TOWN OF CALEDON
PLANNING
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Environmental Impact Study/ Natural Heritage Evaluation 12434 Dixie Road Town of Caledon

Prepared For:

Nishan GTA Inc.

Prepared By:

Beacon Environmental Limited

Date:	*Project:*
2026-08-12	**220196**

BEACON ENVIRONMENTAL

GUIDING SOLUTIONS IN THE NATURAL ENVIRONMENT

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Report Versions Issued

Version	Date	Revisions
1.	March 2021	First submission
2.	August 2026	Updated to reflect changes in policy, existing conditions, and the new site plan

1. Introduction

Beacon Environmental Limited (Beacon) has been retained by Nishan GTA Inc. to prepare an Environmental Impact Study (EIS)/Natural Heritage Evaluation (NHE) as a requirement for a proposed development located at 12434 Dixie Road the Town of Caledon, Regional Municipality of Peel (hereafter referred to as the "subject property". The location of the subject property is illustrated in **Figure 1**.

An EIS/NHE was previously prepared by Beacon in 2021, which as submitted with a temporary use application to use the subject property for commercial vehicle storage for three years. This report is an update to the previous EIS/NHE submission, which is required as part of an application for the proposed permanent land use, which is to develop a commercial vehicle cross-dock facility on the subject property.

The subject property is an irregularly shaped parcel of land encompassing an area of approximately 10.7 ha. The subject property currently contains a residence and accessory outbuildings and a gravel parking lot for commercial vehicles. A tributary of the West Humber River, known as Kilmanagh Creek, traverses the subject property at the northeast corner and a woodland is present adjacent to the southwestern corner of the of the subject property.

A portion of the subject property falls within the Natural Heritage System (NHS) of the Greenbelt Plan (2017), which encompasses the Kilmanagh Creek valleyland and adjacent areas of tableland previously used for agriculture, but is no longer farmed. The area of the subject property that is within the Greenbelt NHS is further divided into "Natural Features and Areas" and "Agriculture Area and Rural Lands" in Schedule B1 of the Town's Official Plan (OP). The area of the subject property corresponding with "Agricultural Area and Rural Lands" is further identified as "Prime Agricultural Area" in Schedule B4 of the Town's OP. The portion of the subject property that is outside the Greenbelt Plan area is within the Urban Area of Town of Caledon and designed New Employment Area in Schedule B1 of Town of Caledon's OP (2025). A portion of the subject property associated with Kilmanagh Creek is regulated by the Toronto and Region Conservation Authority (TRCA), based on the presence of natural hazards.

The Town of Caledon OP (2025) and the Peel Region Official Plan (ROP; 2022) include policies that require an EIS/NHE be prepared to assess the potential impacts of a development proposal within proximity to natural heritage features. An EIS is typically required for lands outside the Greenbelt Plan area and NHE is required for lands within the Greenbelt Plan area, yet they serve the same purpose, which is to:

- Identify and characterize the natural heritage and hydrological features associated with the subject property and adjacent lands based on background information and site-specific field investigations;
- Assess the potential direct or indirect impacts of development on ecological/hydrological features and functions;
- Recommend appropriate mitigation measures to avoid, minimize, or off-set/compensate for impacts; and
- Assess conformity with applicable federal, provincial, and municipal natural heritage polices and regulations.

Terms of Reference (TOR) the EIS/NHE, were established in consultation with TRCA in 2020. A record or correspondence is included in **Appendix A**.

The EIS/NHE was originally submitted in March 2021. This report is an update to the previous EIS/NHE submission, which addresses changes to the proposed development, agency comments on the first submission, and policy and legislative changes that have occurred since first submission.

A meeting was held with the Town's Environmental Planner, Jason Elliott, on May 12, 2026 to discuss the project. During this meeting it was confirmed that the previous field work completed for the original EIS/NHE could be relied on for this updated EIS/NHE. The Town advised that TRCA be contacted to confirm if regulated features such as the top of valley slope required re-staking. TRCA confirmed that the previously staked line was acceptable (pers. comm. Andrea Terella, July 29, 2026).

2. Policy Review

The following policy documents were reviewed with respect to natural heritage features on the subject property in order to determine the applicable policy framework.

2.1 Federal *Fisheries Act* (1985)

All fish habitat is protected under the Federal *Fisheries Act* (1985). In Ontario, Fisheries and Oceans Canada (DFO) manages fish habitat and the Ministry of Natural Resources (MNR) manages fisheries.

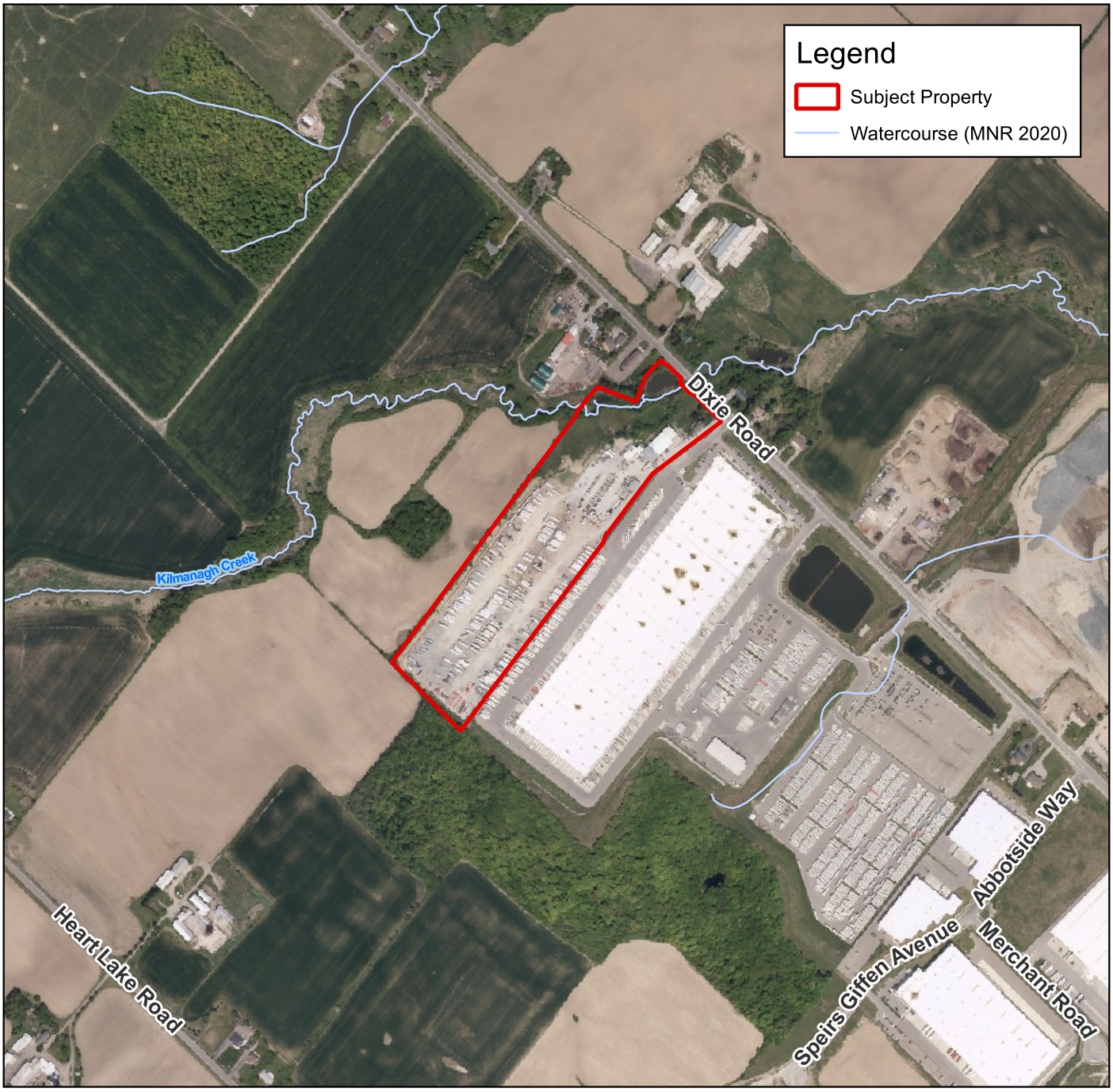
The *Fisheries Act* defines fish habitat as:

> *Water frequented by fish and any other areas on which fish depend directly or indirectly to carry out their life processes, including spawning grounds and nursery, rearing, food supply and migration areas.*

The protection provisions of the *Fisheries Act* apply to all fish and fish habitat throughout Canada, and the Act sets out authorities for the regulation of works, undertakings or activities that risk harming fish and fish habitat. Specifically, the protection provisions include two core prohibitions. One is against persons carrying on works, undertakings or activities that result in the "death of fish by means other than fishing" (subsection 34.4[1]), and the other is "harmful alteration, disruption or destruction of fish habitat" (subsection 35[1]; also referred to as "HADD"). The protection provisions are applied in conjunction with other applicable federal laws and regulations related to aquatic ecosystems, including the federal *Species at Risk Act* (SARA).

Proponents are responsible for planning and implementing works, undertakings or activities in a manner that avoids harmful impacts, specifically the death of fish and HADD. Where proponents believe that their work, undertaking or activity will result in harmful impacts to fish and fish habitat, DFO will work with proponents to assess the risk of their proposed work, undertaking or activity resulting in the death of fish or HADD of fish habitat and provide advice and guidance on how to comply with the *Fisheries Act.*

Development activities taking place in or near water may affect fisheries by adversely affecting fish or fish habitat. DFO recommends that proponents of these activities should:





Site Location	Figure 1
12434 Dixie Road, Caledon	
BEACON ENVIRONMENTAL	Project: 220196 Last Revised: April 2026
Client: Nishan Transport Inc.	Prepared by: BD Checked by: AP DRAFT
N	1:10,000 — Inset Map: 1:70,000

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C:\ODB\OneDrive - Beacon Environmental\GeoSpatial\Geo Projects\2020\220196 12434 Dixie Road & 12451 & 12577 Airport Road EIS\Q Project Files\2020-06-05 - 12434 Dixie Road EIS - 220196.qgz

- Understand the types of impacts their projects are likely to cause;
- Take measures to avoid and mitigate impacts to the extent possible; and
- Request authorization from the Minister and abide by the conditions of any such authorization, when it is not possible to avoid and mitigate impacts of projects that are likely to cause serious harm to fish.

2.2 Federal *Species at Risk Act* (2002)

The federal 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 largely relies on provincial laws to protect federal SAR habitat. On private land, SARA prohibitions apply to birds to the extent that the *Migratory Birds Convention Act* (MBCA; 1994) applies, as well as aquatic/fish species protected under the Federal *Fisheries Act*.

It is our understanding that Kilmanagh is considered critical habitat for Redside Dace (*Clinostomus elongatus*). In July 2024, DFO finalized the "*Recovery Strategy and Action Plan for the Redside in Canada*", which identified meander belt plus 30 m as regulated habitat for Redside Dace. An order under SARA to regulate this critical habitat under SARA was made in January 2025.

2.1 *Migratory Birds Convention Act* (1994)

The federal MBCA (1994) protects the nests, eggs, and young of most bird species from harassment, harm, or destruction. Generally, this means that clearing of vegetation or removal of other nesting habitats should be avoided during the breeding bird season. Environment Canada considers the general nesting period I of breeding birds in nesting zone C2 to be between early April and Late August; therefore, vegetation clearing should generally be undertaken between September 1 and March 31.

The exception to the general nesting period is for species that re-use their nests and are listed on Schedule 1 of the Migratory Birds Regulations, such as Pileated Woodpecker (*Dryocopus pileatus*). To remove the nest of a Schedule 1 species, the nest must be documented to be unoccupied for a defined period or a permit must be obtained.

The nests of species regulated under SARA that do not re-use nests, such as Bobolink (*Dolichonyx oryzivorus*) or Eastern Meadowlark (*Sturnella magna*), do not receive protection when they are not in use (e.g., in winter). Under SARA, these species are only protected insofar as they are protected by the MBCA, which is only when the habitat is occupied (with exceptions for some species that are considered to have defined "residences").

2.2 Ontario *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.*

Ontario Regulation (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 legislation (i.e., SARA, *Fisheries Act*).

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.

2.3 Provincial Planning Statement (2024)

The Provincial Planning Statement (PPS; 2024) provides policy direction to municipalities on matters of provincial interest as they relate to land use planning and development. The PPS provides for appropriate land use planning and development while protecting Ontario's natural heritage. Development governed by the *Planning Act* must be consistent with the policy statements issued under the PPS. These are outlined in Section 4.1 - Natural Heritage, Section 4.2 – Water, and Section 5.2 - Natural Hazards of the PPS, and relevant sections from each are provided in the following pages.

The PPS includes policies that speak to the identification and protection of natural heritage systems, as well as levels of protection for the various components that comprise such systems. Some of these features are present in the Study Area and must be assessed in the context of these policies.

The policies specific to natural heritage are found in Section 4.1 of the PPS and are provided in their entirety below:

1 Natural features and areas shall be protected for the long term;

2 The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features;

3 Natural heritage systems shall be identified in Ecoregions 6E & 7E, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas;

4. Development and site alteration shall not be permitted in:

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

b. Significant coastal wetlands;

5 Development and site alteration shall not be permitted in:

a. Significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;

b. Significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);

c. Significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);

d. Significant wildlife habitat;

e. Significant areas of natural and scientific interest; and

f. Coastal wetlands in Ecoregions 5E, 6E and 7E that are not subject to policy 4.1.4(b).

Unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

6 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements;

7 Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements;

8 Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 4.1.4, 4.1.5 and 4.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions; and

9 Nothing in policy 2.1 is intended to limit the ability of agricultural uses to continue.

Section 4.2 of the PPS pertains to protection of water resources. Key polices are outlined below:

1. *Planning authorities shall protect, improve or restore the quality and quantity of water by:*
   a. *Using the watershed as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development;*
   b. *Minimizing potential negative impacts, including cross-jurisdictional and cross-watershed impacts;*
   c. *Identifying water resource systems;*
   d. *Maintaining linkages and functions of water resource systems;*
   e. *Implementing necessary restrictions on development and site alteration to:*
      1. *Protect all municipal drinking water supplies and designated vulnerable areas; and*
      2. *Protect, improve or restore vulnerable surface and ground water, and their hydrologic functions;*
   f. *planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality; and*
   g. *ensuring consideration of environmental lake capacity, where applicable;*
2. *Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored, which may require mitigative measures and/or alternative development approaches.*

Section 5.2 of the PPS pertains to natural hazards. Relevant policies are as follows:

1. *Planning authorities shall, in collaboration with conservation authorities where they exist, identify hazardous lands and hazardous sites and manage development in these areas, in accordance with provincial guidance;*
2. *Development shall generally be directed to areas outside of:*
   a. *Hazardous lands adjacent to the shorelines of the Great Lakes - St. Lawrence River System and large inland lakes which are impacted by flooding hazards, erosion hazards and/or dynamic beach hazards;*
   b. *Hazardous lands adjacent to river, stream and small inland lake systems which are impacted by flooding hazards and/or erosion hazards; and*
   c. *Hazardous sites;*
3. *Development and site alteration shall not be permitted within:*
   a. *The dynamic beach hazard;*
   b. *Defined portions of the flooding hazard along connecting channels (the St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers);*
   c. *Areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development and the natural hazard; and*
   d. *Floodway regardless of whether the area of inundation contains high points of land not subject to flooding.*

In general, Conservation Authorities are the delegated agency responsible for regulating development in relation to natural hazards.

2.4 Greenbelt Plan (2017)

Portions of the subject property overlap with the Natural System of the Protected Countryside of the Greenbelt Plan (2017).

The Greenbelt Plan (2017) identifies Protected Countryside lands within the Greenbelt Plan Area, which is made up of Agricultural System and a Natural System, with a series of settlement areas. The Agricultural System has two components, the agricultural land base and rural lands. The Natural System includes lands that support key natural heritage features (KNHF) and key hydrologic features (KHF) and adjacent lands.

KNHFs include:

- Habitat of endangered species and threatened species;
- Fish habitat;
- Wetlands;
- Life science areas of natural and scientific interest (ANSIs);
- Significant valleylands;
- Significant woodlands;
- Significant wildlife habitat (SWH; including habitat of special concern species);
- Sand barrens, savannahs and tallgrass prairies; and
- Alvars.

KHFs include:

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

Generally, development or site alteration is not permitted in KNHFs and KHFs within the Natural Heritage System, including any associated vegetation protection zone (VPZ), unless exemptions within the Greenbelt Plan apply. In the case of wetlands, seepage areas and springs, fish habitat, permanent and intermittent streams, lakes, and significant woodlands, the minimum VPZ is 30 m measured from the outside boundary of the feature.

A proposal for new development or site alteration within 120 metres of a KNHF in the NHS or a KHF anywhere within the Protected Countryside requires a natural heritage evaluation or a hydrological evaluation which identifies a vegetation protection zone which:

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

According to Section 3.2.2. of the Greenbelt Plan, the following polices apply to lands within the NHS of the Protected Countryside:

1. *The full range of existing and new agricultural, agriculture-related and on-farm diversified uses and normal farm practices are permitted subject to the policies of section 3.2.2.2;*
2. *New buildings or structures for agriculture, agriculture-related and on-farm diversified uses are not subject to the policies of section 3.2.2.3, but are subject to the policies of section 3.2.5;*
3. *New development or site alteration in the Natural Heritage System (as permitted by the policies of this Plan) shall demonstrate that:*
    a) *There will be no negative impacts on key natural heritage features or key hydrologic features or their functions;*
    b) *Connectivity along the system and between key natural heritage features and key hydrologic features located within 240 metres of each other will be maintained or, where possible, enhanced for the movement of native plants and animals across the landscape;*
    c) *The removal of other natural features not identified as key natural heritage features and key hydrologic features should be avoided. Such features should be incorporated into the planning and design of the proposed use wherever possible;*
    d) *Except for uses described in and governed by the policies of sections 4.1.2* [Recreational Use Polices] *and 4.3.2* [Non-Renewable Resource Policies]*:*
        i. *The disturbed area, including any buildings and structures, of the total developable area will not exceed 25 per cent (40 per cent for golf courses); and*
        ii. *The impervious surface of the total developable area will not exceed 10 per cent; and*

e) *At least 30 per cent of the total developable area will remain or be returned to natural self-sustaining vegetation, recognizing that section 4.3.2 establishes specific standards for the uses described there.*

2.5 Regional Municipality of Peel Official Plan (2022)

As per Ontario Bill 23 *(More Homes Built Faster Act, 2022)* and Bill 185 *(Cutting Red Tape to Build More Homes Act, 2024)*, the ROP, as of July 1, 2024, constitutes an official plan of Peel's lower-tier municipalities of Brampton, Caledon, and Mississauga. As such, the Town of Caledon is responsible for implementation of the ROP. Where the Region of Peel was previously required to be the approval authority for certain Official Plan reviews and amendments under the *Planning Act*, the Province is now become the approval authority.

The ROP (2022) contains policies aimed at protecting, maintaining, and restoring a Greenlands System consisting of "Core Areas", "Natural Areas and Corridors (NAC)", and "Potential Natural Areas and Corridors (PNAC)". Key elements of the Region's Greenlands System include the following:

- Areas of Natural and Scientific Interest (ANSI);
- Environmentally Sensitive or Significant Areas (ESA);
- Escarpment Natural Areas;
- Escarpment Protection Areas;
- Fish and wildlife habitat;
- Habitats of threatened and endangered species;
- Wetlands;

- Woodlands;
- Valley and stream corridors;
- Shorelines;
- Natural lakes;
- Natural corridors;
- Groundwater recharge and discharge areas;
- Open space portions of the Parkway Belt West Plan; and
- Other natural features and functional areas.

The above key elements are to be interpreted, identified, and protected in accordance with the policies of the ROP.

2.5.1 Core Areas

Core Areas represent those features and areas that are considered to be significant at the provincial and regional levels. They generally correspond with significant features and areas listed in the PPS and include:

- Significant Wetlands;
- Significant Coastal Wetlands;
- Core Woodlands;
- Environmentally Sensitive or Significant Areas;
- Provincial Life Science ANSI;
- Significant Habitat of Threatened and Endangered Species;
- Escarpment Natural Areas of the Niagara Escarpment Plan; and
- Core Valley and Stream Corridors.

Core Areas of the Greenlands System are mapped on Schedule A of the ROP. Criteria for identifying additional core features of the Greenlands System are provided in the ROP.

Policy 2.3.2.6 prohibits development and site alteration within the Core Areas of the Greenlands System in Peel except for:

- Forest, fish, and wildlife management;
- Conservation and flood or erosion control projects, but only if they have been demonstrated to be necessary in the public interest and after all reasonable alternatives have been considered;
- Essential infrastructure exempted, pre-approved or authorized under an environmental assessment process;
- Passive recreation;
- Minor development and minor site alteration;
- Existing uses, buildings, or structures;
- Expansions to existing buildings or structures;
- Accessory uses, buildings, or structures; and
- A new single residential dwelling on an existing lot of record, provided that the dwelling would have been permitted by the applicable planning legislation or zoning by-law on May 23, 2014. A new dwelling built after May 23, 2014 in accordance with this policy shall be deemed

to be an existing building or structure for the purposes of the exceptions permitted in clauses g) and h) above.

The above noted exceptions are permitted provided that:

a) the exceptions are permitted in accordance with the policies in an approved local municipal official plan or the Niagara Escarpment Plan, where applicable;
b) any development and site alteration will not be permitted unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions and that:
i. there is no reasonable alternative location outside of the Core Area and the use, development or site alteration is directed away from the Core Area to the greatest extent possible;
ii. if avoidance of the Core Area is not possible, the impact to the Core Area feature is minimized;
iii. any impact to the Core Area or its functions is mitigated through restoration or enhancement to the greatest extent possible; and
iv. where ecosystem compensation is determined to be appropriate and feasible, including for essential infrastructure, it may be considered in accordance with local municipal or conservation authority ecosystem compensation guidelines.; and
c) within significant wetlands and significant coastal wetlands the above exceptions may only be considered in accordance with federal and provincial legislation, regulations and policies (e.g. Conservation Authorities Act); and
d) when developing policies to allow the exceptions, the local municipalities may consider appropriate implementation tools including existing approval requirements and tools of other agencies

2.5.2 Natural Areas and Corridors (NAC) and Potential Natural Areas and Corridors (PNAC)

NAC include:

- Evaluated non-provincially significant wetlands;
- Woodlands meeting one or more of the criteria in Table 1 of the ROP;
- Significant wildlife habitat meeting one or more of the criteria in the Ministry of Natural Resource's (MNR) Significant Wildlife Habitat Technical Guide and associated Criteria Schedules for Ecoregions 6E and 7E;
- Fish habitat;
- Regionally significant life science ANSI;
- Provincially significant earth science ANSI;
- Escarpment Protection Areas of the Niagara Escarpment Plan;
- The Lake Ontario shoreline and littoral zone and other natural lakes and their shorelines;
- Any other valley and stream corridors that have not been defined as part of the Core Areas;
- Sensitive headwater areas and sensitive ground water discharge areas; and
- Any other natural features and functional areas interpreted as part of the Greenlands System Natural Areas and Corridors by the local municipalities, in consultation with the conservation authorities and the MNR, including, as appropriate, elements of the Potential Natural Areas and Corridors.

PNAC include:

- Unevaluated wetlands and coastal wetlands;
- Cultural woodlands and cultural savannahs within the Urban System and Rural Service Centres meeting one or more of the criteria in Table 1 of the ROP;
- Any other woodlands greater than 0.5 hectares;
- Regionally significant earth science ANSI;
- Sensitive groundwater recharge areas;
- Portions of Historic shorelines;
- Open space portions of the Parkway Belt West Plan Area;
- Potential ESAs identified as such by the conservation authorities; and
- Any other natural features and functional areas interpreted as part of the Greenlands System Potential Natural Areas and Corridors, by the individual area municipalities in consultation with the conservation authorities.

NAC's and PNAC's represent natural features and areas that are considered locally significant. NAC's and PNAC's are considered locally important. Regional policies pertaining to NAC's and PNAC's defer their interpretation, protection, restoration, enhancement, proper management, and stewardship to local municipalities.

The Kilmanagh Creek valleyland and the woodland on adjacent lands to the west of the subject property are identified as a core areas of the Region's Greenlands as illustrated in OP Schedule C-2.

2.6 Town of Caledon Official Plan (2025)

Part D, Chapter 13 of the Town's OP pertains to the Natural Environment System (NES). The policies contained within this chapter are intended to promote a systems approach to identify, protect, enhance, and restore the NES. The policies apply to recognized, potential, and unidentified components of the NES.

The Town's NES is made up of:

- *Core Areas of the Greenlands System as identified and protected in the Region of Peel Official Plan, and which are designated Natural Features and Areas by this Plan;*
- *Natural Areas and Corridors and Potential Natural Areas and Corridors of the Greenlands System as identified and protected in the Region of Peel Official Plan, and which are designated Supporting Features and Areas by this Plan;*
- *The Greenbelt Plan Natural Heritage System;*
- *The Greenbelt Plan Urban River Valleys;*
- *The Natural Heritage System for the Growth Plan;*
- *The Natural Core Area and Natural Linkage Area designations within the Oak Ridges Moraine Conservation Plan;*
- *The Escarpment Natural Area and Escarpment Protection Area designations within the Niagara Escarpment Plan;*
- *Provincially significant Earth Science Areas of Natural and Scientific Interest;*
- *Regionally significant Earth Science Areas of Natural and Scientific Interest; and*

- *The water resource system which includes permanent and intermittent streams, wetlands, seepage areas and springs, kettle lakes, highly vulnerable aquifers and significant groundwater recharge areas and Areas of High and Low Aquifer Vulnerability within the Oak Ridges Moraine Conservation Plan Area.*

Section 13.3 and 13.4 contain the policies that apply to Natural Features and Areas and Supporting Features and Areas. A proposal for new development or site alteration adjacent to a feature in the Natural Features and Areas or Supporting Features and Areas overlay designation outside of the Greenbelt will require an EIS and/or hydrological evaluation to determine that there will be no negative impacts on the feature or their ecological function and/or hydrological functions.

Section 13.11 contains the policies that apply to the water resources system. As per Section 13.11.1,

> *The water resource system includes the following key hydrological areas, key hydrological features, and other components:*
>
> *a) Aquifers and unsaturated zones;*
> *b) Areas of high aquifer vulnerability;*
> *c) Groundwater recharge and discharge areas;*
> *d) Highly vulnerable aquifers;*
> *e) Lakes and kettle lakes;*
> *f) Permanent and intermittent streams;*
> *g) Seepage areas and springs;*
> *h) Significant groundwater recharge areas;*
> *i) Significant surface water contribution areas;*
> *j) Water tables; and*
> *k) Wetlands.*

As per Section 13.11.2,

> *Development or site alteration will not be permitted in the water resource system unless it can be demonstrated, to the satisfaction of the Town and relevant approval authorities, that it will not have negative impacts on:*
>
> *a) The quantity and quality of water in key hydrological areas, key hydrological features, sensitive surface water features, and sensitive groundwater features;*
> *b) The hydrological functions of key hydrological areas, key hydrological features, sensitive surface water features, and sensitive groundwater features;*
> *c) The interaction and linkage between key hydrological areas, key hydrological features, sensitive surface water features, and sensitive groundwater features and other components of the Natural Environment System;*
> *d) The natural hydrological characteristics of watercourses such as base flow, form and function, and headwater drainage areas;*
> *e) Natural drainage systems and shorelines areas; and*
> *f) Flooding or erosion.*

As per Section 13.5.2, new development or site alteration within the Greenbelt Plan NHS must demonstrate that:

a) *There are no negative impacts on key natural heritage features or key hydrologic features or their functions, to the satisfaction of the Town;*
b) *Connectivity along the system and between key natural heritage features and key hydrologic features located within 240 metres of each other will be maintained or, where possible, enhanced for the movement of native plants and animals across the landscape;*
c) *The removal of other natural features not identified as key natural heritage features and key hydrologic features is avoided, where possible. Such features should be incorporated into the planning and design of the proposed use wherever possible;*
d) *Except for uses described in and governed by the policies in Chapter 20, Mineral Aggregate Resources (to be added through a future phase of the Official Plan Review as noted in Part A, Section 1.2), the disturbed area, including any buildings and structures, will not exceed 25 percent of the total developable area, and the impervious surface will not exceed 10 percent of the total developable area;*
e) *With respect to golf courses, the disturbed area will not exceed 40 percent of the total developable area; and*
f) *At least 30 percent of the total developable area will remain or be returned to natural self-sustaining vegetation, except where specified in accordance with the policies in Chapter 20, Mineral Aggregate Resources (to be added through a future phase of the Official Plan Review as noted in Part A, Section 1.2).*

The Kilmanagh Creek valleyland is a key feature of the Greenbelt NHS and is identified as a "Natural Feature and Area" in Schedules B1 and B4 of the Town's OP. A woodland abutting the subject property on adjacent lands to west is part of the Mayfield West Secondary Plan, in which it is identified as an Environmental Policy Area, a designation which was used in the Town's former OP. The subject property is outside the Mayfield West Secondary Plan and not subject to those polices.

2.7 *Conservation Authorities Act* and Associated TRCA Policies

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 TRCA.

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

The TRCA 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 subject property is regulated by TRCA due to the presence of wetlands and watercourses. These features are regulated as they relate to natural hazards and flood attenuation. Any development or site alteration adjacent or within regulated features may trigger the need for a permit.

The *Living City Policies for Planning and Development in the Watersheds of the TRCA* (LCP) was enacted in 2014. These policies were written to support the former regulation (O. Reg. 166/06) which is no longer in force; therefore, the natural heritage policies are no longer applicable.; however, policies related to natural hazards and wetlands will be address where appropriate. Section 8 of the LCP contain policies concerning development and interference with wetlands and alterations to shorelines and watercourses. Generally, the polices direct development away from these regulated features. The subject property contains natural hazards (floodplain, valley slope) and wetlands that are regulated by TRCA.

3. Methodology

Beacon completed a review of background information and visited the subject property to characterize the natural heritage resources and functions on and adjacent to the subject property. The information sources reviewed and surveys undertaken are summarized below.

3.1 Background Review

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

- Provincial Planning Statement (2024);
- Region of Peel Official Plan (2022);
- Town of Caledon Official Plan (2024);
- Toronto and Region Conservation Authority (TRCA) policies and regulations;
- Species Conservation Act (2025);
- Provincially tracked species layer (Ontario GeoHub);
- Ontario Reptile and Amphibian Atlas (ORAA);
- Ontario Breeding Bird Atlas (OBBA);
- Natural Heritage Information Centre (NHIC) Data *via* the Make-A-Map application;
- Species at risk range maps (Government of Ontario);
- High resolution aerial photography of the property;
- Natural and physical feature layers (e.g. topographic, wetland, waterbody, watercourse data from Ontario GeoHub;
- Ontario Geological Survey (OGS) and soil physiography (Chapman and Putnam) datasets; and
- Aeiral photography.

3.2 Field Investigations

Field investigations on the subject property were undertaken by Beacon staff in 2020 and 2026. Seasonal surveys included vegetation inventories, as well as wildlife and species at risk habitat assessments. **Table 1** below lists the dates on which visits occurred.

Table 1. Summary of Field Investigations

Surveys Undertaken	Dates
Headwater Drainage Feature Assessment (HDFA)	June 16, June 30 and November 15, 2020
Vegetation Community and Floral Survey	June 30, 2020; May 15, 2026
Breeding Bird Surveys	June 9, June 18, and June 30, 2020
Geomorphic Assessment	August 12, 2020
Feature Staking with the TRCA	November 12, 2020

3.2.1 Vegetation Communities

General vegetation community mapping took place on June 30, 2020, and were subsequently reviewed and confirmed on May 15, 2026. Vegetation communities on the subject property were described and mapped on orthophotography 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.

3.2.2 Headwater Drainage Feature Assessment (HDFA)

Headwater Drainage Features (HDFs) within the subject property were assessed following the *Ontario Stream Assessment Protocol Headwater Drainage Feature Module* ("OSAP"; Stanfield 2017) and followed the requirements as set out in the *Evaluation, Classification and Management of Headwater Drainage Features Guidelines* ("Guidelines"; TRCA and Credit Valley Conservation 2014).

The Guidelines use an integrated approach for the evaluation of key attributes of drainage features including flow and feature form, 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.

The locations and extent of any drainage features identified through the background review and ortho-imagery interpretation were verified throughout the field investigation. Site investigations were conducted on June 16 and November 15, 2020.

3.2.3 Feature Staking

TRCA participated in a staking exercise on the subject property on November 12, 2020. The limits of the natural feature were staked, which was a combination of top of bank for the valleyland associated with the Kilmanagh Creek and the dripline of the contiguous woody vegetation. The dripline of the woodland at the southwest corner of the subject property was also staked.

3.2.4 Breeding Birds

Breeding bird surveys were completed for the subject property on June 9, 18 and 30, 2020. These surveys were completed in the mornings (start times of 08:30, 05:30, and 07:55 respectively), under appropriate weather conditions.

The breeding bird community was surveyed using a roving survey, in which all parts of the subject property were walked to within 50 to 100 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.

3.2.5 Incidental Wildlife

Wildlife observations and any evidence observed of wildlife presence or breeding or foraging habitat, were noted during all field activities throughout the field program, including visual observations of species, tracks, or scat as well as auditory observations.

4. Existing Conditions

The results of field investigations are depicted in **Figure 2** and are described in greater detail below.

4.1 Vegetation

4.1.1 Ecological Communities and Land Use

ELC communities identified on the subject property illustrated in **Figure 2**. A description of these communities is provided below.

Anthropogenic (ANT)

Most of the tableland is being utilized for anthropogenic purposes associated with the transportation/logistics activity that occurs on the subject property. Topsoil stockpiles were observed adjacent to the natural communities (e.g., CUM1-1 described below).

Hedgerow (HE)

A hedgerow (HE) is located along a southwestern and northwestern borders of the subject property. The most common species in this hedgerow is Norway Maple (*Acer platanoides*) with Black Locust (*Robinia pseudo-acacia*) and Black Walnut (*Juglans nigra*). The dense ground layer of the hedgerow is made up of Smooth Brome (*Bromus inermis ssp. inermis*) and Tall Goldenrod (*Solidago altissima*).



Existing Conditions

Figure 2

12434 Dixie Road, Caledon

Legend

- Subject Property
- Ecological Communities
- Wetlands + 30 m
- Staked Feature Limit (Valleyland/Continguous Woody Veg) (TRCA Nov. 2020)
- Staked Feature Limit + 10 m
- Woodlands Dripline (TRCA Nov. 12 2020)
- Woodlands Dripline + 10 m
- Meander Belt
- Limit of Redside Dace Regulated Area
- Watercourse
- Drainage features
- Buried Pipe

Code	Wetland Communities
MAM2-2	Reed-canary Grass Mineral Meadow Marsh
OAO	Open Aquatic
SA	Shallow Water
	Forest Communities
FOD5-4	Dry - Fresh Sugar Maple - Ironwood Deciduous Forest
	Cultural Communities
CUM1-1	Dry - Moist Old Field Meadow
CUW	Cultural Woodland
	Other Communities
ANT	Anthropogenic
HE	Hedgerow

BEACON ENVIRONMENTAL

Project: 220196
Last Revised: May 2026

Client: Nishan Transport Inc.

Prepared by: BD
Checked by: AP

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Dry-moist Old Field Meadow (CUM1-1)

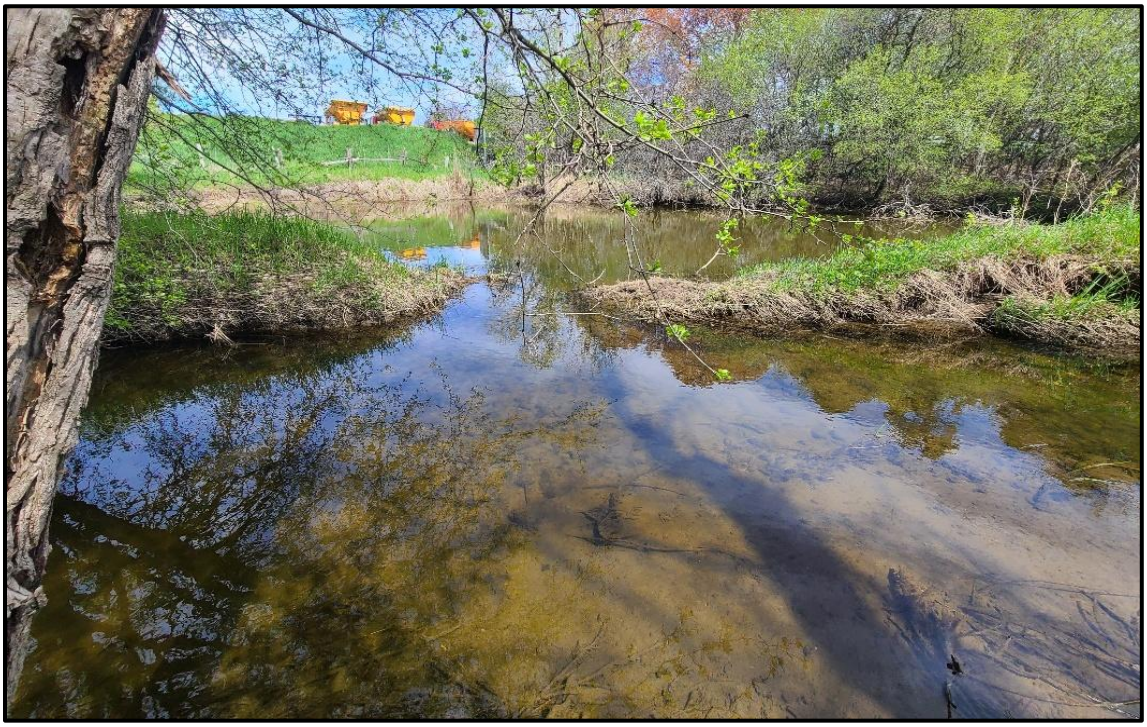
A Dry-moist Old Field Meadow (CUM1-1) community is located in the northern portion of the subject property. This pioneer community are associated with the previous agricultural use and are dominated by non-native grasses with abundant Wild Carrot (*Daucus carota*), Tall Goldenrod, with associates of Bird's-foot Trefoil (*Lotus corniculatus*), Dandelion (*Taraxacum officinale*), Creeping Thistle (*Cirsium arvensis*), and Minor Burdock (*Arctium minus*).

Shallow Aquatic (SA) and Open Water (OAO)

In 2020, two ponds occurring on either side of the watercourse were documented as being dominated by floating aquatic vegetation, predominantly duckweed (*Lemna* spp.). A larger pond to the east did not have floating vegetation and was inferred to deeper than the other two ponds. These three ponds were documented as being offline, as they were separated from Kilmanagh Creek by several berms. In 2026, vegetation was not observed in any of the three ponds.

In 2026, the southern pond was observed with cloudy water and sediment deposited along the southern limit. A narrow gully, approximately 15 cm to 20 cm deep, was observed at the top of slope above the sediment deposition.

In 2026, the two northern ponds were observed to be online. Water in these ponds was clear. A breach in the berm of the north SA pond was observed, facilitating the eastward flows from Kilmanagh Creek to enter the pond (**Photograph 1**). At the east end of this pond, a clay drainage tile and PVC pipe was observed conveying flow to the east OAO pond. The OAO pond was draining to Kilmanagh Creek through a breach near the northeastern property line.



Photograph 1. North-facing View of Kilmanagh Creek (Foreground; Flowing Left to Right) and Breach in Berm to North Pond (May 15, 2026)

Reed-canary Grass Meadow Marsh (MAM2-2)

A narrow band of Reed Canary Grass (*Phalaris arundinacea*) surrounds the SA pond on the south side of the watercourse. This marsh is approximately 200 m^2 (0.02 ha). As noted above, a portion of this marsh contained recently-deposited sediment.

Mineral Cultural Woodland (CUW)

A Mineral Cultural Woodland community occurs on the south tip of the subject property. This young to mid-age community has a canopy dominated by Crack Willow (*Salix* x *fragilis*) with Black Locust and Black Walnut associates. Similar to the nearby hedgerow and cultural meadow, the ground cover consists of Smooth Brome and Tall Goldenrod. Kilmanagh Creek transverses this unit.

A second Cultural Woodland community is located on the northeastern portion of the subject property, in association with Kilmanagh Creek. The portion adjacent to the creek is dominated by Golden Weeping Willow (*Salix x sepulcralis*), Manitoba Maple (*Acer negundo*), with associated row plantings of Austrian Pine (*Pinus nigra*) and Eastern White-cedar (*Thuja occidentalis*). Garlic Mustard (*Alliaria petiolata*) dominates the ground layer. Further from the creek, this community is planted with a mix of trees, the most common being White Spruce (*Picea glauca*) and Norway Maple. The understory of this feature contains planted Lilac species (*Syringa* sp.) and Juniper species (*Juniperus* sp.), within a mown lawn.

4.1.2 Flora

A total of 69 vascular plant species was recorded on the subject property. Of these, 65 were identified to the species level. An annotated list of vascular plants recorded on the subject property is provided in **Appendix B**.

Of 65 species identified, 31 (48%) are native to Ontario, while the remainder are non-native. All native species have been assessed by the NHIC as common to very common in Ontario. The high number of non-native species is indicative of the anthropogenic disturbance on the subject property.

The majority of species inventoried have a high range of habitat tolerances, as evident by the high proportion of species with a low coefficient of conservatism (CC) values. None of the species recorded during surveys are of global, national, or provincial significance. One species is considered uncommon in Peel (Varga *et al.* 2005): Michigan Lily (*Lilium michiganense*). This species was associated with the Cultural Woodland and is likely an escape from planted garden beds.

4.2 Breeding Birds

Twenty-eight breeding season birds were observed during bird surveys all but one of these was thought to be breeding in the subject property (**Appendix C**). Almost all of the species observed are widespread and common species that are frequently found in rural contexts and are disturbance-tolerant species. A small portion of the property adjacent to Dixie Road, which contained buildings, ponds and scattered trees, held the majority of species, although none were found in large numbers.

The two most abundant species were Song Sparrow (*Melospiza melodia*) and Savannah Sparrow (*Passerculus sandwichensis*). The breeding bird community found in the field consisted almost entirely of these two species, with small numbers of a few other species occurring in the hedgerows. The Savannah Sparrow is considered a field/grassland area-sensitive species. Area-sensitive species are those which either require a larger area in which to nest, or which are more productive in larger area. The Savannah Sparrow, is nonetheless, a very common and widespread species in south and central Ontario. No other area-sensitive species were observed.

One avian Species at Risk was observed. Four pairs of Barn Swallow (*Hirundo rustica*), a species listed as Special Concern under SARA, were observed nesting on two buildings on the subject property. Two active nests and seven inactive nests were observed in the largest warehouse building, and two active and five inactive nests were observed in the south garage.

No species listed provincially as S1 through S3 (Critically Imperiled, Imperiled or Vulnerable) were observed.

The TRCA provides local ranks for bird species indicating how common species are within the TRCA jurisdiction. Species ranked as L4 are those that are ”widespread regionally but are vulnerable to long-term declines in urban areas”, while L5 species are “not of conservation concern”. Species listed as L1 to L3 are of “regional concern; restricted in occurrence and/or requires specific site conditions; generally occurs in natural rather than cultural areas”. One pair of Vesper Sparrow was recorded, which is ranked as L3 and is often found in association with large cultivated fields.

4.3 Incidental Wildlife

Other wildlife likely to occur on the subject property includes those that are commonly associated with rural and urban fringe such as: Gray Squirrel (*Sciurus carolinensis*), Raccoon (*Procyon lotor*), White-tailed Deer (*Odocoileus virginianus*), Skunk (*Mephitis mephitis*), Red Fox (*Vulpes vulpes*) and Coywolf (*Canis* X *latrans*).

In 2026, the following wildlife were observed incidentally along Kilmanagh Creek:

- Belted Kingfisher (*Megaceryle alcyon*);
- Baltimore Oriole (*Icterus galbula*);
- American Robin (*Turdus migratorius*);
- Red-winged Blackbird (*Agelaius phoeniceus*);
- Yellow Warbler (*Setophaga petechia*);
- White-tailed Deer tracks;
- Beaver (*Castor canadensis*) chew and dams; and
- Redside Dace schooling upstream of a Beaver dam on Kilmanagh Creek.

4.4 Endangered or Threatened Species

To determine what endangered or threatened species have previously been recorded in the vicinity of the subject property, records from the resources identified in **Section 3.1** were reviewed. Through this review, 13 species threatened or endangered species were identified as having previously been recorded in the vicinity of the subject property. The full list of species is provided in **Appendix D**.

Through this assessment, it was determined that the subject property supports habitat for Redside Dace and Barn Swallow (threatened Federally), and potential habitat for endangered bats.

Kilmanagh Creek is identified by DFO as critical habitat for Redside Dace within Kilmanagh Creek, which is defined as the meander belt of the creek plus 30 m of riparian vegetation on either side. A Geomorphic Assessment was prepared by Beacon (2021) to establish the meander belt limit.

Potential maternity roost habitat for bats is associated with a cultural woodland within the Kilmanagh Creek valleyland.

Existing buildings support habitat for the federally threatened Barn Swallow.

4.5 Aquatic Resources

The subject property includes two HDFs and a reach of Kilmanagh Creek. The HDFs and Kilmanagh Creek are illustrated in **Figure 2**.
During the 2026 field investigation, sedimentation was observed along the southern limit of the southern pond, and a narrow gully approximately 15 cm to 20 cm deep was noted at the top of slope above the area of sediment deposition. These observations indicate localized erosion and sediment transport toward the pond and should be considered in the development of erosion and sediment control measures for the site.

4.5.1 Kilmanagh Creek

Kilmanagh Creek is identified by MNR as coldwater fish habitat. MRN fish records include: Blackchin Shiner (*Notropis heterodon*), Eastern Blacknose Dace (*Rhinichthys atratulu*), Bluntnose Minnow (*Pimephales notatus*), Brook Stickleback (*Culaea inconstans*), Brook Trout (*Salvelinus fontinalis fontinalis*), Common Shiner (*Luxilus cornutus*), Creek Chub (*Semotilus atromaculatus*), Fantail Darter (*Etheostoma flabellare*), Fathead Minnow (*Pimephales promelas*), Johnny Darter (*Etheostoma nigrum*), Largemouth Bass (*Micropterus salmoides*), Longnose Dace (*Rhinichthys cataractae*), Mottled Sculpin (*Cottus bairdii*), Ninespine Stickleback (*Pungitius pungitius*), Northern Hog Sucker (*Hypentelium nigricans*), Northern Redbelly Dace (*Chrosomus eos*), Pumpkinseed (*Lepomis gibbosus*), Rock Bass (*Ambloplites rupestris*), Slimy Sculpin (*Cottus cognatus*), and White Sucker (*Catostomus commersonii*)

In addition, Kilmanagh Creek is identified by DFO as critical habitat Redside Dace (*Clinostomus elongatus*), an endangered fish species. Critical habitat for Redside Dace includes the meander belt of the Creek, plus 30 m of riparian vegetation on both sides of the meander belt as illustrated in **Figure 2**.

4.5.2 Headwater Drainage Feature Assessment

The western half of the subject property drains southwards where overland flow appears to be predominantly captured by existing catch basins located within the adjacent commercial development. The central drainage is directed through a series of small, undefined swales which exist within a portion of the cultivated lands on the property. These smaller drainage swales were not included within the detailed assessment as they individually exhibited drainage catchments less than 2.5 ha; the minimum catchment threshold required by the OSAP protocol (Stanfield 2017).

On the far west side of the subject property a small, defined swale (identified as **HDF-1**) directs water to the south through a partially crushed 350 mm corrugated steel pipe (CSP) culvert and into a wooded area to the southwest of the subject property. Through background review it appears that the western overland drainage contributes to the West Humber River watershed by way of a tributary located between the subject property and Abbotside Way.

The eastern half of the property drains northwards directly into Kilmanagh Creek, a coldwater system that is managed for the key target species, endangered Redside Dace and Brook Trout (*Salvelinus fontinalis*) (OMNR and TRCA 2005). An undefined grass swale (identified as **HDF-2**) located immediately to the west of the existing farm pond empties directly into Kilmanagh Creek at the northern limit of the property.

As mentioned in **Section 2.2.2** HDFAs were conducted twice in June 2020, and once in November 2020 within the subject property. A summary is included in the following subsections detailing features HDF-1 and HDF-2. A detailed classification table is provided in **Appendix E**.

HDF-1

The HDF-1 feature originates at the western property corner and drains along the entirety of the western site boundary (**Photograph 2**). Flow contributions to the feature appear to be sourced from lands to the north and west of the subject property, as well as from a portion of the western cultivated lands within the subject property. No flow or standing water was observed within the HDF-1 feature during the 2020 site investigations, despite the November field visit being completed following significant rainfall (10.4 mm per Environment Canada). Riparian vegetation consisted of scrubland communities upstream of the culvert on the subject property and forest communities downstream of the culvert on adjacent lands. Channel substrates were gravel, sand, and silts overlain by thick detritus deposited from surrounding mature trees. Channel banks were uniformed, and no significant signs of erosion were noted. No indications of groundwater seepage were noted for HDF-1 during 2020.

Based on an assessment of the features attributes and functions, per the HDFA guidelines, this feature received a recommendation of “No Management Required.”

HDF-2

The HDF-2 feature was located to the north of the existing barn structures in the eastern portion of the site, immediately to the west of one of the off-line ponds (**Figure 2**); however, no signs of a swale were observed in 2026. In 2020, the feature was assessed as an undefined swale, which was entirely straightened (**Photograph 3**). Along its length within the subject property, it maintained a relatively gentle gradient. The average bankfull width was approximately 180 cm with an average bankfull dept of approximately 10 cm. The swale connected to Kilmanagh Creek through a small gully. A disconnected portion of an old culvert pipe was observed within the gully depression, which may have indicated historical piping of the feature. No evidence of groundwater contributions was noted within or in proximity to the swale. During the November 2020 site visit, which was conducted immediately following a rain event, no flows were observed along the HDF-2 feature’s length or within its terminal gully.

Based on an assessment of the features attributes and functions, per the HDFA guidelines, this feature received a recommendation of “No Management Required.”



Photograph 2. View of HDF -1 Along Southern Property Boundary (November 15, 2020)



Photograph 3. View of HDF-2 Feature within EPA (November 15, 2020)

5. Assessment of Significant Natural Heritage Features

The findings of this study have been used to determine if the subject property support any natural heritage components that are recognized under the PPS, the ROP and the Town of Caledon OP (**Table 2**).

Table 2. Assessment of Natural Heritage Features

Natural Heritage Feature	Assessment
Significant Wetlands	There are no PSW on the subject property.
Significant Woodlands	A signficant woodland, identified as a core area of the Regional Greenlands System, is present on adjacent lands, which borders the western property boundary. The dripline of the woodland extends over the subject property boundary at the southwest corner.
Significant Valleylands	Kilmanagh Creek and its associated valleyland satisfy the criteria to be considered a Core Valley and Stream Corridor based on the criteria provided in of the Peel Region Official Plan. The limit of the valleyland is represented by the staked top of bank.
Significant Wildlife Habitat (SWH)	The Town of Caledon 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). Features on the subject property have been screened against the criteria outlined in the MNRF (2015) SWH criteria schedule. It is acknowledged that habitat for special concern species may be considered SWH. Several Barn

Natural Heritage Feature	Assessment
	Swallow nests, a special concern species, were observed in buildings on the subject property. However, given the small number of active nests observed (4), Beacon does not consider the buildings to be SWH. While a full assessment of the off-site significant woodland was not possible within the context of this EIS, it is acknowledged that this feature may support several types of SWH.
Fish Habitat	Fish habitat is present within Kilmanagh Creek. Mapping from MNR classifies it as coldwater habitat.
Habitat for Endangered or Threatened Species	Kilmanagh Creek is confirmed critical habitat for Redside Dace, which is no longer regulated by the province, but remains regulated under SARA. The cultural woodland along Kilmanagh Creek as well as the off-site significant woodland represent potential maternity roost habitat for endangered bat species.
Significant Area of Natural and Scientific Interest	There are no ANSIs on or adjacent to the subject property.
Permanent and Intermittent Streams	The Town's OP identifies Kilmanagh Creek as a "Permanent and Intermittent Streams".
Supporting Features and Areas	There are no Supporting Features or Areas identified on the subject property in the Town's OP; however, the EIS confirmed the presence of unevaluated wetlands at the northern corner of the subject property. Unevaluated wetlands are included in the Supporting Features and Areas designation.
Potential Enhancement Areas	There are no enhancement areas identified on the subject property in the Town's OP and no potential areas for enhancement were identified through this EIS.

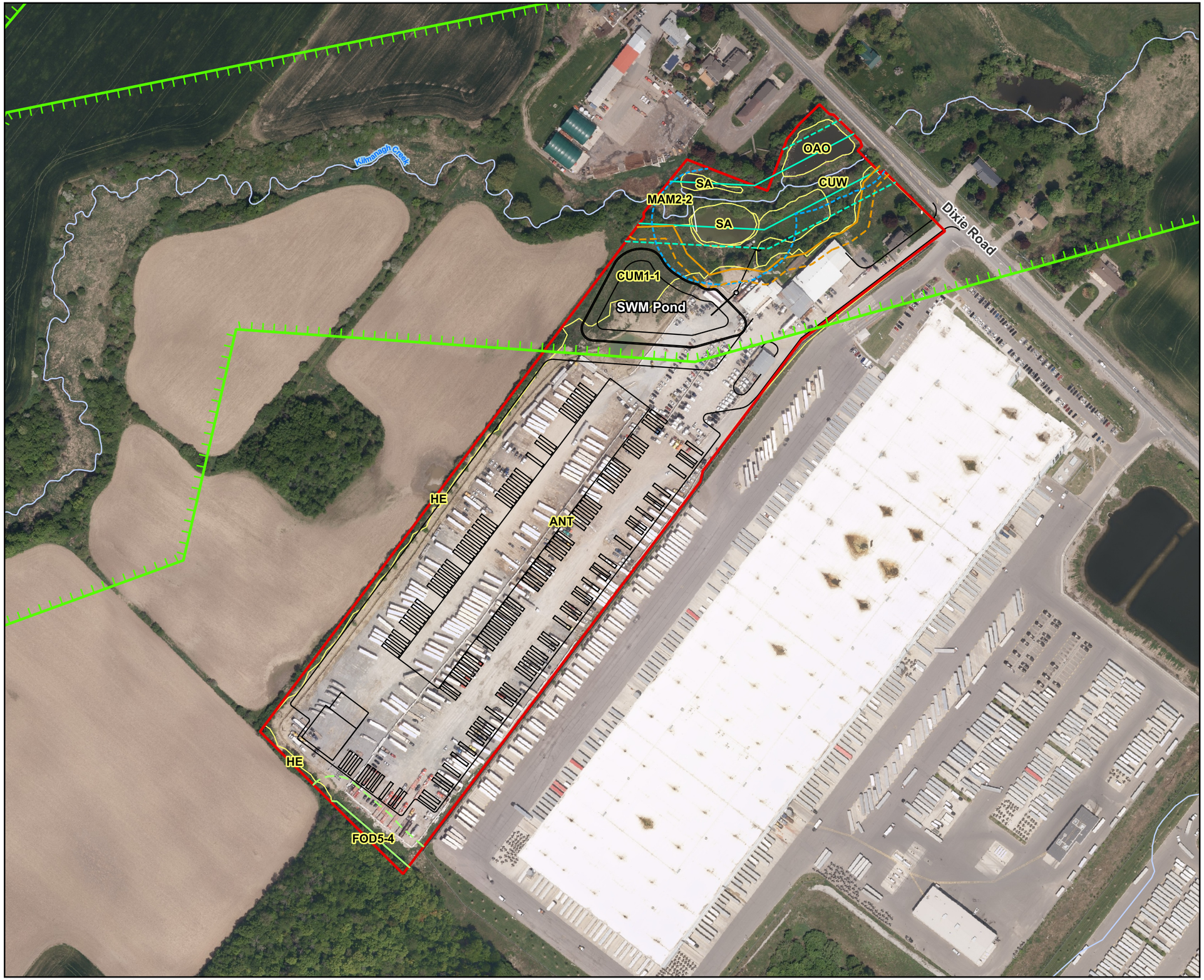
6. Proposed Development Plan

The proposed development consists of a commercial vehicle cross-dock facility with associated stormwater management (SWM) pond as illustrated in **Figure 3**. The existing driveway entrance from Dixie Road will be utilized to access the development and several existing buildings will be integrated with the new development.

Stormwater from the development will be directed to a storm water management (SWM) pond, which outlets to the Kilmanagh Creek valleyland. For details on site servicing and stormwater management, refer to the FSR (Masongsong 2026).

7. Impact Assessment and Mitigation Recommendations

The proposed development of the subject property will consist of the construction of a gravel parking area and storm system in the agricultural area. There are two locations on the subject property with



Proposed Development

Figure 3

12434 Dixie Road, Caledon

Legend

- Subject Property
- Proposed Development
- Ecological Communities
- Wetlands + 30 m
- Valleyland Feature Limit (TRCA Nov. 12 2020)
- Valleyland Feature Limit + 10 m
- Woodlands Dripline (TRCA Nov. 12 2020)
- Woodlands Dripline + 20 m
- Meander Belt
- Limit of Redside Dace Regulated Area
- Watercourse (MNRF 2019)
- Greenbelt Boundary (MMAH 2017)

Code	Wetland Communities
MAM2-2	Reed-canary Grass Mineral Meadow Marsh
OAO	Open Aquatic
SA	Shallow Water
	Forest Communities
FOD5-4	Dry - Fresh Sugar Maple - Ironwood Deciduous Forest
	Cultural Communities
CUM1-1	Dry - Moist Old Field Meadow
CUW	Cultural Woodland
	Other Communities
ANT	Anthropogenic
HE	Hedgerow

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natural heritage features: the significant woodland at the southwest corner and Kilmanaugh Creek valleyland in the northeast corner.

7.1 Greenbelt Natural Heritage System

A portion of the subject property falls within the NHS of the Greenbelt Plan, which encompasses the Kilmanagh Creek valleyland and adjacent areas of tableland previously used for agriculture, but is no longer farmed.

KNHF and KHF and associated MVPZs within the Greenbelt KNHF were identified through this EIS as illustrated in **Figure 3**. A 30 m MVPZ was applied to wetland and aquatic features, and a 10 m setback was applied to the staked top of valley slope and contiguous vegetation.

Components of the proposed development that fall within the Greenbelt NHS include:

- A SWM pond;
- Existing agricultural buildings to remain for the proposed commercial use; and
- Existing driveway entrance from Dixie Road to remain and be used for site access.

The proposed SWM pond is situated on the tableland within an area that was formerly used for agriculture but now consists of old field meadow and a gravel parking area. The pond is situated outside of KNHF, KHF, and associated minimum VPZs. It will be necessary to install a storm sewer from the SWM pond into the valley to convey stormwater to Kilmanagh Creek. The outfall structure is located in a previously disturbed area is outside critical habitat for Redside Dace. Areas temporarily disturbed during installation of the outfall are to be fully restored with native vegetation following construction. In order to situate the headwall outside critical habitat for Redside Dace, it is proposed to be located over 30 m from the creek. Therefore, a drainage swale from the headwall will be necessary within the area of critical habitat. It is recommended that the swale be constructed with bioengineering principles and techniques, combining live plants and natural materials (like wood, rock, and coir) for a natural channel that is complimentary to the existing NHS.

The existing buildings and driveway entrance within the NHS are located on the tableland, outside of the identified KNHF and KHF. One small building is located almost entirely within the setback to the top of slope, and two other existing buildings partially extend into the top of slope setback as can be seen in **Figure 3**. As these are well-established buildings dating back at least 20 years, the reuse of the buildings and driveway will not expand into any KHF, KNHF, or minimum VPZ, and is not expected to result in adverse impacts on any features.

7.2 Significant Woodland

There is a significant woodland at the southwest corner of the subject property. This feature is located on adjacent land, but the dripline extends over the property boundary (**Figure 3**). A 20 m buffer was applied to this feature as per Town OP policy. No direct impacts on this feature are anticipated.

In some cases, increased population density in an area following development may result in increased access to natural areas by humans and pets, resulting in vegetation trampling and removal, dumping of yard waste/debris, and wildlife disturbances. A higher risk of such impacts is associated with

residential development where individual lots abut natural heritage features. Such impacts are less likely to issue on the subject property where the proposed development is commercial/industrial, rather than residential, as fewer indirect disturbances associated with people are expected. The provided buffers to the NHS features will help mitigate potential encroachments into adjacent natural features. Additionally, it is recommended that the buffers be densely planted with native species and that permanent fencing be installed at the development limit to prevent encroachments and accumulation of debris.

7.3 Wildlife Habitat

Habitat for a small number of common rural bird species associated with trees and meadow vegetation on the tablelands of the subject property will be removed. Removal of trees and other vegetation should only be undertaken when birds are not actively nesting. Environment Canada considers the general nesting period of breeding birds in southern Ontario to be between March 31 and August 31; therefore, to avoid direct impacts on nesting birds, removal of trees and other nesting habitat from the subject property should be conducted outside of the breeding bird period.

Indirect impacts from development such as noise and light post-construction can influence wildlife in adjacent natural areas, though the effects of a single development are often difficult to quantify. These stressors can be significant in previously undisturbed environments where wildlife is not accustomed to human activity. The subject property is within an existing rural matrix, which is becoming more urbanized. The natural features associated with the Kilmanagh Creek valleyland and the woodland at the southwest corner of the subject property are currently influenced to some extent by the light and noise associated with Dixie Road and the adjacent industrial development. Most of the species observed within these areas are widespread and common species that are frequently found in rural contexts and are disturbance-tolerant species. Wildlife inhabiting these areas are expected to be adapted to some level of anthropogenic noise and light.

While the proposed development is not anticipated to substantially increase existing noise and light stressors on wildlife associated with adjacent natural heritage features, it is recommended that the following best management be considered to minimize light effects on wildlife:

- Only use outdoor lighting where it is necessary for safety and security;
- Use low-intensity lighting, such as warm (amber/yellow) LEDs (2700 K or less) and keeping lux levels to the minimum required for safety (ideally below 10 lux); and
- Use light fixtures with shields and/or narrow beam angles to focus light downwards, while preventing uplighting and minimizing light spill beyond the subject property.

7.4 Drainage Features and Aquatic Habitat

7.4.1 Headwater Drainage Features

The management recommendations for the two HDFs on the subject property is “No Management Required” meaning that the features may be removed without mitigation. A detailed classification table is provided in **Appendix E**.

HDF-1, along western property boundary, will remain post-development. Only a small portion of its drainage catchment is proposed to be developed as most overland contributions are sourced from lands outside of the subject property. No seasonal or permanent fish or terrestrial habitat will be directly impacted by the alteration of this portion of the HDF-1 catchment.

Similarly, a final management recommendation of "No Management Required" was assigned to HDF-2. This feature was no longer evident in 2026.

7.4.2 Kilmanagh Creek/Fish Habitat

Kilmanagh Creek is fish habitat, including critical habitat for Redside Dace as defined under SARA. Critical habitat for Redside Dace, which is defined as the meander belt of Kilmanagh Creek plus 30 m of riparian vegetation on either side, is contained within the staked top of bank (**Figure 2**).

Development, including the SWM outfall, is outside of critical habitat as the headwall is just over 30 m from the meander belt; however, a conveyance swale from the headwall to the creek will be required within 30 m of the meander belt. A request for review (RFR) should be submitted to the DFO in relation to works associated with Redside Dace habitat.

Grading, grubbing and excavation during construction have the potential to result in soil erosion and the movement of sediment into adjacent watercourses, which can have negative impacts on wildlife on aquatic habitat. To mitigate this potential impact, an erosion and sediment control (ESC) plan, including but not limited to the use of erosion and sediment control fencing around the work areas, will be prepared prior to any site alteration or construction and in accordance with the Town and TRCA requirements.

Redside Dace is a coolwater species that is sensitive to temperature changes. Stormwater warms up in a SWM pond, which can have negative impacts on fish habitat when discharged to watercourses. To mitigate this impact, the SWM pond has been designed with a 3 m permanent pool with a bottom draw outlet (Masongsong 2026) so that cooler what from the bottom of the pond is discharged, rather that warmer water near the surface.

Post-development run-off from paved surfaces can become contaminated with chemicals and road salt, which could have negative impacts on watercourses and aquatic habitat if runout is not controlled. Post-development, stormwater from the subject property will be directed to the SWM pond which has been designed to meet municipal stormwater quantity and quality controls.

Existing sediment observed in the valleyland along the edge of the southern pond (SA community), as discussed in **Section 4.1.1**, should be remediated in manner that avoids mobilization of sediment into Kilmanagh Creek or adjacent critical habitat for Redside Dace. Any sediment removal, stabilization, or containment measures should be designed and implemented to prevent harm to Redside Dace and to avoid harmful alteration, damage, or destruction of its critical habitat, including through the use of appropriate erosion and sediment controls, isolation of work areas where required, and completion of works during the applicable Redside Dace timing window.

7.5 Summary of Mitigation Measures

The following is a summary of key mitigation measures which are recommended to avoid, minimize, or off-set potential impacts to natural heritage features associated with the subject property and adjacent lands:

- Provide recommended minimum VPZs and other setbacks to natural heritage and hydrological features and natural hazards;
- Any grading or site alteration should be confined to the approved limit of development;
- Implement SWM plan to meet provincial and municipal requirements for quantity and quality control to mitigate potential impacts on Kilmanagh Creek and associated habitat for Redside Dace;
- An ESC plan should be developed and implemented to the satisfaction of the Town and TRCA prior to the start of construction works, including but not limited to establishing ESC/silt fence at the development limit. The ESC plan should follow the standards presented in *Erosion and Sediment Control Guidelines for Urban Construction* (TRCA 2019);
- Vegetation should be removed at the appropriate time of year to avoid impacts on birds that may be nesting (i.e., between September 1 and March 31);
- The following best management should be considered to minimize light effects on wildlife:
    - Only use outdoor lighting where it is necessary for safety and security;
    - Use low-intensity lighting, such as warm (amber/yellow) LEDs (2700 K or less) and keeping lux levels to the minimum required for safety (ideally below 10 lux); and
    - Use light fixtures with shields and/or narrow beam angles to focus light downwards, while preventing uplighting and minimizing light spill beyond the subject property;. and
- A restoration planting plan utilizing native species is recommended for the woodland and wetland buffer areas on the subject property. This plan should also serve to remediate existing sedimentation that has occurred within the valleyland.

8. Policy Conformity

A summary of federal, provincial and municipal environmental protection and planning policies and regulations applicable to the subject property were discussed in **Section 2**. An evaluation of how the proposed development complies with the applicable environmental policies and legislation are summarized below in **Table 3**

Table 3. Policy Conformity Assessment

Applicable Policy / Legislation	Policy Intent	EIS Findings & Recommendations
***Fisheries Act* (1984)**	Provides legal protection to fish habitat on public and private lands.	Potential indirect impacts on fish habitat will be mitigated through stormwater management and erosion and sediment control measures recommended in this report.
***Species at Risk Act* (SARA; 2002)**	SARA provides legal protection to federally listed threatened and endangered species. This legislation mainly applies to federally owned lands. On private property, it applies to aquatic species (e.g. fish) and birds; however, it only affords protection to birds to the extent that the Migratory Bird Convention Act applies.	Critical habitat for Redside Dace, which is protected under SARA, is associated with Kilmanagh Creek. No development is proposed within critical habitat for Redside Dace; however, based on proximity of the SWM outfall to this habitat, if there is potential for disturbance to this habitat during construction, then a request for review should be submitted to DFO. Habitat for Barn Swallow, listed as threatened under SARA, is associated with several of the exiting buildings, which are proposed for re-use as part of the proposed development. Any modification to the buildings that could affect their habitat function for Barn Swallow should be conducted when Barn Swallow are not nesting: Under SARA, Barn Swallow nests are protected as residence from May 1 or the date when adults are first seen building or occupying the nest, whichever is earlier, to August 31 or the date when a bird is last seen at the nest, whichever is later.
Migratory Bird Convention Act	Provides legal protection to most bird species while nesting and raising young.	Removal of vegetation supporting breeding birds will be required. Vegetation removals must be undertaken when birds are not nesting.
***Species Conservation Act* (2025)**	Provides legal protection to threatened and endangered species in Ontario, other than birds and aquatic species that are protected under SARA.	There is a woodland on adjacent lands, which represent potentially suitable maternity roost habitat for endangered bats. A 20 m buffer was applied to this feature; therefore, no impacts on bat habitat are anticipated.
Provincial Planning Statement (2024)	The PPS contains policies for the protection of natural heritage features, including: • Habitat of threatened or endangered species; • Significant wetlands; • Significant coastal wetlands; • Significant woodlands; • Significant valleylands; • Significant wildlife habitat; • Significant areas of natural and scientific interest; and • Fish habitat. The PPS does not permit development or site alteration in PSW or significant coastal wetlands. The PPS does not permit development or site alteration in habitat for threatened or endangered species or Fish Habitat except in accordance with provincial and federal requirements. The PPS does not permit development within significant woodlands, significant wildlife habitat, significant valleylands, or ANSIs unless it can be demonstrated through an EIS that there will be no negative impacts.	The EIS confirmed the presence of the following features on or adjacent to the subject property: • Habitat of threatened or endangered species; • Significant woodland; • Significant valleyland; • Potential SWH; and • Fish Habitat. Critical habitat for Redside Dace is associated with Kilmanagh Creek. No development is proposed within critical habitat for Redside Dace; however, based on proximity of the SWM outfall to this habitat, if there is potential for disturbance to this habitat during construction, then a request for review should be submitted to DFO to ensure the proposal meets federal requirements. The valleyland feature associated with Kilmanagh Creek satisfy the criteria to be considered a Core Valley and Stream Corridor based on the criteria provided in the Region of Peel Official Plan. With the exception of a SWM outfall, there will be no development or site alteration within or adjacent to the valleyland. The woodland adjacent to the property at the southwestern corner is significant. This feature is also potential SWH. A 20 m buffer to the woodland is provided in accordance with Town policy. No direct impacts on this feature are anticipated and indirect impacts can avoided or minimized through measures identified in this report. Potential indirect impacts on fish habitat associated with Kilmanagh Creek will be mitigated through stormwater management and erosion and sediment control measures recommended in this report
Greenbelt Plan (2017)	In addition to natural features and areas policies under the PPS, the Greenbelt Plan does not generally permit development or site alteration in the designated Greenbelt NHS or Key Hydrologic Features (Permanent and Intermittent Streams or Seepage Areas). The Greenbelt Plan allows infrastructure within the NHS provided certain policies are met. New or expanding infrastructure must avoid key natural heritage features, key hydrologic features or key hydrologic areas unless need has been demonstrated and it has been established that there is no reasonable alternative. Where infrastructure does cross the NHS or intrude into or result in the loss of a KNHF, or KHF, then planning, design and construction practices shall minimize negative impacts on and disturbance of the features or their related functions.	The Greenbelt Natural Heritage System (NHS) occurs in the northeastern corner of the subject property along Kilmanagh Creek. Key Natural Heritage and Key Hydrologic Features with the Greenbelt NHS were identified and buffers/minimum vegetation protection zones were applied in accordance with Greenbelt Plan policies. No new development is proposed within the Greenbelt NHS. Infrastructure, including SWM, is a permitted use in the Greenbelt NHS. The proposed SWM pond is located in a disturbed tableland area of the Greenbelt NHS outside of all KNHFs and KHFs and associated MVPZs; however, it will be necessary to located the outfall within the valleyland. Impacts to the valley slope due to outfall construction are expected to be localized and temporary. Areas disturbed during construction of the outfall will be fully restored post-construction.

Applicable Policy / Legislation	Policy Intent	EIS Findings & Recommendations
	Existing uses and conversions of existing uses are permitted in the Greenbelt NHS if it does not expand into key natural heritage features or key hydrologic features or their associated vegetation protection zones, unless there is no other alternative, in which case any expansion shall be limited in scope and kept within close geographical proximity to the existing structure.	Existing buildings within the Greenbelt NHS are proposed for re-use. The buildings will remain in-situ; therefore, the use of the buildings will not expand into KNHF, KHF, or VPZs or result in negative impacts on the features.
Peel Region Official Plan (2022)	The Peel Region Official Plan contains policies for protecting, maintaining, and restoring a Greenlands System consisting of Core Areas, Natural Areas and Corridors (NACs), and Potential Natural Areas and Corridors (PNACs).	The Greenbelt NHS within the subject property and the woodland on adjacent lands to west of the subject property are identified as Core Areas of the Greenlands System. No new development is proposed within the Greenbelt NHS. SWM pond infrastructure is proposed within the Greenbelt NHS is previously disturbed agricultural land. The pond is located 30 m from the key natural heritage features in the Greenbelt NHS. The woodland along the west side of the subject property will be protected with a 20 m buffer. No negative impacts on this feature are anticipated.
Caledon Official Plan (2024)	Chapter 13 of the Town's OP pertains to the Natural Environment System (NES) and contains polices intended to promote a systems approach to identify, protect, enhance, and restore the NES.	The woodland adjacent to the subject property at the southern corner is a significant woodland. This feature is also potential SWH. A 20 m buffer to the woodland is provided in accordance with Town OP policy 13.9.1. No direct impacts on this feature are anticipated and indirect impacts can avoided or minimized through measures identified in this report. The area of the subject property that is within the Greenbelt NHS is further divided into "Natural Features and Areas" and "Agriculture Area and Rural Lands" in Schedule B1 of the Town's OP. No new development is proposed within the Greenbelt NHS. SWM pond unfractured is proposed within the Greenbelt NHS is previously disturbed agricultural land. The pond is located 30 m from the key natural heritage features in the Greenbelt NHS. The woodland along the west side of the subject property will be protected with a 20 m buffer. No negative impacts on this feature are anticipated.
Ontario Regulation 41/24 and TRCA policies	TRCA regulates hazard lands including valleylands, floodplains, watercourse, and wetlands and ensures implementation of the Natural Hazard sections of the PPS.	The Kilmanagh Creek valleyland is regulated by TRCA. The top of bank was staked by TRCA in 2020 and a 10 m setback was applied in accordance with TRCA policy. With the expectation of a SWM outfall and existing buildings that are proposed for re-use, the proposed development is outside the staked top of slope and associated setback. The SWM outfall to Kilmanagh Creek outlets at the bottom of the valley slope. A permit from TRCA will be required for development or site alteration within the regulated area.

9. Conclusion

This EIS/NHE has been prepared for a proposed industrial development at 12434 Dixie Road in the Town of Caledon

The EIS/NHE identifies and describes the natural heritage and hydrologic features associated with the property, recommends buffers, VPZs, and setbacks to protect natural features, assesses direct and indirect impacts of the proposed development on the NHS, a recommends mitigation measures to avoid or minimize impacts on the natural heritage and hydrologic features.

Through a background review and scoped field investigations, the EIS/NHE determined that the property and adjacent lands supports a valleyland, watercourse, fish habitat (including habitat for Redside Dace), wetlands, and a signficant woodland. The significant woodland abuts the western property boundary, while all of the other natural features are within the Kilmanagh Creek valleyland, which is part of the Town's NHs and the Region's Greenlands system. The valleyland is also entirely within the Greenbelt NHS of the Protected Countryside. Buffers and setbacks were applied to natural heritage and hazard features to establish the limits of development. The development was designed to avoid areas constrained by natural heritage features and hazard lands and associated setbacks and VPZs.

A commercial vehicle cross-dock facility is proposed for the subject property. With the exception of a stormwater management (SWM) pond, no new development is proposed within the Greenbelt NHS that crosses the subject property. The majority of the proposed development is confined to the western portion of the subject property, outside the Greenbelt Plan area. The extent of the Greenbelt NHS overlay on the subject property greatly exceeds the VPZs and other setback requirements for the KNHFs, KHFs, and natural hazards that are present on the subject property. Therefore, no direct impacts on key features (valleyland, wetland, watercourses/aquatic habitat, and habitat for Redside Dace) are anticipated.

The SWM pond is located within a disturbed tableland area of the Greenbelt NHS. Infrastructure, including SWM systems, are a permitted use in NHS, subject to the policies of Section 4.2.1 and 4.2.3 of the Greenbelt Plan. The SWM pond is located outside the VPZs and other applicable setbacks to KNHFs, KHFs, and natural hazards; therefore, no direct impacts on these features are anticipated. Direct impacts are limited to a SWM outfall within the valleyland, which is required to covey treated stormwater from the subject property to Kilmanagh Creek. Impacts related to construction of the outfall are temporary and localized and are not expected to adversity impact any KNHF or KHF. Existing buildings and driveway entrance within the Greenbelt NHS will be re-used as part of the proposed development. The buildings will remain in-situ and the use of the buildings will not expand into KNHF, KHF, or VPZs or result in negative impacts on the features.

The EIS/NHE identifies a number of potential indirect impacts to the NHS resulting from development and recommends mitigation measures to avoid or minimize impacts, such that residual impacts are limited.

In conclusion, the EIS/NHE has determined that the proposed development will not adversely affect the natural heritage features and ecological functions associated with the subject property provided that the mitigation measures identified in this report and companion studies (e.g., FSR) are implemented.

Prepared by:
Beacon Environmental Ltd.



Dan Westerhof, B.Sc., M.E.S.
Senior Terrestrial Ecologist,
ISA Certified Arborist (ON-1536A)

Reviewed by:
Beacon Environmental Ltd.



Carolyn Glass, B.Sc. M.E.S.
Senior Ecologist

Appendix A

Terms of Reference – Record of Correspondence

From: Lauren Cymbaly
To: Anthony.Syhlonyk@trca.ca
Cc: Brian Henshaw; Carolyn Glass; Rohan Sovig
Subject: 12434 Dixie Road, Caledon – EIS Terms of Reference
Date: Wednesday, August 12, 2020 3:57:00 PM
Attachments: 2020-06-30 - Figure 01 - Site Location Dixie Road - 220196.pdf

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Hi Anthony,

We have been retained by Nishan Transport Inc., care of Rohan Sovig, MCIP, RPP, Planner from Malone Given Parsons Ltd., to move forward with an Environmental Impact Study (EIS) for the proposed Zoning Bylaw Amendment to support the temporary construction and use of the property for transportation vehicular storage / parking on the property located at municipal addresses 12434 Dixie Road in the Town of Caledon (please see attached for Site Location Map for property limits and location details).

It is our understanding that the TRCA has already provided preliminary comments on the file as part of the Development Application Review Team (DART) to move forward with the temporary use by-law application. Beacon has reviewed the comments and we are touching base to confirm the Terms of Reference for the EIS, and propose the following scope of work:

Ecology Characterization Surveys – Spring / summer 2020

A site visit was completed to review existing habitat conditions; vegetation communities will be characterized and mapped using ELC. A floral species list will also be compiled to document species occurrences, assess habitat conditions and address any observed plant species of conservation concern or listed species covered by the ESA (including a search for Butternut). Natural heritage features located directly adjacent to the subject property will be addressed in the EIS.

Breeding Birds

A breeding bird survey including three early morning surveys covering the subject property was completed in June 2020.

Species at Risk Screening

Beacon has developed a screening tool to determine potential habitat for endangered and threatened species that could occur in the area of the subject property that would be subject to the provincial Endangered Species Act. Potential habitat of E&T species will be noted, and will be confirmed through seasonal field investigations if required.

Consultation with the MECP will move forward regarding any habitat covered by the Endangered Species Act which may be affected by the project.

Geomorphic Assessment

In support of the EIS, a geomorphic assessment will be undertaken to inform the determination of watercourse erosion hazard limits and Redside Dace regulated habitat. Specifically, the geomorphic assessment will include a background review of available materials including topographic mapping, watershed reports, recent and historic aerial

photography. Existing geomorphic conditions will be documented using standard rapid assessment protocols. Following applicable policies and guidelines, the meander belt will be delineated; Redside Dace regulated habitat will be identified referencing 30 m from the meander belt. Study findings will be summarized in a technical memo (1 draft and 1 final) to be appended to the EIS.

Data Analysis and Report Preparation

The EIS report will include the following:

- Results of background review and agency consultation;
- Overview of relevant natural heritage policies and regulations;
- Existing conditions assessment of natural heritage features, including summary of field investigations and results of wildlife surveys, habitat assessments and geomorphic assessment;
- Description of the proposed development and / or site alteration activities;
- Assessment of potential impacts to any natural heritage features and functions as a result of the proposed development; and
- Conformity of the proposed development with the applicable municipal and provincial natural heritage policies as well as the TRCA regulations and policies.

Please advise if the TRCA is in agreement with the scope and approach. Also, please advise if the TRCA requires a site visit and or feature staking to move forward with this application.

Beacon has recently visited the property. If you have any questions or wish to discuss any natural heritage aspects of the project in more detail, please don't hesitate to contact us anytime.

Regards,
Lauren

Lauren Cymbaly, M.E.S., Dipl. Eco. Restoration / Ecologist
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To protect our staff, families, clients and the greater community, all Beacon staff are working remotely. We will continue to provide timely communications *via* email and telephone and are committed to providing the highest level of service possible during this challenging time.

From: Lauren Cymbaly
To: Tychon Carter-Newman
Cc: Brian Henshaw; "Rohan Sovig"; raj@nishantransport.com; Carolyn Glass
Subject: RE: 12434 Dixie Road, Caledon – Confirm EIS Terms of Reference (Beacon PN#220196)
Date: Tuesday, October 20, 2020 5:19:00 PM
Attachments: Letter Landscape.pdf
RE 12434 Dixie Road Caledon EIS Terms of Reference.msg
12434 Dixie Road Caledon EIS Terms of Reference.msg
image003.png

Hi Tychon,

As noted in our previous e-mails (attached for reference), we would like to confirm the TOR for this file and we provide the following response to your comments in red:

- *Please include Stormwater and Low Impact Development strategy and a discussion regarding ecologically justified siting of infrastructure in support of the SWM strategy.*
    - The SWM component of the project is being prepared by others and will be reviewed as part of the EIS assessment.

- *Please include an amphibian survey.*
    - Potential amphibian habitat associated with wetland features identified on the subject property are proposed to be retained and an appropriate buffer provided. Under the assumption that these features provide amphibian habitat, it is our opinion that an additional assessment of the function of the wetland (amphibian survey) will not provide additional information as to its status or associated protection policies as the feature is already considered a Key Natural Heritage Feature within the Greenbelt Protected Countryside and therefore does not warrant a delay in the project.

- *Please include a Headwater Drainage Feature Assessment.*
    - The original comments provided by the TRCA at the outset of the project in spring 2020 (Regarding the DART Meeting held on Thursday for PRE 20-65) did not require the completion of an HDFA:

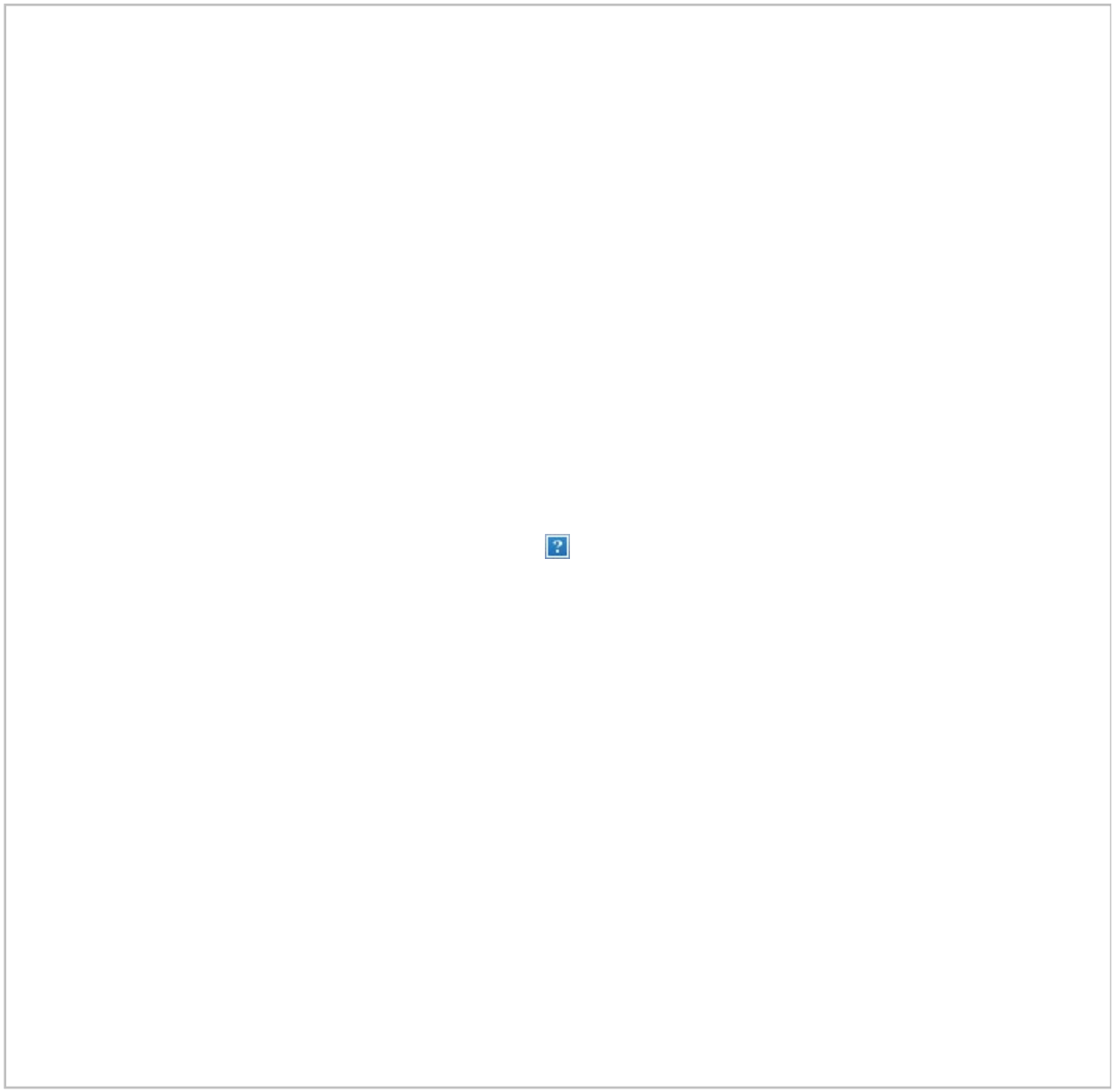
        "Contact Info: *Anthony Syhlonyk: Anthony.Syhlonyk@trca.ca*
        Similar to previously, an EIS will need to be provided and Stormwater Management Plan prepared for the parking area. A Provincially Significant Wetland is present within 120m of the rear property line and would need to be evaluated and appropriately buffered as identified on the conceptual site plan. "

    - Beacon aquatic staff visited the property in mid-June. In order to confirm the site drainage's downstream connection, a site visit in fall 2020 (in the next few weeks) is proposed to verify the presence or absence of any surface connections.

- *Please include wetland delineation according to OWES. Please contact MNRF for any further requirements.*
    - Portions of a PSW (Heart Lake Wetland Complex) is mapped within the woodlands feature south and west of the subject property. Please see attached and below mapping of the existing boundaries published by the province (light blue). An ELC and OWES certified ecologist reviewed lands directly adjacent to the subject property (as is accessible). The woodlands observed adjacent to the subject property were classified as terrestrial using standard ELC protocols (Lee et al., 1998). The feature and an appropriate buffer from the woodlands will be addressed in the EIS.

- *TRCA will also require the delineation of all natural features and hazards associated with the stream corridor. A site visit for the TRCA to stake the feature limits may be required.*
    - Please see attached email and associated documents regarding this line item and please advise whether the TRCA would like to visit the property and have any of the features staked as soon as possible. The

proponent is hoping to make their ZBA submission this year.



Thank you,

Regards,
Lauren

Lauren Cymbaly, M.E.S., Dipl. Eco. Restoration / Ecologist
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To protect our staff, families, clients and the greater community, all Beacon staff are working remotely. We will continue to provide timely communications *via* email and telephone and are committed to providing the highest

level of service possible during this challenging time.

From: Tychon Carter-Newman
To: Lauren Cymbaly
Cc: Brian Henshaw; "Rohan Sovig"; raj@nishantransport.com; Carolyn Glass
Subject: RE: 12434 Dixie Road, Caledon – Confirm EIS Terms of Reference (Beacon PN#220196)
Date: Monday, November 9, 2020 2:10:26 PM
Attachments: image001.png
image003.png

Hi Lauren,

TRCA staff have reviewed the Terms of Reference for the EIS at **12434 Dixie Road, Caledon** and have provided the following comments:

- All of your comments regarding the EIS Terms of Reference are acceptable;
- TRCA staff will be required to stake the dripline of the woodland at the rear of the property.

We will be staking the dripline on Thursday. Please let me know if you have any questions.

Thanks,

Tychon Carter-Newman, MCIP, RPP
Planner
Development Planning and Permits | Planning and Engineering Services

T: (416) 661-6600 x 5936
E: tychon.carter-newman@trca.ca
A: 101 Exchange Avenue, Vaughan, ON, L4K 5R6 | trca.ca

Apply for a TRCA Permit
Regulation Area Search Tool

From: Lauren Cymbaly <lcymbaly@beaconenviro.com>
Sent: Tuesday, October 20, 2020 5:21 PM
To: Tychon Carter-Newman <Tychon.Newman@trca.ca>
Cc: Brian Henshaw <bhenshaw@beaconenviro.com>; 'Rohan Sovig' <rsovig@mgp.ca>; raj@nishantransport.com; Carolyn Glass <cglass@beaconenviro.com>
Subject: RE: 12434 Dixie Road, Caledon – Confirm EIS Terms of Reference (Beacon PN#220196)

Hi Tychon,

As noted in our previous e-mails (attached for reference), we would like to confirm the TOR for this file and we provide the following response to your comments in red:

- *Please include Stormwater and Low Impact Development strategy and a discussion regarding ecologically justified siting of infrastructure in support of the SWM strategy.*
    - The SWM component of the project is being prepared by others and will be reviewed as part of the EIS assessment.

- *Please include an amphibian survey.*
    - Potential amphibian habitat associated with wetland features identified on the subject property are proposed to be retained and an appropriate buffer provided. Under the assumption that these features provide amphibian habitat, it is our opinion that an additional assessment of the function of the wetland

(amphibian survey) will not provide additional information as to its status or associated protection policies as the feature is already considered a Key Natural Heritage Feature within the Greenbelt Protected Countryside and therefore does not warrant a delay in the project.

- *Please include a Headwater Drainage Feature Assessment.*
  - The original comments provided by the TRCA at the outset of the project in spring 2020 (Regarding the DART Meeting held on Thursday for PRE 20-65) did not require the completion of an HDFA:

    "Contact Info: *Anthony Syhlonyk: Anthony.Syhlonyk@trca.ca*
    Similar to previously, an EIS will need to be provided and Stormwater Management Plan prepared for the parking area. A Provincially Significant Wetland is present within 120m of the rear property line and would need to be evaluated and appropriately buffered as identified on the conceptual site plan. "

  - Beacon aquatic staff visited the property in mid-June. In order to confirm the site drainage's downstream connection, a site visit in fall 2020 (in the next few weeks) is proposed to verify the presence or absence of any surface connections.

- *Please include wetland delineation according to OWES. Please contact MNRF for any further requirements.*
  - Portions of a PSW (Heart Lake Wetland Complex) is mapped within the woodlands feature south and west of the subject property. Please see attached and below mapping of the existing boundaries published by the province (light blue). An ELC and OWES certified ecologist reviewed lands directly adjacent to the subject property (as is accessible). The woodlands observed adjacent to the subject property were classified as terrestrial using standard ELC protocols (Lee et al., 1998). The feature and an appropriate buffer from the woodlands will be addressed in the EIS.

- *TRCA will also require the delineation of all natural features and hazards associated with the stream corridor. A site visit for the TRCA to stake the feature limits may be required.*
  - Please see attached email and associated documents regarding this line item and please advise whether the TRCA would like to visit the property and have any of the features staked as soon as possible. The proponent is hoping to make their ZBA submission this year.



Thank you,

Regards,
Lauren

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To protect our staff, families, clients and the greater community, all Beacon staff are working remotely. We will continue to provide timely communications *via* email and telephone and are committed to providing the highest level of service possible during this challenging time.

BEACON ENVIRONMENTAL

Appendix B



Floral Inventory

Appendix B

Floral Inventory

Plant List				
Scientific Name	**Common Name**	**COSEWIC**	**PSO**	**SRank**
Acer negundo	Manitoba Maple			S5
Acer platanoides	Norway Maple			SE5
Acer rubrum	Red Maple			S5
Acer saccharum	Sugar Maple			S5
Achillea millefolium	Common Yarrow			SE5?
Aegopodium podagraria	Goutweed			SE5
Aesculus hippocastanum	Horse Chestnut			SE2
Agrostis gigantea	Redtop			SE5
Agrostis stolonifera	Creeping Bentgrass			SE5
Alliaria petiolata	Garlic Mustard			SE5
Alopecurus pratensis	Meadow Foxtail			SE5
Ambrosia artemisiifolia	Common Ragweed			S5
Anemonastrum canadense	Canada Anemone			S5
Aralia nudicaulis	Wild Sarsaparilla			S5
Arctium minus	Common Burdock			SE5
Arisaema triphyllum	Jack-in-the-pulpit			S5
Asclepias syriaca	Common Milkweed			S5
Barbarea vulgaris	Bitter Wintercress			SE5
Bromus inermis	Smooth Brome			SE5
Caragana arborescens	Siberian Pea Shrub			SE1
Carya ovata	Shagbark Hickory			S5
Chelidonium majus	Greater Celandine			SE5
Cirsium arvense	Canada Thistle			SE5
Cirsium vulgare	Bull Thistle			SE5
Convolvulus arvensis	Field Bindweed			SE5
Cornus racemosa	Grey Dogwood			S5
Dactylis glomerata	Orchard Grass			SE5
Daucus carota	Wild Carrot			SE5
Erigeron strigosus	Rough Fleabane			S5
Eutrochium maculatum	Spotted Joe Pye Weed			S5
Fraxinus pennsylvanica	Red Ash			S4
Hypericum perforatum	Common St. John's-wort			SE5
Impatiens capensis	Spotted Jewelweed			S5
Juglans nigra	Black Walnut			S4?
Lemna minor	Small Duckweed			S5?
Leonurus cardiaca	Common Motherwort			SE5
Leucanthemum vulgare	Oxeye Daisy			SE5
Lolium arundinaceum	Tall Ryegrass			SE5
Lolium perenne	Perennial Ryegrass			SE4
Lonicera tatarica	Tatarian Honeysuckle			SE5
Lotus corniculatus	Garden Bird's-foot Trefoil			SE5
Malus prunifolia	Pear-leaved Crabapple			SE1
Malus pumila	Common Apple			SE4
Medicago lupulina	Black Medick			SE5
Mentha canadensis	Canada Mint			S5
Phalaris arundinacea	Reed Canarygrass			S5
Phleum pratense	Common Timothy			SE5
Picea glauca	White Spruce			S5
Picea pungens	Blue Spruce			SE1
Pinus nigra	Austrian Pine			SE3
Pinus strobus	Eastern White Pine			S5
Plantago lanceolata	English Plantain			SE5
Plantago major	Common Plantain			SE5
Poa pratensis	Kentucky Bluegrass			S5
Populus alba	White Poplar			SE5
Populus tremuloides	Trembling Aspen			S5
Potentilla anserina	Silverweed			S5
Potentilla recta	Sulphur Cinquefoil			SE5
Quercus bicolor	Swamp White Oak			S4
Rhamnus cathartica	European Buckthorn			SE5
Rhus glabra	Smooth Sumac			S5
Rhus typhina	Staghorn Sumac			S5
Rubus idaeus	Red Raspberry			S5
Salix alba	White Willow			SE4
Salix discolor	Pussy Willow			S5
Salix euxina	Crack Willow			SE
Salix x pendulina	(Salix babylonica X Salix euxina)			SNA
Salix x sepulcralis	(Salix alba X Salix babylonica)			SNA
Securigera varia	Purple Crown-vetch			SE5
Solidago altissima	Tall Goldenrod			S5
Solidago canadensis	Canada Goldenrod			S5
Solidago flexicaulis	Zigzag Goldenrod			S5
Sonchus oleraceus	Common Sow-thistle			SE5
Tanacetum vulgare	Common Tansy			SE5
Taraxacum officinale	Common Dandelion			SE5
Thuja occidentalis	Eastern White Cedar			S5
Tilia americana	Basswood			S5
Trifolium pratense	Red Clover			SE5
Trifolium repens	White Clover			SE5
Typha latifolia	Broad-leaved Cattail			S5

Plant List				
Scientific Name	**Common Name**	**COSEWIC**	**PSO**	**SRank**
Ulmus americana	White Elm			S5
Urtica dioica	Stinging Nettle			S5
Verbascum thapsus	Common Mullein			SE5
Vicia cracca	Tufted Vetch			SE5
Vitis riparia	Riverbank Grape			S5

RANK
DEFINITION
EXP
Extirpated - A wildlife species that no longer exists in the wild in Canada, but exists elsewhere.
END
Endangered - A wildlife species facing imminent extirpation or extinction.
THR
Threatened - A wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.

SC
Special Concern - A wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.

RANK
DEFINITION
EXP
Extirpated -A species that no longer exists in the wild in Ontario but still occurs elsewhere.
END
Endangered - A species facing imminent extinction or extirpation in Ontario.
THR
Threatened - A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
SC
Special Concern - A species with characteristics that make it sensitive to human activities or natural events.

RANK
DEFINITION
NX SX
Presumed Extirpated - Species or ecosystem is believed to be extirpated from the jurisdiction (i.e., nation, or state/province). Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered. [equivalent to "Regionally Extinct" in IUCN Red List terminology]

NH SH
Possibly Extirpated - Known from only historical records but still some hope of rediscovery. There is evidence that the species or ecosystem may no longer be present in the jurisdiction, but not enough to state this with certainty. Examples of such evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species or ecosystem has been searched for unsuccessfully, but not thoroughly enough to presume that it is no longer present in the jurisdiction.

N1 S1
Critically Imperiled - At very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.

N2 S2
Imperiled - At high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

N3 S3
Vulnerable— At moderate risk of extirpation in the jurisdiction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.

N4 S4
Apparently Secure - At a fairly low risk of extirpation in the jurisdiction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

N5 S5
Secure - At very low or no risk of extirpation in the jurisdiction due to a very extensive range, abundant populations or occurrences, with little to no concern from declines or threats.

Appendix C



Breeding Birds

Appendix C

Breeding Birds List

Common Name	Scientific Name	Status		Provincial breeding season SRANK [c]	TRCA Status [d]	Area-sensitive (OMNR) [e]	Number of Pairs/Territories
		National Species at Risk COSEWIC [a]	Species at Risk in Ontario Listing [b]				
American Kestrel	*Falco sparverius*			S4	L4		1F
Killdeer	*Charadrius vociferus*			S5	L5		1
Rock Pigeon	*Columba livia*			SNA	L+		1
Mourning Dove	*Zenaida macroura*			S5	L5		1 (23F)
Downy Woodpecker	*Picoides pubescens*			S5	L5		1
Great Crested Flycatcher	*Myiarchus crinitus*			S4	L4		1
Eastern Kingbird	*Tyrannus tyrannus*			S4	L4		2
N. Rough-winged Swallow	*Stelgidopteryx serripennis*			S4	L4		1
Barn Swallow	*Hirundo rustica*	THR	THR	S4	L4		4
Blue Jay	*Cyanocitta cristata*			S5	L5		1
House Wren	*Troglodytes aedon*			S5	L5		2
American Robin	*Turdus migratorius*			S5	L5		3
Gray Catbird	*Dumetella carolinensis*			S4	L4		1
Cedar Waxwing	*Bombycilla cedrorum*			S5	L5		1
European Starling	*Sturnus vulgaris*			SE	L+		3
Warbling Vireo	*Vireo gilvus*			S5	L5		1
Yellow Warbler	*Setophaga petechia*			S5	L5		1
Vesper Sparrow	*Pooecetes gramineus*			S4	L3		1
Savannah Sparrow	*Passerculus sandwichensis*			S4	L4	A	7
Song Sparrow	*Melospiza melodia*			S5	L5		12
Red-winged Blackbird	*Agelaius phoeniceus*			S4	L5		5
Common Grackle	*Quiscalus quiscula*			S5	L5		2
Brown-headed Cowbird	*Molothrus ater*			S4	L5		1
Orchard Oriole	*Icterus spurius*			S4	L5		1
Baltimore Oriole	*Icterus galbula*			S4	L5		1
House Finch	*Haemorhous mexicanus*			SNA	L+		1
American Goldfinch	*Spinus tristis*			S5	L5		3
House Sparrow	*Passer domesticus*			SNA	L+		1

Field Work Conducted On: June 8, June18, and June 30, 2020 F = foraging on
Number of Species: 28 (27 breeding)
Number of (provincial and national) Species at Risk: 1 (Barn Swallow)
Number of S1 to S3 Species: 0
Number of TRCA L1, L2 and L3 Species (Species of Concern): 1 (Vesper Sparrow)
Number of Grassland Area-sensitive Species: 1 (Savannah Sparrow)
KEY
a COSEWIC = Committee on the Status of Endangered Wildlife in Canada
b Protected Species in Ontario List (as applies to SCA)
  END = Endangered, THR = Threatened
c SRANK (from Natural Heritage Information Centre) for breeding status if:
  S1 (Critically Imperiled), S2 (Imperiled),S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure)
  SNA (Not applicable…'because the species is not a suitable target for conservation activities'; includes non-native species)
d Toronto and Region Conservation Authority L rank (Dec 2010):
  L1 to L3 Regional species of concern from highest to lowest; L4 Urban concern; L5 Secure through region; L+ Non-native

e Ontario Ministry of Natural Resources (OMNR). 2000. Significant Wildlife Habitat Technical Guide (Appendix G). 151 p plus appendices.

Appendix D

Endangered or Threatened Species Screening

Appendix D

Endangered or Threatened Species Screening List (Accessed June 22, 2026)

Group	Common Name	Scientific Name	PSO Status	COSEWIC Status	SARA Schedule	SARA Status	S-Rank	Beacon Comments
Birds	Bobolink	*Dolichonyx oryzivorus*	—	SC	1	THR	S4B	
Birds	Eastern Meadowlark	*Sturnella magna*	—	THR	1	THR	S4B	
Birds	Wood Thrush	*Hylocichla mustelina*	—	THR	1	THR	S4B	
Fish	Redside Dace	*Clinostomus elongatus*	—	END	1	END	S2	
Plants	Butternut	*Juglans cinerea*	END	END	1	END	S2?	
Mammals	Eastern Small-footed Myotis	*Myotis leibii*	END	—	—	—	S2S3	
Mammals	Eastern Red Bat	*Lasiurus borealis*	END	END	—	—	S3	
Mammals	Hoary Bat	*Lasiurus cinereus*	END	END	—	—	S3	
Mammals	Little Brown Myotis	*Myotis lucifugus*	END	END	1	END	S3	
Mammals	Northern Myotis	*Myotis septentrionalis*	END	END	1	END	S3	
Mammals	Silver-haired Bat	*Lasionycteris noctivagans*	END	END	—	—	S3	
Mammals	Tri-colored Bat	*Perimyotis subflavus*	END	END	1	END	S3?	

Note: Highlighted species or their habitat are confirmed on site.

Appendix E

2020 Headwater Drainage Feature Assessment

Appendix D

Table 1. Headwater Drainage Feature Assessment Classification – 12434 Dixie Road

Drainage Feature Segment	Step 1		Step 2	Step 3	Step 4	Output from HDFA	Final Management Recommendations	Comments/Rationale
	Hydrology	Modifiers	Riparian	Fish Habitat	Terrestrial Habitat			
2020 Assessments								
HDF-1	Contributing	Agriculture	Important	Contributing	Contributing	Conservation	No Management Required	Defined farm swale with limited cover and ephemeral flow regime
HDF-2	Contributing	Agriculture	Valued	Contributing	Limited	Mitigation	No Management Required	Undefined grass swale with limited hydrologic function.