Environmental Impact Assessment

6582 – 6585 Highway 6, Centre Wellington

Prepared For:

1052367 Ontario Limited

Prepared By:

Beacon Environmental Limited

Date:	*Project:*
2026-08-24	**226060**

BEACON ENVIRONMENTAL

GUIDING SOLUTIONS IN THE NATURAL ENVIRONMENT

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Report Versions Issued

Version	Date	Revisions
1.	August 2026	First Submission

1. Introduction

Beacon Environmental Limited (Beacon) was retained by 1052367 Ontario Limited to prepare an Environmental Impact Assessment (EIA) for the properties located at 6582 Highway 6 and 6585 Highway 6, in the Township of Centre Wellington, County of Wellington (herein referred to as "subject lands").

The subject property is approximately 29.3 ha (72.4 ac) in area, and consists of two (2) legal parcels, together forming a long rectangular parcel, spanning from Highway 6 to the east to Beatty Line to the west (**Figure 1**). Accordingly, the subject property has a frontage of approximately 303 m along Highway 6 and 242 m of fragmented frontage along Beatty Line. The subject lands are used generally for agricultural cultivation and are developed with a single-detached residential dwelling and accessory structures (including a barn) located relatively central to the property.

Natural features present on or adjacent to the subject property include portions of the Irvine Creek Provincially Significant Wetland (PSW) and woodland within the western portion of the subject lands. Given this geographical setting, development applications concerning the subject property are subject to policies including, but not limited to, those outlined in: Provincial Planning Statement (PPS), County of Wellington Official Plan (OP), Township of Centre Wellington OP, as well as Grand River Conservation Authority (GRCA) policies and regulations.

The proposed development within the subject property is that of a residential and mixed-use community, accommodating a mix of dwelling unit types and densities, including single detached dwellings, various forms of townhouses, and apartments. The development will also feature a new public park (0.82 ha), continuation of the public trail network, extension of the public road network, and a mixed-use/commercial block (1.60 ha) contemplated in the southeast corner of the subject lands. It is anticipated that the development of the subject lands will accommodate approximately 701 dwelling units. The subject lands are also planned to accommodate a new school on a 4.96 ha block in the northeast part of the subject lands.

This EIA is prepared in support of applications including a County Official Plan Amendment (Urban Boundary Expansion) and Local Official Plan Amendment are proposed. It is anticipated that Zoning By-law Amendment and Draft Plan of Subdivision applications will be filed at a later date.

This EIA is prepared in accordance with the site-specific EIA Terms of Reference (**Appendix A**).

The purpose of this EIA is to:

- Characterize natural heritage resources and ecological functions on and adjacent to the subject property;
- Identify significant natural heritage resources and functions;
- Identify environmental constraints and confirm development limits;
- Describe the proposed development plan;
- Assess potential impacts of the proposed development plan on significant natural heritage features and ecological functions;
- Recommend mitigation measures for avoiding or minimizing potential development related impacts to significant natural heritage features and functions; and
- Demonstrate conformity of the proposed development with the applicable natural heritage legislation, regulations and policies.

An Arborist Report (Beacon 2026), Geotechnical Investigation (GRIT Engineering Inc. 2026), Functional Servicing and Stormwater Management Report (SMD Consultants 2026) have also been prepared for the subject property under a separate cover and should be reviewed as supporting documents to this EIA.

2. Methodology

To characterize natural heritage resources and functions associated with the subject property and adjacent lands, Beacon completed a review of available background information and undertook seasonal field investigations, which are summarized below.

2.1 Background and Policy Review

Background information was gathered and reviewed at the outset of the project. This involved consideration of the following documents and information sources, as relevant to the subject property.

- PPS (2024);
- County of Wellington OP (2025);
- Township of Centre Wellington OP (2024);
- GRCA regulations, policies, and guidelines;
- *Species Conservation Act* (SCA; 2025);
- *Fisheries Act* (1985);
- *Migratory Birds Convention Act* (1994);
- *Species at Risk Act* (SARA; 2002);
- High Resolution aerial photography of the property;
- Natural and physical feature layers from Ontario GeoHub (GEO);
- Natural Heritage Information Centre (NHIC) Data via the Make-A-Map application;

Other sources of information, such as aerial photography and topographic maps, were also consulted prior to commencing field assessments.

Desktop Threatened or Endangered Species Assessment

In preparation for on-site investigations Beacon conducted a desktop Species at Risk assessment and the following information sources were reviewed as part of the desktop screening:

- Provincially Tracked Species Layer (1 km grid) from Ontario GeoHub;
- Ontario Reptile and Amphibian Atlas (ORAA);
- Ontario Breeding Bird Atlas (OBBA);
- eBird (via the eBird Hotspot online mapping);
- iNaturalist (via the Explore Observations online mapping):
- Atlas of the Mammals of Ontario (Dobbyn 1994);
- Natural Heritage Information Centre (NHIC) Data via the Make-A-Map application;
- Species at risk range maps https://www.ontario.ca/environment-and-energy/species-risk-ontario-list;

Site Location	Figure 1
6582-6585 Hwy 6, Centre Wellington	
BEACON ENVIRONMENTAL	Project: 226060 Last Revised: March 2026
Client:	Prepared by: BD Checked by: MW
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- High Resolution aerial photography of the property; and
- Natural heritage and physical feature layers from Ontario GeoHub, including wetlands (provincially significant and un-evaluated wetlands), watercourses with thermal regime, Aquatic Resource Area (ARA) datasets, as well as other geospatial layers.

The information sources referenced above were reviewed in a Geographic Information System (GIS) mapping environment that Beacon uses to assess the likelihood that species at risk and other significant natural heritage features and functions are present in an area of interest. This system allows Beacon to combine the most current information provided by MNR through the Ontario GeoHub portal with GIS layers from provincial floral and faunal atlases. All relevant layers are then overlain on the most recent high resolution ortho-imagery. The screening process helps identify areas that can then be targeted (for example, potential habitat) during field assessment to maximize the efficiency and effectiveness of on-site investigations. A summary of results is presented in **Table 1**.

Table 1. eBird and iNaturalist Records

Species (English Name)	Species (Scientific Name)	Record near 6582 – 6585 Highway 6, Centre Wellington (subject property)
eBird		
Barn Swallow	*Hirundo rustica*	10 seen in 2019, 1 seen in 2020, 1 seen in 2025 all adjacent to subject property
Bobolink	*Dolichonyx oryzivorus*	2 seen in 2019, 1 in 2020, 1 in 2023, 1 in 2025, all west of subject property
Chimney Swift	*Chaetura pelagica*	1 seen near Side Rd 18 in 2025
Common Nighthawk	*Chordeiles minor*	1 seen west of subject property in 2020
Eastern Meadowlark	*Sturnella magna*	1 seen near Beatty Line N in 2019
Eastern Wood-pewee	*Contopus virens*	2 seen near Side Rd 18 in 2025
Evening Grosbeak	*Coccothraustes vespertinus*	19 seen in 2020 west of subject property all by same observer
Golden Eagle	*Aquila chrysaetos*	1 seen flying in 2021 near subject property
Rusty Blackbird	*Euphagus carolinus*	1 seen in 2019 west of subject property
iNaturalist		
Monarch	*Danaus plexippus*	1 caterpillar in 2020 southeast of subject property, near Courtney St and Vincent St

During field study, staff assessed the potential for regulated species of flora and fauna to occur on the subject property.

2.2 Field Investigations

This EIA is prepared in accordance with the site-specific EIA Terms of Reference (**Appendix A**). Beacon conducted field investigations on the subject property in 2026. Based on these observations and a review of recent and historic aerial photography, the following existing conditions are provided. A summary of the field visits and survey dates is presented below (**Table 2**).

Table 2. Field Survey Dates

Survey	Date(s) of Survey
Headwater Drainage Feature Assessments	April 13 and May 28, 2026
Breeding Amphibian Surveys	April 14, May 27, and June 11, 2026
Breeding Bird Surveys	June 9 and 26, 2026
Ecological Land Classification and Floral Inventory	June 12, 2026
Wetland Staking with GRCA Staff	June 12, 2026
Bat Exit Surveys	June 29 and 30, 2026

2.2.1 Headwater Drainage Feature Assessment

A Headwater Drainage Feature (HDF) Assessment was completed on April 13 and May 28, 2026. The data for HDFs were collected according to the "Assessing HDF Protocol" as described in Section 4, Module 10 the *Ontario Stream Assessment Protocol* (Stanfield 2017), scoped for data relevance and adapted to a reach-based approach.

The features were classified according to the *Evaluation, Classification and Management of Headwater Drainage Features Guidelines* (Toronto and Region Conservation Authority and Credit Valley Conservation 2014). Aerial photograph interpretation formed the basis for the HDF assessment. The guidelines use an integrated approach for the evaluation of key attributes of drainage features including flow and feature form (combined under the term hydrology), riparian vegetation, fish and fish habitat and terrestrial habitat. The evaluation divides headwater drainage features into segments, with breaks between segments occurring where key attributes change.

Following a series of seasonal assessments, each segment is assigned a rating of its functional significance of 'important', "valued", "contributing" or "limited". The functional significance of all attributes of each segment is then considered to determine the recommended management option for each segment. These evaluations can lead to one of six possible management recommendations:

- **Protection** – Important Functions: i.e., swamps with amphibian breeding habitat; perennial headwater drainage features; seeps and springs; Species at Risk (SAR) habitat; permanent fish habitat with woody riparian cover.
- **Conservation** – Valued Functions: i.e., seasonal fish habitat; with woody riparian cover; marshes with amphibian breeding habitat; or general amphibian habitat with woody riparian cover.
- **Mitigation** – Contributing Functions: i.e., contributing fish habitat with meadow vegetation or limited cover.
- **Recharge Protection** – Recharge Functions: i.e., features with no flow with sandy or gravelly soils.
- **Maintain or Replicate Terrestrial Linkage** – Terrestrial Functions: i.e., features with no flow with woody riparian vegetation and connects two other natural features identified for protection.
- **No Management Required** – Limited Functions: i.e., features with no or minimal flow; cropped land or no riparian vegetation; no fish or fish habitat; and no amphibian habitat.

2.2.2 Ecological Land Classification and Floral Inventory

Vegetation surveys and community mapping took place on June 12, 2026. Vegetation units within the subject property were described and mapped on current colour ortho-photography of the lands using the Ecological Land Classification (ELC) system for southern Ontario (Lee *et al*. 1998). This is the standard method used for describing vegetation communities in southern Ontario. A list was compiled of all flora species observed.

Additionally, a search for Butternut (*Juglans cinerea*) and Black Ash (*Fraxinus nigra*), provincially endangered tree species, was conducted during the vegetation community survey.

2.2.3 Breeding Amphibian Surveys

Breeding amphibian surveys were completed on April 14, May 27, and June 11, 2026 in accordance with Environment and Climate Change Canada's Marsh Monitoring Program Protocol (Bird Studies Canada, 2009) and consisted of auditory surveys undertaken during the prime breeding period to record calling males. Three surveys were spread throughout the breeding season to include the short temporal peak for each species of interest. These surveys are conducted to record the presence or absence of breeding amphibians in potentially suitable habitat. Locations of amphibian survey stations are illustrated in **Figure 2**.

Breeding amphibian surveys within the subject property were completed after dusk and during suitable temperature conditions. All areas that contained potential breeding amphibian habitat (i.e., wetlands) were surveyed from a distance that would enable calling amphibians to be heard. Survey conditions are provided in **Table 3**; wind conditions are provided using the Beaufort Scale.

Table 3. Breeding Amphibian Survey Conditions

Survey Date	Weather Conditions
April 14, 2026	Air Temperature: 14°C, Wind: 1, Precipitation: none
May 27, 2026	Air Temperature: 17°C, Wind: 3, Precipitation: none
June 11, 2026	Air Temperature: 24°C, Wind: 0, Precipitation: none

Calling amphibians, if present, were identified to species and calling activity was assigned a code from the following options, which indicate increasing abundance:

0 — No calls;
1 — Individuals of one species can be counted, calls not simultaneous;
2 — Some calls of one species simultaneous, numbers can be reliably estimated; or
3 — Full chorus, calls continuous and overlapping.

Using this code method, areas that support a Code 1 for a species indicate very low population numbers in the local area, and/or low-quality breeding habitat. Code 2 indicates a moderate population and/or lower quality breeding habitat. Code 3 for species indicates a healthy population and high-quality breeding habitat with over 20 individuals.

2.2.4 Breeding Bird Surveys

Two breeding bird surveys were conducted on the mornings of June 9 and June 26, 2026, on days with low winds, no precipitation, and temperatures within 5°C of seasonal average. The breeding bird community was surveyed using a roving type of survey, in which all parts of the subject property were walked to within 50 m and all birds heard or observed and showing some inclination toward breeding were recorded as breeding species. All birds heard and seen were recorded in the location observed on an aerial photograph of the site.

2.2.5 Bat Exit Surveys

One barn on the subject property was noted during field investigations as having the potential to provide suitable habitat for bat species that are listed as endangered under the SCA. On the evenings of June 29 and 30, 2026, visual and acoustic exit surveys were conducted at the barn. Exit surveys are used to determine whether endangered bat species are present in this building that is proposed for removal.

Beacon staff completed bat exit surveys for the building using the methodology provided within the *Use of Buildings by Species at Risk Bats: Survey Methodology* (MNRF 2018). Surveys were conducted on warm clear nights with no precipitation or heavy winds a half hour before sunset and continued for an hour after sunset. Two surveyors were stationed at opposite corners of the building to enable sightlines for surveying all sides of the building concurrently (**Figure 2**).

An EMTouch 2 Pro™ plug-in device for tablets was used to record bat echolocation calls for subsequent identification of any exiting bats to species. These recordings are kept on file by Beacon.

2.2.6 Incidental Wildlife

Staff recorded any observations of wildlife not captured in the previously noted field investigations.

2.3 Natural Feature Staking

The County of Wellington and GRCA were invited to the subject property to undertake a feature staking. It was discussed with the County that Beacon would review the woodland limit, and this may be reviewed by a peer review consultant following this first submission. A site visit was conducted by Beacon, with staff from the GRCA (Richard Baxter), to confirm the limit of the on-site wetland on June 12, 2026.

3. Natural Heritage Policy Review

A policy review was undertaken to identify considerations and requirements that would apply to the natural heritage features on and adjacent to the subject property.

Biological Sampling

Figure 2

6582-6585 Hwy 6, Centre Wellington

Legend

- Subject Property
- Ecological Communities
- Watercourse (MNR 2026)
- Black Ash Tree Location
- Barn Location
- Amphibian Monitoriing Stations
- Bat Exit Survey Locations

Code	Wetland Communities
SWM6-2	Poplar - Conifer Organic Mixed Swamp
	Forest Communities
FOC2-2	Dry - Fresh White Cedar Coniferous Forest
	Cultural Communities
CUM1-1	Dry - Moist Old Field Meadow
	Other Communities
AG	Agricultural Crop
ANT	Anthropogenic

BEACON ENVIRONMENTAL

Project: 226060
Last Revised: August 2026

Client: 1052367 Ontario Limited

Prepared by: BD
Checked by: JS

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3.1 Provincial Planning Statement (2024)

The PPS was issued under section 3 of the *Planning Act* and came into effect October 20, 2024. It replaces the Provincial Policy Statement that came into effect May 1, 2020.

Chapter 4.1 of the PPS provides direction to regional and local municipalities regarding planning policies specifically for the protection and management of natural heritage features and their ecological functions.

The PPS provides planning policies for the following features:

- Significant wetlands;
- Significant coastal wetlands;
- Significant woodlands;
- Significant valleylands;
- SWH;
- Significant Areas of Natural and Scientific Interest (ANSIs);
- Fish habitat; and
- Habitat of endangered and threatened species.

Each of these features or defined areas is afforded varying levels of protection subject to guidelines, and in some cases, regulations. Identification of these features is made in a variety of ways. Significant wetlands and significant coastal wetlands are identified by protocols provided by the province.

Habitat of endangered and threatened species is determined by the proponent once a species has been confirmed on a property through site specific investigation or through existing information. Fish habitat is governed by the federal *Fisheries Act* and variously applied by Fisheries and Oceans Canada (DFO).

The identification of the remainder of these PPS features and areas is the responsibility of the municipality (or other local planning authority), although the province does provide guidance to assist in this identification in documents such as the *Natural Heritage Reference Manual* (NHRM; MNR 2010), *Significant Wildlife Habitat Technical Guidelines* (MNRF 2000) and *Significant Wildlife Habitat Criteria Schedules* (MNRF 2015).

In areas where significant natural heritage features are present, the boundaries of natural heritage features are further refined through site-specific studies undertaken as part of the planning process and in accordance with the requirements of municipal policies.

Section 4.1.4 and 4.1.5 of the PPS states that development and site alteration shall not be permitted in significant coastal wetlands and significant wetlands in Ecoregions 5E, 6E and 7E. Section 4.1.5 of the PPS states that development and site alteration shall not be permitted in some natural features including significant woodlands, significant valleylands, and SWH unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. As per Sections 4.1.6 and 4.1.7, development shall not be permitted in fish habitat or habitat of threatened or endangered species, except in accordance with provincial and federal requirements. Further, Section 4.1.8 states that development of lands adjacent to natural features is not permitted unless the ecological function has been evaluated and it has been demonstrated that there will be no negative impacts on features or functions.

3.2 County of Wellington Official Plan (2025)

Within their OP, Wellington County has identified a Greenlands System, which is illustrated on Schedule B1 of the OP. Schedule B1 shows that the majority of the subject property is designated as "Prime Agricultural" within the Rural System, however, the western portion of the subject property is designated as "Core Greenlands" and "Greenlands" within the Greenlands System.

The Greenlands System is comprised of various natural heritage features, flood prone areas, and hazard lands. The System is divided into two broad categories: Core Greenlands and Greenlands.

Core Greenlands include the following features:

- PSW and all other wetlands;
- Habitat of endangered or threatened species;
- Fish habitat; and
- Floodway and hazardous lands.

Development and site alteration are not permitted in PSWs or habitat of endangered or threatened species, and is restricted in other wetlands, fish habitat, and floodways/hazard lands.

With regards to wetlands, Section 5.1.4 states:

> *All wetlands in the County of Wellington are included in the Core Greenlands. Development and site alteration will not be permitted in wetlands which are considered provincially significant. Provincially significant wetlands are shown in Appendix 3 of this Plan. All other wetlands will be protected in large measure and development that would seriously impair their future ecological functions will not be permitted. The appropriate Conservation Authority should be contacted when development is proposed in or adjacent to a wetland.*

With regard to habitat of endangered or threatened species and fish habitat, Section 5.4.2 states:

> *Development and site alteration will not be allowed in significant habitat of endangered or threatened species except in accordance with provincial and federal requirements. Development or site alteration adjacent to significant habitat of endangered or threatened species shall require a satisfactory Environmental Impact Assessment that demonstrates there will be no negative impact on the significant habitat of endangered or threatened species or its ecological function.*
>
> *Proponents will be directed to the federal or provincial agency that has jurisdiction over the species or habitat to be protected.*
>
> *Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.*

Regarding hazardous lands, Section 5.4.3 states:

The Core Greenlands designation includes areas subject to flooding hazards and erosion hazards and hazardous sites that could be unsafe for development or site alteration due to naturally occurring hazards like organic soils or unstable bedrock conditions. Generally, development shall be directed away from areas in which conditions exist which would pose risks to public health and safety or property caused by natural hazards.

Development and site alteration will not be permitted in the floodway of a river or stream unless a Special Policy Area has been approved or it is permitted elsewhere in this Plan. In most parts of the County, a one-zone flood plain management concept applies and the floodway encompasses the entire floodplain.

Development and site alterations will only be permitted in the flood-fringe portion of the floodplain (where a two-zone concept applies), in Special Policy Areas and in areas susceptible to other natural hazards if:

a. the hazards can be safely addressed, and the development and site alteration is carried out in accordance with established standards and procedures;
b. new hazards are not created and existing hazards are not aggravated;
c. no adverse environmental impacts will result;
d. essential emergency services have a way of safely entering and exiting the area during times of flooding, erosion and other emergencies;
e. the development does not include institutional uses or essential emergency services or the disposal, manufacturing, treatment or storage of hazardous substances;
f. no reasonable alternative is available.

In addition to the Core Greenlands features, the Greenlands System includes other natural heritage features such as:

- Wildlife habitat;
- ANSI;
- Streams and valleylands;
- Woodlands;
- Environmentally sensitive areas;
- Ponds, lakes and reservoirs; and
- Natural links.

In other Core Greenlands areas, and in Greenlands areas, permitted uses and activities may include:

- Agriculture;
- Existing uses;
- Conservation;
- Forestry;
- Aggregate extraction within Mineral Aggregate Areas subject to appropriate rezoning, licensing and the policies of this Plan;
- Open space; and
- Passive recreation (section 5.6.1).

These natural heritage feature areas are often found within Core Greenlands (section 5.5). Where they are outside Core Greenlands they are identified as Greenlands.

With regard to woodlands, Section 5.5.4 states:

> *In the Rural System, woodlands over 4 hectares and plantations over 10 hectares are considered to be significant by the County, and are included in the Greenlands system. Woodlands of this size are important due to their contribution to the amount of forest cover on the County landscape. Exceptions may include a plantation established and continuously managed for the sole purpose of complete removal at rotation without a reforestation objective, as demonstrated with documentation acceptable to the County.*
>
> *Detailed studies such as environmental impact assessments may be used to identify, delineate and evaluate the significance of woodlands based on other criteria such as: proximity to watercourses, wetlands, or other woodlands; linkage functions; age of the stand or individual trees; presence of endangered or threatened species; or overall species composition.*
>
> *Significant woodlands will be protected from development or site alterations which would negatively impact the woodlands or their ecological functions. Good forestry practices will be encouraged and tree removal shall be subject to the Wellington County Forest Conservation Bylaw.*
>
> *Smaller woodlands may also have local significance and, where practical, these smaller woodlands should be protected.*

While the Official Plan provides direction for studies (including EIAs) when development is proposed adjacent to the Greenlands, it does not provide any recommended or required setbacks to natural features.

With regard to adjacent lands, Section 5.6.3 states

> *For the purposes of this section of the Plan, adjacent lands are considered to be:*
>
> - *lands within 120 metres of provincially significant wetlands, provincially significant Life Science Areas of Natural and Scientific Interest, significant habitat of endangered and threatened species, fish habitat, significant wildlife habitat, significant valleylands, and significant woodlands.*
> - *lands within 30 metres of all other Core Greenlands and Greenland areas.*

With respect to stormwater management infrastructure, Section 12.6.1 “Utilities Allowed” of the Official Plan states that,

> *Except as provided for in Section 4.13, the following uses may be permitted in any land use designation, subject to the provisions of the Zoning By-law:*
>
> a) *utilities and services necessary for the transmission of municipal water, sewage, public roads, parking facilities and facilities for the detention, retention, discharge and treatment of storm water.”*

Section 11.3 provides guidance regarding stormwater management plans and assessment of potential impacts.

3.3 Township of Centre Wellington Official Plan (2024)

Section A.2 of the Township of Centre Wellington Official Plan (2024) states the following regarding the relationship between the County of Wellington Official Plan and the Township of Centre Wellington Official Plan:

> *The County Official Plan provides a consistent set of planning policies for the entire County. The County Official Plan contains sufficient detail to provide appropriate official plan coverage for all of Centre Wellington.*
>
> *The County Official Plan designates three major land use systems – the Greenlands system, the Rural system and the Urban system. The Greenlands system consists of natural heritage features. The Rural system consists of prime agricultural areas, and the Urban system consists of hamlets and urban centres.*
>
> *In Centre Wellington, there are three Urban Centres, Fergus, Elora-Salem and Belwood. The remainder of the Township is part of the Greenlands and Rural systems.*
>
> *The County Plan also provides for local municipalities to rely on the County's planning policies or to develop their own more detailed policies for all or parts of their community. The Township of Centre Wellington has chosen to prepare its own local municipal plan.*
>
> *However, in order to avoid duplication, the Township has determined that the policies and land use plans of the County Official Plan pertaining to the Greenlands and Rural systems are appropriate for Centre Wellington. It is not necessary for the Township to maintain its own local municipal plan policies for the Rural and Greenlands areas.*
>
> *Therefore, this Municipal plan applies to the Urban Centres of Centre Wellington only. The County Official Plan will govern land use in the rural areas, and will set out the broad policies applying to the urban areas, including the determination of the rural-urban boundaries, but the Township will provide detailed planning policies for land use within the boundaries of the Urban Centres.*

As shown on Schedule A-1 Land Use Plan of the Township's Official Plan, the subject property is currently outside of the urban boundary of Fergus and is therefore only under the jurisdiction of the County of Wellington and the GRCA.

3.4 Grand River Conservation Authority Regulations and Policies

The subject property is currently regulated by GRCA. In accordance with recent changes to the *Conservation Authorities Act*, Ontario's 36 conservation authorities are planned to amalgamate into nine regional conservation authorities on February 1, 2027. GRCA will amalgamate with Catfish Creek Conservation Authority, Kettle Creek Conservation Authority, and Long Point Region Conservation Authority to become the Eastern Lake Erie Regional Conservation Authority (ELERCA). Until that transition occurs, references in this report are to the GRCA as the current conservation authority with regulatory jurisdiction over the subject property.

3.4.1 Conservation Authorities Act (Ontario Regulation 41/24)

Part VI of the *Conservation Authorities Act* (CA Act; 2024) sets out the regulatory powers of conservation authorities. The CA Act prohibits, in the absence of a permit, development activities to straighten, change, divert or interfere in any way with the existing channel of a river, creek, stream or watercourse or to change or interfere in any way with a wetland are prohibited. Development activities are also prohibited in hazardous lands in the absence of a permit issued by the GRCA.

Under *Ontario Regulation* (O. Reg.) *41/24* (2024) of the *CA Act*, the GRCA regulates hazard lands including floodplains, watercourses, valleylands, shorelines, and wetlands. GRCA also regulates other areas which include areas within 30 m of a wetland.

The GRCA may issue a permit for a prohibited activity if, in its opinion,

- the activity is not likely to affect the control of flooding, erosion, dynamic beaches, or unstable soil or bedrock.
- the activity is not likely to create conditions or circumstances that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property; and
- any other requirements that may be prescribed by the regulations are met.

The GRCA may issue a permit with or without conditions.

The subject property is regulated by GRCA due to the presence of the wetland in the western portion of the subject property. Any development or site alteration adjacent or within regulated features may trigger the need for a permit.

3.4.2 Grand River Conservation Authority Policies (2024)

Grand River Conservation Authority Policies for the Administration of the Prohibited Activities, Exemptions and Permits Regulation O. Reg 41/24 (GRCA 2024) includes policies for activities in or near river and stream valleys, wetlands, shorelines, and hazardous lands and provides guidance on the permitted uses and EIA requirements.

Section 8.4 discusses wetlands and area of interference. The areas surrounding wetlands where development activity could interfere with the hydrologic function of the wetland area called “areas of interference”. These areas include lands that are 30 m from the boundaries of wetlands. All wetlands and their associated areas of interference are regulated under *O. Reg. 41/24*.

Per Section 8.4.1,

> *Development activity/interference within a wetland or development activity within an area of interference will not be permitted except in accordance with the policies in Sections 8.4.3 – 8.4.13.*

Per Section 8.4.9,

> *Development activity within an area of interference less than or equal to 30 metres from a wetland may be permitted in accordance with the policies in Section 7.1.2 – 7.1.3 – General Policies, and where an Environmental Impact Study demonstrates that:*

- *There are no negative or adverse impacts on the wetland feature and its hydrologic functions;*
- *There are no negative or adverse impacts on flooding and erosion;*
- *All development activity is located outside of the wetland and maintains as much setback as feasible;*
- *Development activity is located above the water table, except as specific in Section 8.4.11; and*
- *Septic systems are located a minimum of 15 m from the wetland and 0.9 m above the annual maximum water table.*

Per Section 8.4.14,

> *Stormwater Management Facilities for water quality control will not be permitted within a wetland, but may be permitted in the area of interference where it can be demonstrated that:*
>
> - *All structural components and actively management components of the stormwater management facility including constructed wetlands, are located outside of the wetland;*
> - *A detailed study demonstrates how the hydrologic functions of the wetland will be protected, restored or enhanced;*
> - *Sedimentation during construction and post construction are minimized using best management practices including site and facility design, construction controls, and appropriate remedial measures;*
> - *Design and maintenance requirements as determined by GRCA are met; and*
> - *Works are constructed, repaired, or maintained according to accepted engineering principles and approved engineering standards or to the satisfaction of the GRCA, whichever is applicable based on the scale and scope of the project.*

In addition to satisfying the necessary policies, a permit must be obtained for any development and/or site alteration within a regulated area.

3.5 *Species Conservation Act* (2025)

On March 30, 2026, the Province of Ontario repealed the *Endangered Species Act, 2007* and enacted the *Species Conservation Act, 2025* (SCA), including several supporting regulations. The purpose of the SCA is, per Section 1:

> *(a) to identify species at risk based on the best available scientific information, including information obtained from community knowledge and Indigenous traditional knowledge; and*
> *(b) to provide for the protection and conservation of species at risk while taking into account social and economic considerations, including the need for sustainable economic growth in Ontario.*

O. Reg 60/26 provides the Protected Species in Ontario List under the SCA. Notably, this list no longer includes avian or fish species which receive protection under the federal *Migratory Birds Convention Act* (MBCA), and/or *Species at Risk Act* (SARA).

Under Section 16 of the SCA "Prohibition, s. 16 Activities" describes activities which are prohibited without a registration or a permit. "Section 16 activity" means, in part,

> *(a) any activity that results or is likely to result in,*
> *(i) the killing, harming, capturing or taking of a member of a species that is listed on the Protected Species in Ontario List, or*
> *(ii) damage to or destruction of the habitat of a species that is listed on the Protected Species in Ontario List*

Should a protected species or its habitat be identified on the subject property, approvals under the SCA may be required. These approvals are generally granted through a proponent-led registration process per O. Reg. 75/26, whereas permit activities are governed under O. Reg. 74/26. There are also exemptions as provided under O. Reg. 61/26, which prescribes activities impacting protected species or their habitat that can proceed without a registration or permit.

3.6 *Migratory Birds Convention Act* (1994)

The federal *Migratory Birds Convention Act* protects active nests, eggs and young of migratory bird species from harm or destruction. Environment Canada considers the "general nesting period" of breeding birds in southern Ontario to be between late March and the end of August. These dates are provided as guidance; any nesting bird listed under the *Act* is protected regardless of the date.

Nests of a small subset of birds listed on Schedule 1 of the MBCA are protected year-round for one to three years (unless proven abandoned), depending on the species, and some species have "residences" which also receive protection.

Active nests and young and eggs of almost all birds are also protected from destruction by the *Fish and Wildlife Conservation Act*.

3.7 Species at Risk Act (2002)

The federal *Species at Risk Act* (SARA; 2002) is intended to prevent federally endangered or threatened wildlife (including plants) from becoming extinct in the wild, and to help in the recovery of these species. The Act is also intended to help prevent species listed as Special Concern from becoming endangered or threatened. To ensure the protection of Species at Risk, SARA contains prohibitions that make it an offence to kill, harm, harass, capture, take, possess, collect, buy, sell or trade an individual of a species listed in Schedule 1 of SARA as endangered, threatened or extirpated.

SARA applies primarily to lands under federal jurisdiction and relies on provincial laws to protect federal SAR habitat. On private land, SARA prohibitions apply only to aquatic species and migratory birds that are also listed in the *Migratory Birds Convention Act* (1994). The intent of SARA is to protect critical habitat as much as possible through voluntary actions and stewardship measures.

4. Existing Conditions

Seasonal and species-specific field investigations were conducted through 2026 to document existing natural heritage features and functions of the subject property. The specific location of field surveys is indicated on **Figure 2**.

The results of the field studies are visually depicted on **Figure 3** and are described in greater detail below within the sections of respective disciplines.

4.1 Aquatic Resources

Aquatic resources within the subject property drain to the Irvine Creek PSW, which is connected to several smaller tributaries of Irvine Creek which ultimately flow into the Grand River. Based on a review of MNR Geospatial Ontario data, the tributaries of Irvine Creek and the PSW support fish communities, and are classified as warmwater aquatic habitats.

4.1.1 Headwater Drainage Features

Two HDFs were identified and delineated during the HDFA of the subject property. Each feature was evaluated based on four (4) classifications, which are linked to the management recommendation (**Table 4**). A photographic log of the HDFA is provided in **Appendix B**.

The hydrological classifications of these features were also confirmed from the monitoring results from the Hydrogeological Assessment (HCS Inc. 2026). Both features exhibited a southwestern flow direction towards the PSW through agricultural fields of the subject property.

Both features were observed as ephemeral and only had flowing water during the spring assessment, likely associated with spring freshet. Both features were observed dry or sub-surface damp during the second assessment; therefore, both hydrology functions within the subject property were classified as contributing based on field assessment observations per the HDFA guidelines. Further, the 2026 groundwater monitoring results are consistent with Beacon's field assessment findings, confirming no surface-level groundwater interactions occur and that the drainage features are only surface run-off from precipitation (HCS Inc. 2026).

The majority of the subject propertyare composed of agricultural lands, providing limited riparian functions to the drainage features. HDF-1 had a 5 m strip of meadow vegetation (valued riparian) associated with the drainage ditch, however, outside of this meadow was the agricultural fields providing limited riparian function.

As the features are ephemeral and lack defined downstream connection to direct fish habitat, they do not support permanent or seasonal fish habitat. However, throughout the year, they may contribute surface water runoff during precipitation events and are therefore considered contributing fish habitat.

Amphibian monitoring results completed for the subject lands in 2026 were used to interpret terrestrial habitat functions of the drainage features. Amphibian monitoring station 2 was located within the vicinity of both drainage features (**Figure 2**).

The drainage features lack breeding habitat, and no calls were observed. Both drainage features have no upstream connection to habitat (i.e., forest or wetland) and therefore provide limited terrestrial functions and are not considered to provide terrestrial habitat.

Both features convey flow into the outlet of the off-property SWM pond at the edge of the PSW. While both features flow through limited riparian vegetation, these surface water features convey flow to the important wetland vegetation within the PSW.

Table 4. Headwater Drainage Feature Management Recommendations

HDF	Hydrology	Riparian	Fish Habitat	Terrestrial Habitat	Management Recommendation	Beacon Management Recommendation
HDF-1	Ephemeral	Limited	Contributing	Limited	Mitigation	Mitigation
HDF-2	Ephemeral	Limited	Contributing	Limited	Mitigation	Mitigation

HDF-1 was observed flowing only during the initial assessment and was a channelized drainage ditch along the southeastern edge of the subject property. The feature was bounded by a 5 m wide meadow strip, with agricultural fields and houses beyond it. HDF-1 had no channel form no substrate sorting throughout. Terrestrial vegetation was abundant throughout the feature; however, the feature lacked any aquatic vegetation. HDF-1 provided surface water to the PSW (**Figure 2**). This feature is given a management recommendation of “Mitigation” per the HDFA guidelines, to maintain surface flow to downstream wetland areas.

HDF-2 was a swale throughout the agriculture field, with minimal flow during the first assessment and was dry by early June. This feature began flowing out of the cultural meadow (CUM1-1), and conveyed flow into the outflow of the off-property SWM pond. This feature lacked riparian vegetation and lacked any defining features through the agricultural field. This feature is given a management recommendation of “Mitigation” per the HDFA guidelines, to maintain surface flow to downstream wetland areas.

4.2 Terrestrial Resources

4.2.1 Vegetation Communities

A total of four ecological community types were identified on the subject property, as shown on **Figure 3**. These include communities associated with natural heritage features, as well as anthropogenic and agricultural land uses. Descriptions of these communities are provided below.

A portion of the subject property consists of active agricultural fields, along with a residence and associated outbuildings. The Irvine Creek PSW is located in the western portion of the subject property and supports a treed swamp that extends to a drainage ditch at the eastern limit of Beatty Line N. A narrow band of upland forest occurs along the interface between the PSW and the agricultural field.

The portions of the subject property classified as Anthropogenic (ANT) are primarily associated with manicured areas, including residences, lawns, and outbuildings. Although this is not a formal ELC community under the provincial methodology, it is included to represent the existing land use at this

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Existing Conditions

Figure 3

6582-6585 Hwy 6, Centre Wellington

Legend

- Subject Property
- Ecological Communities
- Watercourse (MNR 2026)
- Headwater Drainage Features (Beacon 2026)
- Reach Breaks
- Wetland Limit - Staked by GRCA on June 12, 2026
- Black Ash Tree Location
- Barn Location

Code	Wetland Communities
SWM6-2	Poplar - Conifer Organic Mixed Swamp
	Forest Communities
FOC2-2	Dry - Fresh White Cedar Coniferous Forest
	Cultural Communities
CUM1-1	Dry - Moist Old Field Meadow
	Other Communities
AG	Agricultural Crop
ANT	Anthropogenic

BEACON ENVIRONMENTAL

Project: 226060
Last Revised: August 2026

Client: 1052367 Ontario Limited

Prepared by: BD
Checked by: JS

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Orthoimagery Baselayer: FBS Wellington County (2025)

location. Vegetation in these areas generally consists of manicured lawn, trees, shrubs, and garden beds.

At the time of the survey, the Agricultural (AG) fields were row cropped in corn (*Zea mays*). Similar to anthropogenic areas, agricultural lands are not considered a formal ELC community; however, they are documented to describe current land use.

The individual vegetation communities identified on the subject property are described in the following sections.

Wetland: Poplar – Conifer Organic Mixed Swamp (SWM6-2)

This community occurs on a slope below the elevation of the surrounding subject property. Based on soil samples, the community appears to coincide with a moist silty sand layer. Much of the community appears to contain deep organic soils and is mapped as having organic soils in the provincial record. The wetland boundary was confirmed on site in 2026 by GRCA staff and a Beacon MNR-certified wetland evaluator. The refined boundary is shown on **Figure 3**.

The dominant vegetation in this community varies across the wetland. Much of the community is dominated by deciduous trees, including Balsam Poplar (*Populus balsamifera*), Eastern Cottonwood (*P. deltoides*), and Trembling Aspen (*Populus tremuloides*) (**Photograph 1**), with Yellow Birch (*Betula alleghaniensis*) and Paper Birch (*Betula papyrifera*) present as associates. The understorey beneath the deciduous canopy includes Cottony Willow (*Salix eriocephala*), Bebb's Willow (*Salix bebbiana*), Common Elderberry (*Sambucus canadensis*), and Red-osier Dogwood (*Cornus sericea*). The ground layer is generally dominated by Sensitive Fern (*Onoclea sensibilis*), Lady Fern (*Athyrium angustum*), and Eastern Skunk Cabbage (*Symplocarpus foetidus*), with Spotted Joe-pye Weed (*Eutrochium maculatum*) present as an associate. A substantial portion of the community is dominated by coniferous species, particularly Eastern White Cedar (*Thuja occidentalis*), with a sparser ground layer more strongly associated with Eastern Skunk Cabbage.

One substantial Forb Organic Meadow Marsh (MAM3-9) inclusion was noted in an opening. This inclusion was dominated by Spotted Joe-pye Weed, with Purple-stemmed Aster (*Symphyotrichum puniceum*) present to a lesser extent.

One Black Ash (*Fraxinus nigra*) tree was noted near the centre of the community, with a diameter at breast height of approximately 8.5 cm. Black Ash is regulated under the SCA, subject to certain conditions.

Woodland: Dry – Fresh White Cedar Coniferous Forest (FOC2-2)

This community occurs at the interface between the SWM6-2 community and the agricultural field and appears to extend off site to the northwest. It is dominated by Eastern White Cedar, with Paper Birch present as an associate. The understorey is dominated by Eastern Enchanter's Nightshade (*Circaea canadensis*), with Red Raspberry (*Rubus idaeus*), Herb-Robert (*Geranium robertianum*), and Virginia Virgin's Bower (*Clematis virginiana*) present as associates.

Photograph 1. Poplar – Conifer Organic Mixed Swamp (SWM6-2) (June 12, 2026).

Meadow: Dry – Moist Old Field Meadow (CUM1-1)

This community is primarily associated with what appears to be a fill pile. A small portion of the community also occurs at the interface between the SWM6-2 community and the agricultural field. At the time of the site visit, this community was dominated by Canada Goldenrod (*Solidago canadensis*).

4.2.2 Floral Inventory

Fifty-nine (59) vascular plant species were documented on the subject property by Beacon (**Appendix C**). Of these, 50 species (85%) are native to Ontario, while nine species (15%) are non-native. All native species are ranked as S5 (secure) or S4 (apparently secure) by the NHIC.

Most species documented on the subject property are considered common in Wellington County (Anderson and Frank 2004). The exception is Skunk Cabbage, which is identified as rare by Anderson and Frank (2004). None of the species documented are considered nationally or provincially rare.

One species potentially regulated under the SCA was documented: Black Ash (*Fraxinus nigra*). One specimen was observed within the SWM6-2 community (**Figure 3**) and is greater than 8 cm in diameter; therefore, it is protected under the SCA unless it is identified as unhealthy by a qualified Black Ash professional (*O. Reg. 61/26*).

4.2.3 Breeding Amphibians

No frogs or toads were heard breeding on the subject property. Five frog species were heard breeding adjacent to the subject property during the amphibian surveys.

The locations of the amphibian call survey stations are shown on **Figure 2**. The results of the amphibian surveys are summarized in **Table 5**.

Table 5. Amphibian Survey Results

Station	Survey Direction	Round 1	Round 2	Round 3
1	SW	SPPE*	GRTR* SPPE*	GRTR*
2	SW	SPPE*	GRTR* SPPE*	GRTR*
3	E	No calls	SPPE 1(1)	GRTR 2(4)
4	S	SPPE* WOFR*	GRTR* SPPE*	GRFR* GRTR* SPPE*

* = Call recorded from outside the 100 m radius of the station
SPPE = Spring Peeper; WOFR = Wood Frog; GRFR = Green Frog; GRTR = Grey Treefrog.
Chorus Code:
1. Individuals of one species can be counted, calls not simultaneous. Number of individuals observed in brackets;
2. Some calls of one species simultaneous, numbers can be reliably estimated; and
3. Full chorus; calls continuous and overlapping.

No salamanders or other amphibians were observed incidentally during surveys, including during searches beneath natural cover objects such as bark and logs.

Most amphibian calls were heard from west of Beatty Line North, including Spring Peeper, Wood Frog, Grey Treefrog, and Green Frog. Grey Treefrog and Spring Peeper were also heard from distant wetlands north of the subject property and from the stormwater pond immediately south of the subject property near Station 3.

4.2.4 Breeding Birds

A total of 29 breeding bird species were recorded in the study area (**Appendix D**). This diversity reflects the variety of vegetation communities on and around the subject property, including row crop

agriculture, open pasture, cultural meadow, and forested wetland communities. Additional breeding bird habitat is provided by the rural residential and farm buildings on the subject property.

Many of the breeding records were common species regularly found in rural and suburban areas, including abundant species such as Song Sparrow (*Melospiza melodia*), American Robin (*Turdus migratorius*), and Red-winged Blackbird (*Agelaius phoeniceus*). Other abundant native species recorded in multiple territories included American Goldfinch (*Spinus tristis*), Chipping Sparrow (*Spizella passerina*), Northern House Wren (*Troglodytes aedon*), and Common Grackle (*Quiscalus quiscula*). Less abundant species, recorded as single observations, included Indigo Bunting (*Passerina cyanea*), Rose-breasted Grosbeak (*Pheucticus ludovicianus*), Eastern Phoebe (*Sayornis phoebe*), and Northern Flicker (*Colaptes auratus*).

The subject property is predominantly agricultural and was under corn cultivation in 2026. Breeding habitat within the agricultural portions of the subject property was primarily associated with naturalized field edges and areas around the farm buildings, where species such as American Goldfinch, Chipping Sparrow, and Mourning Dove (*Zenaida macroura*) are known to nest. Barn Swallow (*Hirundo rustica*) was observed near the barn and is assumed to be nesting within this structure. The other predominant habitat type, located at the rear of the subject property, was forested wetland, which extends beyond the subject property to the north, west, and south. Rose-breasted Grosbeak (*Pheucticus ludovicianus*), a woodland species associated with both deciduous and coniferous woodlands, was recorded in this habitat within the subject property. An area of fallow, disturbed land, including large, abandoned soil stockpiles, was located in the southwest portion of the subject property. A Belted Kingfisher (*Megaceryle alcyon*) was observed entering and exiting a nest cavity within a stockpile during both breeding bird surveys.

Area-sensitive birds require larger tracts of suitable habitat for breeding or have higher breeding success in larger areas of suitable habitat. One area-sensitive species was recorded. Savannah Sparrow (*Passerculus sandwichensis*) is a grassland-sensitive species that requires large areas of open habitat for breeding.

No species ranked as S1 through S3 (Critically Imperiled through Vulnerable) by the province were recorded on the subject property. A single Barn Swallow was observed near the barn on the subject property. This species is listed as Special Concern provincially and federally due to declining population trends across its range; however, Barn Swallow remains relatively common in agricultural areas where suitable breeding habitat, such as barns, bridges, and other structures, is present. Species listed as Special Concern under the SCA are not afforded species or habitat protection.

4.2.5 Bats

No bats were observed exiting or entering the barn or any other structures on the subject property during the surveys. Therefore, it is Beacon's professional opinion that endangered bat roosting habitat is not associated with any structures on the subject property. Several bats were detected flying over the area and were recorded using EMTouch 2 Pro™ devices. However, as these bats were not observed using the structures, no further action related to the SCA or FWCA is required for removal of the barn.

4.2.6 Incidental Wildlife

The following wildlife species were observed incidentally by Beacon during the 2026 field season:

- American Toad (*Anaxyrus americanus*) — at woodland edge, not calling or exhibiting breeding behaviour
- American Robin (*Turdus migratorius*)
- American Woodcock (*Scolopax minor*)
- Common Yellowthroat (*Geothlypis trichas*)
- Great Crested Flycatcher (*Myiarchus crinitus*)
- Great Horned Owl (*Bubo virginianus*) (off-property)
- Winter Wren (*Troglodytes hiemalis*)
- White-throated Sparrow (*Zonotrichia albicollis*)
- Groundhog (*Marmota monax*) — at woodland edge
- Muskrat (*Ondatra zibethicus*) (off-property)

No notable insects were observed.

4.3 Threatened or Endangered Species

As described in the preceding sections, Beacon staff conducted both desktop and on-site investigations to assess whether any Threatened or Endangered species were likely to occur on or adjacent to the subject lands. **Table 6** provides Beacon's assessment based on the results of field investigations combined with knowledge of the habitat preferences and natural history of the species being considered.

Table 6. Threatened and Endangered Species Screening

Species	Status on the SARA List	Status on SCA List	Were Species and/or Habitat Documented during on-site Assessment?
Vascular Plants (Dicots)			
Black Ash *Fraxinus nigra*	THR	END	**Yes**, species was documented in the Poplar – Conifer Organic Mixed Swamp. Habitat is defined in the SCA as the critical root zone.
Butternut, *Juglans cinerea*	END	END	**No,** a targeted search for Butternut trees was conducted and no Butternut were found to be present within the subject lands. This species is a provincially and nationally endangered tree species that, while still relatively common in southern Ontario, has been listed because the population has been declining due to the presence of a Butternut Canker disease.
Birds			
Bank Swallow, *Riparia riparia*	THR	-	**No**, vertical exposed banks (suitable habitat) are not present at this location.
Barn Swallow, *Hirundo rustica*	THR	-	**Yes,** Barn Swallow was observed near the barn and is assumed to be nesting within this structure
Bobolink, *Dolichonyx oryzivorus*	THR	-	**No**, species were not recorded during seasonal surveys.
Canada Warbler, *Cardellina canadensis*	THR	-	**No**, species were not recorded during seasonal surveys.

Species	Status on the SARA List	Status on SCA List	Were Species and/or Habitat Documented during on-site Assessment?
Chimney Swift, *Chaetura pelagica*	THR	-	**No**, species were not recorded during seasonal surveys.
Eastern Meadowlark, *Sturnella magna*	THR	-	**No**, species were not recorded during seasonal surveys.
Eastern Whip-poor-will, *Antrostomus vociferus*	THR	-	**No**, species were not recorded during seasonal surveys.
Golden-winged Warbler, *Vermivora chrysoptera*	THR	-	**No**, species were not recorded during seasonal surveys.
Northern Bobwhite, *Colinus virginianus*	END	-	**No**, species were not recorded during seasonal surveys.
Red-headed Woodpecker, *Melanerpes erythrocephalus*	END	-	**No**, species were not recorded during seasonal surveys.
Wood Thrush, *Hylocichla mustelina*	THR	-	**No**, species were not recorded during seasonal surveys.
Mammals			
Eastern Small-footed Myotis, *Myotis leibii*	-	END	**No**, one barn was identified on the subject property as potential habitat for endangered bat species. Exit surveys confirmed this structure is not habitat of endangered bat species.
Little Brown Myotis, *Myotis lucifugus*	END	END	
Northern Myotis, *Myotis septentrionalis*	END	END	
Tri-colored Bat, *Perimyotis subflavus*	END	END	
Hoary Bat *Lasiurus cinereus*	-	END	
Silver-haired Bat *Lasionycteris noctivagans*	-	END	
Eastern Red Bat *Lasiurus borealis*	-	END	
Eastern Small-footed Myotis, *Myotis leibii*	-	END	
Reptiles			
Blanding's Turtle, *Emydoidea blandingii*	-	THR	**No**, suitable habitat (large wetlands and shallow lakes) is not present on the subject property.

END – Endangered; THR –Threatened.
1- SCA –*Species Conservation Act (Protected Species in Ontario List, O.Reg 60/26)*
2- SARA – *Species at Risk Act (Schedule 1)*

Based on the above assessment in **Table 5** and on-site investigations, the following is present on the subject property.

- Black Ash; and
- Barn Swallow

These species are discussed in **Section 5.**

4.4 Significant Wildlife Habitat

The Significant Wildlife Habitat Technical Guide (OMNR 2000) states that wildlife habitat is considered significant where it is:

> *Ecologically important in terms of features, functions, representation, or amount, and contributing to the quality and diversity of an identifiable geographic area or Natural Heritage System. Criteria for determining significance may be recommended by the Province, but municipal approaches that achieve the same objective may also be used.*

The Township of Centre Wellington has not identified Significant Wildlife Habitat (SWH) within their jurisdiction; however, for the purposes of this report reference is made to the guidance provided in two provincial documents: the *Significant Wildlife Technical Guide* (OMNR 2000) and the *Natural Heritage Reference Manual* (MNRF 2010). The MNR has provided suggested guidance in the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (herein 'Schedule'; OMNR 2015b) which can form the basis for thresholds of significance to be determined by a planning authority which has been reviewed in the context of the subject property.

The *Significant Wildlife Habitat Technical Guidelines* (MNRF 2000) identify four broad categories of SWH:

- Seasonal Concentration Areas of Animals;
- Rare Vegetation Communities or Specialized Habitat for Wildlife;
- Habitat for Species of Conservation Concern; and
- Animal Movement Corridors.

Within each of these categories, there are multiple types of SWH, each intended to capture a specialized type of habitat that may or may not be captured within other existing feature-based categories (e.g., significant wetlands, significant woodlands).

The SWH sub-categories have been considered in relation to the subject property in the context of the proposed development, and a full assessment of the SWH can be found in **Appendix E**.

Based on this assessment, two preliminary SWH were identified in the Poplar – Conifer Organic Mixed Swamp on the subject property. As this community is a PSW, it will be protected within an NHS; therefore, targeted surveys were not conducted to confirm these SWH sub-categories and they are assumed to be present based on a background review and habitat assessment: Maternity Colonies for Big Brown Bat and Woodland Raptor Nesting. Barn Swallow, a species that is provincially assessed as Special Concern, was observed using the barn on the subject property.

5. Summary of Natural Heritage Features

The natural heritage features of the subject property are discussed below in the context of the proposed development, the results of the vegetation and wildlife surveys, and the applicable natural heritage policies and regulations. The limits of these features were confirmed in the field by Beacon ecologists and are depicted on **Figure 2**.

5.1 Wetlands

One designated PSW is present on the subject property. This wetland community is located within the Core Greenlands designation of the County of Wellington Official Plan.

The boundary of the PSW was staked and confirmed by the GRCA, in consultation with a Beacon MNR-certified wetland evaluator, on June 12, 2026.

5.2 Woodlands

One natural woodland community was identified on the subject property. This woodland is located within the Greenlands designation of the County of Wellington Official Plan. It is greater than 10 ha in area and is therefore recognized as significant under the County Official Plan. Further, the woodland is functionally important due to both its size and contribution to the broader landscape and qualifies as a significant woodland under the County Official Plan and PPS guidance.

The woodland dripline was delineated using aerial photography by Beacon ecologists and confirmed through field investigations.

5.3 Headwater Drainage Features

HDFs were assessed within the subject property.

The subject property has two HDFs that convey flow to the PSW at the edge of the property. Both HDFs have been assigned a management recommendation of Mitigation. These features are first-order swales and ditches that flow ephemerally and do not support fish or amphibian habitat. HDFs classified as Mitigation may be removed provided their functions are replaced through lot-level low impact development measures and stormwater management systems.

5.4 Habitat of Threatened and Endangered Species

Habitat of an endangered species, Black Ash, was recorded on the subject property. This habitat will be fully protected within the NHS. Barn Swallow were observed near the barn structure and are assumed to be nesting.

No other habitat of endangered or threatened species was identified on the subject property.

5.5 Significant Wildlife Habitat

Based on Beacon's assessment in **Section 4.4**, SWH types were identified on the subject property based on background review and habitat assessment\; no seasonal surveys were undertaken as the areas where SWH may be present will be maintained and buffer. These include Bat Maternity Colonies and Woodland Raptor Nesting Area. These SWH types are presumed to be associated with the PSW and will be fully protected within the NHS.

6. Proposed Development

The proposed development consists of a residential and mixed-use community that will accommodate a mix of dwelling unit types and densities, including single detached dwellings, various townhouse forms, and apartments (**Figure 4**). The development will also include a new public park (0.82 ha), continuation of the public trail network, extension of the public road network, and a mixed-use/commercial block (1.60 ha) in the southeast corner of the subject lands. The development is anticipated to accommodate approximately 701 dwelling units. The subject lands are also planned to accommodate a new school on a 4.96 ha block in the northeast portion of the subject lands.

The subject lands are located immediately north of, and adjacent to the northerly limit of the Fergus Settlement Area, where the lands interface with the recently constructed Strathlea/Bonaire subdivision development (approx. 2015). The Strathlea/Bonaire subdivision to the south is comprised of a mix of single-family and townhouse dwellings and was previously separated from broader landholdings that included the subject lands, for the purpose of this development. The southerly subdivision was designed to anticipate and accommodate the development of the subject lands and future expansion of the Fergus Settlement Area, and includes three (3) road stubs, one (1) additional pedestrian pathway connection, and below-grade servicing stubs that terminate at the subject lands.

6.1 Site Servicing

A Functional Servicing and Stormwater Management Report (FSSR; SMD Consultants Inc. 2026) was prepared for the proposed development. A summary of the site servicing details provided in that report is presented below.

6.1.1 Stormwater Management

Stormwater quantity, quality, and extended detention requirements for the proposed development will be managed through a new stormwater management (SWM) pond located in the northwest corner of the site. The facility is designed in accordance with Township of Centre Wellington requirements and the MECP *Stormwater Management Planning and Design Manual* (2003), with controlled discharge directed to the Irvine Creek Wetland Complex (SMD 2026).

The proposed SWM pond will provide the following controls:

- Quantity Control: Post-development runoff from the 2-year through 100-year storm events will be controlled to pre-development discharge rates.
- Quality Control: Enhanced water quality treatment will be provided, achieving a target of 80% total suspended solids (TSS) removal for runoff directed to the facility.
- Extended Detention Control: The pond will detain the 25 mm rainfall event and release runoff over a minimum period of 24 hours to mitigate downstream impacts and promote water quality benefits.

The pond will discharge through a bottom-draw outlet with a reverse-slope pipe arrangement connected to a control manhole, which will regulate outflows to the approved release rates.

Controlled discharges will ultimately outlet to the existing Irvine Creek PSW, maintaining downstream flow targets while providing the stormwater management controls required for the proposed development.

6.1.2 Sanitary Servicing

Sanitary sewer servicing for the proposed development will be designed in accordance with the Township's Development Manual (June 2024). New sanitary sewers will be located within municipal rights-of-way or municipal easements and connected to the existing sanitary sewer stubs at the south property line along Vincent Street and Steele Street.

The site is proposed to be divided into two sanitary drainage catchments. Flows from the eastern portion of the site will discharge to the existing 300 mm diameter sanitary sewer on Steele Street, while flows from the western portion of the site will discharge to the existing 250 mm diameter sanitary sewer on Vincent Street. This servicing strategy distributes sanitary flows between the two existing municipal sewer systems and utilizes the available connection points at the site frontage.

6.1.3 Water Balance

A water balance assessment for pre-development and post-development conditions, without mitigation, was completed for the proposed development area as part of the Hydrogeological Investigation prepared by HCS Inc. (2026). The assessment estimates that, under post-development conditions without mitigation, the site would experience an infiltration deficit of approximately 52,710 m^3/year relative to pre-development conditions.

The use of 80% imperviousness for residential areas is conservative and may overestimate the infiltration deficit. For example, many of the proposed lots appear to be deeper than typical lots and include larger rear yards. Once final lot types and building envelopes are confirmed, the post-development water balance without mitigation should be recalculated using actual imperviousness to determine the final infiltration deficit.

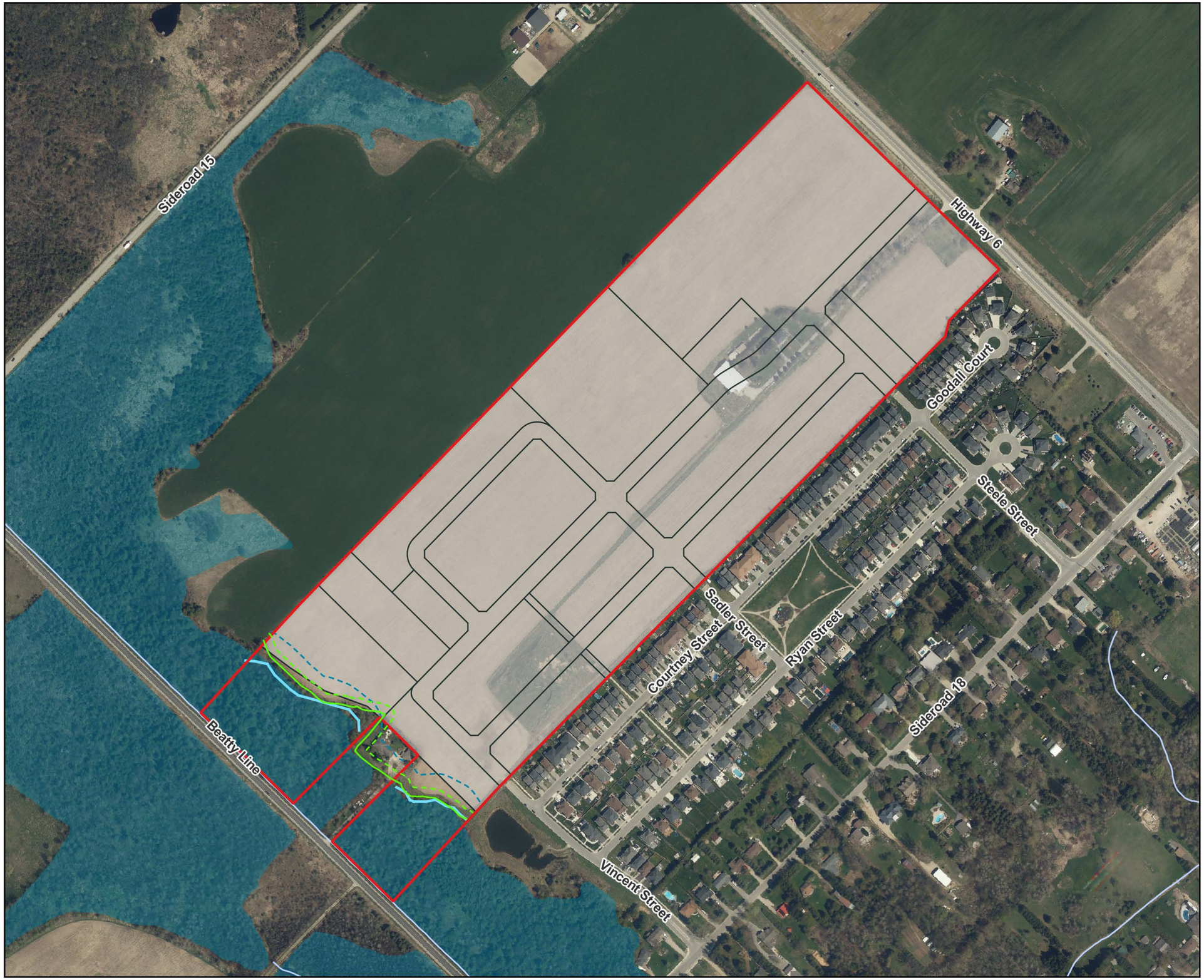
To mitigate the infiltration deficit, the proposed development should incorporate measures to increase infiltration across the residential lot areas and private development blocks.

7. Impact Assessment

Development impacts on natural heritage and hydrological resources are often categorized as either direct or indirect.

Direct impacts are the primary, often immediate consequences of development and are directly related to the location and layout of the proposed development components, including buildings, grading, and SWM infrastructure, relative to natural features. Indirect impacts are typically secondary or unintended effects that occur off site or over a delayed period.

The proposed development is largely confined to the previously disturbed tableland portion of the property, which supports cultural meadow and agricultural uses.



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Proposed Development	Figure 4

6582-6585 Hwy 6, Centre Wellington

Legend

- Subject Property
- Watercourse (MNR 2026)
- Provincially Significant Wetland (MNR 2026)
- Provincially Significant Wetland + 30 m (GRCA)
- Wetland Limit
- Significant Woodland Dripline
- Significant Woodland Dripline + 10 m
- Proposed Development

BEACON ENVIRONMENTAL

Project: 226060
Last Revised: August 2026

Client: 1052367 Ontario Limited

Prepared by: BD
Checked by:KQ

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Orthoimagery Baselayer: FBS Wellington County (2025)

Based on the proposed plan and the assessment of existing conditions, the following sections discuss the potential direct and indirect impacts that the proposed development may have on components of the NHS and provide recommendations for impact avoidance and mitigation.

7.1 Removal of Vegetation and Wildlife Habitat

Removal of cultural meadow outside of the natural features is required to accommodate the proposed development and is concentrated in the western portion of the property on the tableland.

7.1.1 Tree Removals

An Arborist Report (Beacon 2026) was prepared for the subject property and should be read in conjunction with the EIA. Though a detailed grading plan is not available at this point in the application process, it is understood that the entire property, exclusive of areas within natural feature buffers, will be graded to accommodate the proposed development. The extent of the grading required to accommodate the proposed development will be determined at detailed design. The removal of up to 124 individually tagged trees and 59 tallied trees from tree grouping may be required.

Reasonable efforts are intended to be made during detailed design to explore opportunities for tree preservation where adequate TPZs can be provided to support long-term tree health. However, full preservation of all subject property trees is not required where grading, servicing, road construction, or other design constraints prevent adequate TPZs from being maintained.

7.1.2 Stormwater Outfall

The proposed Stormwater Management Pond will include a bottom draw/reverse slope pipe structure discharging to the PSW. The outfall design will be developed as this project moves to detailed design and impacts will be quantified at that time.

7.2 Encroachment into Buffers

Factors to consider when making buffer recommendations include the sensitivity and significance of the features including habitat requirements of species utilizing features, the proposed land use and risk of potential impacts to the feature, the land use context (i.e., surrounding land uses and existing form); and current best practices.

The PSW and woodland, which are the most sensitive features. The proposed stormwater management facility will encroach into the 30 m buffer of the PSW by 0.032 ha. This encroachment is required to support the facility design and associated grading and will be restored post-grading.

7.3 Alterations to Irvine Creek Wetland Hydrology and Water Quality

Without mitigation, potential indirect impacts on the PSW that could occur from the proposed development could include:

- Alterations in wetland water balance and associated negative impacts functions resulting from the increase in impervious surfaces; and
- Long-term impairment of water quality (chemical contaminants, suspended solids and temperature) due to increase in impervious surfaces and inputs of contaminants from untreated stormwater.

7.4 Removal of Drainage Features

Two headwater drainage features convey flow into the outlet of the off-property SWM pond at the edge of the PSW. While both features flow through limited riparian vegetation, these surface water features convey flow to the important wetland vegetation within the PSW. These headwaters are proposed for removal however flows to the wetland will be maintained post development.

7.5 Anthropogenic Effects on Wildlife Post Development

The change in land use from cultural meadow and agricultural lands to residential and mixed-use development may result in indirect disturbance to adjacent natural features, including increased noise, lighting, and human activity.

The effects of noise and light on wildlife are difficult to quantify; however, these stressors can contribute to landscape-level effects within urbanizing areas, even where natural areas are set aside for protection. The proximity of new development to the wooded wetland edge represents a potential increase in noise and lighting effects on the adjacent natural system.

Because the proposed development will accommodate more human activity than the existing land use, it may increase the risk of encroachment into adjacent natural areas, including informal trail creation and waste dumping. Uncontrolled access into a natural system can directly affect flora and fauna, introduce garbage, and facilitate the spread of non-native invasive plant species. Overuse can also result in physical damage and degradation of the natural system intended to be protected from development.

Without mitigation, potential negative effects on the natural system may include waste dumping, increased lighting from new buildings and outdoor areas, and other anthropogenic disturbances associated with residential and mixed-use development.

These potential negative effects are carried forward for mitigation.

7.6 Sediment and Soil Erosion

Construction activities such as grading, grubbing, and excavation have the potential to mobilize sediment into catch basins and, subsequently, into the natural environment and downstream watercourses. In the absence of mitigation measures, downstream aquatic habitat may be affected.

8. Mitigation Measures

The following section recommends mitigation measures to be utilized to minimize the effects of the proposed development discussed in the preceding section.

8.1 Design Mitigation

The proposed development is situated on the northeastern portion of the subject property and is designed to develop land uses in an urbanizing area while maintaining the NHS. The proposed development occurs entirely outside the natural heritage features within an area dominated by existing agricultural crops and cultural meadow.

8.2 Buffers to Natural Features

The following buffers have generally been applied in accordance with applicable policies of the GRCA and County:

- Significant Woodland 10 m
- Irvine Creek PSW 30 m

8.3 Buffer Naturalization Plan

A buffer naturalization plan is recommended to strengthen the function of the buffer to the NHS and further mitigate potential indirect impacts of development on the adjacent woodland and wetland features. The plan should restore and enhance the buffer using native trees and shrubs and will be prepared during detailed design for County approval. It is recommended that the buffer include a Barn Swallow roosting structure.

8.4 Mitigation of Vegetation Removal Effects

8.4.1 Tree Preservation and Compensation

Reasonable efforts are intended to be made during detailed design to explore opportunities for tree preservation where adequate TPZs can be provided to support long-term tree health.

All trees that are recommended for preservation will be protected through the establishment of a TPZ as shown on the companion Tree Inventory and Preservation Plan (Beacon 2026).

In addition to the establishment of TPZs, the following specifications are recommended:

- Before the beginning of work, the contractor shall meet with Beacon on site to review work procedures, access routes, storage areas and the TPZ or other tree protection measures;

- Tree protection fencing shall be installed and in good condition prior to the start of construction and is to be maintained in good condition throughout the duration of construction activities;
- Areas within the tree protection fencing of the trees designated for preservation are not to be used for any type of storage;
- Trees shall not have any rigging cables or hardware of any sort attached or wrapped around them, nor shall any contaminants be dumped within the protective areas or flushed where they may come into contact with the feeder roots of the trees;
- If any pruning is required to accommodate construction activities, the consulting Arborist is to be notified in advance. All pruning prescriptions must be confirmed by the consulting Arborist prior to work proceeding, and all pruning must be carried out in full accordance with ANSI A300 standards, by or under the supervision of an ISA Certified Arborist;
- During excavation operations in which roots are affected, the Contractor is to prune all exposed roots cleanly. Pruned root ends shall point obliquely downwards. The exposed roots should not be allowed to dry out. The Contractor shall discuss watering of the roots with the Owner and Contract Administrator prior to pruning to ensure that so that optimum soil moisture is maintained during construction and backfilling operations. Backfilling must be completed as soon as practical with clean, uncontaminated native topsoil or mulch. Directional drilling is recommended for installing infrastructure servicing within TPZs; and
- Where the access route abuts the tree protection fencing, curb shall be hand-formed to minimize root loss; and
- Any injury to a tree during construction is to be assessed by an ISA Certified Arborist.

8.4.2 Timing of Vegetation Removal- Breeding Birds

The provincial *Fish and Wildlife Conservation Act* and federal MBCA together protect the nests, eggs and young of most bird species from harm or destruction. Environment Canada considers the 'general nesting period' of breeding birds in southern Ontario to be between late March and the end of August. During this period, it is possible to encounter nesting birds. To ensure that nesting birds are not disturbed, surveys for nests should be conducted prior to vegetation removal (i.e., trees, shrubs and grasses) and building or structures that may house nests. These surveys must be conducted within 48 hours prior to the removal of the vegetation or structure. If a nest is found, then vegetation clearing (in an area around the nest) must wait until nesting has concluded.

The peak nesting period in southern Ontario is mid-May through mid-July during which vegetation removal should be avoided or delayed until the peak season has completed.

In addition, the barn structure where Barn Swallow is nesting, must be removed outside of the timing window for breeding birds.

Note that nesting birds at any time of the year are protected from disturbance and damage.

8.5 Maintenance of Irvine Creek Wetland Hydrology

Post-development storm runoff will continue to be directed toward the wetland through two drainage pathways: controlled discharge from the proposed Stormwater Management Pond at the northwest corner of the site, and clean, uncontrolled runoff from residential roofs and rear yards at the southwest corner of the site.

At the southwest corner, the proposed drainage pattern will generally maintain the existing condition, where a cut-off swale within a 9 m-wide easement along the southern boundary currently directs approximately 5.35 ha of pre-development drainage west toward the wetland. Under post-development conditions, clean runoff from portions of Blocks 1, 2, and 3 will continue to drain toward this area. Blocks 2 and 3 will include rear-yard catch basins and storm piping within a proposed 3 m-wide municipal easement to convey runoff westward. This arrangement will maintain drainage toward the wetland while directing clean runoff through controlled conveyance infrastructure.

8.5.1 Stormwater Pond Outfall

The stormwater outfall should be designed during detailed design to avoid or minimize encroachment into the NHS, to the extent feasible. The design will apply a treatment-train approach and demonstrate that post-development flows will meet water quantity, water quality, erosion control and water balance objectives before discharge. The outfall should have the smallest practicable disturbance footprint, be aligned to use previously disturbed or least-sensitive areas where possible, and incorporate appropriate outlet stabilization, energy dissipation and erosion protection so that discharge velocities do not cause scour, bank instability, sediment release to the PSW.

8.6 Mitigation of Anthropogenic Effects on Wildlife

8.6.1 Directional Lighting

To the extent possible given security and safety issues the future configuration of lighting associated with the proposed redevelopment close to the natural areas should be downturned and pointed away from the natural system, specifically the wetland and woodland areas.

8.6.2 Fencing Installation

It is recommended that a fence be installed to current municipal standards between the subject property and natural feature boundary. Fence installation serves multiple benefits to the natural system including mitigating against rear-year dumping of waste and minimizes the flow of people and their companion animals into natural areas by serving as a physical barrier.

8.7 Erosion and Sediment Control

Any grading and site alterations should be confined to the established limits of Erosion and Sediment Control (ESC) measures should be regularly inspected and maintained in working order throughout the construction period. ESC measures should be removed upon completion of construction after exposed soils have been stabilized.

Detailed erosion and control engineering drawings and reports will be required during the detailed engineering design and submitted in support of the site plan or subdivision process or in support of a site alteration permit depending on timing. ESC Plans will be prepared at detailed design.

Standard Best Management Practices should also be employed during the construction process.

9. Policy Conformity

This section outlines project compliance with the applicable natural heritage policies and legislation at the provincial, regional, and municipal levels as described in **Section 3** of this report.

9.1 Federal Fisheries Act

There is no fish habitat present on the subject property within the proposed development area.

9.2 Federal Species at Risk Act

Barn Swallow is a threatened species under SARA and was recorded during seasonal surveys. Removal of the structure must occur outside of the breeding season for this species, in accordance with all SARA requirements.

9.3 Migratory Birds Convention Act

In accordance with the MBCA, vegetation removal will be avoided or delayed during the peak nesting season for breeding birds to protect the nests, eggs and young of migratory bird species from harm or destruction. To ensure that nesting birds are not disturbed, surveys for nests will be conducted prior to removal of vegetation (i.e., trees, shrubs and grasses) and building or structures that may house nests. These surveys will be conducted within 48 hours prior to the removal of the vegetation or structure.

9.4 Species Conservation Act

Suitable habitat for several species of endangered bats and Black Ash is present within the wetland and woodlands within the valley corridor. A single Black Ash was identified. No development or site alteration is proposed within this habitat and therefore no further action is required to address the SCA.

9.5 Provincial Planning Statement

The subject property contains PSW and significant woodland are present on the western portion of the property, outside of the proposed development limit. SWH may also be present within the protected features.

These features will be protected under the proposed development plan and will be afforded with vegetated buffers including plantings of native trees and shrubs as the project moves to detail design.

Black Ash is present on the subject property within the PSW and the forest and swamp communities may provide habitat for endangered bats. This habitat is being preserved and providing with a sufficient

buffer to protect and maintain its function. No other threatened or endangered species were recorded on the subject property.

There are no ANSIs or coastal wetlands present on or adjacent to the property.

9.6 County of Wellington Official Plan

The Irvine Creek PSW is located within the Core Greenlands designation and will be retained in full within the NHS. The wetland boundary was staked and confirmed by GRCA, in consultation with a Beacon MNR-certified wetland evaluator, and a 30 m buffer has generally been applied. The proposed development is located outside the PSW. Where stormwater management infrastructure and associated grading may encroach into the wetland buffer, the encroachment is limited to supporting required municipal servicing and stormwater management functions, and the outfall will be refined at detailed design to minimize disturbance and protect wetland hydrology and water quality.

The significant woodland identified on the subject property is located within the Greenlands designation and will also be retained within the NHS. A 10 m buffer has generally been applied to the woodland dripline, and a buffer planting plan is recommended to enhance the ecological function of the buffer using native trees and shrubs. These measures are intended to protect the woodland and its ecological functions from development-related impacts.

The proposed development also addresses County policies related to adjacent lands by evaluating the ecological functions of natural heritage features within and adjacent to the subject property.

The proposed development conforms with the County of Wellington Official Plan policies by avoiding development and site alteration within the Core Greenlands and Greenlands features identified on the subject property and by demonstrating, through this EIA, that the proposed development can proceed without negative impacts to these features or their ecological functions, subject to implementation of the recommended mitigation measures.

9.7 Conservation Authority Regulations and Policies

The Irvine Creek PSW is regulated by GRCA, and the regulated area continues both north and south of the subject property. The PSW was staked on June 12, 2026, with the GRCA and subsequently surveyed. A 30 m buffer has been applied to the wetland, with minor encroachment to accommodate the stormwater facility.

As the project moves to detailed design the outfall will be designed to minimize impacts to the feature and to ensure wetland hydrology is maintained.

10. Summary

Beacon conducted a background review and seasonally appropriate field investigations to prepare this EIA for the proposed residential and mixed-use development on the subject property. Beacon reviewed applicable natural heritage policies and regulations, characterized existing conditions, and assessed

natural heritage features and functions on and adjacent to the subject property. Field investigations included headwater drainage feature assessments, ecological land classification and floral inventory, breeding amphibian surveys, breeding bird surveys, wetland staking with GRCA staff, bat exit surveys, and incidental wildlife observations.

The proposed development is described in Section 6 and depicted on **Figure 4**. The development consists of a residential and mixed-use community that will accommodate a range of dwelling types, a public park, continuation of the public trail network, extension of the public road network, a mixed-use/commercial block, and a future school block. The impact assessment considered potential direct and indirect effects on natural heritage features, including vegetation and wildlife habitat removal, encroachment into buffers, potential changes to wetland hydrology and water quality, removal of headwater drainage features, anthropogenic effects on wildlife, and sediment and soil erosion during construction.

The proposed development has been designed to avoid direct development within the Irvine Creek PSW, significant woodland, associated Significant Wildlife Habitat, and Black Ash habitat. Buffers have generally been applied to protect these features and their ecological functions, including a 30 m buffer to the PSW and a 10 m buffer to the significant woodland dripline. Where limited encroachment into buffers is required to accommodate municipal servicing and stormwater management infrastructure, the design will be refined through detailed design to minimize disturbance, maintain wetland hydrology, and protect water quality.

To address potential impacts, this report recommends mitigation measures including protection of retained natural heritage features within the NHS, establishment and enhancement of vegetated buffers, preparation of a buffer planting plan, tree protection measures, timing restrictions for vegetation and structure removal to protect breeding birds and Barn Swallow, maintenance of wetland hydrology, directional lighting, fencing to limit encroachment, and erosion and sediment control measures during construction.

The subject property is within the GRCA regulated area due to the presence of the Irvine Creek PSW and its associated regulated area. Development or site alteration within regulated areas, including works associated with stormwater management infrastructure and adjacent lands, will require review by GRCA and may require a permit pursuant to *Ontario Regulation 41/24* under the *Conservation Authorities Act*.

With implementation of the recommended mitigation measures, detailed design refinements, consultation with the appropriate agencies, and issuance of permits or approvals where required, the proposed development plan achieves conformity with applicable natural heritage policies and legislation, including the Provincial Planning Statement, County of Wellington Official Plan, Township of Centre Wellington Official Plan, *Species Conservation Act*, *Migratory Birds Convention Act*, *Species at Risk Act*, *Fisheries Act*, and GRCA regulations and policies.

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Appendix A

Terms of Reference

May 8, 2026 BEL 226060

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Re: Terms of Reference for an Environmental Impact Assessment for the Proposed Development of 6582-6585 Highway 6, Centre Wellington, County of Centre Wellington

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Beacon Environmental Limited (Beacon) has been retained by Mr. James Krouse to complete an Environmental Impact Assessment (EIA) for the proposed development of the properties located 6582-6585 Highway 6, Township of Centre Wellington, County of Centre Wellington (herein referred to as the 'subject property'; **Figure 1**).

The purpose of this letter is to provide a draft Terms of Reference (TOR) for the EIA for review and approval by the Grand River Conservation Authority (GRCA) and the Township of Centre Wellington.

The subject property is approximately 29.2 ha (72.2 ac) in area, and consists of two (2) legal parcels, together forming a long rectangular parcel, spanning from Highway 6 to the east to Beatty Line to the west. The subject property is used generally for agricultural cultivation and is developed with a single-detached residential dwelling and accessory structures (including a barn) located relatively central to the property. The western portion of the property contains woodland and wetland communities that are part of the Natural Heritage System. Portions of the property are regulated by GRCA due to the presence of wetland.

The proposed development is that of a residential and mixed-use community, accommodating a mix of dwelling unit types and densities, including single detached dwellings, various forms of townhouses, and apartments. The development will also feature a new public park (0.82 ha), continuation of the public trail network, extension of the public road network, and a mixed-use/commercial block (2.19 ha) contemplated in the southeast corner of the subject property. It is anticipated that the development of the subject property will accommodate approximately 701 dwelling units. The subject property is also planned to accommodate a new school on a 4.85-hectare block in the northeast part of the subject property.

An EIA is required to demonstrate that the proposed development complies with applicable environmental legislation, policies and regulations of the province, municipality and GRCA and to ensure any potential impacts to the natural environment have been avoided or mitigated.

Beacon will prepare an EIS including the following key components:

- Background/Context;
- Identification of Natural Heritage Features and Functions;
- Impact Identification and Analysis;
- Response to Impacts; and
- Conclusion/Recommendations.

This TOR outlines the recommended workplan to complete the EIA, including field surveys and reporting requirements.

Environmental Impact Assessment

Background Review, Species at Risk Screening, and Policy Review

Existing information will be compiled for the area, including aerial photographs, area mapping, GRCA information, Natural Heritage Information Centre (NHIC) and any other relevant data that are available.

A desktop screening will be completed for Species at Risk (SAR) and potential Significant Wildlife Habitat through the review of background information including:

- Provincially tracked species layer (1 km grid LIO dataset);
- Ontario Reptile and Amphibian Atlas (ORAA);
- Ontario Breeding Bird Atlas (OBBA);
- eBird (via the eBird Hotspot online mapping);
- iNaturalist (via the Explore Observations online mapping):
- Atlas of the Mammals of Ontario (Dobbyn 1994);
- Natural Heritage Information Centre (NHIC) Data via the Make-A-Map application;
- Species at risk range maps (Government of Ontario); and
- Natural and physical feature layers (e.g. topographic, wetland, waterbody, watercourse data), LIO and Aquatic Resource Area (ARA) datasets.

The relevant environmental/natural heritage policies that may apply to the subject properties at a provincial and municipal level will be reviewed including the *Species Conservation Act* (2025; SCA), Provincial Policy Statement, Growth Plan for the Greater Golden Horseshoe, County of Wellington Official Plan, Centre Wellington Official Plan, and GRCA regulations and policies. Additionally, the federal *Fisheries Act* (1985) will be reviewed as it applies to the subject properties.

Field Investigations

The field program has been developed based on known environmental features, aerial imagery review, and our experience working within the Township of Centre Wellington's and GRCA's jurisdiction. Completing an EIA typically involved undertaking biological surveys of vegetation and wildlife to characterize the ecological features and functions and determine the significance of the features and their sensitivity to the proposed development. Typically, the presence of features such as woodlands and wetlands would require surveys for vegetation and an assessment of aquatic habitat.

The following work is proposed to be completed in 2026:

Breeding Amphibian Surveys (March – June)

The presence of wetland may provide breeding habitat for amphibians. Auditory surveys for breeding amphibians will be undertaken during the prime breeding period to record calling individuals to provide an indication of amphibian abundance during the breeding season. Three evening surveys during the breeding season will be completed to capture the short temporal peak for each species of interest. Surveys will follow the Marsh Monitoring Program protocol (Bird Studies Canada 2009).

Bat Exit Surveys (June - July)

Structures proposed for removal on the subject property may provide suitable habitat for endangered bats. If entry points are observed, acoustic monitoring will be required. This fieldwork will take place in June or July in accordance with current Ministry protocols.

Headwater Drainage Feature Assessment (April - August)

The Headwater Drainage Feature (HDF) Assessment module from the Ontario Stream Assessment Protocol (OSAP; Stanfield 2017) will be used to assess the drainage features on the property,to determine the presence/absence of regulated watercourses on the subject property. If watercourses are not present, subsequent visits will not be conducted.. On-site observations and measurements will be completed to determine the flow regime and function of regulated watercourses should they be present. Per the OSAP protocol, up to three field visits are required throughout the year from April – August to capture conditions ranging from the spring freshet to summer low flow.

The field survey will also include the assessment of habitat, riparian areas and will identify potential spawning, feeding and refuge areas. The significance and sensitivity of the features will be evaluated and mapped to assist with identifying design and mitigation options.

Breeding Bird Surveys (June)

Breeding bird surveys will be undertaken for the subject property to address the presence/absence of avian species, including Species at Risk. This will consist of two early morning roving surveys in which the entire site is walked to within 50 m of its edge and all representative habitats will be sampled. The site visits will be conducted at least one week apart in accordance with standard southern Ontario breeding bird survey protocols. An annotated species list will be compiled indicating local rarity, provincial breeding status (S-ranks), as well as any provincial and federal endangered and threatened species that might be encountered.

Ecological Land Classification and Floral Inventory (June - August)

Beacon will conduct vegetation surveys to confirm the vegetation communities on the subject property based on the Ecological Land Classification (ELC) system, which is the standard protocol for classifying vegetation communities in southern Ontario. A map of the vegetation communities will be prepared on an aerial photo of the subject property and pertinent information concerning the vegetation composition and structure of each community will be recorded. The presence of any wetland or woodland features associated with the subject property will be confirmed through these ELC surveys. A list of plant species

observed on the subject property will be compiled. If found, the locations of rare, threatened, or endangered species will be recorded.

Natural Feature Staking (June)

Natural features present on the subject property will need to be staked with the planning authority and/or GRCA to establish the feature limits on the subject property, which will inform the limits of development. This will need to be done during the growing season (June - September). A wetland staking will be required with GRCA to confirm the limits of the feature. Beacon will also use a handheld GPS to record the dripline of the woodland, the Township's peer review consultant will be invited to attend this staking.

Incidental Wildlife Observations (Ongoing April-August)

Incidental observations of herpetofauna, mammals, birds and insects will be undertaken concurrently with the field surveys identified above. The occurrence of these species will be noted for the subject property and will be recorded.

Data Analysis and Reporting

The EIA report will summarize the findings of the background review and field investigations, assess the function and significance of natural heritage features, evaluate impacts of the proposed development, recommend mitigation and enhancement opportunities, and assess conformity with provincial, regional, municipal and GRCA policies and regulations. The EIA will be prepared according to the following outline:

Introduction – This section of the report will include introductory remarks regarding the purpose and scope of the study, a general description of the site and the site location, and a brief description of the proposed development.

Policy Review – The report will include a summary of applicable provincial, municipal and conservation authority natural heritage policies and legislation, and their relevance to the property, including the Provincial Planning Statement, County of Wellington Official Plan, Township of Centre Wellington Official Plan and GRCA policies and regulations.

Methodology – This section of the report will include a description of the methods used to characterize the site's natural heritage features and functions. A list of background information sources consulted as well as details of all field work and assessments will be included.

Findings – The report will provide a detailed description of existing conditions based on the results of the background review and field investigations. We will characterize existing biophysical resources on the subject property, including wildlife and vegetation communities using available information from relevant background resources and field work.

Description of Proposed Development – This section of the report will provide a description and map of the proposed development.

Impact Assessment – This section will evaluate potential direct and indirect impacts of the proposed development on the natural heritage features and ecological functions on/adjacent to the subject property.

Mitigation and Enhancement Recommendations – This section of the report will recommend mitigation measures to prevent, minimize, or off-set any identified impacts to natural heritage features.

Policy Conformity - We will review the proposed development with respect to applicable, provincial, municipal and conservation authority policies and regulations.

We propose that the approach described above be used as Terms of Reference for the EIS. Should you have any comments or questions, or if the GRCA has an interest in visiting the subject property, please do not hesitate to contact the undersigned at (647) 637-7586 or kquinn@beaconenviro.com.

Prepared by:
Beacon Environmental Ltd.

Mark Wilush, B.Sc.,
Ecologist

Reviewed by:
Beacon Environmental Ltd.

Kristi Quinn, B.E.S, Cert. Env. Assessment. Principal,
Senior Environmental Planner

Site Location	Figure 1
6582-6585 Hwy 6, Centre Wellington	
BEACON ENVIRONMENTAL	Project: 226060 Last Revised: March 2026
Client:	Prepared by: BD Checked by: MW
N 1:8,300	Inset Map: 1:85,000

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Orthoimagery Baselayer: FBS Communities of Elora and Fegus (2018)

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Appendix B

Headwater Drainage Feature Photographic Reference

Photograph 1. HDF-1	View: SW
Date Taken: April 13, 2026	
Site: 226060	

Photograph 2. HDF-1	View: NE
Date Taken: May 28, 2026	
Site: 226060	

Photograph 3. HDF-2	View: NW
Date Taken: April 13, 2026	
Site: 226060	

Photograph 4. HDF-2	View: NW
Date Taken: May 28, 2026	
Site: 226060	

Appendix C

Flora List

Appendix C

Flora List

Scientific Name	English Name	Protected Species in Ontario List	SRank[a]	Wellington County Status[b]	Coefficient of Conservatism[c]	Coefficient of Wetness[d]
Acer negundo	Manitoba Maple	—	S5		0	0
Acer platanoides	Norway Maple	—	SE5		0	5
Acer rubrum	Red Maple	—	S5		4	0
Acer saccharum	Sugar Maple	—	S5		4	3
Acer x freemanii	Freeman's Maple	—	SNA		6	0
Actaea rubra	Red Baneberry	—	S5		6	3
Athyrium filix-femina var. angustum	Northeastern Lady Fern	—	S5	X	4	0
Betula alleghaniensis	Yellow Birch	—	S5	X	6	0
Betula papyrifera	Paper Birch	—	S5	X	2	3
Carex gracillima	Graceful Sedge	—	S5	X	4	3
Chelone glabra	White Turtlehead	—	S5	X	7	-5
Circaea canadensis	Broad-leaved Enchanter's Nightshade	—	S5	X	2	3
Clematis virginiana	Virginia Clematis	—	S5	X	3	0
Cornus sericea	Red-osier Dogwood	—	S5	X	2	-3
Equisetum arvense	Field Horsetail	—	S5	X	0	0
Erigeron philadelphicus	Philadelphia Fleabane	—	S5		1	-3
Eutrochium maculatum var. maculatum	Spotted Joe Pye Weed	—	S5	X	3	-5
Fraxinus nigra	Black Ash	END	S4	X	7	-3
Geranium robertianum	Herb-Robert	—	S5		2	3
Gymnocarpium dryopteris	Common Oak Fern	—	S5	X	7	3
Ilex verticillata	Common Winterberry	—	S5	X	5	-3
Juglans nigra	Black Walnut	—	S4?	X	5	3
Lactuca biennis	Tall Blue Lettuce	—	S5	X	6	0
Malus pumila	Common Apple	—	SE4		0	5
Onoclea sensibilis	Sensitive Fern	—	S5	X	4	-3
Picea abies	Norway Spruce	—	SE3		0	5
Picea glauca	White Spruce	—	S5	X	6	3
Picea pungens	Blue Spruce	—	SE1		0	3
Pinus strobus	Eastern White Pine	—	S5	X	4	3
Pinus sylvestris	Scots Pine	—	SE5		0	3
Populus balsamifera	Balsam Poplar	—	S5	X	4	-3
Populus deltoides	Eastern Cottonwood	—	S5		4	0
Populus grandidentata	Large-toothed Aspen	—	S5	X	5	3
Populus tremuloides	Trembling Aspen	—	S5	X	2	0
Prunus serotina	Black Cherry	—	S5	X	3	3
Prunus virginiana	Chokecherry	—	S5		2	3
Pteridium aquilinum ssp. latiusculum	Eastern Bracken Fern	—	S5	X	2	3
Ranunculus acris	Common Buttercup	—	SE5		0	0
Rhamnus cathartica	European Buckthorn	—	SE5		0	0
Rubus allegheniensis	Allegheny Blackberry	—	S5	X	2	3
Rubus idaeus ssp. strigosus	North American Red Raspberry	—	S5	X	2	3
Salix alba	White Willow	—	SE4		0	-3
Salix bebbiana	Bebb's Willow	—	S5	X	4	-3

Scientific Name	English Name	Protected Species in Ontario List	SRank[a]	Wellington County Status[b]	Coefficient of Conservatism[c]	Coefficient of Wetness[d]
Salix eriocephala	Cottony Willow	—	S5	X	4	-3
Sambucus canadensis	Common Elderberry	—	S5	X	5	-3
Solidago altissima	Tall Goldenrod	—	S5		1	3
Solidago canadensis	Canada Goldenrod	—	S5	X	1	3
Solidago gigantea	Giant Goldenrod	—	S5	X	4	-3
Sorbus aucuparia	European Mountain-ash	—	SE4		0	5
Symphyotrichum puniceum	Purple-stemmed Aster	—	S5		6	-5
Symplocarpus foetidus	Eastern Skunk Cabbage	—	S5	R	7	-5
Thuja occidentalis	Eastern White Cedar	—	S5	X	4	-3
Tiarella cordifolia	Heart-leaved Foamflower	—	S5	X	6	3
Tilia americana	Basswood	—	S5	X	4	3
Trillium erectum	Red Trillium	—	S5	X	6	3
Typha latifolia	Broad-leaved Cattail	—	S5	X	1	-5
Ulmus americana	White Elm	—	S5	X	3	-3
Viola pubescens	Yellow Violet	—	S5	X	5	3
Vitis riparia	Riverbank Grape	—	S5	X	0	0

***** — Record from iNaturalist.

a — S-Rank (from Natural Heritage Information Centre) for provincial rarity status: S1 (Extremely Rare), S2 (Very Rare), S3 (Rare to Uncommon) (S4 (Common), S5 (Very Common) SNA (Not applicable…'because the species is not a suitable target for conservation activities'; includes non-native species)

b — Anderson and Frank. 2004. Flora of Wellington County

c,d — Oldham, M.J., W.D. Bakowsky, and D.A. Sutherland. 1995. Floristic Quality Assessment System for Southern Ontario. Natural Heritage Information Centre, Ontario ministry of Natural Resources, Peterborough, Ontario, Canada

Appendix D

Breeding Birds

Appendix D

Significant Wildlife Habitat

Common Name	Scientific Name	Status				# Breeding Pairs or Territories
		National Species at Risk COSEWIC*	COSSARO Listing**	Provincial breeding season SRANK***	Area-sensitive (OMNR)‡	
Mourning Dove	*Zenaida macroura*			S5		2
Killdeer	*Charadrius vociferus*			S4		1
Belted Kingfisher	*Megaceryle alcyon*			S5		1
Northern Flicker	*Colaptes auratus*			S5		1
Eastern Phoebe	*Sayornis phoebe*			S5		1
Red-eyed Vireo	*Vireo olivaceus*			S5		1
Blue Jay	*Cyanocitta cristata*			S5		1
American Crow	*Corvus brachyrhynchos*			S5		1
Tree Swallow	*Tachycineta bicolor*			S4		1
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*			S4		1
Barn Swallow	*Hirundo rustica*	SC*	SC	S4		1
Black-capped Chickadee	*Poecile atricapillus*			S5		1
Northern House Wren	*Troglodytes aedon*			S5		1
American Robin	*Turdus migratorius*			S5		8
European Starling	*Sturnus vulgaris*			SNA		3
Cedar Waxwing	*Bombycilla cedrorum*			S5		1
House Sparrow	*Passer domesticus*			SNA		1
House Finch	*Haemorhous mexicanus*			SNA		1
American Goldfinch	*Spinus tristis*			S5		3
Chipping Sparrow	*Spizella passerina*			S5		4
Savannah Sparrow	*Passerculus sandwichensis*			S5	A	7
Song Sparrow	*Melospiza melodia*			S5		10
Red-winged Blackbird	*Agelaius phoeniceus*			S5		7
Brown-headed Cowbird	*Molothrus ater*			S5		1

Common Name	Scientific Name	Status				# Breeding Pairs or Territories
		National Species at Risk COSEWIC*	COSSARO Listing**	Provincial breeding season SRANK***	Area-sensitive (OMNR)‡	
Common Grackle	*Quiscalus quiscula*			S5		2
Mourning Warbler	*Geothlypis philadelphia*			S5		1
Northern Cardinal	*Cardinalis cardinalis*			S5		1
Rose-breasted Grosbeak	*Pheucticus ludovicianus*			S5		1
Indigo Bunting	*Passerina cyanea*			S5		1

Field Work Conducted On: June 9 and June 26, 2026
Number of Species: 29 (all presumed breeding)
Number of (provincial and national) Species at Risk: 1
Number of S1 to S3 Species: 0
Number of Regionally Rare Species:
Number of Area-sensitive Species: 1

Appendix E

Significant Wildlife Habitat

Appendix E

Significant Wildlife Habitat

Wildlife Habitat Category	Presence or Absence on Subject Property Based on MNR Criteria for Ecoregion 6E	
	Absence	Presence
Seasonal Concentration Areas for Wildlife Species		
Waterfowl Stopover and Staging Areas (Terrestrial)	No suitable habitat identified on the subject property	
Waterfowl Stopover and Staging Areas (Aquatic)	No suitable habitat identified on the subject property.	
Shorebird Migratory Stopover Area	No suitable habitat identified on the subject property	
Raptor Wintering Area	No suitable habitat identified on the subject property	
Bat Hibernacula	No suitable habitat identified on the subject property	
Bat Maternity Colonies		Presumed present within the woodland community (i.e., PSW) on the subject property.
Turtle Wintering Areas	No suitable habitat identified on the subject property.	
Reptile Hibernaculum	No suitable habitat identified on the subject property	
Colonially-Nesting Bird Breeding Habitat (Bank and Cliff)	No suitable habitat identified on the subject property	
Colonially-Nesting Bird Breeding Habitat (Tree/Shrubs)	No suitable habitat identified on the subject property	
Colonially-Nesting Bird Breeding Habitat (Ground)	No suitable habitat identified on the subject property	
Migratory Butterfly Stopover Areas	No suitable habitat identified on the subject property	
Land bird Migratory Stopover Areas	No suitable habitat identified on the subject property	
Deer Yarding Areas	No suitable habitat identified on the subject property	
Deer Winter Congregation Areas	No suitable habitat identified on the subject property.	
Rare Vegetation Communities		
Cliffs and Talus Slopes	Does not occur on the subject property	
Sand Barren	Does not occur on the subject property	
Alvar	Does not occur on the subject property	
Old Growth Forest	Does not occur on the subject property	
Tallgrass Prairie	Does not occur on the subject property	
Savannah	Does not occur on the subject property	
Provincially Rare S1, S2 and S3 vegetation communities	Does not occur on the subject property	

Wildlife Habitat Category	Presence or Absence on Subject Property Based on MNR Criteria for Ecoregion 6E	
	Absence	Presence
Regionally or Locally Rare vegetation communities	Does not occur on the subject property	
Specialized Habitats of Wildlife		
Waterfowl Nesting Area	No suitable habitat identified on the subject property	
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	No suitable habitat identified on the subject property	
Woodland Raptor Nesting Habitat		Presumed present within the woodland community (i.e., PSW) on the subject property.
Turtle Nesting Areas	No suitable habitat identified on the subject property	
Seeps and Springs	No suitable habitat identified on the subject property	
Amphibian Breeding Habitat (Woodland)	No suitable habitat identified on the subject property	
Amphibian Breeding Habitat (Wetlands)	No suitable habitat identified on the subject property	
Woodland Area-Sensitive Bird Breeding Habitat	No suitable habitat identified on the subject property.	
Habitats of Species of Conservation Concern		
Marsh Bird Breeding Habitat	Suitable habitat is present on the subject property within the marsh communities; however, no marsh species were recorded during bird surveys.	
Open Country Bird Breeding Habitat	No suitable habitat identified on the subject property.	
Shrub/Early Successional Bird Breeding Habitat	Suitable habitat is present on the subject property, however it does not meet the size criteria threshold and indicator species were not recorded.	
Terrestrial Crayfish	No terrestrial crayfish were observed during the vegetation community survey or aquatic habitat survey.	
Special Concern and Rare Wildlife Species		Barn Swallow, are assessed as Special Concern (SC) by COSSARO, and were observed in association with the barn on the subject property. No other SC or rare species were observed.
Animal Movement Corridors		
Amphibian Movement Corridors	Suitable habitat is present on the subject property within the marsh communities; seasonal surveys confirmed breeding amphibians are not present at recommended criteria thresholds.	
Deer Movement Corridors	As deer wintering habitat is not present on the subject property, deer movement corridors are not present.	