixes should be considered for vegetated features or other disturbed areas on-site. Specialized native seed mixtures for wetlands and shorelines contain species such as New England Aster, Black-eyed Susan, Boneset, Wool Grass, Soft Rush, Nodding Bur Marigold, Purple Stemmed Aster, Swamp Milkweed, Bebb's Sedge and Spotted Joe-pye-weed. These mixtures provide an excellent method of rehabilitating areas with a diverse composition of plant species suitable for the conditions documented.

No negative impacts on the ecological function of the significant woodlands are anticipated as a result of this project if the development envelope proposed above is registered on land title and mitigation measures and best management practices recommended below are adhered to.

7.2. Significant Wildlife Habitat

7.2.1. Habitats of Special Concern and Rare Wildlife Species (Canada Warbler, Wood Thrush, and Eastern Wood-pewee)

Impacts to avian species and their habitat on-site from the proposed development are limited to the significant woodland habitat on-site which may provide suitable foraging, nesting and breeding habitat. The 15 to 30-metre setback from the significant woodlands is sufficient to protect habitats of species concern and rare wildlife species (Canada Warbler, Wood Thrush, and Eastern Wood-pewee). Furthermore, the proposed development must ensure that the 15 to 30-metre buffer including forest cover and surrounding summer habitat is vegetated with native trees, shrubs and tall grasses.

To protect nesting and foraging bats, tree removal where required should take place outside of the spring and summer active season (typically April 1 to September 30), when avian



species are more likely to be using forest habitat. If vegetation clearing must be conducted during the spring and summer timing window, then a breeding bird survey should be conducted by a qualified professional.

7.2.2. Habitats of Special Concern and Rare Wildlife Species (Western Chorus Frog, and Eastern Milksnake)

Impacts to amphibian and reptilian species and their habitat on-site from the proposed development are limited to the significant woodland habitat on-site which may provide suitable foraging, reptile hibernaculum and breeding habitat. The 15 to 30-metre setback from the significant woodlands is sufficient to protect habitats of species concern and rare wildlife species (Western Chorus Frog, and Eastern Milk snake). Furthermore, the proposed development must ensure that the 15 to 30-metre buffer including forest cover and surrounding summer habitat is vegetated with native trees, shrubs and tall grasses.

7.3. Species at Risk

7.3.1. Eastern Small-footed Myotis, Little Brown Myotis, Tri-Colored Bat, Northern Myotis, Hoary Bat, Eastern Red Bat, and Silver-Haired Bat

To protect roosting and foraging bats, tree removal where required should take place outside of the spring and summer active season (typically April 1 to September 30), when bats are more likely to be using forest habitat. If vegetation clearing must be conducted during the spring and summer timing window, then a roost survey should be conducted by a qualified professional.

7.4. Wildlife

The following avoidance and mitigation measures are provided in effort to minimize impacts to on-site and off-site wildlife:

- Vegetation removal should occur outside of April 1 to September 1 (extended to October 15 if swarming is observed) to avoid the key breeding bird period and bat summer active season. The timing windows provides protection of migratory birds, roosting bats and avoids contravention of the Migratory Bird Convention Act and Endangered Species Act. If vegetation clearing activities must take place during the aforementioned timing window, then a nest and roost survey shall be conducted by a qualified professional.
- Installation of silt fence barriers around the entire construction envelope to prohibit the emigration of wildlife into the construction area, silt fencing should be checked daily and following each precipitation event.
- Cover stockpiled material with a geotextile to prevent turtles from nesting in the material between May 1 and August 1 of any year.
- Perform daily pre-work sweeps of the construction area to ensure no species at risk are present and to remove any wildlife from inside the construction area.
- Should species at risk be discovered throughout the course of the proposed works,



the species at risk biologist with the local MECP district shall be contacted immediately and operations ceased to avoid negative impacts to species at risk or their habitat until further direction is provided by the MECP.

7.5. Best Practice Measures for Mitigation of Cumulative Impacts

The following best management practice measures are provided for the mitigation of cumulative impacts resulting from general construction and development activities.

- To protect trees identified to be retained during construction, the Critical Root Zone (CRZ) should be identified and fenced. The CRZ is defined as 10 cm from the base of the tree for every centimetre in diameter of the tree trunk measured at breast height.
- Maintain as much permeable surface as possible in future development plans to minimize the generation of storm water runoff.
- Silt fencing should be installed along all setbacks to provide visual demarcation of the setbacks and to prevent machinery encroachment and sediment transport.
- Erosion and sediment control measures should be maintained until disturbed ground has been permanently stabilized.
- In effort to offset the effect of vegetation clearing, consideration should be given to landscape planting with native tree species indicative of the Great Lakes – St. Lawrence Forest Region, such as white cedar, white spruce, red maple and red oak.
- Native seed mixes should be considered for vegetated features or other disturbed areas on-site. Specialized native seed mixtures for wetlands and shorelines contain species such as New England Aster, Black-eyed Susan, Boneset, Wool Grass, Soft Rush, Nodding Bur Marigold, Purple Stemmed Aster, Swamp Milkweed, Bebb's Sedge and Spotted Joe-pye-weed. These mixtures provide an excellent method of rehabilitating areas with a diverse composition of plant species suitable for the conditions documented.



8. CONCLUSIONS

The proposed project supported by this EIS is the development of an approximately 7.32-hectare (ha) portion of the 33.39 subject property for future residential land use.

Based on the results of the impact analysis, impacts to the natural environment are anticipated to be minimal if the mitigation measures recommended in Section 7 are enacted and best management practices are followed. Provided that mitigation measure recommended in Section 7 are implemented as proposed, no significant residual impacts are anticipated from the proposed development.

Following review of the information pertaining to the natural heritage features of the site, the following general conclusions are provided by ASC Environmental in regard to the Environmental Impact Statement.

- Impacts to natural heritage features identified on-site including significant woodlands and significant wildlife habitat or habitats of species at risk are not anticipated to be significantly impacted as a result of future redevelopment if mitigation measures provided above (Section 7.0) are enacted and best management practices undertaken.
- ASC recommends the 15 to 30-metre setback from significant woodlands be enhanced through infill plantings of native trees and shrubs. Shrubs should be provided approximately 2 square metres of space; trees should be provided approximately 5 square metres of space. Native seed mixes should be considered for vegetated features or other disturbed areas on-site. Specialized native seed mixtures for wetlands and shorelines contain species such as New England Aster, Black-eyed Susan, Boneset, Wool Grass, Soft Rush, Nodding Bur Marigold, Purple Stemmed Aster, Swamp Milkweed, Bebb's Sedge and Spotted Joe-pye-weed. These mixtures provide an excellent method of rehabilitating areas with a diverse composition of plant species suitable for the conditions documented.
- The proposed project complies with the natural heritage policies of the Provincial Policy Statement (2024).
- The proposed development complies with the natural heritage policies of the Provincial Policy Statement and Prince Edward County's Official Plan.



9. LIMITATION OF LIABILITY

ASC Environmental (ASC) was retained by *Krystofer Destun (Client)* to undertake an Environmental Impact Statement for the subject property located along Sandy Cove Drive, Prince Edward County, Ontario, for purposes of a proposed residential land development.

The scope of work for this Environmental Impact Statement included the following:

- Conduct a desktop review for the subject property to identify and evaluate the significance of natural heritage features.
- Conduct field visits to the subject property to identify vegetation communities, wetland boundaries, natural heritage features, and species at risk (SAR).
- Prepare an Environmental Impact Statement, in accordance with the natural heritage policies of the Provincial Policy Statement and Prince Edward County's Official Plan.

The findings reported in this document are based on the tasks completed by ASC under the mutually agreed upon scope of work. Professional judgement, experience with similar investigations, and available data collected within the scope of work form the basis for this report. ASC has prepared this report using information understood to be factual and correct and shall not be responsible for conditions arising from information or facts that were inaccurate, concealed, or not fully disclosed at the time of investigation.

The investigation undertaken by ASC with respect to this report and any conclusions or recommendations made in this report reflect the best judgements of ASC based on the site conditions observed during the investigations undertaken at the date(s) identified in the report and on the information available at the time the report was prepared.

ASC Environmental Inc. makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and these interpretations may change over time.

This document has been prepared by ASC Environmental Inc., for the sole use of *Krystofer Destun* and assignees for the application noted in this report related to the subject property. Unauthorized reuse of this document for other purposes, or by any other party, or any reliance on or decisions to be made based on it, are the responsibility of the third parties. If additional parties require reliance on this report, written authorization from ASC Environmental Inc. will be required. Such reliance will only be provided by ASC Environmental Inc. following written authorization from the Client. ASC Environmental Inc. disclaims responsibility of consequential financial effects on transactions or property

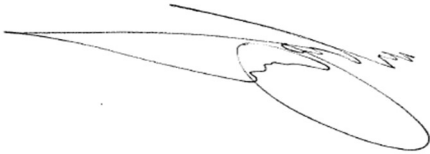


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10. REFERENCES

Beacon Environmental. 2012. Ecological Buffer Guideline Review - Prepared for Credit Valley

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

Canada, Government of (Canada). 1985. Fisheries Act. R.S.C. 1985, c. F-14.

Quinte Conservation Authority (QC) (2020). Cataraqui Region Conservation Authority GeoPortal. Available online: <https://www.quinteconservation.ca/en/permits-and-planning/property-regulation-map.aspx>

Chapman, L.J., and Putnam, D.F. 1984. The Physiography of Southern Ontario. Ontario Geological Survey, Special Volume 2.

COSEWIC. 2018. COSEWIC assessment and status report on Midland Painted Turtle *Chrysemys picta marginata* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xvi + 107 pp.

COSEWIC. 2016. COSEWIC assessment and status report on the Blanding's Turtle *Emydoidea blandingi*, Nova Scotia population and Great Lakes/St. Lawrence population, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xix + 110 pp. (<http://www.registrelep-sararegistry.gc.ca/default.asp?lang=en&n=24F7211B-1>).

COSEWIC. 2013. COSEWIC assessment and status report on the Little Brown Myotis *Myotis lucifugus*, Northern Myotis *Myotis septentrionalis* and Tri-coloured Bat *Perimyotis subflavus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xxiv + 93 pp.

COSEWIC. 2012a. COSEWIC assessment and status report on the Eastern Musk Turtle *Sternotherus odoratus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 68 pp. (www.registrelep-sararegistry.gc.ca/default_e.cfm).

COSEWIC. 2008. COSEWIC assessment and status report on the Snapping Turtle *Chelydra serpentina* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 47 pp. (www.sararegistry.gc.ca/status/status_e.cfm).

Prince Edward County. 2021. County of Prince Edward Official Plan. July 8, 2021.

Prince Edward County (Undated). Prince Edward County GIS & Mapping. Available online: <https://www.thecounty.ca/residents/services/gis-mapping/>

Grey, P. W. Uhlig, and M.C. Wester. 2009. The Ecosystems of Ontario, Part I: Ecozones and Ecoregions. Ontario Ministry of Natural Resources, Peterborough, Ontario.

Department of Fisheries and Oceans (DFO). 2019. Aquatic Species at Risk Map. Available online:



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<http://www.dfo-mpo.gc.ca/species-especes/sara-lep/map- carte/index-eng.html>

Dobbyn, J.S. 1994. Atlas of the Mammals of Ontario. Federation of Ontario Naturalists, Toronto.

eBird Canada. 2020. Explore Hotspots Map. Available online: <https://ebird.org/canada/map>.

Fraser E., MacKenzie, A., and Davy, C. 2007. Photo Field Guide to the Bats of Ontario. Published by St. Thomas Field Naturalists Club Incorporated.

Humphrey, C. 2017. Recovery Strategy for the Eastern Small-footed Myotis (*Myotis leibii*) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources and Forestry, Peterborough, Ontario. Vii + 76 pp.

Lee, H. T. 1998. Southern Ontario Ecological Land Classification. Ministry of Natural Resources: London, Ontario.

Oldham, M.J and W.F. Weller. 2000. Ontario Herpetofaunal Atlas.

Ontario, Government of (Ontario). 2021a. Eastern small-footed Myotis. Available online: <https://www.ontario.ca/page/eastern-small-footed-myotis>

Ontario, Government of (Ontario). 2021b. Little Brown Myotis. Available online: <https://www.ontario.ca/page/little-brown-myotis>

Ontario, Government of (Ontario). 2021c. Northern Myotis. Available online: <https://www.ontario.ca/page/northern-myotis>

Ontario, Government of (Ontario). 1990. Conservation Authorities Act. R.S.O. 1990. Chapter C.27. Last amendment: 2011, C.9 Sched. 27, S. 22.

Ontario Legislative Assembly. 2007. Endangered Species Act.

Ontario Ministry of Municipal Affairs and Housing (MMAH). 2024. Provincial Policy Statement – Under Planning Act, Toronto.

Ontario Ministry of Environment Conservation and Parks (MECP). 2021. General Habitat Description for the Blanding's Turtle (*Emydoidea blandingii*). Available online: <https://files.ontario.ca/mecp-blandings-turtle-general-habitat-description-en-2021-04-20.pdf>

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2020a. Wildlife Values Area. Accessed from Ontario GeoHub, Available from: <https://geohub.lio.gov.on.ca/datasets/wildlife-values-area?geometry=117.696%2C38.917%2C-51.778%2C58.786>

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2020b Wildlife Values Site. Accessed from Ontario GeoHub, Available from: <https://geohub.lio.gov.on.ca/datasets/wildlife-values-site>

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2019 Ontario Hydro Network (OHN) - Watercourse. Accessed from Ontario GeoHub, Available from:



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<https://geohub.lio.gov.on.ca/datasets/mnrf::ontario-hydro-network-ohn-watercourse/explore?location=49.268000%2C-84.736900%2C5.18>

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2018. Natural Heritage Information Request Guide.

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2015a. Significant Wildlife Habitat Ecoregion 6E Criterion Schedules.

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2014a. Make a Map: Natural Heritage Areas.

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2014b. Significant Wildlife Habitat Mitigation Support Tool.

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2013. Natural Heritage Information Centre (NHIC) Biodiversity Explorer.

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2011. Land Information Ontario (LIO).

Ontario Ministry of Natural Resources (OMNR). March 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. Second Edition.

Ontario Ministry of Natural Resources (OMNR). 2000. Significant Wildlife Technical Guide.

Ontario Geological Survey 2019. Surficial geology of Southern Ontario; Ontario Geological Survey, Miscellaneous Release--Data 128-REV

Ontario Nature, 2019, Ontario Reptile and Amphibian Atlas. Available online:
<https://www.ontarioinsects.org/herp/index.html?Sort=1&area2=squaresCounties&records=all&myZoom=5&Lat=42.95&Long=-81.01>

Rowe, J.S. 1972. Forest Regions of Canada. Canadian Forestry Service Publication no. 1300. Publishing Division, Information Canada.

Quinte Conservation. 2023. Quinte Conservation Watershed Report Card 2023.



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APPENDIX A

Drawings



Legend

-  Approximate Location of Development Property
-  Approximate Location of Subject Property

Drawing Title

Site Location Plan

Figure No.

1

Drawn By

J.B.

Project

Environmental Impact Statement

Client

Krystofer Destun

Location

Sandy Cove Drive, Prince Edward County, ON

Project No.

ASC-972

Date

June 26, 2025

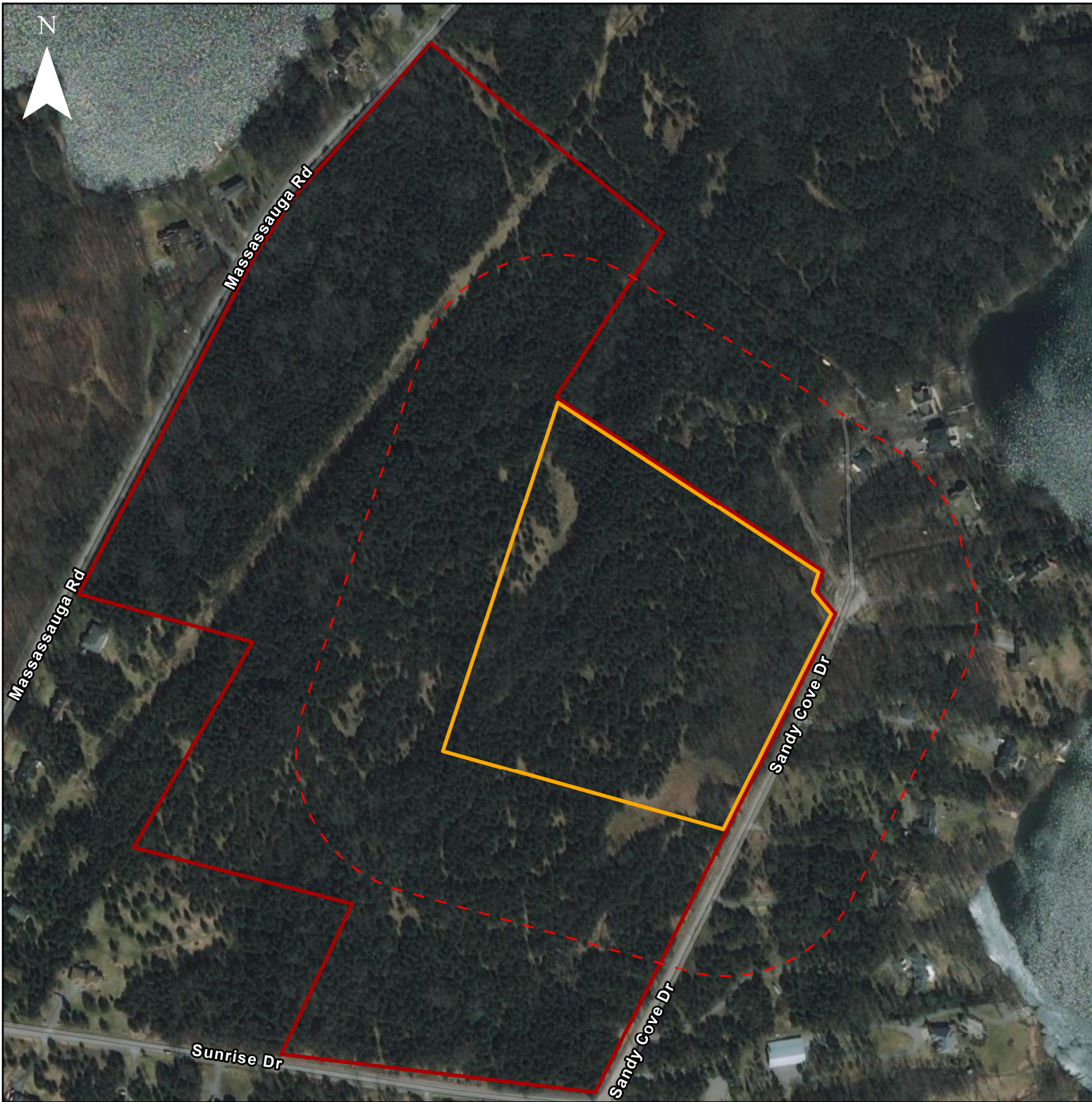
Scale

Meters
0 2,000

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Legend

-  Approximate Location of Development Property
-  Study Area (120 m)
-  Approximate Location of Subject Property

Drawing Title

Site Layout Plan

Figure No.

2

Drawn By

J.B.

Project

Environmental Impact Statement

Client

Krystofer Destun

Location

Sandy Cove Drive, Prince Edward County, ON

Project No.

ASC-972

Date

June 26, 2025

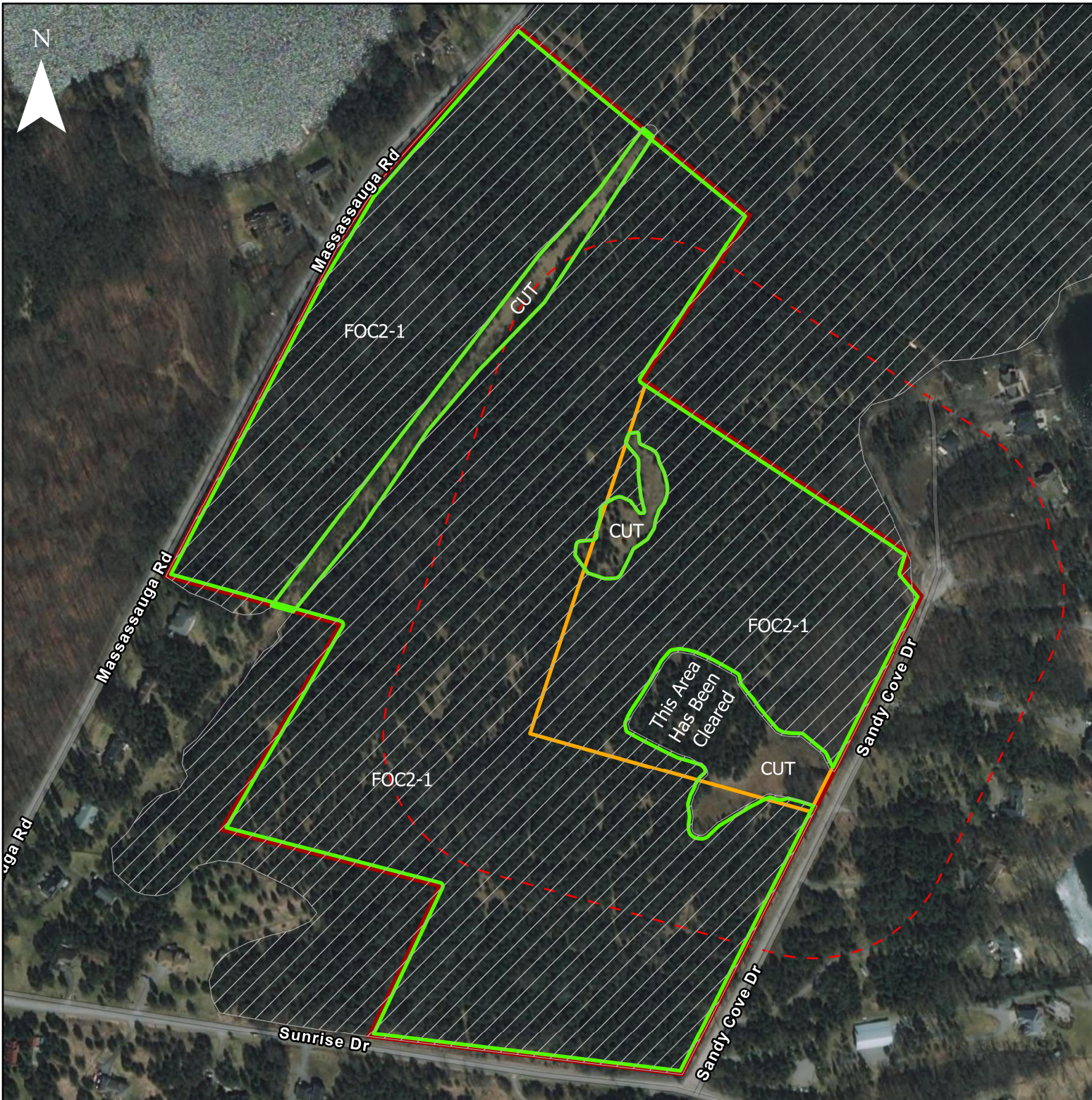
Scale

0 Meters 180

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Legend

- Significant Woodlands
- Approximate Location of Vegetation Communities
- Approximate Location of Subject Property
- Approximate Location of Development Property
- Study Area (120 m)

FOC2-1 = Dry-Fresh Red Cedar Coniferous Forest
CUT = Cultural Thicket

Drawing Title

Vegetation Communities

Figure No.

3

Drawn By

J.B.

Project

Environmental Impact Statement

Client

Krystofer Destun

Location

Sandy Cove Drive, Prince Edward County, ON

Project No.

ASC-972

Date

June 26, 2025

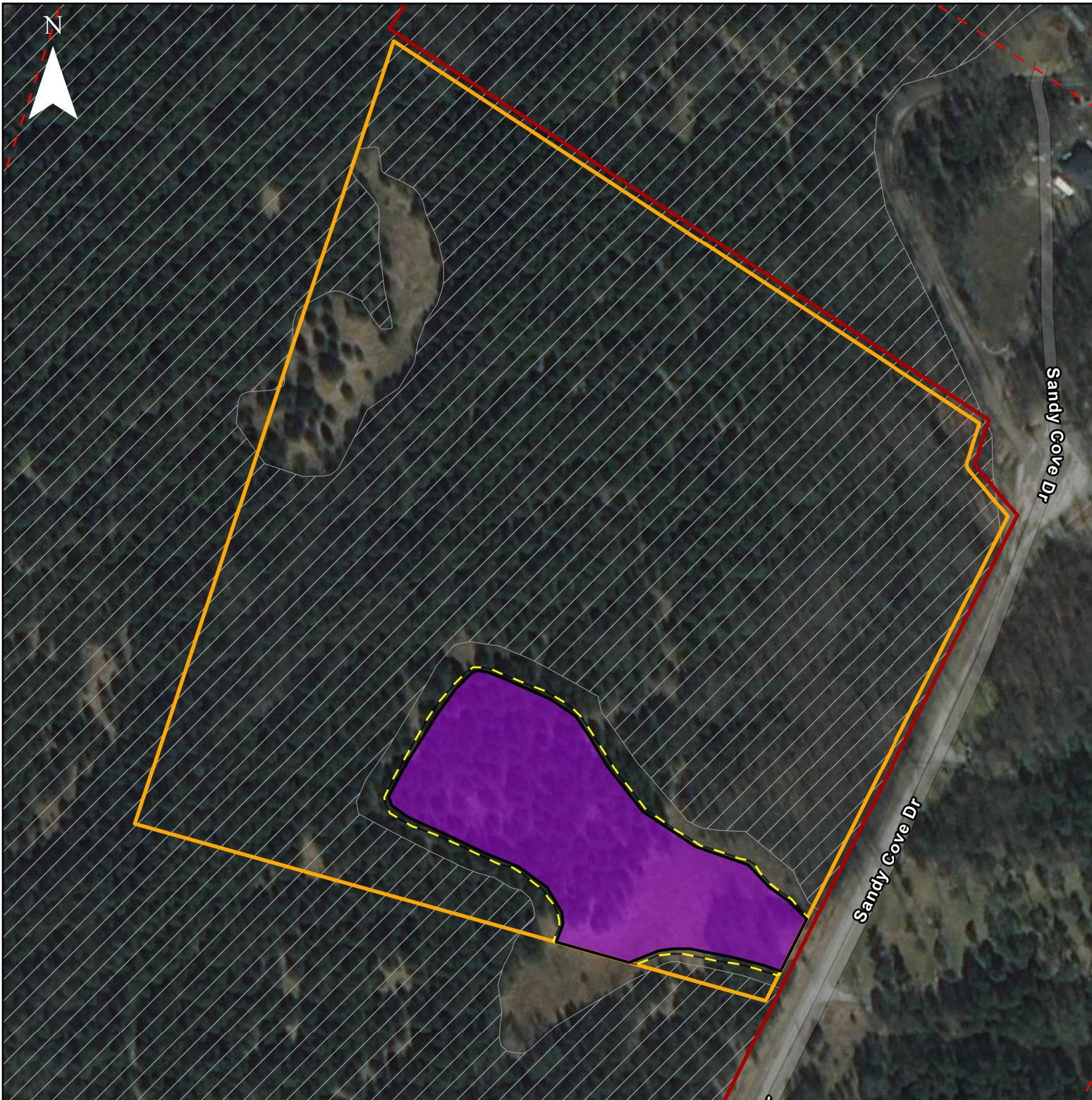
Scale

0 Meters 180

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Legend

- Proposed Development Envelope
- Setback (15m-30m)
- Study Area (120 m)
- Approximate Location of Development Property
- Approximate Location of Subject Property
- Significant Woodlands

Drawing Title

Mitigation and Setback Plan

Figure No.

4

Drawn By

J.B.

Project

Environmental Impact Statement

Client

Krystofer Destun

Location

Sandy Cove Drive, Prince Edward County, ON

Project No.

ASC-972

Date

June 26, 2025

Scale

0 Meters 80

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APPENDIX B

Aerial Photos



Client

Krystofer Destun

Location

Sandy Cove Drive, PEC, ON

Project

Environmental Impact Statement

Project No.

ASC-972

Map Date

2002

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Client

Krystofer Destun

Location

Sandy Cove Drive, PEC, ON

Project

Environmental Impact Statement

Project No.

ASC-972

Map Date

2009

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Client

Krystofer Destun

Location

Sandy Cove Drive, PEC, ON

Project

Environmental Impact Statement

Project No.

ASC-972

Map Date

2013

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Client

Krystofer Destun

Location

Sandy Cove Drive, PEC, ON

Project

Environmental Impact Statement

Project No.

ASC-972

Map Date

2013

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Client

Krystofer Destun

Location

Sandy Cove Drive, PEC, ON

Project

Environmental Impact Statement

Project No.

ASC-972

Map Date

2023

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APPENDIX C

Zoning Map



Search for ...



I Want To..



Results

Layers

Home

About

Legend



1

2



Rural 2 -



Rural 2 -



Zoom to Result



Buffer Results



Buffer Settings



ZONING RU2

ZONE Rural 2

WARD Ameliasburgh

Status Current

Tools



Home



About



Layers



Legend



Open



Save



Print



Add Layer



Query



Filter



Clear Results



Initial Map View



Export Map



Plot Coordinates



Video Tutorials

Google Street View

Clear Points



2D 3D

Maxar | Esri Canada

Scale

9918

0

500 ft

WGS84 - Decimal Degrees (DD)

Lat: 44.141045° N

Lon: 77.324093° W

APPENDIX D

Site Photographs



Site Photograph 1 – Example of on-site cultural thicket (CUT) inside proposed development envelope



Site Photograph 2 – Example of on-site cultural thicket (CUT) in the northern portion of study area



Site Photograph 3 – Example of on-site cultural thicket (CUT) west of the development envelope



Site Photograph 4 – Example of on-site cultural thicket (CUT) in the northern portion of the study area



Site Photograph 5 – Example of on-site Red Cedar Coniferous Forest (FOC2-1) with common buckthorn and northern prickly ash



Site Photograph 6 – Example of on-site Red Cedar Coniferous Forest (FOC2-1) with predominantly red cedar



Site Photograph 7 – Example of on-site Red Cedar Coniferous Forest edge habitat (FOC2-1) bordering cultural thicket



Site Photograph 8 – Example of on-site Red Cedar Coniferous Forest edge habitat (FOC2-1) with predominantly red cedar

APPENDIX E

Report Summary Tables

Table 3: Summary of Wildlife Observed On-Site and Adjacent to Site

Common Name	Scientific Name	S-Rank	Evidence
Avian Species 2025			
American Crow	<i>Corvus brachyrhynchos</i>	S5B	Observed on-site
American Goldfinch	<i>Spinus tristis</i>	S5B	Heard Calling
American Robin	<i>Turdus migratorius</i>	S5B	Observed on-site
Baltimore Oriole	<i>Icterus galbula</i>	S4B	Heard Calling
Bay-breasted Warbler	<i>Setophaga castanea</i>	S5	Heard Calling
Black and White Warbler	<i>Mniotilta varia</i>	S3B	Observed on-site
Black-capped Chickadee	<i>Poecile atricapillus</i>	S5	Observed on-site
Blackpoll Warbler	<i>Setophaga striata</i>	S5B	Observed on-site
Blue Jay	<i>Cyanocitta cristata</i>	S5	Observed on-site
Brown-headed Cowbird	<i>Molothrus ater</i>	S5	Observed on-site
Canada Goose	<i>Branta canadensis</i>	S5B	Heard Calling
Canada Warbler*	<i>Cardellina canadensis</i>	S4B	Heard Calling
Cedar Waxwing	<i>Bombycilla cedrorum</i>	S5	Observed on-site
Chipping Sparrow	<i>Spizella passerina</i>	S5B	Observed on-site
Common Raven	<i>Corvus corax</i>	S5	Observed on-site
Common Yellowthroat	<i>Geothlypis trichas</i>	S5	Observed on-site
Eastern Phoebe	<i>Sayornis phoebe</i>	S5	Heard Calling
Eastern Wood-Pewee*	<i>Contopus virens</i>	S4B	Heard Calling
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	S3	Observed on-site
Field Sparrow	<i>Spizella pusilla</i>	S4B	Observed on-site
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	S4B	Heard Calling
Gray Catbird	<i>Dumetella carolinensis</i>	S5	Observed on-site
Hairy Woodpecker	<i>Leuconotopicus villosus</i>	S4B	Heard Calling
Least Flycatcher	<i>Empidonax minimus</i>	S5	Observed on-site
Mourning Dove	<i>Zenaida macroura</i>	S5	Heard Calling
Northern Cardinal	<i>Cardinalis cardinalis</i>	S5	Observed on-site
Northern House Wren	<i>Troglodytes aedon</i>	S5	Observed on-site
Orange-crowned Warbler	<i>Oreothlypis celata</i>	S5	Heard Calling
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	S4B	Observed on-site
Red-eyed Vireo	<i>Vireo olivaceus</i>	S4	Observed on-site
Red-winged black bird	<i>Agelaius phoeniceus</i>	S4	Observed on-site
Scarlet Tanager	<i>Piranga olivacea</i>	S3	Heard Calling
Song Sparrow	<i>Melospiza melodia</i>	S5	Observed on-site
White-breasted nuthatch	<i>Sitta carolinensis</i>	S5	Heard Calling
White Throated Sparrow	<i>Zonotrichia albicollis</i>	S5	Observed on-site
Wild Turkey	<i>Meleagris gallopavo</i>	S5	Heard Calling
Wood Thrush*	<i>Hylocichla mustelina</i>	S4B	Observed on-site
Yellow Warbler	<i>Setophaga petechia</i>	S5	Observed on-site
Amphibian Species 2025			
Green Frog	<i>Rana clamitans</i>	S5	Heard Calling
Northern Leopard Frog	<i>Lithobates pipiens</i>	S5	Heard Calling

Notes:

Subnational Conservation Status Ranks:

S1 - Critically Imperilled, at very high risk of extirpation, very few populations or occurrences or very steep population decline



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S2 - Imperilled, at high risk of extirpation, few populations or occurrences or steep population decline

S3 - Vulnerable, at moderate risk of extirpation, relatively few populations or occurrences, recent and widespread population decline

S4 - Apparently Secure, at a family low risk of extirpation, many populations or occurrences, some concern for local population decline

S5 - Secure, at very low or no risk of extirpation, abundant populations or occurrences, little to no concern for population decline

* - Species of Special Concern in Ontario

** - Threatened Species in Ontario

*** - Endangered Species in Ontario

Qualifiers:

S#B – Conservation status refers to the breeding population of the species

S#N – Conservation status refers to the non-breeding population of the species

S#M – Migrant species, conservation status refers to the aggregating transient population of the species



Table 4: Screening Rationale for Significant Woodlands

Woodland Criteria	Further Considered in EIS	Rationale
Woodland Size	Yes	Contiguous woodlands on-site do not meet the minimum size requirement for the planning area (>50 ha).
Ecological Functions		
a) Woodland Interior	Yes	Interior woodlands on-site do not meet the minimum size requirement for the planning area (> 8 ha).
b) Proximity	No	Woodlands on-site are proximal to wetland areas.
c) Linkages	Yes	Woodlands on-site provide linkages to other natural heritage features.
d) Water Protection	Yes	Woodlands on-site are not proximal to fish habitat.
e) Diversity	No	Species composition within the on-site woodlands is well represented on the landscape and no rare species communities were observed on-site.
Uncommon Characteristics	No	The woodlands on-site do not have a unique species composition, vegetation communities with a ranking of S1, S2, or S3, or a mature size structure.
Economical and Social Functional Values	No	The woodlands on-site do not contain high productivity in terms of economically valuable products, high social value such as recreational use, identified historical cultural or educational values.

Table 5: Screening Rationale for Habitats of Seasonal Concentrations

Wildlife Habitat	Further Considered in EIS	Rationale
Winter Deer Yard	No	Suitable coniferous stands are present on-site. As outlined in the Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015) winter deer yards and deer management are an MNRF responsibility. Based on review of publicly available data from the OMNRF on Land Information Ontario Geo-hub, no Stratum I deer yards, Stratum II deer yards, or winter congregation areas have been identified on-site or within the broader study area.
Colonial Bird Nesting Habitat	No	No suitable habitat located on-site or within the study area to support colonial bird nesting.
Waterfowl Stopover and Staging Areas	No	Suitable wetland habitat may be present in the in the Bay of Quinte area in the northern portion of the study area, however, suitable wetland habitat is not present on-site.
Shorebird Migratory Stopover Area	No	Shorebird stopover sites are typically well-known and have a long history of use. The site does not contain suitable shoreline habitat for shorebird foraging.
Raptor Wintering Area	No	Site does not contain mixture of suitable upland and forested habitats to support wintering raptors.
Bat Hibernacula	No	Cave and crevice habitat is not present on-site or within the study area.
Bat Maternity Colonies	No	Woodlands on-site do not meet minimum snag density (>10 snags/hectare) requirement to be considered SWH for bat maternity colonies.
Turtle Wintering Area	No	No surface water features on-site.
Reptile Hibernaculum	No	No structures such as large rock piles, bedrock outcrops, and services have been identified on-site.
Migratory Butterfly Stopover Area	No	The site is located near the Bay of Quinte, a tributary of Lake Ontario. However, the subject property does not contain significant habitat to support a Migratory Butterfly Stopover Area.
Landbird Migratory Stopover Area	No	The site is located near the Bay of Quinte, a tributary of Lake Ontario. However, the subject property does not contain significant habitat to support a Landbird Migratory Stopover Area.

Table 6: Screening Rationale for Specialized Wildlife Habitats

Specialized Wildlife Habitat	Further Considered in EIS	Rationale
Waterfowl Nesting Areas	No	Upland habitat is not present adjacent to suitable wetland habitats.
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	No	Suitable forest habitat on-site is not located directly adjacent to open water which may support foraging bald eagles or osprey. No nests were observed on-site, and neither species were observed during investigations. Nesting sites for these species are uncommon in Ecoregion 6E. (MNR, 2012).
Woodland Nesting Raptor Habitat	No	Contiguous forest stands of >30 ha are present on-site meeting the minimum size criteria. However, woodland raptors prefer to nest in mature hardwood forests and the red cedar forest on-site does not provide suitable habitat.
Turtle Nesting Habitat	No	No suitable habitat (exposed mineral soil with minimal vegetation cover) was observed on-site.
Seeps and Springs	No	Neither seeps nor springs were identified on-site.
Woodland Amphibian Breeding Habitat	No	No suitable habitat within the woodlands is present to support woodland amphibian breeding SWH.
Wetland Amphibian Breeding Habitat	No	No wetland habitat was identified on-site.
Woodland Area-Sensitive Bird Breeding Habitat	No	Woodland area-sensitive birds require interior forest habitat located >200 m from the forest edge in large (>30 ha) forest stands. Woodlands on-site do not meet the defining criteria.

Table 7: Screening Rationale for Habitat for Species of Conservation Concern

General Habitats of Species of Conservation Concern	Further Considered in EIS	Rationale
Marsh Breeding Bird Habitat	No	Breeding marsh birds tend to prefer tall dense vegetation to build nests. There are no suitable habitat areas to support breeding marsh birds.
Open Country Breeding Bird Habitat	No	Open country bird breeding typically includes meadows and grasslands, prairies, and agricultural fields. The cultural thickets on the subject property are not considered SWH due to the size and shape of the areas.
Shrub/Early Successional Breeding Bird Habitat	No	Candidate early successional breeding bird habitat typically includes fallow fields transitioning to early successional forest habitats that are >10 ha but have not been actively used for farming. There is not suitable habitat present on the subject property.
Terrestrial Crayfish Habitat	No	Terrestrial crayfish are only found within southwestern Ontario (MNR, 2012)
Special Concern and Rare Wildlife Species	Yes	No species of special concern were identified on-site during the site investigation. Occurrence data for the NHIC also indicates the following species of special concern to have occurred on-site and/or the surrounding area: Canada Warbler, Wood thrush, Grasshopper Sparrow, Eastern Wood-pewee, Western Chorus Frog, Eastern Milksnake.

Table 8: Screening Rationale for Animal Movement Corridors

General Habitats of Species of Conservation Concern	Further Considered in EIS	Rationale
Animal Movement Corridor	No	No surface water features were identified on-site.
Deer Movement Corridor	No	No winter deer yards have been identified on-site by the OMNR.

Table 9: Screening Rationale for Potential Species at Risk On-Site or Within Study Area

Species	ESA Status	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Avian				
Canada Warbler	Special Concern	Prefers a range of deciduous and coniferous, usually wet forest types, all with a well-developed, dense shrub layer.	High	Species was observed on-site during field investigations. Site provides suitable habitat to support species.
Barn Swallow	Threatened	Nests in barns and other semi-open structures. Forages over open fields and meadows.	Low	Species not observed on-site. Site lacks suitable habitat to support species.
Black Tern	Special Concern	Breeds in loose colonies in shallow marshes, particularly cattails.	Low	Species not observed on-site. Site lacks suitable habitat to support species.
Bobolink	Threatened	Nests in dense tall grass fields and meadows, low tolerance for woody vegetation.	Low	Suitable grassland habitat not available on-site or within study area.
Cerulean Warbler	Threatened	Prefers mature, deciduous forests	Low	Woodlands on-site do not provide preferred habitat.
Chimney Swift	Threatened	Nests in traditional-style open brick chimneys.	Low	No suitable nesting structures on-site or within the study area.
Eastern Meadowlark	Threatened	Nests and forages in dense tall grass fields and meadows, higher tolerance woody vegetation.	Low	Species not observed on-site. Site lacks suitable habitat to support species.
Eastern Whip-poor-will	Threatened	Nests on the ground in open deciduous or mixed woodlands with little underbrush, and bedrock outcrops.	Low	Species not observed on-site. Site may provide suitable habitat to support species.
Eastern wood-pewee	Special Concern	Woodland species, often found near clearings and edges.	High	Species was observed on-site during field investigations. Site provides suitable habitat to support species.
Henslow's sparrow	Endangered	Prefers open, moist tallgrass fields.	Low	No suitable grassland habitat to support Henslow's sparrow nesting on-site.
Red-headed Woodpecker	Special Concern	Open woodland and woodland edges, and is often found in parks, golf courses and cemeteries. These areas typically have many dead trees, which the bird uses for nesting and perching.	Low	Species not observed on-site. Site lacks suitable habitat to support species.
Wood Thrush	Special Concern	Prefers deciduous or mixed woodlands	High	Species was observed on-site during field investigations. Site provides suitable habitat to support species.

Mammalian				
Eastern Small-footed Myotis	Endangered	Roosts in rock crevices, barns, and sheds. Overwinters in abandoned mines Summer habitats are poorly understood in Ontario, elsewhere prefers to roost in open, sunny rocky habitat and occasionally in buildings (Humphrey, 2017).	Low	Available habitat on-site does not meet bat maternity colony requirements; the site and surrounding area may provide foraging and non-maternal roost habitat. Snag survey was not completed in December 2025. Should bats or roosts be identified during development on- site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.
Little Brown Myotis	Endangered	Maternal colonies known to use buildings, may also roost in trees during summer. Affinity towards anthropogenic structures for summer roosting habitat and exhibit high site fidelity (Environment Canada, 2015).	Low	Available habitat on-site does not meet bat maternity colony requirements; the site and surrounding area may provide foraging and non-maternal roost habitat. Snag survey was not completed in December 2025. Should bats or roosts be identified during development on- site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.
Northern Myotis (Northern Long-eared Bat)	Endangered	Occurs throughout eastern North America in associated with Boreal forests. Roosts mainly in trees, occasionally anthropogenic structures during summer (Environment Canada, 2015). Overwinters in caves and abandoned mines.	Low	Species affinity is for Boreal forests and rarely roosts in anthropogenic structures. Snag survey was not completed in December 2025. Should bats or roosts be identified during development on- site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.
Tri-Colored Bat	Endangered	Roosts in trees, rock crevices and occasionally buildings during	Low	Available habitat on-site does not meet bat

		summer. Overwinters in caves and mines.		maternity colony requirements; the site and surrounding area may provide foraging and non-maternal roost habitat. Snag survey was not completed in December 2025. Should bats or roosts be identified during development on- site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.
Hoary Bat	Endangered	In Ontario hoary bats are found in coniferous or deciduous forests along edge habitat.	High	Suitable habitat identified on the subject property and within the study area. Snag survey was not completed in December 2025. Should bats or roosts be identified during development on- site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.
Eastern Red Bat	Endangered	In Ontario eastern red bats are found in coniferous and mixed forests.	High	Suitable habitat identified on the subject property and within the study area. Snag survey was not completed in December 2025. Should bats or roosts be identified during development on- site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.
Silver-Haired Bat	Endangered	In Ontario, Silver-haired bats are found in forested areas adjacent to water for foraging.	Moderate	Has the potential or occur on the subject property. More likely to be found closer to Odessa Lake where foraging habitat is present. Snag survey was not completed in December 2025. Should bats or

				roosts be identified during development on- site, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction.
Reptilian				
Blanding's Turtle	Threatened	Inhabits quiet lakes, streams, and wetlands with abundant emergent vegetation. Frequently occurs in adjacent upland forests.	Low	Species not observed on-site. Site lacks suitable habitat to support species.
Eastern Musk Turtle	Special Concern	Inhabits quiet lakes, streams, and wetlands with abundant emergent vegetation.	Low	Species not observed on-site. Site lacks suitable habitat to support species.
Eastern Ribbon Snake	Special Concern	Usually found close to water, especially marshes. At onset of cold weather. Species will congregate in underground burrows or rock crevices to hibernate together.	Low	Species not observed on-site. Site lacks suitable habitat to support species.
Gray Ratsnake	Threatened	On the Frontenac Axis, preference to a mosaic of forest and open habitats (fields; bedrock outcrops) with a high amount of edge habitat. In summer, seeks shelter in standing snags, hollow logs, and rock crevices. Nesting occurs inside standing snags, logs, stumps, compost piles. Overwinters in below ground hibernacula.	Low	Species not observed on-site. Site lacks suitable habitat to support species.
Northern Map Turtle	Special Concern	Highly aquatic species found only in lakes and large rivers.	Low	Species not observed on-site. Site lacks suitable habitat to support species.
Snapping Turtle	Special Concern	Highly aquatic species, found in a wide variety of permanent ponds, lakes, marshes, and rivers.	Low	Species not observed on-site. Site lacks suitable habitat to support species.
Plants				
American Ginseng	Endangered	Grows in rich, moist but well-drained and relatively mature, deciduous woodlands dominated by sugar maple, white ash, and American basswood.	Low	Woodlands on-site does not provide suitable habitat to support species. Species was not observed during field investigation. No occurrence record for species on-site or within broader study area.
Butternut	Endangered	Inhabits a wide range of habitats including upland and lowland deciduous and mixed forests.	Low	Woodlands on-site may provide suitable habitat to support species. Species was not observed during field investigation.



Insects				
Bogbean Buckmoth	Endangered	Preferred food plant is bog bean, present in a variety of wetlands including bogs, swamps, and fens.	Low	No wetland habitat is present on-site.
Gypsy Cuckoo Bumble Bee	Endangered	Inhabits a wide range of habitats: open meadows, agricultural and urban areas, boreal forests, and woodlands.	Low	Currently the only known Ontario population occurs in Pinery Provincial Park.
Monarch Butterfly	Special Concern	Caterpillars required milkweed plants that are confined to meadows and open areas. Adult butterflies use more diverse habitats with a variety of wildflowers.	Low	Suitable foraging vegetation not available for Monarch on-site. Species was not observed on-site during field investigation.
Mottled Duskywing	Endangered	Larval food plant, New Jersey Tea, is found in sandy areas and alvars.	Low	Preferred habitat of sandy areas and alvars not present in the study area.
Nine-spotted Lady Beetle	Endangered	Habitat generalist	Low	No recent occurrence reports in the area, thought to be locally extirpated.
Rapids Clubtail	Endangered	Distribution in Ottawa is not known. Occurs along the Mississippi River in Blakeney/Pakenham area upstream of City. One of two extant populations in Ontario (and Canada).	Low	Site lacks suitable habitat for species.
Rusty-patched Bumble Bee	Endangered	Habitat generalist	Low	Currently the only known Ontario population occurs in Pinery Provincial Park.
Transverse Lady Beetle	Endangered	Habitat generalist	Low	No new records in Ontario, species thought to be absent in former habitats.
West Virginia White Butterfly	Special Concern	Requires mature moist, deciduous woods, with larval host plant, toothwort.	Low	Necessary vegetation and toothwort plant are not present on-site or within study area.
Yellow-banded Bumble Bee	Special Concern	Habitat generalist: mixed woodlands, variety of open habitat.	Low	Site lacks suitable foraging habitat available for yellow-banded bumble bee.