

CONSULTING ENGINEERS •

Materials Testing = and Inspection

File: L24-0757GE

January 22, 2025

Eco-Arch Consultants Inc. 7 Blue Spruce Street Brampton, Ontario L6R 1C4

#### Attention: Mr. Vishu Sood – Architect OAA ecoarch@ecoarchinc.com

#### Scoped Environmental Impact Study Report 4910 10<sup>th</sup> Line Town of Erin, County of Wellington, Ontario

Davroc has been retained by Eco-Arch Consultants Inc. to conduct a scoped environmental impact study (EIS) for the property located at 4910 10<sup>th</sup> Line in Town of Erin, Ontario (Site).

The purpose of the scoped EIS is to provide the Town of Erin and other review agencies with an understanding of natural environmental conditions and potential for impacts related to the proposed development on significant natural heritage features and functions of the property and adjacent lands. The scoped EIS was carried out by Azimuth Environmental Consulting Inc. (Azimuth).

The scoped EIS report prepared by Azimuth is provided in Attachment A.

We trust that the above meets with your present requirements. Please contact us if you require further information or clarifications.

Yours truly, Davroc Testing Laboratories Inc

AHMED SOROUR

2051 Williams Parkway

Unit 20 And Unit 21

Ahmed Sorour, P.Eng. VP Geotechnical Materials Engineering and Testing



Sal Fasullo, C.E.T. President



Tel: (905) 792-7792 Fax: (905) 792-7829

Canada, L6S 5T4 www.davroc.com

Brampton, Ontario



# Attachment A

## **Scoped Environmental Impact Study Report**



Environmental Approvals

Fisheries & Aquatic Ecology

Terrestrial & Wetland Ecology

Environmental Engineering

Hydrogeology & Contaminant Hydrogeology

#### Arborist Services

Environmental Site Assessment

**Species at Risk** 

**Project Management** 

Environmental Impact Assessment

Water and Wastewater Engineering

Environmental Site Inspection / Construction Monitoring



# Scoped Environmental Impact Study 4910 10<sup>th</sup> Line Town of Erin

Prepared for Davroc Testing Laboratories Inc.

AEC Project No. 24-395 | January 2025



**Environmental Assessments & Approvals** 

January 16, 2025

AEC 24-395

Davroc Testing Laboratories Inc. c/o Ahmed Sorour (Vice President of Geotechnical Engineering) 2051 Williams Parkway, Unit 21 Brampton, Ontario L6S 5T4

Re: Scoped Environmental Impact Study for a Proposed Development on 4910 10<sup>th</sup> Line, Town of Erin, County of Wellington

Dear Ahmed Sorour:

Azimuth Environmental Consulting, Inc. was retained to provide a Scoped Environmental Impact Study report for a proposed second residential dwelling and associated amenities at the location described above. The purpose of this report is to provide the Town of Erin and other review agencies with an understanding of natural environmental conditions and potential for impacts related to the proposed development on significant natural heritage features and functions of the property and adjacent lands. This report also documents the natural environmental features present within the property and adjacent lands with regard to Species at Risk and their habitats.

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

Regards, AZIMU/TH ENVIRONMENTAL CONSULTING, INC.

ordam Wrobul

Jordan Wrobel, B.Sc. Terrestrial Ecologist

#### Table of Contents

	page
Letter of Transmittal	i
1.0 INTRODUCTION	1
2.0 PLANNING CONTEXT	1
2.1 Provincial Planning Policy (2024)	1
2.2 Endangered Species Act, 2007	2
2.3 County of Wellington	3
2.4 Town of Erin	3
2.5 Credit Valley Conservation Authority	4
2.6 Greenbelt Plan	4
2.7 Federal Fisheries Act	5
3.0 STUDY APPROACH	5
3.1 Field Program Summary	5
3.2 Background Information	6
3.3 Agency Consultation	7
4.0 EXISITNG CONDITIONS	7
4.1 Land Use	7
4.2 Vegetation	7
4.3 Wildlife	8
4.4 Species at Risk	9
4.5 Wetlands	9
4.6 Candidate Significant Woodlands	10
4.7 Candidate Significant Valleyland	10
4.8 Candidate Significant Wildlife Habitat	10
4.9 Areas of Natural and Scientific Interest	11
4.10 Fish and Fish Habitat	11
5.0 NATURAL HERITAGE FEATURE SUMMARY	12
6.0 PROPSOED DEVELOPMENT	12
7.0 IMPACT ASSESSMENT	13
7.1 Habitat for Threatened and Endangered Species	13

7.	1.1	Eastern Red Bat, Hoary Bat, Little Brown Myotis, Northern Myotis, Silver-h	naired
Ba	at, Tri	-colored Bat (Endangered)	13
7.	1.2	Cerulean Warbler	14
7.	1.3	Black Ash	14
7.	1.4	Butternut	15
7.	1.5	Restricted Species	15
7.2	Prov	vincially Significant Wetland	15
7.3	Cano	didate Significant Woodland	16
7.4	Cano	didate Significant Wildlife Habitat	16
7.	4.1	Bat Maternity Colonies, Amphibian Breeding Habitat (Woodlands), Marsh	Breeding
Bi	rd Ha	bitat, Waterfowl Nesting Area, Woodland Raptor Nesting Habitat, Woodla	nd Area-
Se	ensitiv	ve Bird Breeding Habitat, Terrestrial Crayfish	16
7.	4.2	Habitat for Special Concern and Rare Wildlife Species	17
7.5	Fish	Habitat	18
8.0 F	RECC	OMMENDATIONS	18
8.0 F 8.1	RECC Spec	OMMENDATIONS	18 18
8.0 F 8.1 8.2	RECC Spec Migi	OMMENDATIONS cies at Risk ratory Breeding Birds and Bats	18 18 19
8.0 F 8.1 8.2 8.3	RECC Spec Migi Sedi	OMMENDATIONS cies at Risk ratory Breeding Birds and Bats ment and Erosion Controls	18 18 19 19
8.0 F 8.1 8.2 8.3 8.4	RECC Spec Mig Sedi Ope	OMMENDATIONS cies at Risk ratory Breeding Birds and Bats ment and Erosion Controls rations	18 18 19 19 19
8.0 F 8.1 8.2 8.3 8.4 9.0 F	RECC Spec Migr Sedi Ope POLIC	OMMENDATIONS cies at Risk ratory Breeding Birds and Bats ment and Erosion Controls rations CY CONFORMITY	18 18 19 19 19 20
8.0 F 8.1 8.2 8.3 8.4 9.0 F 9.1	RECC Spec Migr Sedi Ope POLIC	OMMENDATIONS cies at Risk ratory Breeding Birds and Bats ment and Erosion Controls rations CY CONFORMITY	18 18 19 19 19 20 20
8.0 F 8.1 8.2 8.3 8.4 9.0 F 9.1 9.2	RECC Spec Migr Sedi Ope POLIC Cour Tow	OMMENDATIONS	18 18 19 19 19 20 20 20
8.0 F 8.1 8.2 8.3 8.4 9.0 F 9.1 9.2 9.3	RECC Spec Migi Sedi Ope POLIO Coui Tow Cred	OMMENDATIONS	18 18 19 19 20 20 20 20
8.0 F 8.1 8.2 8.3 8.4 9.0 F 9.1 9.2 9.3 9.4	RECC Spec Migr Sedi Ope POLIO Cour Tow Cred Gree	OMMENDATIONS	18 18 19 19 20 20 20 20 20 20
8.0 F 8.1 8.2 8.3 8.4 9.0 F 9.1 9.2 9.3 9.4 10.0 C	RECC Spec Migr Sedi Ope POLIC Cour Tow Cred Gree	OMMENDATIONS	18 18 19 19 20 20 20 20 20 20 20

#### List of Figures

- Figure 1: Site Location
- Figure 2: Environmental Features
- Figure 3: Proposed Development

#### **List of Tables**

- Table 1: Ecological Land Classification
- Table 2: Species at Risk Habitat Summary

#### List of Appendices

- Appendix A: Background Mapping
- Appendix B: Town Correspondance
- Appendix C: Site Plan

#### **1.0 INTRODUCTION**

Azimuth Environmental Consulting, Inc. (Azimuth) was retained by Davroc Testing Laboratories Inc. (Davroc) to prepare a Scoped Environmental Impact Study (EIS) for a proposed secondary residential dwelling, driveway, and accessory amenities at 4910 10<sup>th</sup> Line in the Town of Erin ('Town'), County of Wellington ('County') (Figure 1). It is our understanding that the Town has requested an EIS be undertaken for a zoning by-law amendment as the adjacent lands comprise (in part) mapped woodlands, Provincially Significant Wetland (PSW), and a mapped watercourse. The property is located in the jurisdiction for the Credit Valley Conservation Authority (CVC), containing regulated lands associated with the woodlands and PSW.

This purpose of this Scoped EIS is to identify the candidate Key Natural Heritage Features (KNHFs) present within the study area and address potential impacts to candidate KNHFs. A review of background information in combination with a single site visit was undertaken in December, 2024 to identify natural heritage features and functions as candidates for consideration as significant KNHFs associated with the study area. This report also examines potential for Species at Risk (SAR) protected under the *Endangered Species Act,* 2007 (ESA) within the study area. The potential for negative impacts to natural heritage features resulting from the proposed development is considered and recommendations for avoidance and mitigation are provided.

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

#### 2.0 PLANNING CONTEXT

#### 2.1 Provincial Planning Policy (2024)

The Provincial Planning Statement (PPS) (MMAH, 2024) outlines policies related to natural heritage features (Section 4.1) and water resources (Section 4.2). Ontario's *Planning Act*, (1990) requires that planning decisions shall be consistent with the PPS. The study area for this assessment is located entirely within **Ecoregion 6E**. According to the PPS development and site alteration shall not be permitted in:

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

Similarly, Section 4.1.5 of the PPS states that, unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions, development and site alteration shall not be permitted within:

- a) *significant wetlands* in the Canadian Shield north of Ecoregions 5E, 6E; and 7E;
- b) significant woodlands in Ecoregions 6E; and 7E;
- c) significant valleylands in Ecoregions 6E; and 7E;
- d) *significant wildlife habitat;*
- e) significant areas of natural and scientific interest; and,
- f) coastal wetlands in Ecoregions 5E, 6E; and 7E that are not subject to policy 4.1.4(b)

It is ultimately the responsibility of the Province and/or the Municipality to designate areas identified within Section 4.1.4 and 4.1.5 of the PPS as "significant".

Section 4.1.6 of the PPS states that development and site alteration is not permitted in fish habitat except in accordance with federal and provincial requirements.

Section 4.1.7 of the PPS states that development and site alteration shall not be permitted in habitat of Endangered and Threatened species, except in accordance with provincial and federal requirements.

Furthermore, under Section 4.1.8 of the PPS, no development and site alteration will be permitted on lands adjacent to 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 there will be no negative impacts on the natural features and their ecological functions.

#### 2.2 Endangered Species Act, 2007

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

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

#### 2.3 County of Wellington

The County of Wellington Official Plan ('Wellington OP'; 2024) illustrates the property containing Greenbelt Protected Countryside and Greenbelt Natural Heritage System; according to Schedule B2-1 (Greenbelt Plan). A watercourse is mapped on the property according to Schedule B2-1 (Appendix A). A PSW is mapped on the western half of the property according to Appendix 3 (PSW; Appendix A).

#### 2.4 Town of Erin

The Town of Erin Official Plan ('Erin OP'; 2023) illustrates the property occurs in the Greenbelt Area according to Schedule A2 (County Growth Structure; Appendix A). As shown in Schedule B2 (Land Use; Appendix A) the treed areas of the property are within the Core Greenlands and Greenlands designations, and the open areas of the property occur within the Secondary Agricultural designation.

According to Policy 4.3.2 Core Greenlands Designations includes:

- Provincially significant and other wetlands;
- Habitat of Endangered or Threatened species; and,
- Floodways and hazardous lands.

'Upon land designated Core Greenlands, no development or site alteration is permitted within Provincially significant wetlands or in significant portions of the habitat of threatened or endangered species.'

According to Policy 4.3.3.a) 'Greenlands designation consists of other significant natural heritage features including fish, wildlife and plant habitat, areas of natural and scientific interest, streams and valleylands, woodlands, environmentally sensitive areas, ponds, lakes and reservoirs and natural links which are also intended to be afforded protection from development or site alteration which would have negative impacts.'

In accordance to Policy 4.3.4 in regards to adjacent lands, adjacent lands are considered lands within 120m of PSW and lands within 30m of all other Core Greenlands and Greenlands areas. Development proposed on adjacent lands require an EIS to evaluate potential impacts to natural heritage features and Greenland areas. With respect to habitat of endangered or threatened species, development or site alteration is not allowed in significant portions (Policy 3.1.5).

#### 2.5 Credit Valley Conservation Authority

The study area is located within the jurisdiction of the CVC. The study area includes lands subject to O. Reg. 41/24 'Prohibited Activities Exemptions and Permits' by the CVC. Under Regulation 41/24, the CVC requires that approvals be obtained for any proposed development or site alteration within areas regulated under a Conservation Authority's jurisdiction. It is our understanding the proposed development would occur entirely outside the regulated lands on the subject property (Appendix A).

#### 2.6 Greenbelt Plan

The property is located within the Protected Countryside of the Greenbelt Plan (2017; Appendix A). Portions of the property are located within the Greenbelt Plan Natural Heritage System (Appendix A). As defined by Policy 3.2.5 of the Greenbelt Plan, KNHFs include:

- Habitat of endangered and threatened species;
- Fish Habitat;
- Wetlands;
- Life Science of Natural and Scientific Interest (ANSIs);
- Significant Valleylands;
- Significant Woodlands;
- Significant Wildlife Habitat;
- Sand barrens, savannahs, and tallgrass prairies; and,
- Alvars.

Key Hydrologic Features (KHFs) include:

- Permanent and intermittent streams;
- Lakes (and their littoral zones);
- Seepage areas and springs; and,
- Wetlands.

Policy 3.2.5.1 of the Greenbelt Plan states:

'Development or site alteration is not permitted in key hydrologic features and key natural heritage features within the Natural Heritage System, including any associated vegetation protection zone...'

Policy 3.2.5.4 of the Greenbelt Plan states:

'In the case of wetlands, seepage areas and springs, fish habitat, permanent and intermittent streams, lakes and significant woodlands, the minimum vegetation protection zone shall be a minimum of 30 metres measured from the outside boundary of the key natural heritage feature or key hydrologic feature.'

Policy 3.2.5.5 of the Greenbelt Plan indicates the following:

"A proposal for new development or site alteration within 120 metres of a key natural heritage feature within the Natural Heritage System or a key hydrologic feature anywhere within the Protected Countryside requires a natural heritage evaluation or a hydrological evaluation which identifies a vegetation protection zone which:

- a) Is of sufficient width to protect the key natural heritage feature or key hydrologic feature and its functions from the impacts of the proposed change and associated activities that may occur before, during and after construction and, where possible, restore or enhance the feature and/or its function; and
- b) Is established to achieve and be maintained as natural self-sustaining vegetation."

#### 2.7 Federal Fisheries Act

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

#### 3.0 STUDY APPROACH

#### 3.1 Field Program Summary

Azimuth attended the property on December 10, 2024 to carry out an assessment of the natural features within the study area. The site investigation was undertaken prior to heavy snowfall and following recent rain, therefore natural feature limits were not obscured by snow

cover. It is acknowledged that the site visit occurred beyond the growing season of approximately mid-May to late-October, however as the study occurred with minimal snow cover Azimuth was able to delineate vegetation communities therein.

Prior to undertaking the field study an initial classification of habitats was undertaken using recent air photo imagery for an area encompassing the study area. Vegetation boundaries were then checked in the field (to the extent 'out of season' conditions allowed) and delineated as illustrated in Figure 2. Vegetation community types were classified using the Ecological Land Classification for Southern Ontario: First Approximation (ELC; Lee *et al.*, 1998, updated 2008).

A SAR screening was undertaken for the scope of this assignment that compares the habitat requirements of species with potential to occur in the overall planning area with habitat types that occur on the property. The screening was based on air photo interpretation combined with onsite evaluation of habitats within the study area.

#### 3.2 Background Information

A review of the following background documents provided information on site characteristics, habitat, wildlife, rare species and communities and general cultural/historic aspects of the study area:

- Ministry of Natural Resources (MNR) Ontario Geohub, Land Information Ontario (LIO): Wildlife Values Area (MNR, 2024a);
- MNR Natural Heritage Information Centre (NHIC; MNR, 2024b);
- MNR Ontario Geohub, LIO: Aquatic Resource Area Survey Point (MNR, 2025a);
- MNR Ontario Geohub, LIO: Aquatic Resource Area Line Segment (MNR, 2025b);
- Fisheries and Oceans Canada (DFO) Aquatic Species at Risk Map (DFO, 2024);
- Atlas of the Breeding Birds of Ontario (OBBA; Cadman et al., 2007);
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2020);
- MECP's Species at Risk Ontario list (MECP, 2024);
- iNaturalist Rare Species of Ontario (iNaturalist, 2024);
- Air photos available for the Project Area (Google, VuMap);
- Government of Canada's Species at Risk Public Registry; and,
- Atlas of the Mammals of Ontario (Dobbyn, 1994).

#### 3.3 Agency Consultation

A Terms of Reference for the above survey program was provided to the Town on December 18, 2024; to date Azimuth has not received a response in regards to the scope of the program undertaken. Communications from Azimuth to the Town is provided in Appendix B.

The MNR NHIC square database in proximity to the proposed development included records for a restricted species. A restricted species information request was sent to the MNR NHIC on December 19, 2024 and a response was received the same day identifying the species. The species name is not included in this report to protect the sensitive species.

#### 4.0 EXISITNG CONDITIONS

#### 4.1 Land Use

The subject property is located on the northwest side of Sideroad 32 and is approximately 25 hectares (ha) in size (Figure 1). The property contains an existing single-family residential dwelling and associated accessory structures, maintained areas, woodland, a pond and watercourse, hedgerows, and active agricultural fields. The agricultural fields are used for small scale production and contain multiple crop types, including peppers, carrots, squash, and sunflowers. There are multiple trails to access different areas on the property.

Adjacent lands north and west of the property contain an extensive woodland feature. The remaining adjacent lands comprise of rural residential land and agricultural fields.

#### 4.2 Vegetation

A field survey was undertaken to evaluate vegetation community types including representative plant species compositions on December 10, 2024; noting that minimal snow cover had accumulated and it was still possible to obtain general characterizations of ground layer vegetation. Property access was granted within the property boundary only (Figure 2), and therefore alternative survey techniques (*i.e.* "fenceline"/binocular surveys) were completed for lands located beyond the property line. The site visit was undertaken by a qualified Terrestrial Ecologist with knowledge of rare, Threatened, and Endangered plant species with potential to occur in the area; however it is acknowledged that the site visit was conducted at a time of year when identification of sensitive plant species was generally limited to trees and shrubs.

Vegetation communities within the study area were determined in accordance with the ELC system, and are summarized as observed in Table 1 and illustrated on Figure 2. Vegetation communities identified within the study area are listed as follows:

- CVR\_4 (Rural Residential Property)
- FODM5 (Dry-Fresh Sugar Maple Deciduous Forest)
- FOMM7 (Fresh-Moist White Cedar-Hardwood Mixed Forest)
- OAG (Open Agriculture)
- SWD3/SWD4 (Maple Mineral Deciduous Swamp/Mineral Deciduous Swamp)
- TAGM5 (Fencerow)

Three occurrences of provincially rare vegetation species within the study area were recorded according to the MNR NHIC database (MNR, 2024b). Butternut (Juglans cinerea; Endangered), a Restricted Species (Threatened), and Hart's-tongue Fern (Special Concern) were recorded in NHIC squares 17NJ8140, 17NJ8141, 17NJ8142, 17NJ8240, 17NJ8241, and 17NJ8242.

A detailed survey was undertaken to identify Butternut and Black Ash (*Fraxinus nigra*) trees. Multiple Black Ash trees were identified in the PSW and associated with the PSW edge (within the (FOMM7 woodland). Butternut were observed within the FOMM7 woodland and central hedgerow on the property. Four (4) dead Butternut and four (4) living Butternut trees were observed. The location of these Endangered trees are shown on Figure 2 and Figure 3, and no Endnagered trees are observed within the proposed development limit. No Butternut Health Assessments nor a Black Ash Health Assessment were completed as the site visit occurred 'out of season' and would not meet the Ministry of Environment, Conservation, and Parks (MECP) guideline standards.

Hart's-tongue Fern was not observed during the field investigations.

#### 4.3 Wildlife

Direct and indirect observations of wildlife (*e.g.* tracks, scat, fur) were collected as a matter of course during the December 10, 2024 site investigation, acknowledging that the survey occurred outside of the active period for bat species, migratory birds, reptiles, and amphibians. The following species and signs thereof were observed within the study area limits during the site investigation:

• Birds: American Crow, Blue Jay

• <u>Mammals</u>: Coyote, Eastern Cottontail, Eastern Gray Squirrel, Raccoon, Red Squirrel, White-tailed Deer

A review of MNR NHIC database (1 x 1km squares 17NJ8240, 17NJ8140, 17NJ8040, 17NJ8041, 17NJ8141, 17NJ8241, 17NJ8242, 17NJ8142, and 17NJ8042) identified records for SAR wildlife in proximity to the property, as follows:

- Bobolink (Threatened)
- Eastern Meadowlark (Threatened)
- Louisiana Waterthrush (Threatened)
- Canada Warbler (Special Concern)
- Eastern Wood-pewee (Special Concern)
- Northern Map Turtle (Special Concern)
- Snapping Turtle (Special Concern)
- Wood Thrush (Special Concern)

#### 4.4 Species at Risk

A screening for SAR occurred within the planning area based on potentially suitable habitat features identified during the site investigation (Table 2). The SAR assessment fully considers SAR with potential to occur within the overall planning area. Based on this assessment in combination with vegetation communities and other environmental features observed during the site investigation, the following species are considered below in this report:

- Threatened and Endangered: Eastern Red Bat, Hoary Bat, Little Brown Myotis, Northern Myotis, Silver-haired Bat, Tri-colored Bat, Butternut, Black Ash, Cerulean Warbler, Restricted Species
- **Special Concern:** Canada Warbler, Eastern Ribbonsnake, Eastern Wood-pewee, Snapping Turtle, Wood Thrush

#### 4.5 Wetlands

The Acton Silver Creek Wetland was identified on the western half of the property, and is designated as Provincially Significant (Appendix A; Figure 2). The PSW limits were verified during field investigations and are consistent with available provincial mapping (MNR); the mapped limits on illustrated on Figure 2 are reflective of provincial mapping. The site visit completed December 10, 2024 confirmed no other wetlands occur on the subject property.

#### 4.6 Candidate Significant Woodlands

Woodlands within the study area are identified as Core Greenlands and Greenland in the Towns OP (Schedule B2). According to the Greenbelt Plan Technical Definitions and Criteria for Key Natural Heritage Features in the Natural Heritage System of the Protected Countryside Area (MNR, 2012), woodlands in the North Area of the Greenbelt Plan 10ha or larger are considered significant.

The woodlands on the property (FODM5, FOMM7, and PSW) are approximately 13.5ha in size, and are connected to an extensive woodland feature on adjacent lands over 56ha in size. As such, the FODM5 and FOMM7 are considered Significant Woodlands in accordance with provincial standards.

The central TAGM5 containing two Butternuts is considered a separate feature from the above woodland complex (FODM5, FOMM7, PSW) as they are intersected by a gap over 20m wide. The TAGM5 communities on the property are not considered woodlands and cannot be considered significant, as they do not meet the average minimum width of 40m between crown edges, as per the Greenbelt Plan Technical Definitions (MNR, 2012).

#### 4.7 Candidate Significant Valleyland

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

There are no valleyland features located within the study area according standards presented in the Greenbelt Plan Technical Definitions, principally due to the lack of well-defined valley morphology (*i.e.*, valley walls with a minimum height of 5m and 15% slope) and landform prominence required to be considered Candidate Significant Valleyland.

#### 4.8 Candidate Significant Wildlife Habitat

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

- Bat Maternity Colonies
- Amphibian Breeding Habitat (Woodland)

- Waterfowl Nesting Area
- Woodland Raptor Nesting Habitat
- Woodland Area-Sensitive Bird Breeding Habitat
- Terrestrial Crayfish
- Habitat for Special Concern and Rare Wildlife Species
  - Canada Warbler, Eastern Wood-pewee, Eastern Ribbonsnake, Snapping Turtle, Wood Thrush

#### 4.9 Areas of Natural and Scientific Interest

There are no ANSIs located within the study area according to municipal or provincial mapping resources (Appendix A).

#### 4.10 Fish and Fish Habitat

The subject property occurs in the Credit River Watershed. Background mapping and field investigations identified the presence of one watercourse on the property, which is an unnamed tributary of the Credit River West Branch that flows southwest through the PSW on the property (as show on Figure 2). The unnamed tributary has been channelized directly south of the property, likely for agricultural purposes (Appendix A).

The tributary has defined banks, is shaded by surrounding vegetation, and contained fallen organic material. The feature naturally meanders through the PSW with a riffle/run/pool morphology. Flow was noted during the field investigation (December 10, 2024) and no fish were observed during the site visit. The average wetted width is approximately 1-1.5m with a water depth of approximately 0.5m. Background data indicates coldwater fish species records located downstream of the unnamed watercourse (*i.e.*, Brook Trout), along with the following fish species: Blacknose Dace, Creek Chub, Fathead Minnow, Northern Redbelly Dace, and Sticklebacks (MNR, 2025a). In addition, MNR background information indicates that the tributary is a coldwater feature (MNR, 2025b).

Based on the site observations, the unnamed watercourse on the property would be characterized a permanent watercourse feature that would support direct coldwater fish habitat protected under *Federal Fisheries Act* (1985). There are no records of aquatic SAR in the study area (DFO, 2024; Appendix A).

#### 5.0 NATURAL HERITAGE FEATURE SUMMARY

The results of Azimuth's site investigation combined with review of background information indicate the potential for the following candidate KNHFs within the study area:

- Habitat for Endangered and Threatened Species
  - Eastern Red Bat, Hoary Bat, Little Brown Myotis, Northern Myotis, Silver-haired Bat, Tri-colored Bat
  - Butternut, Black Ash
  - Cerulean Warbler
  - $\circ \quad \text{Restricted Species}$
- Acton Silver Creek Wetland (PSW)
- Candidate Significant Woodland
- Candidate Significant Wildlife Habitat
  - Bat Maternity Colonies
  - Amphibian Breeding Habitat (Woodland)
  - Waterfowl Nesting Area
  - Woodland Raptor Nesting Habitat
  - Woodland Area-Sensitive Bird Breeding Habitat
  - Terrestrial Crayfish
  - Habitat for Special Concern and Rare Wildlife Species
    - Canada Warbler, Eastern Wood-pewee, Eastern Ribbonsnake, Snapping Turtle, Wood Thrush
- Fish Habitat
  - Direct coldwater fish habitat in unnamed tributary

#### 6.0 PROPSOED DEVELOPMENT

The proposed development involves the construction of a secondary detached dwelling, driveway and accessory structures/amenities (*i.e.*, septic bed, pool). The proposed development will occur directly behind the existing residential dwelling and will extend from the existing driveway (Appendix C). The proposed development will occur within the CVR\_4 and an active agricultural field, one ornamental tree from the CVR\_4 community may require removal.

Mapping of the proposed development as it related to environmental features on the property is presented in Figure 3.

#### 7.0 IMPACT ASSESSMENT

This impact assessment is prepared with regards to the construction footprint of proposed structures, as described above and illustrated in Figure 3.

#### 7.1 Habitat for Threatened and Endangered Species

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

- Eastern Red Bat, Hoary Bat, Little Brown Myotis, Northern Myotis, Silver-haired Bat, Tricolored Bat
- Cerulean Warbler
- Black Ash
- Butternut
- Restricted Species
- 7.1.1 Eastern Red Bat, Hoary Bat, Little Brown Myotis, Northern Myotis, Silver-haired Bat, Tricolored Bat (SAR bats; Endangered)

SAR bats may utilize woodlands and other treed areas as maternity roost sites, preferring trees >25 centimetres (cm) diameter at breast height (DBH) with evidence of cracks, holes, splits, lifted bark, etc. (called "snags") to provide refuge for the rearing of young during the late spring and early summer months (approximately June). It is acknowledged however, that trees of any size may provide suitable habitat for bats where features providing access are present, recognizing that such features are generally less frequently identified on smaller stems. Maternity roosting habitat is confined to woodlands or suitable structures such as vacant homes, churches, etc. During the site investigation, potentially suitable snags were observed within the woodland communities (FODM5, FOMM7, SWD3/SWD4) and TAGM5.

Azimuth notes that in January 2023 the Committee on the Status of Species at Risk in Ontario (COSSARO) re-assessed the status of three (3) previously Not Listed bat species to Endangered status, including Eastern Red Bat, Hoary Bat, and Silver-haired Bat (COSSARO, 2023). Based on discussions with MECP, Azimuth understands that the province is planning to amend the ESA to adopt Endangered status for the species on January 31, 2025; and the three additional bat species should be considered, as has been applied in this Scoped EIS.

The proposed development will occur within the OAG and CVR\_4 community. One ornamental tree in the CVR\_4 community may require removal; however, the tree does not contain snag features and is not considered suitable habitat for bats. No tree removal of the above woodlands or TAGM5 communities are required to support the proposed development. Providing that conformance is demonstrated for environmental considerations and mitigation described in Section 8 below, there is no expectation that the proposed development will result in a negative impact to SAR bats or the habitat upon which they depend.

#### 7.1.2 Cerulean Warbler

Cerulean Warbler inhabit large and mature deciduous forests with closed or semi-open canopy, and often dominated by oak or maples (COSEWIC, 2010a). Cerulean Warbler tend to avoid areas with dense understory and are associated with upland forests adjacent or embedded within a large matric of forested wetlands (COSEWIC, 2010a). The Cerulean Warbler may potentially occupy the FODM5 woodland in the west corner of the property.

As illustrated in Figure 3, no portion of the woodlands or PSW in the study area will be removed or altered for the proposed development, nor will activities occur within 30m of these features. Providing that conformance is demonstrated for environmental considerations and mitigation described in Section 8 below, there is no expectation that the proposed development will result in a negative impact to Cerulean Warbler.

#### 7.1.3 Black Ash

The ESA prohibits the killing, harming, harassing, possessing, or removing of health Black Ash trees over 1.37m in height and equal to or greater than 8 centimetre (cm) Diameter at Breast Height (DBH). Black Ash trees were observed within the PSW and the FOMM7 woodland on the property (Figure 2). All Black Ash trees observed on December 10, 2024 were less than 1.37m in height or less than 8cm DBH, and as such, these trees are exempt from the ESA protections. However, as some Black Ash trees are approaching 8cm DBH a 30m setback around all Black Ash trees observed is illustrated on Figure 3, as a precautionary approach. It is anticipated additional Black Ash trees may be present within the PSW.

The proposed development will not encroach into the PSW or woodlands on the property, nor will the proposed development occur within 30m of the PSW or woodlands (Figure 3). In accordance with O. Reg. 7/24 lands within 30m of a healthy Black Ash are protected, and as such, no impacts are expected as the proposed development will occur well beyond the recommended 30m buffer (Figure 3). Providing that conformance is demonstrated for

environmental considerations and mitigation described in Section 8 below, there is no expectation that the proposed development will result in a negative impact to Black Ash.

#### 7.1.4 Butternut

During field investigations eight (8) Butternut trees were identified within the FOMM7 and TAGM5 communities on the property. Four (4) of the Butternut trees identified were dead (Figure 2). The remaining four living trees ranged from 16-38cm DBH and exhibit symptoms of Butternut Canker disease (*i.e.*, sooty cankers). Butternut Health Assessments to categorize individual trees health could not occur given the time of year of field investigations (December 10, 2024), as assessments should be conducted during the 'leaf on' season (May 15 to August 31). As such, trees were considered healthy in this assessment and are afforded protection under the ESA.

The Butternut Recovery Strategy (2021) and O. Reg 830/21 recommends a 25m radius from mature healthy trees (*i.e.*, trees over 50cm DBH) should be considered regulated and protected habitat; in addition, a 5m extension is recommended to prevent indirect impacts to the Root Harm Protection Zone (RHPZ). The proposed development will not require the removal of Butternut trees, nor will the proposed development occur within 30m of a Butternut tree as illustrated in Figure 3. Providing that conformance is demonstrated for environmental considerations and mitigation described in Section 8 below, there is no expectation that the proposed development to Butternut.

#### 7.1.5 Restricted Species

The restricted species is generally found in undisturbed and mature Sugar Maple (*Acer saccharum*) deciduous forests (COSEWIC, 2000). As the site visit occurred outside the growing season, an assessment for this species was not completed. However, if the species were to occur on the subject property the preferred habitat is the FODM5 woodland. The FODM5 woodland occurs over 200m from the proposed development, as such, there is no expectation that the proposed development will result in a negative impact to the restricted species. Providing that conformance is demonstrated for environmental considerations and mitigation described in Section 8 below.

#### 7.2 Provincially Significant Wetland

According to the PPS, development and site alteration are not permitted within PSW located in the Ecoregion 6E, and the Greenbelt Plan policy 3.2.5.4 specifies no development should occur within 30m of a KNHF. The proposed development will not result in direct removals of the PSW

on the property, nor will any portion of the property be subject to disturbance within 30m of the PSW (Figure 3). Providing that conformance is demonstrated for environmental considerations and mitigation described in Section 8 below, there is no expectation that the proposed development will result in a negative impact upon the Acton Silver Creek PSW.

#### 7.3 Candidate Significant Woodland

According to the Greenbelt Plan, development and site alteration are not permitted within Significant Woodlands, and no development should occur within 30m of a KNHF according to policy 3.2.5.4. The extensive woodland features on the property (FOMM7, FODM5, SWD3/SWD4) are treated as Candidate Significant Woodland for the purposes of this assessment. The proposed development will not result in direct removals of woodlands on the property, nor will any portion of the property be subject to disturbance within 30m of the Candidate Significant Woodlands (Figure 3). Providing that conformance is demonstrated for environmental considerations and mitigation described in Section 8 below, there is no expectation that the proposed development will result in a negative impact upon Candidate Significant Woodlands.

#### 7.4 Candidate Significant Wildlife Habitat

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

7.4.1 Bat Maternity Colonies, Amphibian Breeding Habitat (Woodlands), Marsh Breeding Bird Habitat, Waterfowl Nesting Area, Woodland Raptor Nesting Habitat, Woodland Area-Sensitive Bird Breeding Habitat, Terrestrial Crayfish

Candidate SWH types restricted to the PSW and woodlands (FOMM7, FODM5) communities with potential to occur within the study area limits include Bat Maternity Colonies, Amphibian Breeding Habitat (Woodlands), Marsh Breeding Bird Habitat, Waterfowl Nesting Area, Woodland Raptor Nesting Habitat, Woodland Area-Sensitive Bird Breeding Habitat and Terrestrial Crayfish. As shown in Figure 3, the proposed development will occur over 30m from all wetland and woodland edges within the study area. Providing that conformance is demonstrated for environmental considerations and mitigation described in Section 8 below, there is no expectation that the proposed development will result in a negative impact upon the above Candidate SWH categories.

#### 7.4.2 Habitat for Special Concern and Rare Wildlife Species

Species-specific surveys to target presence/absence of Special Concern species were not conducted as a part of this assessment. For the purposes of this assessment, presence of Special Concern species (for which suitable habitat may be present) is assumed in lieu of conducting appropriate screenings for these species.

#### Canada Warbler, Eastern Wood-pewee, Wood Thrush

High quality Canada Warbler and Wood Thrush habitat consists of deciduous, coniferous, or mixed forest with a well-developed shrub layer, a complex forest floor, and with preferably moist conditions. They can often reside in forests regenerating after anthropogenic or natural disturbances (COSEWIC, 2020; COSEWIC, 2012a).

Eastern Wood-pewee inhabits mature deciduous and mixed stands with an open understory. This species is usually associated with woodland clearings and edges within the vicinity of its nest. It is most abundant in forests of intermediate age and in mature stands with little understory vegetation, and is often associated with forests dominated by Sugar Maple (COSEWIC, 2012b).

As illustrated in Figure 3, no portion of the woodlands in the study area will be removed or altered for the proposed development. No indirect impacts to Canada Warbler, Eastern Woodpewee, and Wood Thrush are anticipated as the proposed development will occur over 30m from the woodland edge and utilizing the adjacent proposed area for a residential dwelling is not expected to deter breeding or nesting by these species in the woodlands. As such, no negative impact to the above woodland birds or their habitat are anticipated as a result of the proposed development; providing conformance demonstrated for environmental considerations and mitigation described in Section 8 below.

#### Eastern Ribbonsnake

Eastern Ribbonsnake occupies shorelines and a variety of wetland habitats with both flowing and standing water present (COSEWIC, 2012c). This species can also be found in vernal pools and moist woodlands (COSEWIC, 2012c).

As illustrated in Figure 3, the proposed development will not encroach upon the expansive woodland community or PSW within the study area and the proposed development will occur 30m from such features. As such, no negative impacts to Eastern Ribbonsnake or their habitat are anticipated, providing conformance is demonstrated for environmental considerations and mitigation described in Section 8 below.

#### Snapping Turtle

Snapping Turtles can be found in most freshwater habitats, and prefer habitats with soft mud bottoms, dense vegetation, and slow-moving water (COSEWIC, 2008). Established populations can often be found in areas combining several types of wetland habitats (COSEWIC, 2008). Snapping turtles could potentially be associated with the PSW and man-made pond on the property (Figure 2). The proposed development will occur entirely within the existing CVR\_4 community and directly south in the agricultural field. The proposed development will not result in the direct alteration of PSW or the man-made pond, nor will any portion of the property be subject to disturbance within 30m of the PSW or 200m of the man-made pond. As such, no negative impact to Snapping Turtles or their habitat is expected to occur as a result of the proposed development, providing conformance is demonstrated for environmental considerations and mitigations described in Section 8 below.

#### 7.5 Fish Habitat

The proposed development will not result in direct alteration of wetlands, watercourses, waterbodies or other drainage features on the property, nor will any portion of the property be subject to disturbance within 30m of such features. Providing that conformance is demonstrated for environmental considerations and mitigation described in Section 8 below, there is no expectation that the proposed development will result in negative impacts to fish or fish habitat under the Federal *Fisheries Act.* 

#### 8.0 **RECOMMENDATIONS**

#### 8.1 Species at Risk

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

#### 8.2 Migratory Breeding Birds and Bats

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

Although removal of only one (1) ornamental tree is anticipated, activities involving tree removal, should be avoided between **April 1 through September 30** of any given year, during the active period for bat species that may utilities trees for maternity and day roosting purposes. It is anticipated that adherence to this timing restriction will avoid impacts to individual SAR bats, therefore remaining in compliance with Section 9 of the ESA affording individual protection to Endangered species.

#### 8.3 Sediment and Erosion Controls

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

Materials storage on the property (*i.e.* soil stockpiles) should be located over 30m from natural features. Material storage areas should be contained with ESCs to avoid potential indirect impacts to natural features onsite.

#### 8.4 Operations

All maintenance activities (including refueling) required during future construction should be conducted at least 30m away from natural features to prevent accidental spillage of deleterious substances that may harm natural environments.

The contractor is recommended to have a Contaminant and Spill Management Plan in place prior to initiation of works. This should include keeping an emergency spill kit on site at all times. In the event of a spill, the contractor must report it immediately to the provincial Spills Action Centre (SAC).

#### 9.0 POLICY CONFORMITY

#### 9.1 County of Wellington

As per the County of Wellington policy 5.4.2, a Scoped EIS was completed to ensure the proposed development will not result in a negative impact on the KNHFs or KNHFs associated with the study area. In accordance with the policies under Section 5.4 and 5.5 of the County's OP, no development or site alteration will occur within KNHFs, and no negative impacts are expected for KNHFs or KHFs in the study area (as outlined in Section 7).

#### 9.2 Town of Erin

As per the Town's OP (policies 3.1.2.a, 3.1.3, 4.3.1, and 4.3.4) a Scoped EIS was completed and determined no negative impacts to KNHFs and KHFs are expected, as outlined in Section 7. The Scoped EIS was prepared by a qualified ecologist and confirm to the requirements under policy 5.16.3.

Per policy 4.3.2 no portion of the proposed development will occur within designated Core Greenlands, Greenlands, PSW, or habitat of threatened or endangered species (Figure 3).

#### 9.3 Credit Valley Conservation Authority

As outlined in policy 6.2.1.b) the Scoped EIS demonstrates compliance with policy as the proposed development will occur over 30m from all KNHFs, including; the PSW and unnamed watercourse (Figure 3).

#### 9.4 Greenbelt Plan

In accordance to policy 3.2.5.5, a natural heritage evaluation was completed as the proposed development is proposed within 120m of KNHFs and KHFs. The Greenbelt Plan identifies a minimum vegetation protection zone (VPZ) of 30m for all wetlands, fish habitat, permanent streams, and Significant Woodlands, as outlined in policy 3.2.5.4. As outlined in Section 7, the proposed development will occur a minimum of 30m from all KNHFs in the study area, including; PSW, Significant Woodlands, the unnamed watercourse, Butternut, and Black Ash trees (Figure 3).

In contradiction to policy 3.2.5.5.b) which indicates a VPZ should be established with natural self-sustaining vegetation, the proposed 30m setback is currently composed of active agricultural fields (Figure 3). As such, it is our understanding the proponent will continue to utilize this area for small scale farming purposes. There is no expectation that the continued agricultural land use of this area will result in a negative impact to KNHFs or KHFs.

#### **10.0 CONCLUSIONS**

Based upon our analysis, it is concluded that the environmental conditions are not limiting to the proposed development of a secondary detached dwelling, driveway, and associated amenities through the incorporation of the environmental protection measures described in Section 8 of this report.

At this time, our findings are summarized as follows:

- The proposed development is consistent with the applicable natural heritage policies of the Provincial Policy Statement, ESA, County of Wellington Official Plan, Town of Erin Official Plan, Greenbelt Plan, and Credit Valley Conservation Authority O. Reg. 41/42.
- Our impact assessment has given full consideration to the habitat requirements of all SAR assumed and documented to occur in the area and results indicate the proposed development will not result in negative direct or indirect impacts to habitat of SAR.
- The proposed works are not expected to negatively impact the ecological functions of PSW, Candidate Significant Woodland, or Candidate Significant Wildlife Habitat.
- No ephemeral, intermittent or permanent drainage features, open water units, fish or fish habitat are expected to be negatively impacted as a result of the proposed works.

#### **11.0 REFERENCES**

Cadman, M.D., D.A. Sutherland, G.G. Beck, D. Lepage, and A.R. Couturier (eds.). 2007. Atlas of the Breeding Birds of Ontario (OBBA). 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologies, Ontario Ministry of Natural Resources and Ontario Nature, Toronto, xxii + 706pp.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC). 2000. COSEWIC assessment and status report on the RESTRICTED SPECIES in Canada. Committee on the Status of Endangered Wildlife in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 17 pp.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC). 2008. COSEWIC assessment and update status report on the Snapping Turtle *Chelydra serpentine* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 47 pp.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC). 2010a. COSEWIC assessment and update status report on the Cerulean Warbler *Dendroica cerulea* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 40 pp.

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

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

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

Committee on the Status of Endangered Wildlife in Canada (COSEWIC). 2023. COSEWIC assessment and status report on the Hoary Bat *Lasiurus cinereus*, Eastern Red Bat *Lasiurus borealis* and Silver-haired Bat, *Lasionycteris noctivagans*, in Canada. Committee on the Status of Endangered Wildlfie in Canada. Ottawa. xxi + 100 pp.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC). 2020. COSEWIC assessment and status report on the Canada Warbler *Cardellina canadensis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xi + 54 pp.

Committee on the Status of Species at Risk in Ontario (COSSARO). 2023. 2023 Annual report from the Committee on the Status of Species at Risk in Ontario. (https://www.ontario.ca/page/2023-annual-report-committee-status-species-risk-ontariocossaro#:~:text=Given%20this%20information%2C%20Hoary%20Bat,as%20endangered%20in% 20May%202023). Accessed January 2025.

County of Wellington. 2024. County of Wellington Official Plan. (https://files.cvc.ca/cvc/uploads/2021/06/004-CVC-WPR-Policies\_APR-2010\_na.pdf). Accessed January 2025.

Credit Valley Conservation (CVC). 2024. Regulation Mapping. (https://cvc.ca/regulation-mapping/). Accessed January 2025.

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

Endangered Species Act, Ontario. 2007 (ESA). An Act to protect species at risk and to make related changes to other Acts. Bill 184 Chapter 6, Statutes of Ontario 2007.

Fisheries and Oceans Canada (DFO). 2024. Aquatic Species at Risk Mapping. (https://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html). Accessed December 2024.

Fish and Wildlife Conservation Act, Ontario. 1997. S.O. 1997, c.41

Government of Canada. 1985. Federal Fisheries Act. (http://lawslois.justice.gc.ca/eng/acts/f-14/). Accessed January 2024.

Government of Canada. 2014. Migratory Birds Convention Act. (http://lawslois.justice.gc.ca/eng/acts/M-7.01/). Accessed January 2025.

iNaturalist. 2025. Rare Species of Ontario. (https://www.inaturalist.org/projects/nhicrare-species-of-ontario). Accessed January 2025.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998, 2008. Ecological Land Classification for Southern Ontario. First Approximation and its

Application. Ontario Ministry of Natural Resources, Southcentral Sciences Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

Ministry of Environment, Conservation, and Parks (MECP). 2021. Butternut Recovery Strategy. (https://www.ontario.ca/page/butternut-recoverystrategy#:~:text==%2025%20m%20rounded%20up.,individual%20Butternut%20trees%20is%20 recommended.) Accessed January 2025.

Ministry of Municipal Affairs and Housing (MMAH). 2017. Greenbelt Plan.

Ministry of Municipal Affairs and Housing (MMAH), 2024. Provincial Planning Statement.

Ministry of Natural Resources and Forestry (MNRF). 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. 38 pp.

Ministry of Natural Resources (MNR). 2013. Greenbelt Plan 2005 - Technical Definitions and Criteria for Key Natural Heritage Features in the Natural Heritage System of the Protected Countryside Area.

Ministry of Natural Resources (MNR). 2024a. Ontario Geohub, Wildlife Values Area. (https://geohub.lio.gov.on.ca/datasets/lio::wildlife-values-area/explore). Accessed December 2024.

Ministry of Natural Resources (MNR). 2024b. Natural Heritage Information Centre (NHIC) internet web page. Government of Ontario, Ministry of Natural Resources (https://www.ontario.ca/page/natural-heritage-information-centre). Accessed December 2024.

Ministry of Natural Resources (MNR). 2025a. Ontario Geohub, Aquatic Resource Area Survey Point. (https://geohub.lio.gov.on.ca/datasets/lio::aquatic-resource-area-survey-point/explore). Accessed January 2025.

Ministry of Natural Resources (MNR). 2025b. Ontario Geohub, Aquatic Resource Area Line Segment. (https://geohub.lio.gov.on.ca/datasets/lio::aquatic-resource-area-line-segment/explore). Accessed January 2025.

Ontario Ministry of Natural Resources (OMNR). 2000. Significant Wildlife Habitat Technical Guide. Fish and Wildlife Branch, Wildlife Section, Science Development and Transfer Branch, Southcentral Science Section. Queen's Printer for Ontario. 151pp.

Ontario Nature. 2020. Ontario Reptile and Amphibian Atlas Program (https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas/). Accessed December 2024.

Ontario Planning Act. 1990. (https://www.ontario.ca/laws/statute/90p13). Accessed December 2024.

Town of Erin. 2023. The Official Plan of the Town of Erin.







Ecological Land Classification <sup>1</sup>			tion <sup>1</sup>		
System	Community	Community	Ecosite/Vegetation	Composition	Ground Cover
Terrestrial	Class	CVR, Residential	CVR_4, Rural Residential	Tree cover is sparse with ornamental plantings including Sugar Maple ( <i>Acer saccharum</i> ), Blue Spruce ( <i>Picea</i>	The ground cover is dominated by maintained
			& Maintained Area	banksiana ) and Eastern White Cedar (Thuja occidentalis ).	lawns and ornamental species.
Terrestrial	Cultural	TAG, Treed Agricultural	TAGM1, Fencerow	Tree cover within the fencerows dividing the open agricultural fields inlcude Sugar Maple, White Ash ( <i>Fraxinus</i> <i>americana</i> ), American Elm ( <i>Ulmus americana</i> ), Trembling Aspen ( <i>Populus tremuloides</i> ), American Beech ( <i>Fagus</i> <i>grandifolia</i> ), Staghorn Sumac ( <i>Rhus typhina</i> ), Black Cherry ( <i>Prunus serotina</i> ), Common Apple ( <i>Malus pumila</i> ), Black Walnut ( <i>Juglans nigra</i> ), European Buckthorn ( <i>Rhamnus</i> <i>cathartica</i> ), Butternut ( <i>Juglans cinerea</i> ), and Hawthorns ( <i>Crataegus spp.</i> ).	Ground cover observed included Wild Carrot ( <i>Daucus carota</i> ), Common Muellin ( <i>Verbascum</i> <i>thapsus</i> ), Coltsfoot ( <i>Tussilago farfara</i> ), Bladder Campion ( <i>Silene vulgaris</i> ), Reed Canary Grass ( <i>Phalaris arundinacea</i> ), Sweet White Clover ( <i>Melilotus albus</i> ), Selfheal ( <i>Prunella vulgaris</i> ), Common Milkweed ( <i>Asclepias syriaca</i> ), goldenrods ( <i>Solidago spp.</i> ), and asters ( <i>Symphptrichum spp.</i> ).
Terrestrial	Forest	FOM, Mixed Forest	FOMM7, Fresh-Moist White Cedar-Hardwood Mixed Forest	The canopy and sub-canopy are dominated by Eastern White Cedar, Red Maple ( <i>Acer rubrum</i> ), Sugar Maple, White Birch ( <i>Betula papyrifera</i> ), White Ash, Red Oak ( <i>Quercus rubra</i> ), American Beech, Yellow Birch ( <i>Betula alleghaniensis</i> ); and lesser elements of Butternut, Black Ash ( <i>Fraxinus nigra</i> ), and Black Cherry. The understory contains a similar composition with the addition of European Buckthorn and hawthorns.	Observed ground cover inlcudes Red Raspberry ( <i>Rubus idaeus idaeus</i> ), Coltsfoot, Canada Thistle ( <i>Cirsium arvense</i> ), goldenrod species, and saplings.
Terrestrial	Forest	FOD, Deciduous Forest	FODM5, Dry-Fresh Sugar Maple Deciduous Forest	The canopy and subcanopy are dominated by Sugar Maple, with elements of American Beech, Ironwood ( <i>Ostrya</i> <i>virginiana</i> ), White Ash, and Basswood ( <i>Tilia americana</i> ). The understaory contains a similar composition with the addition of Riverbank Grape ( <i>Vitis riparia</i> ).	Ground cover is sparse during the time of assessment.

Wetland	Swamp	SWD, Deciduous Swamp	SWD3/SWD4, Maple Mineral Deciduous Swamp/Mineral Deciduous Swamp	The canopy and sub-canopy contains Red Maple, Yellow Birch, American Elm, Green Ash, Sugar Maple, Trembling Aspen, and Eastern White Cedar. Lesser elements inlcude Black Ash, White Spruce ( <i>Picea glauca</i> ), White Birch, Balsam Fir ( <i>Abies balsmea</i> ), and Willows ( <i>Salix spp.</i> ). The understory contains a similar composition with the addition of European Buckthorn, Grey Alder ( <i>Alnus incana</i> ), Choke Cherry ( <i>Prunus virginiana</i> ), and Red-osier Dogwood ( <i>Cornus sericea</i> ).	Ground cover is sparse during the time of assessment; Sensitive Fern ( <i>Onoclea sensibilis</i> ) and saplings occur.
---------	-------	-------------------------	---	--	--

Table 2: Species at Risk Hab	itat Summary, 4910 10th Line Eri	n EIS	1		AEC24-395
Common Name	Species Name	ESA	SARA	Key Habitats Used By Species <sup>1</sup>	Initial Assessment
Bank Swallow	Riparia riparia	THR	THR	Nests in burrows excavated in natural and human-made settings with vertical sand and silt faces. Commonly found in sand or gravel pits, road cuts, lakeshore bluffs, and along riverbanks (COSEWIC, 2013a). ESA Protection: Species and general habitat protection	Key habitat requirements for the species ( <i>e.g.,</i> exposed vertical banks) are not found in the study area. Species not expected to occur.
Barn Swallow	Hirundo rustica	sc	THR	Ledges and walls of man-made structures such as buildings, barns, boathouses, garages, culverts and bridges. Also nest in caves, holes, crevices and cliff ledges (COSEWIC, 2011a). ESA Protection: Species and general habitat protection	Species record occurs within 1km of the property according to NHIC 1x1km square 17NJ8242. Anthropgenic structures do occur on the property , however no nests were observed. Species not expected to occur.
Black Ash	Fraxinus nigra	END	No Status	Facultative wetland tree species frequently found in floodplain forests, swamps, seepage areas, shoreline margins and fens. Occupied sites are generally seasonally-flooded (COSEWIC, 2018a). ESA Protection: Species and general habitat protection	Species observed on the property, considered further in main text.
Blanding's Turtle	Enydoidea blandingii	THR	END	Blanding's Turtles are a primarily aquatic species that prefer wetland habitats, lakes, ponds, slow-moving streams, etc., however they may utilize upland areas to search for suitable basking and nesting sites. In general, preferred wetland sites are eutrophic and characterized by clear, shallow water, with organic substrates and high density of aquatic vegetation (COSEWIC, 2016a). ESA Protection: Species and general habitat protection	Key habitat requirements for the species ( <i>e.g.</i> , permanent eutrophic environment with significant aquatic vegetation) are not associated with the PSW. No NHIC records occur for the species. The man-made pond located along the western property boundary is located approximately 230 from the proposed development and therefore is outside of the study area (i.e., 120m from the development limit). Species is not considered further.
Bobolink	Dolichonyx oryzivorus	THR	THR	Nests primarily in forage crops ( <i>e.g.</i> hayfields and pastures) dominated by a variety of species such as clover, Timothy, Kentucky Bluegrass, tall grass, and broadleaved plants. Also occurs in wet prairie, graminoid peatlands, and abandoned fields dominated by tall grasses. Does not generally occupy fields of row crops ( <i>e.g.</i> corn, soybeans, wheat) or short-grass prairie. Sensitive to habitat size and has lower reproductive success in small habitat fragments (COSEWIC, 2010a). ESA Protection: Species and general habitat protection	Species record occurs within 1km of the property according to NHIC 1x1km squares 17NJ8140, 17NJ8040, 17NJ8041, 17NJ8042, and 17NJ8242. Key habitat requirements for the species (e.g., large grassland) are not found in the study area. Species not expected to occur.
Butternut	Juglans cinerea	END	END	Commonly found in riparian habitats, but is also found in rich, moist, well-drained loams, and well-drained gravels. Butternut is intolerant of shade (COSEWIC, 2017a). ESA Protection: Species and general habitat protection	Species observed on the property, considered further in main text.
Canada Warbler	Cordellina canadensis	sc	THR	Wet, mixed deciduous-coniferous forests with a well developed shrub layer. Shrub marshed, Red-Maple stands, cedar stands, Black Spruce, swamps. Larch and riparian woodlands along rivers and lakes (COSEWIC, 2008b). ESA Protection: N/A	Species record occurs within 1km of the property according to NHIC 1x1km square 17NJ8242. Key habitat requirements for the species ( <i>e.g.</i> , mixed forest) are found in the study area. Considered further in main text.
Cerulean Warbler	Dendroica cerulea	THR	END	Associated with large tracts of mature deciduous forest with tall trees and an open understory. Found in both wet bottomland forests and upland areas (COSEWIC, 2010b). ESA Protection: Species and general habitat protection	The FODM5 community in the west corner of the property has potential to provide habitat for the species. Considered further in main text.
Chimney Swift	Chaetura pelagica	THR	THR	Nests primarily in chimneys though some populations ( <i>i.e.</i> in rural northern areas) may nest in cavity trees (COSEWIC, 2018b). Recent changes in chimney design may be a significant factor in recent declines in numbers (Cadman <i>et al.</i> , 2007). ESA Protection: Species and general habitat protection	Key habitat requirements for the species ( <i>e.g.,</i> uncapped chimney) are not found in the study area. Species not expected to occur.
Common Nighthawk	Chordeiles minor	SC	THR	Open habitats including sand dunes, beaches recently logged/burned over areas, forest clearings, short grass prairies, pastures, open forests, bogs, marshes, lakeshores, gravel roads, mine tailings, quarries, and other open relatively clear areas (COSEWIC, 2018c). ESA Protection: N/A	Key habitat requirements for the species ( <i>e.g.,</i> disturbed woodlands) are not found in the study area. Species not expected to occur.
Eastern Meadowlark	Sturnella magna	THR	THR	Most common in grassland, pastures, savannahs, as well as anthropogenic grassland habitats, including hayfields, weedy meadows, young orchards, golf courses, restored surface mines, <i>etc</i> . Occasionally nest in row crop fields such as corn and soybean, but there are considered low-quality habitat. Large tracts of grassland are preferred over smaller fragments and the minimum area required is estimated at 5ha (COSEWIC, 2011b). ESA Protection: Species and general habitat protection	Species record occurs within 1km of the property according to NHIC 1x1km squares 17NJ8040 and 17NJ8042. Key habitat requirements for the species ( <i>e.g.</i> , large grassland) are not found in the study area. Species not expected to occur.
Eastern Ribbonsnake	Thamnophis sauritus	sc	sc	Found in wetland habitats with both flowing and standing water such as marshes, bogs, fens, ponds, lake shorelines and wet meadows. Most sightings occur near the water's edge (COSEWIC, 2012a). ESA Protection: N/A	Key habitat requirements for the species ( <i>e.g.,</i> wetland with standing and flowing water) are found in the study area. Species considered further in main text.
Eastern Small-footed Myotis	Myotis Lleibii	END	No Status	Generally occurs in mountainous or rocky regions as well as in buildings, on the face of rock bluffs and beneath slabs of rock and stones. Hibernation is typically confined to caves and old mines (Best and Jennings, 1997). ESA Protection: Species and general habitat protection	Key habitat requirements for the species ( <i>e.g.,</i> caves, rock walls) are not found in the study area. Species not expected to occur.
Eastern Red Bat	Lasiurus borealis	END	No status	Roosting habitat include deciduous and coniferous foress of any age class. Species tends to roost on large diameter and tall trees reaching the the surrouding canopy (COSSARO, 2024). ESA Protection: Species and general habitat protection (ESA protections take effect January 31, 2027).	Key habitat requirements for the species ( <i>e.g.</i> , mature trees) are found in the study area. The exisitng dwelling on the property is well maintained and no guano was observed; the exisitng dwelling is not anticiapted to provide potential roosting habitat. Species considered further in main text.
Eastern Whip-poor-will	Antrostomus vociferus	THR	THR	Semi-open forests or patchy forests with clearings, such as barrens or forests that are regenerating following major disturbances, are preferred nesting habitats (COSEWIC, 2009a).	Key habitat requirements for the species ( <i>e.g.,</i> open and disturbed forest) are not found in the study area. Species not expected to occur.
Eastern Wood-pewee	Contopus virens	sc	sc	ISA Protection: Species and general habitat protection Mostly in mature and intermediate-age deciduous and mixed forests having an open understory. It is often associated with forests dominated by Sugar Maple and oak. Usually associated with forest clearings and edges within the vicinity of its nest (COSEWIC, 2012b). ESA Protection: N/A	Species record occurs within 1km of the property according to NHIC 1x1km squares 17NJ8140, 17NJ8040, 17NJ8041, 17NJ8240, 17NJ8241, 17NJ8242, and 17NJ8041. Key habitat requirements for the species ( <i>e.g.</i> , mixed forest) are found in the study area. Considered further in main text.
Golden-winged Warbler	Vermivora chrysoptera	SC	THR	Areas of early successional scrub surrounded by mature forests including dry uplands, swamp forests, and marshes (COSEWIC, 2006). ESA Protection: N/A	Key habitat requirements for the species ( <i>e.g.</i> , shrub thickets) are not found in the study area. Species not expected to occur.
Grasshopper Sparrow pratensis subspecies	Ammodramus savannarum pratensis	SC	SC	Typically breeds in large human-created grasslands (≥5 ha), such as pastures and hayfields, and natural prairies, such as alvars, characterized by well-drained, often poor soil dominated by low, sparse perennial herbaceous vegetation (COSEWIC, 2013b).	Key habitat requirements for the species ( <i>e.g.,</i> large grasslands) are not found in the study area. Species not expected to occur.

Table 2: Species at Risk Hab	itat Summary, 4910 10th Line Eri	n EIS			AEC24-395
Common Name	Species Name	ESA	SARA	Key Habitats Used By Species <sup>-</sup>	Initial Assessment
Hoary Bat	Lasiurus cinereus	END	No Status	Roosting habitat includes both deciduous and coniferous forests of any age class. Roost sites with overhead foliage and open flight space below are perferred, and typically occur near the edge of the crown and at high from the ground to prevent mammalian predation (COSEWIC, 2023). ESA Protection: Species and general habitat protection (ESA protections take effect January 31, 2027).	Key habitat requirements for the species ( <i>e.g.,</i> mature trees) are found in the study area. The exisitng dwelling on the property is well maintained and no guano was observed; the exisitng dwelling is not anticiapted to provide potential roosting habitatSpecies considered further in main text.
Hart's-tongue Fern	Asplenium scolopendrium var. americanum	SC	SC	Grows on calcareous rocks in deep shade on slopes in deciduous forest. Most occurrences are in maple-beech forest (MECP, 2022). ESA Protection: N/A	Species record occurs within 1km of the property according to NHIC 1x1km squares 17NJ8140, 17NJ8141, 17NJ8240, and 17NJ8241. Key habitat requirements for the species ( <i>e.g.</i> , rocky slopes) are not found in the study area. Species was not observed during site investigations. Species not considered further.
Henslow's Sparrow	Ammodramus henslowii	END	END	Requires grassland habitat and occurs more frequently and at higher densities in large patches of suitable habitat. Nests in tallgrass prairie, wet meadow, and marsh habitats as well as agricultural grasslands, lightly grazed pasture and grasslands on reclaimed surface mines (COSEWIC, 2011c). ESA Protection: Species and general habitat protection	Key habitat requirements for the species ( <i>e.g.,</i> marsh, grassland) are not found in the study area. Species not expected to occur.
Jefferson Salamander	Ambystoma jeffersonianum	END	END	Deciduous or mixed upland forests containing, or adjacent to, suitable breeding ponds. Breeding ponds are normally ephemeral, or vernal, woodland pools that dry in late summer. Terrestrial habitat is in mature woodlands that have small mammal burrows or rock fissures that enable adults to over-winter underground below the frost line (COSEWIC, 2010c). ESA Protection: Species and regulated habitat protection	No suitable breeding ponds were observed within the woodland feature. The man-made pond along the western property boundary does not have the key habitat requirements for a suitable breeding pond; as it is disturbed and used recreationally, it is not ephemeral, has minimal submerged vegetation or overhanging tree cover, and is anticipated to contain fish species. The MNR NHIC database has no records of Jefferson Salamanders in proximity of the subject property. Species not expected to occur.
Lake Sturgeon (Great Lakes - Upper St. Lawrence populations)	Acipenser fulvescens	THR	No status	Generally found in the shallow areas of lakes or larger rivers, moving into smaller rivers to spawn. Usually found at depths of 5 -10 m and are in areas where water velocity does not exceed 70 cm/sec (COSEWIC, 2017b). ESA Protection: Species and general habitat protection	Key habitat requirements for the species ( <i>e.g.,</i> lakes, large rivers) are not found in the study area. Species not expected to occur.
Least Bittern	Ixobrychus exilis	THR	THR	Breed strictly in marshes of emergents (usually cattails) that have relatively stable water levels and interspersed areas of open water (COSEWIC, 2009b). ESA Protection: Species and general habitat protection	Key habitat requirements for the species ( <i>e.g.,</i> large marsh) are not found in the study area. Species not expected to occur.
Louisiana Waterthrush	Parkesia motacilla	THR	THR	Occupies specialized habitat, showing a strong preferences for nesting and wintering along relatively pristine headwater streams and wetlands situated in large tracts of mature forest. Prefers running water, but also inhabits heavily wooded swamps and vernal or semi-permanent pools (COSEWIC, 2015). ESA Protection: Species and general habitat protection	Species record occurs within 1km of the property according to NHIC 1x1km squares 17NJ8240 and 17NJ8241. However, key habitat requirements for the species ( <i>e.g.</i> , fast flowing headwater stream) are not found in the study area. Species not expectd to occur.
Little Brown Myotis	Myotis lucifugus	END	END	Forests and regularly aging human structures as maternity roost sites. Regularly associated with attics of older buildings and barns for summer maternity roost colonies. Overwintering sites are characteristically mines or caves (MNRF, 2014) (COSEWIC, 2013c). ESA Protection: Species and general habitat protection	Key habitat requirements for the species ( <i>e.g.,</i> mature trees) are found in the study area. The exisitng dwelling on the property is well maintained and no guano was observed; the exisitng dwelling is not anticiapted to provide potential roosting habitat. Species considered further in main text.
Monarch	Danaus plexippus	sc	SC	Breeding habitat is confined to sites where milkweeds, the sole food of caterpillars, grow. Milkweeds grow in a variety of environments, including meadows in farmlands, along roadsides and in ditches, open wetlands, dry sandy areas, short and tall grass prairie, river banks, irrigation ditches, arid valleys, and south-facing hills (COSEWIC, 2016b). ESA Protection: N/A	No areas of significant milkweed occur on the property, species is not expected to occur.
Northern Brook Lamprey	Ichthyomyzon fossor	SC	SC	Inhabits clear, coolwater streams. Adults are found in fast flowing riffles comprised of rock or gravel (MECP, 2022). ESA Protection: N/A	Key habitat requirements for the species ( <i>e.g.,</i> fast and clear coolwater stream) are not found in the study area. Species not expected to occur.
Northern Myotis	Myotis septentrionalis	END	END	Maternity roost sites are generally located within deciduous and mixed forests and focused in snags including loose bark and cavities of trees. Overwintering sites are characteristically mines or caves (COSEWIC, 2013c). ESA Protection: Species and general habitat protection	Key habitat requirements for the species (e.g., mature trees) are found in the study area. The exisitng dwelling on the property is well maintained and no guano was observed; the exisitng dwelling is not anticiapted to provide potential roosting habitat. Species considered further in main text.
Northern Map Turtle	Grapetemys geographica	sc	sc	Inhabits rivers and lakes where it basks on emergent rocks, banks, logs and fallen trees. Prefer shallow, soft-bottomed aquatic habitats with exposed objects for basking (COSEWIC, 2012c). ESA Protection: N/A	Species record occurs within 1km of the property according to NHIC 1x1km square 17NJ8240. Key habitat requirements for the species ( <i>e.g.</i> , river or lakes with basking oppurtunities) are found not in the study area. Species not expected to occur.
Red-headed Woodpecker	Melanerpes erythrocephalus	END	END	Occurs in open deciduous forests, particularly those dominated by oak and beech, groves of dead trees, floodplain forests, orchards, cemeteries, savannas and savanna-like grasslands. Although the species occupies a range of habitat types, key habitat is characteristically composed of woodlands where tall trees are of large crcumference (i.e.mature cover) and are at a low density. A high density of snag trees is also an indicator of key habitat types (COSEWIC, 2018d). ESA Protection: Species and general habitat protection.	Key habitat requirements for the species ( <i>e.g.,</i> open or distrubed woodlands) are not found in the study area. Species not expected to occur.
Redside Dace	Clinostomus elongatus	END	END	Found in pools and slow-flowing sections of clear headwater streams (typically 5-10m in width) with both pool and riffle habitats and a moderate to high gradient. These streams typically flow through meadows, pasture or shrub overstory, and have abundant overhanging riparian vegetation (COSEWIC, 2017c).	Key habitat requirements for the species ( <i>e.g.,</i> clear headwater stream with gravel substrate and over 5m wide) are not found in the study area. No DFO records occur within the study area. Species not expected to occur.
Restricted Species	Not Applicable	END	END	IESA Protection: Species and general babitat protection. Generally requires rich, moist, undisturbed and relatively mature Sugar Maple-dominated deciduous woods in areas of circumneutral soil such as over limestone or marble bedrock (COSEWIC, 2000). ESA Protection: Species and regulated habitat protection	Species record occurs within 1km of the property in multiple NHIC 1x1km squares. Key habitat requirements for the species ( <i>e.g.,</i> Sugar Maple Forest) are found in the study area. Considered further in main text.
Silver-haired Bat	Lasionycteris noctivagans	END	No Status	Roosting habitat includes large and decaying coniferous or deciduous trees. Although rare, the species may roost in or on buildings, especially during migration (COSEWIC, 2023). ESA Protection: Species and general habitat protection (ESA protections take effect January 31, 2027).	Key habitat requirements for the species ( <i>e.g.,</i> mature trees) are found in the study area. The exisitng dwelling on the property is well maintained and no guano was observed; the exisitng dwelling is not anticiapted to provide potential roosting habitat. Species considered further in main text.
Snapping Turtle	Chelydra serpentina	sc	SC	Habitat is characterized by slow-moving water with a soft mud bottom and dense aquatic vegetation. Often located in ponds, sloughs, shallow bays or river edges and slow streams, or areas combining several of these wetland habitats (COSEWIC, 2008a). ESA Protection: N/A	Species record occurs within 1km of the property according to NHIC 1x1km squares 17NJ8240 and 17NJ8242. Key habitat requirements for the species ( <i>e.g.</i> , wetland) are found in the study area. Considered further in main text.

#### Table 2: Species at Risk Habitat Summary, 4910 10th Line Erin EIS

	,,				
Common Name	Species Name	ESA	SARA	Key Habitats Used By Species <sup>1</sup>	Initial Assessment
Tri-colored Bat	Perimyotis subflavus	END	END	Maternity roost sites include forests and modified landscapes (barns or human-made structures). Overwintering sites include mines and caves (COSEWIC, 2013c). ESA Protection: Species and general habitat protection	Key habitat requirements for the species ( <i>e.g.,</i> forests) are found in the study area. The exisitng dwelling on the property is well maintained and no guano was observed; the exisitng dwelling is not anticiapted to provide potential roosting habitat. Species considered further in main text.
Wood Thrush	Hylocichla mustelina	sc	THR	Found in moist, deciduous hardwood or mixed stands, often previously disturbed, with a dense deciduous undergrowth and with tall trees for singing perches (COSEWIC, 2012d). ESA Protection: N/A	Species record occurs within 1km of the property according to NHIC 1x1km squares 17NJ8241 and 17NJ8242. Key habitat requirements for the species ( <i>e.g.</i> , mixed forest) are found in the study area. Considered further in main text.

AEC24-395

<sup>1</sup> Habitat as outlined within the MNRF's Species at Risk in Ontario website files (https://www.ontario.ca/environment-and-energy/species-risk-ontario-list), or Species Specific COSEWIC Reports referenced in this document. Species at Risk in Ontario List (June 13, 2017)

Best, T., and J. Jennings. 1997. Mammalian Species, Myotis leibii . The American Society of Mammalogists. No. 547, pp. 1-6, 5 figs.

Cadman, M., D. Sutherland, G. Beck, D. Lepage and A. Couturier. 2007. Atlas of the Breeding Birds of Ontario 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field

COSEWIC. 2000. COSEWIC assessment and status report on the RESTRICTED SPECIES in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 17 pp.

COSEWIC 2003. COSEWIC assessment and status report on the butternut Juglans cinerea in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 32 pp.

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

COSEWIC. 2008a. 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. COSEWIC. 2008b. COSEWIC assessment and status report on the Canada Warbler Wilsonia Canadensis in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 35 pp.

COSEWIC. 2009a. COSEWIC assessment and update status report on the Whip-poor-will Caprimulgus vociferus in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 28 pp.

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

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

COSEWIC. 2010b. COSEWIC assessment and update status report on the Cerulean Warbler *Dendroica cerulea* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 40 pp. COSEWIC. 2010c. COSEWIC assessment and status report on the Rusty-patched Bumble Bee *Bombus affinis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 34 pp.

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

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

COSEWIC. 2011c. COSEWIC assessment and update status report on the Henslow's Sparrow Ammodramus henslowii in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 37 pp.

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

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

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

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

COSEWIC. 2013b. COSEWIC assessment and status report on the Grasshopper Sparrow pratensis subspecies Ammodramus savannarum pratensis in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 36 pp. COSEWIC. 2013c. COSEWIC assessment and update status report on the Little Brown Myotis Myotis Incifugus, Northern Myotis Myotis septentrionalis and Tri-colored Bat Perimyotis subfalvus in Canada. Committee on the Status of Endangered Wildlife

in Canada. Ottawa. xxiv + 93 pp.

COSEWIC. 2015. COSEWIC assessment and status report on the Louisiana Waterthrush Parkesia motacilla in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xi + 58 pp.

COSEWIC. 2016a. COSEWIC assessment and status report on the Blanding's Turtle *Emydoidea blandingii*, Nova Scotia population and Great Lakes/St. Lawrence population, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xix + 110 pp.

COSEWIC. 2016b. COSEWIC assessment and status report on the Monarch Danaus plexippus in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 59 pp.

COSEWIC. 2017a. COSEWIC assessment and status report on the Butternut Juglans cinerea in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 74 pp.

COSEWIC. 2017b. COSEWIC assessment and status report on the Lake Sturgeon Acipenser fulvescen s, Western Hudson Bay populations, Saskatchewan-Nelson River populations, Southern Hudson Bay-James Bay populations and Great Lakes-Upper St. Lawrence populations in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xxx + 153 pp.

COSEWIC. 2017c. COSEWIC assessment and update status report on the Redside Dace Clinostomus elongates in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 63 pp.

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

COSEWIC. 2018b. COSEWIC assessment and status report on the Chimney Swift Chaetura pelagic a in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 49 pp.

COSEWIC. 2018c. COSEWIC assessment and status report on the Common Nighthawk Chordeiles minor in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xi + 50 pp. COSEWIC. 2018d. COSEWIC assessment and status report on the Red-headed Woodpecker Melanerpes erythrocephalus in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 60 pp.

COSEWIC. 2023. COSEWIC assessment and status report on the Hoary Bat Lasiurus cinereus, Eastern Red Bat Lasiurus borealis and Silver-haired Bat, Lasionycteris noctivagans, in Canada. Committee on the Status of Endangered Wildlfie in Canada. Ottawa. xxi + 100 pp.

#### Ottawa. xxi + 100 pp.

COSSARO. 2024. Ontario species at risk evaluation report for Eastern Red Bat (Lasiurus borealis). Committee on the Statis of Species at Risk in Ontario Ministry of the Environment, Conservation and Parks (MECP). 2022. Species at Risk in Ontario (https://www.ontario.ca/page/species-risk-ontario)

Ministry of Natural Resources (MNR). 2014. Eastern Small-footed Bat. Queen's Printer for Ontario, https://www.ontario.ad/environment-and-energy/eastern-small-footed-bat

ministry of Natural Resources (MiRK). 2014. Eastern Smail-looted Bat. Queen's Printer for Ontario. https://www.ontario.ca/environment-and-energy/eastern-smail-looted-bat

#### APPENDICES

Appendix A: Background MappingAppendix B: Town CorrespondenceAppendix C: Site Plan

APPENDIX A

**Background Mapping** 

AZIMUTH ENVIRONMENTAL CONSULTING, INC.



may not be reproduced without permission. THIS IS NOT A PLAN OF SURVEY.

#### 4910 10th Line Erin

Map created:11/25/2024



© King's Printer for Ontario, 2024



Legend

Earth Science Provincially Significant/sciences de la terre

ANSI

d'importance provinciale

4

# Regulation Screening- Credit Valley Conservation



#### 11/25/2024, 3:58:53 PM



Credit River Watershed Boundary



Parcels around Regulated Area

Generic Regulation Mapping





?

Ø

(i)

### Canadian aquatic species at risk



(DFO, 2024)

#### ontario 🐨 Ontario GeoHub

and fish species of lakes, rivers or streams. It can be linked to more detailed external fish

X



(MNR, 2025b)

# -

#### ontario 🌚 🛛 Ontario GeoHub

Wildlife Values Area

⊘ Authoritative

Private Member 
Land Information Ontario

#### Summary

Get spatial data on the location of wildlife values features (represented as points and polygons) collected because of their importance to MNRF Regional Operations Division forest management planning.



Records: 129,776 <u>View data table</u>

- Public
   Anyone can see this content
- Custom License View license details

I want to use this



(MNR, 2024b)





AN 201

Г

Appendix II:

# Schematic showing settlements within Greenbelt Area



# Provincially Significant Wetlands

Legend



Provincially Significant Wetlands



Produced by: County of Wellington Planning & Development Departme

This is not survey data. All rights reserved. May not be reproduced without permission.

Sources: County of Wellington 2024, Ministry of Natural Resources and Forestry, Maitland Valley Conservation Authority, Grand River Conservation Authority, Credit Valley Conservation Authority, Hamilton Conservation Authority, Halton Conservation Authority, Balton Conservation Authority, We King's Printer for Ontario, 2024.

Last Revised: July 2024



# **County of Wellington Official Plan** $\boldsymbol{\mathcal{O}}$ X $\mathbf{O}$ ppen



Document Path: F:\LIS\Projects\Official Plan\Official Plan Schedules and Mapping\Schedule A2\_Erin\_Growth Structure.mxd







Document Path: F:\LIS\Projects\Official Plan\Official Plan Schedules and Mapping\Schedule B2\_Erin\_Land Use.mxd

# Land Use

## ERIN

#### The Greenlands System Core Greenlands

Greenlands Earth Science ANSI

#### The Rural System



Policy Area

#### The Urban System



Primary Urban Centre

#### Other



Trans Canada Trail Landfill Site Everton Water Management **Protection Area** County Roads **Built Boundary** 

Mineral Aggregate Resources are identified on Schedule D of the Official Plan. Licensed Aggregate Operations are identified on Appendix 2 of the Official Plan.



Produced by: County of Wellington Planning & Development Departme

This is not survey data. All rights reserved. May not be reproduced without permission.

Sources:

County of Wellington Ministry of Natural Resources and Forestry, Grand River Conservation Authority. Credit Valley Conservation Authority, © King's Printer for Ontario, 2024.



of Wellington Official Plan B2 B2 dul <u>che</u> County  $\mathbf{O}$ 



1.5



Document Path: F:\LIS\Projects\Official Plan\Official Plan Schedules and Mapping\Schedule B2-1\_Erin\_Greenbelt Plan.mxd

# **Greenbelt Plan**

## ERIN

#### Legend

- Greenbelt Boundary Greenbelt Protected Countryside Greenbelt Natural Heritage System Settlement Areas Towns and Villages Т
- Н Hamlet



Produced by: County of Wellington Planning & Development Department

This is not survey data. All rights reserved. May not be reproduced without permission.

Sources: County of Wellington 2024, Ministry of Natural Resources and Forestry, Grand River Conservation Authority, Credit River Conservation Authority, © King's Printer for Ontario, 2024. Last Revised: July 2024

1.5



km

**County of Wellington Official Plan B2-1** chedule S

APPENDIX B

**Town Correspondence** 

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

#### Jordan Wrobel

From:	Jordan Wrobel
Sent:	December 18, 2024 12:58 PM
То:	'Jessica.Peake@erin.ca'
Subject:	AEC24-395 4904 10th Line EIS- Terms of Reference
Attachments:	NHIC Map.pdf; VuMap.pdf; CA Map.pdf; Schedule A-1 - NEWAmended Town of Erin OP Model (1).pdf

#### Hi Jessica,

Azimuth Environmental Consulting, Inc. (Azimuth) has been retained to complete a Scoped Environmental Impact Study (EIS) report for the property located at 4904 10<sup>th</sup> Line, Town of Erin ("Town"), County of Wellington ("County"). The property is approximately 25 hectares in size. The west half of the property contains woodland, the Acton Silver Creek Wetland Complex (Provincially Significant Wetland (PSW)), and a mapped tributary. The eastern half of the property primarily contains active agricultural fields (of row crops including carrots, peppers, squash), hedgerows, a residential area, maintained lawn, and a pond.

The subject property occurs outside the Niagara Escarpment Plan (NEP) Area. The property contains lands regulated by the Credit Valley Conservation Authority as identified on the attached map. The property contains Secondary Agricultural land, Core Greenlands, and Greenlands as illustrated in Schedule A-1 of the Town of Erin Official Plan (see attached) and is designated Protected Countryside of the Greenbelt Plan.

It is our understanding that the proponent intends to construct a second detached dwelling, driveway, and associated amenities directly behind the existing dwelling. The proposed development will occur <u>entirely</u> within the active agricultural field on the property and outside CVC regulated lands; as such, a Scoped 'out of season' EIS has been proposed. Please see the attached maps identifying the property. The Ministry of Natural Resource (MNR) Natural Heritage Information Centre (NHIC) map identifies the approximate development area with an orange polygon.

The following Terms of Reference is proposed toward completion of the Scoped EIS:

- Investigate background data review (including the Town, County, MNR, DFO, OBBA, ORAA, CVC) to assess natural heritage features and functions attributed to lands in the vicinity of the proposed development,
- Conduct field studies in December 2024 (with minimal snow cover) to document existing natural heritage features, functions, and species. Surveys include:
  - Evaluate/ map vegetation community types based on Ecological Land Classification methods at a high level (December 2024);
  - Conduct an assessment of fish and fish habitat features on the property, in proximity to the proposed dwelling (December 2024); and,
  - Record all incidental wildlife observations during site visits;
- Complete an assessment of potential SAR and their habitats that could be present within the study area, including a screening for Butternut and Black Ash trees (Endangered), using field data collected by Azimuth staff and other data available and/or provided by agencies to confirm environmental constraints;
- Complete an assessment of potential Significant Wildlife Habitat within the study area;
- Review applicable policies (e.g., Town and County Official Plans, Provincial Planning Statement) for conformity;
- Assess the potential direct and indirect impacts of the proposed development on the natural heritage features and functions identified on or adjacent to the property; and,

• Prepare a Scoped EIS report. The Scoped EIS will include a description of existing natural heritage features and functions, an explanation of the development, provide relevant mapping, an evaluation of potential impacts, and mitigation/avoidance/restoration strategy as required.

The purpose of this email is to confirm the above proposed Terms of Reference towards completion of the Scoped EIS. We would also like to take this opportunity to request any natural heritage background information from the Town that may be helpful in completing the Scoped EIS.

Do not hesitate to reach out if you would like to discuss the project in more detail.

Regards,



**Jordan Wrobel, B.Sc.** Terrestrial Ecologist Azimuth Environmental Consulting, Inc.

642 Welham Road Barrie, ON L4N 9A1 Office: 705-721-8451 x221 Cell: 705-305-4830 www.azimuthenvironmental.com

Providing services in hydrogeology, terrestrial and aquatic ecology, environmental engineering, and arborist assessments.

#### **Merry Christmas and Happy Holidays!**

*Please note the Azimuth office will be closed from Dec 25, 2024 and reopening on January 2, 2025.* 

APPENDIX C

Site Plan

AZIMUTH ENVIRONMENTAL CONSULTING, INC.



