



Natural Heritage Due Diligence and Development Feasibility Study

12586 and 12612 Woodbine Avenue, Town of Whitchurch-Stouffville, York Region

Kingsdale Development

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- Figure 1: Site Location
Figure 2: Existing Environmental Conditions
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Appendices

- Appendix A Species at Risk Screening**
Appendix B Significant Wildlife Habitat Screening



Acronyms and Abbreviations

DBH	Diameter at Breast height
DFO	Department of Fisheries and Oceans
EIS	Environmental Impact Study
ELC	Ecological Land Classification
ESC	Erosion and Sediment Control
HA	Hectare
HDF	Headwater Drainage Feature
KHF	Key Hydrologic Feature
KNHF	Key Natural Heritage Feature
LIO	Land Information Ontario
KHF	Key Hydrologic Feature
KNHF	Key Natural Heritage Feature
MBCA	Migratory Bird Convention Act
MBR	Migratory Bird Regulations
MECP	Ministry of the Environment, Conservation and Parks
MNR	Ministry of Natural Resources
MNRF	Ministry of Natural Resources and Forestry
NHIC	Natural Heritage Information Center
NHS	Natural Heritage System
OBBA	Ontario Breeding Bird Atlas
O. Reg.	Ontario Regulation
OP	Official Plan
ORAA	Ontario Reptile and Amphibian Atlas
PPS	Provincial Planning Statement
PSW	Provincially Significant Wetland
SAR	Species At Risk
SARA	Species at Risk Act
SC	Special Concern
SWM	Stormwater Management
SWH	Significant Wildlife Habitat
TRCA	Toronto and Region Conservation Authority



1.0 Introduction

SLR Consulting (Canada) Ltd. (SLR) is pleased to provide this Natural Heritage Development Opportunities and Constraints Assessment report for 12586 & 12612 Woodbine Avenue, in the Town of Whitchurch-Stouffville, York Region (the Subject Property – Figure 1). This report contains the results of a preliminary assessment of existing natural heritage features, applicable environmental policies, and development opportunities within the Subject Property. The Subject Property occurs within the planning area for the Toronto and Region Conservation Authority (TRCA) and includes lands regulated by the TRCA under Ontario Reg. 41/42. SLR understands that a cemetery and related funeral uses (e.g., mausoleum, funeral home buildings) are proposed at the Subject Property. Proposed development will require conformity with applicable policies and regulations. The objectives of this assessment include the following:

- Conduct a review of available background information;
- Provide an initial characterization of the existing environmental conditions;
- Identify preliminary development constraints and opportunities through documentation and mapping of features, and interpretation of environmental policy implications;
- Identify areas of high, medium, and low constraint with respect to developable land; and,
- Provide recommendations for next steps and where further study may be necessary.

The information in this report, subject to the statement of limitations, can be used to provide guidance for the development of preliminary site plan options and an understanding of policy implications and considerations. It is also important to note that the results of this assessment can be carried forward to a full Environmental Impact Study (EIS) for the proposed development.

The following Figures are provided as part of this letter report:

- **Figure 1:** Site Location
- **Figure 2:** Existing Environmental Conditions
- **Figure 3:** Constraints and Opportunities

2.0 Environmental Policy Review

2.1 Provincial Planning Statement (2024)

The *Provincial Planning Statement, 2024* (PPS) provides direction to regional and local municipalities regarding planning policies for the protection and management of natural heritage features and resources (Ontario Ministry of Municipal Affairs and Housing, 2024). The Provincial Planning Statement (PPS) defines eight types of Natural Heritage Features (NHF) and adjacent areas and provides planning policies for each. Of these NHF, development is not permitted in:

- Significant Coastal Wetlands
- Significant Wetlands in Ecoregions 5E, 6E and 7E
- Fish Habitat, except in accordance with provincial and federal requirements; or
- Habitat of species designated as Endangered and Threatened, except in accordance with provincial and federal requirements



Additionally, unless it can be demonstrated through an EIS or similar document, that there will be no negative impacts on the natural features or their ecological functions, development and site alteration are also not permitted in:

- Significant Wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E
- Significant Woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River)
- Significant Valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River)
- Significant Wildlife Habitat (SWH)
- Significant Areas of Natural and Scientific Interest (ANSI)
- Other Coastal Wetlands in Ecoregions 5E, 6E and 7E
- Lands defined as Adjacent Lands to all the above

Each of these NHFs is afforded varying levels of protection subject to guidelines, and in some cases, regulations.

The Subject Property, as mapped by the Natural Heritage Information Centre (NHIC), consists of provincial Natural Heritage System, woodlands, a watercourse (Berczy Creek), and unevaluated wetlands (Map 1).

Map 1: NHIC Make A Map depicts the Subject Property (red line) to consist of provincial Natural Heritage System (light green), woodlands (dark green), a watercourse (blue line), and unevaluated wetlands (hollow wetland symbol).



2.2 Species at Risk Act (2002)

The Federal *Species at Risk Act, 2002* (SARA) is administered by Environment and Climate Change Canada (ECCC) (Government of Canada, 2002). It provides habitat protection provisions of aquatic and marine species, while habitat protection of most terrestrial species applies primarily to federally owned lands. The *Act* prohibits the killing, harming, harassing, capturing, or taking SAR and prohibits the destruction of critical habitat that has been defined and regulated for a given species.

There are a number of structures on the property that could provide habitat for Barn Swallow (Threatened in Canada). Further surveys would be required to confirm presence/absence.

For aquatic species, the Federal Minister of DFO is responsible for their governance, except for those species located in national parks, national historic sites, or other protected heritage areas; these areas are overseen by the Federal Minister for the Environment (through the Parks Canada Agency). Any projects that have the potential to contravene SARA must be referred to DFO or ECCC for review to ensure compliance with SARA, regardless of land ownership or potential triggers under the *Canadian Environmental Assessment Act* (CEAA).

Critical habitat is the habitat necessary for the survival or recovery of a listed endangered, threatened, or extirpated species (if a recovery strategy has recommended the reintroduction of that extirpated species). Critical habitat will be identified in the recovery strategy or action plan for each listed species and posted on the SARA Public Registry.

As per the Government of Canada's *Redside Dace Recovery Strategy and Action Plan* (2024), a minimum of 30 m of vegetated area adjacent to an occupied watercourse's meander belt meets the federal definition of 'critical' habitat for Redside Dace (*Clinostomus elongatus*) (Government of Canada, 2024). Riparian vegetation supplies terrestrial insect species for feeding, canopy cover, and contributes to the maintenance of adequate water quality for the species. Consequently, Redside Dace critical habitat (meander belt + 30 m) is still protected under the SARA, despite the recent repeal of the Endangered Species Act (ESA).

Contributing Redside Dace habitat was previously defined and protected under the ESA. While presently, the federal SARA affords protections to indirect habitat to aquatic species. With the recent repealing of the ESA, consultation with DFO is recommended to confirm federal protections (if applicable) of contributing habitat under SARA.

2.3 Fisheries Act (1985)

The *Fisheries Act* (1985), as administered by the Department of Fisheries and Oceans (DFO), was updated on November 27, 2024 (Government of Canada, 1985). The updated *Fisheries Act* aims to protect all fish and fish habitat through general protection provisions. Of these provisions, two core prohibitions provide legislative protection against the death of fish caused by means other than fishing (subsection 34.4(1)), and the "harmful alteration, disruption or destruction of fish habitat" (subsection 35(1)).

Under subsection 2(1) the federal *Fisheries Act*, fish habitat is defined to include all waters frequented by fish and any other areas upon which fish depend directly or indirectly to carry out their life processes. Specific examples of areas that can directly or indirectly support life processes of fish include, but are not limited to, spawning grounds and nursery, rearing, food supply and migration areas.



Redside Dace Critical Habitat (meander belt + 30 m) is protected under the *Fisheries Act*. Consultation with the DFO may be required for potential Redside Dace habitat within the watercourse on the Subject Property (Berczy Creek).

Contributing Redside Dace habitat was previously defined and protected under the ESA. While presently, the federal SARA affords protections to indirect habitat to aquatic species. With the recent repealing of the ESA, consultation with DFO is recommended to confirm federal protections (if applicable) of contributing habitat under SARA.

2.4 Migratory Birds Convention Act (1994)

The *Migratory Birds Convention Act* (MBCA), 1994 (Government of Canada, 1994) and Migratory Birds regulations, 2014 (MBR), along with the provincial *Fish and Wildlife Conservation Act* (1997), protect most species of migratory birds and their nests and eggs anywhere they are found in Canada (Government of Canada, 1994). General prohibitions under the MBCA and MBR protect migratory birds, their nests and eggs and prohibit the deposit of harmful substances in waters / areas frequented by them. The MBR includes an additional prohibition against incidental take, which is the inadvertent harming or destruction of birds, nests, or eggs.

Compliance with the MBCA and MBR is best achieved through a due diligence approach, which identifies potential risk, based on a site-specific analysis in consideration of the Avoidance Guidelines and Best Management Practices information on the Environment Canada website.

2.5 Species Conservation Act (2025)

On June 5, 2025, the Province of Ontario passed Bill 5: *Protect Ontario by Unleashing Our Economy Act, 2025*, which involved amendments to the ESA and enacted the *Species Conservation Act, 2025* (SCA) (Government of Ontario, 2026).

The SCA came into effect on March 30, 2026; replacing the *Endangered Species Act* (ESA, 2007), which was repealed on the same date. This *Act* is administered by the Ministry of Environment, Conservation and Parks (MECP), as was the previous ESA. The SCA protects Endangered and Threatened Species in Ontario that are listed in the *O. Reg. 60/26: Protected Species in Ontario List* (Government of Ontario, 2026). This list excludes formerly listed migratory birds and aquatic species, potentially protected through the federal *Species at Risk Act* (SARA), as well as all previously listed Special Concern species that are not protected through the SCA. For most listed species, where impacts to the protected species are anticipated, a registry and Conservation Plan approach is taken whereby mitigation measures are expected to be taken. There are specific circumstances where a registerable activity becomes a “permit activity” (Government of Ontario, 2026). A list of permit activities are detailed in *O. Reg. 74/26: Permit Activities* and include (but not limited to) acts such as “direct, intended and deliberate” killing or harming of a protected species, or those that result in the “capturing or taking” of a protected species.

Species listed as Special Concern may be afforded protection through policy instruments respecting significant wildlife habitat (e.g., the PPS) as defined by the Province, other relevant authority, or other protections contained in OPs.



Associated regulations include the following:

Species Protection

Undertaking an activity that results in harassment of a species is no longer prohibited under the SCA and therefore does not require a proponent to register, seek a permit, or make use of an exemption.

Habitat Protection

- The new definition of ‘habitat’ does not include indirect habitat used exclusively for foraging or for travelling between dwelling places.
- Under the SCA, habitat is defined as:
 - For animals, (i) the dwelling place (that is occupied or habitually occupied by one or more members of a species for the purposes of breeding, rearing, staging, wintering or hibernating) and ii) area immediately around a dwelling place described in subclause (i) that is essential for the purposes set out in that subclause;
 - For plants, ‘habitat’ is defined as the critical root zone.
 - For all other species (for example, lichens), an area on which any member of the species directly depends to carry out its life processes.

The changes are intended to streamline permit applications and approvals and help projects proceed more quickly while continuing to provide important protections for SAR and their habitat. It remains the proponent’s responsibility to ensure conformity with the SCA.

Under the SCA, provincial authorization for migratory birds and aquatic species (fish and mussels) listed on Schedule 1 of the federal SARA would not be required.

2.6 Oak Ridges Moraine Conservation Plan

The *Oak Ridges Moraine Conservation Plan* (ORMCP) is a regulation created under the *Oak Ridges Moraine Conservation Act 2001*, and it provides direction on land-use and resource management for lands in the Plan Area to which municipal plans must conform (Ontario Ministry of Municipal Affairs and Housing, 2017). The ORMCP establishes several land use designations with varying requirements, including, among others, Natural Core Areas, Natural Linkage Areas, Countryside Areas, and Settlement Areas.

The Subject Property consists of both Countryside Areas and Natural Linkage Areas (Map 2). Countryside Areas are purposed to support agricultural and other rural activities that are aligned with the Plan’s objectives. Permitted uses with respect to land in Countryside Areas, subject to Parts III and IV of the ORMCP, are listed in Section 13 (3) of the ORMCP.

The Natural Linkage Area identified onsite is primarily related to Berczy Creek and adjacent mapped wetlands and woodlands. Development guidelines for Key Natural Heritage Features (KNHFs) and Hydrologically Sensitive Features (HSFs) are summarized in the following sections.



Map 2: NHIC Make A Map depicts the Subject Property (approximated in red) within Countryside Area (beige) and consisting of Natural Linkage Area (light green) under the Oak Ridges Moraine Conservation Plan.



2.6.1 Natural Linkage Areas

Natural Linkage Areas are to be maintained, improved, and/or restored to facilitate linkages between Natural Core Areas and along watercourse corridors. Permitted uses within Natural Linkage Areas are outlined within section 12(3) of the ORMCP. In general, permitted uses within Natural Linkage Areas is restrictive. Infrastructure corridors are only allowed in Natural Linkage Areas if they are “*shown to be necessary and there is no reasonable alternative*” (Ontario Ministry of Municipal Affairs and Housing, 2017).

Over 85% of Key Natural Heritage Features (KNHFs) within the Oak Ridges Moraine are within Natural Core Areas and Natural Linkage Areas.

2.6.2 Key Natural Heritage Features and Hydrologically Sensitive Features

The Plan identifies KNHFs and Key Hydrologic Features (KHF), specifies MVPZs for these features, identifies specific policies that apply within different land use designations, and identifies site specific studies that are required for development applications on lands adjacent to KNHFs and KHFs.

Key natural heritage features (KNHF) as defined in Section 22 of the Plan include:

1. *Wetlands*
2. *Habitat of endangered and threatened species.*
3. *Fish habitat.*
4. *Areas of natural and scientific interest (life science).*
5. *Significant valleylands.*
6. *Significant woodlands.*



7. *Significant wildlife habitat (including habitat of special concern species).*
8. *Sand barrens, savannahs and tallgrass prairies.*

Key Hydrologic Features (KHF) as defined in Section 26 of the Plan include:

1. *Permanent and intermittent streams.*
2. *Wetlands.*
3. *Kettle lakes.*
4. *Seepage areas and springs.*

2.6.3 Minimum Vegetation Protection Zones (MVPZs)

As per Section 21 of the ORMCP, 'minimum vegetation protection zones' and 'minimum area of influence zones' for KNHFs and KHFs would apply, which are generally 30m and 120m, respectively. The following KNHFs/KHFs were considered potential or confirmed in our initial investigations as being present on the Subject Property:

1. *Wetlands* (marsh and thicket swamp communities associated with the watercourse corridor)
2. *Significant portions of the habitat of endangered, rare and threatened species* (potential Contributing Redside Dace habitat and Species at Risk bat habitat)
3. *Fish habitat* (Berczy Creek)
4. *Permanent and intermittent streams* (Berczy Creek)
5. *Significant woodlands* (see assessment provided in Section 5.1, below)

The MVPZs required for these identified KNHF/KHFs are 30 m. As specified in the ORMCP, these 30m setback distances are to be applied from the dripline of significant woodland, outer boundary of wetlands, fish habitat, and established from the meander belt for permanent and intermittent streams.

In general, as per Section 22 of the ORMCP, *All development and site alteration with respect to land within a key natural heritage feature or the related minimum vegetation protection zone is prohibited.*

Based on the preliminary field work and assessment, there are no apparent Significant Wildlife Habitats. This is subject to further, seasonally appropriate surveys (i.e., spring and summer). Should they be identified to occur following further seasonally appropriate field surveys and analysis, they would be expected to be present within already identified natural features.

Development applications on lands within 120 m of any of the KNHFs and KHFs will require a natural heritage evaluation and/or hydrologic evaluation. MVPZs indicated within the ORMCP will apply and identification of natural heritage features through the application of the PPS still applies. Based on the permissions listed in Section 13 of the ORMCP, a stormwater management facility may be permitted on the portion of the Subject Property designated as Countryside Areas within the ORMCP, subject to detailed planning work that incorporates and protects the existing key natural heritage and key hydrologic features.



2.7 York Region Official Plan

York Region Council adopted the current *2022 Regional Official Plan* (YROP) in June 2022, and the Minister of Municipal Affairs and Housing approved the Plan in November 2022 (Region of York, 2024). As per the Region's website, the 2022 YROP has been updated to reflect November changes from Provincial Bill 150 (*Planning Statute Law Amendment Act*) in December 2023 and Bill 162 (*Get It Done Act*) in February 2024 (Region of York, 2024). As of July 1, 2024, the YROP will be deemed to constitute an official plan of Region's lower-tier municipalities, as per Ontario Bill 23 (*More Homes Built Faster Act, 2022*) and Bill 185 (*Cutting Red Tape to Build More Homes Act, 2024*). Following this date, the Region's OP has become a plan of the local municipalities, which are now responsible for implementing and ensuring applications adhere to the plan.

The Region recognizes the value of its Natural Systems, which include the Regional Greenlands and Water Resource System. This system consists of cores, corridors, and linkages including: *Oak Ridges Moraine Conservation Plan's Natural Core Area and Natural Linkage Area designations, approved local natural heritage systems, key natural heritage features [KNHF], key hydrologic features [KHF] and functions, and associated lands*. The function of the Regional Greenlands and Water Resource System is to protect the features listed below, including their adjacent lands.

Features considered as KNHFs/KHFs in the Region include the following, as defined in YROP Section 3.4.1:

- *Habitat of endangered and threatened species;*
- *Fish habitat;*
- *Wetlands;*
- *Life Science Areas and Earth Science Areas of Natural and Scientific Interest (ANSIs);*
- *Significant valleylands;*
- *Significant woodlands;*
- *Significant wildlife habitat (including habitat of special concern species);*
- *Sand barrens, savannahs and tallgrass prairies;*
- *Lakes and their littoral zones;*
- *Permanent and intermittent streams;*
- *Kettle lakes;*
- *Seepage areas and springs; and*
- *Lake Simcoe Shoreline.*

The Subject Property, as per Map 1A (Land Use Designations) of the OP, consists of Rural Area. As per Map 2 of the OP (Regional Greenlands System), the Subject Property consists of both Countryside and Regional Greenlands System (associated with Berczy Creek corridor) (Map 3). The Regional Greenlands System limits on the Subject Property have been delineated and evaluated by SLR as part of this study. As per Map 4 of the OP (Key Hydrologic Features), the Subject Property consists of Permanent or Intermittent Streams and Seeps and Springs (Map 4). Seeps and springs on the Subject Property, if applicable, will be discussed as part of the hydrogeological investigation under a separate cover.



As per Section 3.4.5 of the YROP, development and site alteration are prohibited within KNHFs, KHF, MVPZs, and adjacent lands unless:

- a) *The use is permitted by the Plan, the applicable Provincial Plan and it is demonstrated through an environmental impact study that the development or site alteration will not result in a negative impact on the natural feature or its ecological functions.*

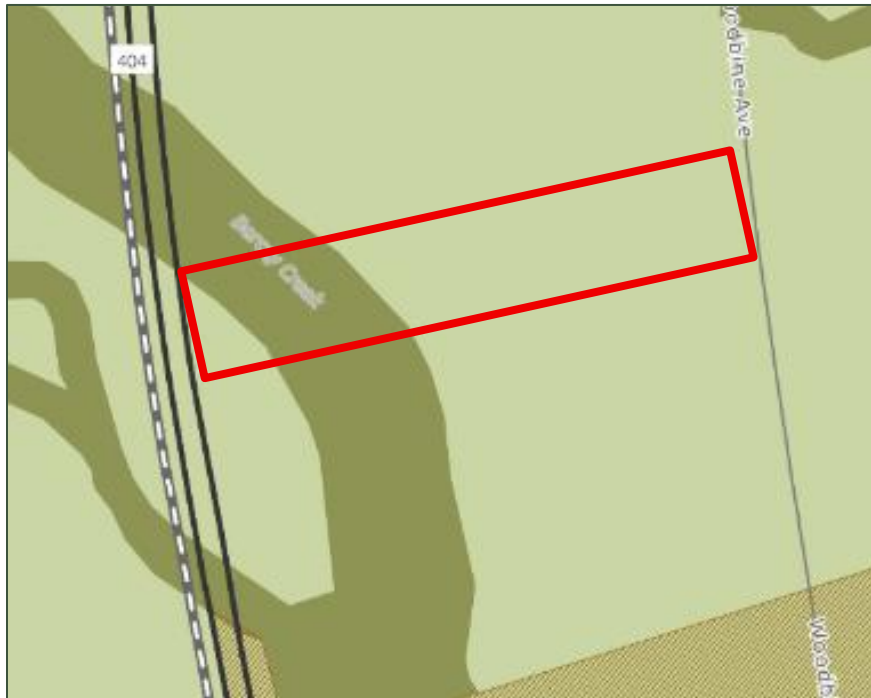
Additionally, Section 3.4.9 states:

That an application for development and site alteration within 120 metres of a key natural heritage feature or key hydrological feature shall be accompanied by an environmental impact study. The requirement for, content and scope of the study will be determined through the pre-consultation meeting and a terms of reference shall be submitted to the approval authority early in the application process. The environmental impact study shall also address the requirements of any applicable Provincial plan.

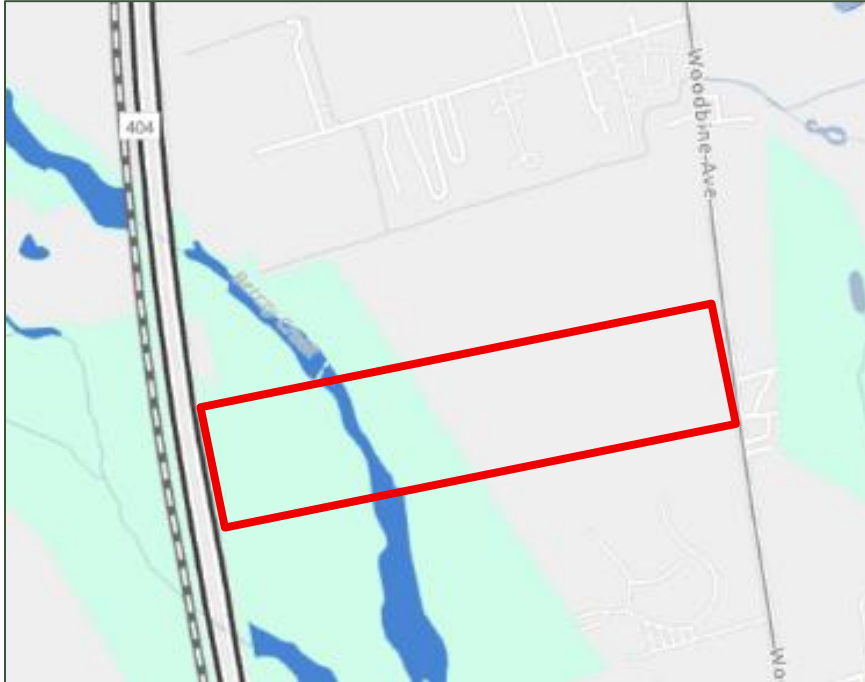
Section 3.4.13 states:

The vegetation protection zone and adjacent land to key natural heritage features and key hydrologic features shall be determined through an environmental impact study and meet the minimum widths identified in Table 3...

Map 3: Map 2 (Regional Greenlands System) of the Region's OP depicts the Subject Property (approximated in red) within the Oak Ridges Moraine Countryside (light green) and consisting of the Regional Greenlands System (dark green).



Map 4: Map 4 (Key Hydrologic Features) of the Region's OP depicts the Subject Property (approximated in red) consisting of Provincially Significant and Provincial Plan Area Wetlands (dark blue) and Seepage Ares and Springs (teal).



2.7.1 Wetland Policies

Section 3.4.19 states:

That notwithstanding policy 3.4.5 of the Plan, development and site alteration is prohibited within Provincially Significant and Provincial Plan Area wetlands as shown on Map 4 of the Plan. Due to the scale of the mapping in the Plan, smaller wetlands may not be visible.

Section 3.4.20 notes that:

To permit development and site alteration within 120 metres of wetlands identified on Map 4, but not within the vegetation protection zone, subject to an approved environmental impact study that demonstrates no negative impacts to the wetland feature or its ecological functions. Notwithstanding the aforementioned, within the vegetation protection zone, development and site alteration may be permitted in accordance with policies 3.2.5.c and 3.2.5.d of the Plan.

Also, in Section 3.4.21:

That applications for development and site alteration within 120 metres of wetlands not evaluated per the Ontario Wetland Evaluation System, or wetlands not shown on Map 4 of the Plan shall be accompanied by an environmental impact study that determines their importance, functions and means of protection and/or maintenance of function, as appropriate, to the satisfaction of the approval authority.



2.7.2 Woodland Policies

The objective of the York Official Plan is to “protect Significant Woodlands and their biodiversity and encourage reforestation to provide environmental, social and economic benefits for the residents of York Region”.

Specifically for woodlands, the YROP Section 3.4.27 states:

That notwithstanding policy 3.4.5.a of the Plan, development and site alteration is prohibited within significant woodlands and their associated vegetation protection zone except as provided for elsewhere within the Plan.

The YROP Section 3.4.30 lists the criteria for qualifying as “significant”:

That significant woodlands be verified on a site-by-site basis and shall include those woodlands meeting one of the following criteria:

- a. *Is 0.5 hectares or larger and:*
 - i. *directly supports globally or provincially rare plants, animals or communities as assigned by the Natural Heritage Information Centre; or,*
 - ii. *directly supports threatened or endangered species, with the exception of specimens deemed not requiring protection by the Province (e.g. as is sometimes the case with Butternut); or,*
 - iii. *is within 30 metres of a provincially significant wetland or wetland including those identified on Map 4, waterbody, permanent stream or intermittent stream;*
- b. *Is 2 hectares or larger and:*
 - i. *is located outside of the Urban Area, Towns and Villages, or Hamlets and is within 100 metres of a Life Science Area of Natural and Scientific Interest, a provincially significant wetland or wetland including those identified on Map 4, significant valleyland, or fish habitat; or,*
 - ii. *occurs within the Regional Greenlands System;*
- c. *Is south of the Oak Ridges Moraine and is 4 hectares or larger in size;*
- f. *On lands in the Greenbelt Natural Heritage System, the woodland will be evaluated for significance based on the requirements of the Greenbelt Plan and associated technical papers.*

2.7.3 Natural Hazard Policies

The objective of Natural Hazard policies within the Plan is to “minimize risks to human health and safety, and property associated with natural hazards” (Region of York, 2024).

Section 3.5.3 of the Plan states:

That development and site alteration are generally prohibited within defined portions of the floodplain, subject to conservation authority regulations.

Section 3.5.6 of the Plan further states that it is the policy of the Council:

To require setbacks, buffers and/or access allowance from hazardous lands and hazardous sites based on a minimum buffer where defined by the local municipality in consultation with the conservation authority, or such distance as may be determined through technical studies or to conform to Provincial regulations.

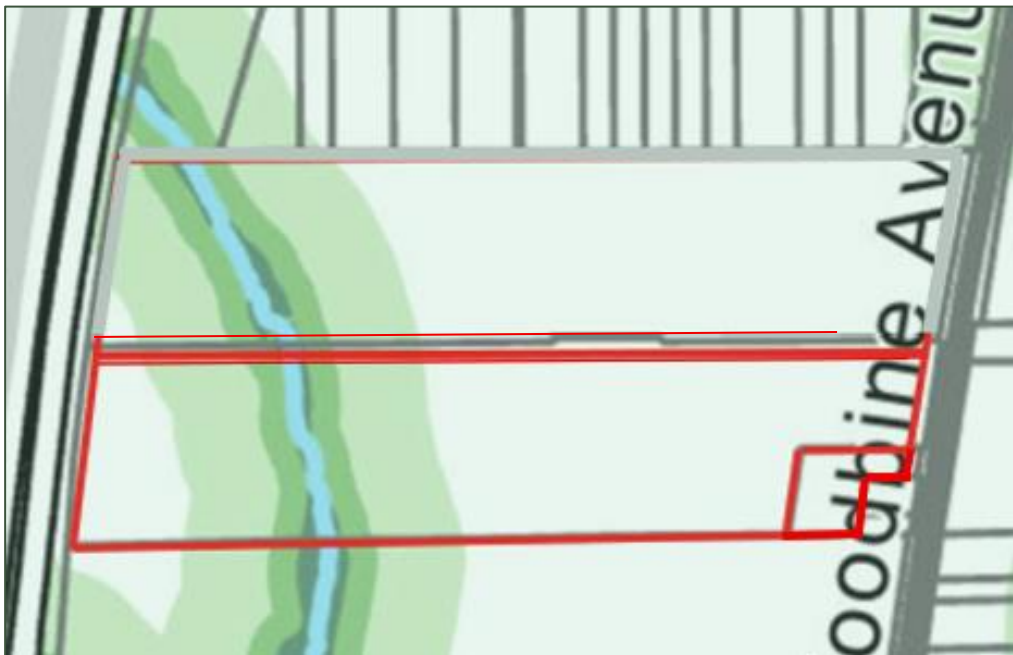


2.8 Town of Whitchurch-Stouffville Official Plan

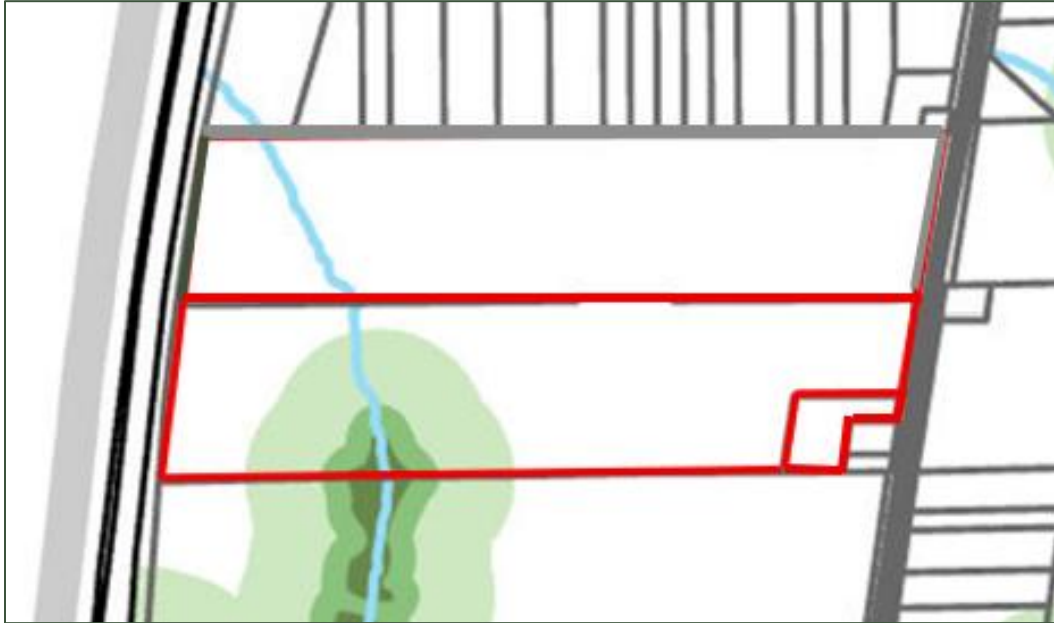
The *Town of Whitchurch-Stouffville Official Plan* (OP) was approved in part, with modifications on September 25, 2025, by the Province of Ontario's Ministry of Municipal Affairs and Housing (Town of Whitchurch-Stouffville, 2025).

The Subject Property consists of Agricultural System and Natural Heritage System (NHS) as shown on the OP's Schedule A – Town Structure. As per the Town's OP Schedule K-3a (Key Hydrologic Features), the Subject Property consists of Streams and Provincially Significant and Provincial Plan Area Wetlands (Map 5). Schedule K-3b (Natural Heritage Features) of the Town's OP depicts the Subject Property consisting of Significant Woodland along its southern boundary (Map 6). Schedule L2 of the Town's OP depicts the Subject Property containing Significant Groundwater Recharge Area and Recharge Management Area. Schedule L3 of the Town's OP shows the Subject Property consisting of both Significant Surface Water Contribution Area and Ecologically Significant Groundwater Recharge Area.

Map 5: The Town's OP Schedule K-3a (Key Hydrologic Features) depicts the Subject Property (approximated in red) consisting of Streams (blue line) and Provincially Significant and Provincial Plan Area Wetlands (dark green). Both the MVPZs (lime green) and Minimum Area of Influence (light green) for both hydrologic features are shown.



Map 6: The Town's OP Schedule K-3b (Natural Heritage Features) depicts the Subject Property (approximated in red) consisting of Significant Woodlands (dark green) with its associated Minimum Vegetation Protection Zone (lime green), and its Minimum Area of Influence (light green).



Per Section 5.1: The Agricultural System of the Town's OP discusses provincially protected areas for agricultural uses as shown on Schedule A – Town Structure. The Subject Property contains lands that make up the local Agricultural System and also includes Countryside Area of the ORMCP. As per Section 5.1.1.1 of the Town's OP, "*The Town will protect and enhance the Agricultural System to support a productive and sustainable agricultural and rural land base...*"

The following policies under Section 4.1.1.1 apply generally to the Town's Natural Heritage System:

The Town will:

- a. *Implement the Provincial Policy Statement, the Growth Plan, the ORMCP, the Greenbelt Plan, the Lake Simcoe Protection Plan, and the York Region Official Plan as follows:*
 - i. *Protect, restore, and enhance the Town's Natural Heritage System;*
 - ii. *Apply minimum vegetation protection zones consistent with policy direction from the Province, York Region, and the Conservation Authorities;*
 - iii. *Encourage, where appropriate, the creation of linkages between natural features that will create and/or restore natural linkages within the Town's Natural Heritage System;*
 - iv. *Identify Natural Core Areas and Natural Linkage Areas and an appropriate policy framework to ensure the conservation of the Oak Ridges Moraine;*
 - v. *Identify the Greenbelt Plan Natural Heritage System; and,*
 - vi. *Integrate York Region's Regional Greenlands System.*



- b. The Water Resource System, as discussed in Section 4.2, is a complementary system to the Natural Heritage System, and that the Town will utilize a systems-based approach to ensure the protection, restoration, enhancement of both the Water Resource System and Natural Heritage System.*

2.8.1 General KNHF/KHF Policies

Schedule K-3a and K-3b—illustrates KHFs and KNHFs. As per Section 4.1.7.1, the Town will:

- a. Protect, restore and maintain key natural heritage features and key hydrologic features and their linkages.*
- b. Recognize the following as key natural heritage features and key hydrologic features:*
 - i. Habitat of endangered species and threatened species;*
 - ii. Fish habitat;*
 - iii. Wetlands;*
 - iv. Life Science Areas and Earth Science Areas of Natural and Scientific Interest (ANSIs);*
 - v. Significant valleylands;*
 - vi. Significant woodlands;*
 - vii. Significant wildlife habitat (including habitat of species at risk, including habitat of special concern species as identified by the Province);*
 - viii. Lakes, including kettle lakes, and their littoral zones;*
 - ix. Watercourses; and,*
 - x. Seepage areas and springs.*
- c. Prohibit development and site alteration within key natural heritage features, key hydrologic features, minimum vegetation protection zones and the minimum area of influence, unless:*
 - i. the use is permitted by this Plan, the York Region Official Plan, and the applicable Provincial Plan, and it is demonstrated through an environmental impact study that the development or site alteration will not result in a negative impact on the natural feature or its ecological functions; or,*
 - ii. as authorized through an Environmental Assessment; or*
 - iii. for agricultural uses, agriculture-related uses and on-farm diversified uses, subject to the applicable Provincial Plan.*
- d. Require key natural heritage features and key hydrologic features to be precisely delineated on a site-by-site basis as part of an Environmental Impact Study completed as part of a development application or other similar study. The precise delineation of features shall occur through the staking of the limits of the feature. Such staking will be undertaken in consultation with the Town, and the applicable Conservation Authority, where required.*



- e. *Permit, where appropriate, minor refinement of the natural heritage features and environmental buffers through site specific applications, as supported through an Environmental Impact Study, without the need to amend this Plan, at the discretion of the Town. Minor refinements may include alignment with property lines, more accurately identifying existing development or cleared envelopes or regularizing the boundaries.*
- f. *Recognize that not all of the key natural heritage features and key hydrologic features may be shown on Schedules K. There are many components that have not been mapped. These components will be determined through future study as development applications are processed based on criteria provided by the Province, and using procedures established by York Region, or the Conservation Authority, where applicable, and will be subject to the applicable policies of this Plan.*
- g. *Ensure that if any lands are demonstrated to be a key natural heritage feature or key hydrologic feature as per the policies this Plan, even if they are not mapped, they will be considered to be a key natural heritage feature or key hydrologic feature for the purpose of the application of the policies of this Plan.*
- h. *In the case of an application relating to the construction of a new building or structure in the minimum area of influence of a key natural heritage feature or key hydrologic feature, not require an Environmental Impact Study if the proposed building or structure is for agricultural uses, agriculture-related uses or on-farm diversified uses and is located a minimum of 30 metres from the key natural heritage feature or key hydrologic feature.*
- i. *Require that any agricultural uses, agriculture-related uses or on-farm diversified uses that are carried out in the minimum area of influence that relates to a key natural heritage feature or key hydrologic feature shall be carried out in accordance with best management practices to protect or restore key hydrologic features and related ecological functions.*
- j. *Generally, not permit stormwater management systems in key natural heritage features and key hydrologic features and their minimum vegetation protection zones. The Town may consider the location of stormwater management systems within a limited portion of a minimum vegetation protection zone, where considered appropriate, and demonstrated there will be no impacts to the feature or its functions, in accordance with an Environmental Impact Study.*
- k. *Not permit stormwater management systems within the Protected Countryside of the Greenbelt Plan shown on Schedule B – Provincial Plan Areas and Designations, within any key natural heritage features and key hydrologic features and their minimum vegetation protection zones, in accordance with the Greenbelt Plan.*
- l. *Prepare a site alteration by-law and tree by-law in accordance with this Plan, the Municipal Act, the Oak Ridges Moraine Conservation Act, and the York Region Official Plan, to support the implementation of the policies of this Plan regarding protection of key natural heritage features and key hydrologic features.*
- m. *Prohibit the removal of a part or whole of any key natural heritage feature or key hydrologic feature. Areas where an unauthorized removal has occurred shall continue to be subject to the policies of this Plan as if the feature was still in place. Following technical review by the Town and the appropriate Conservation Authority, impacted areas will be restored and compensation will be sought of the applicant.*



- n. Not accept parkland dedication for any required setbacks, environmental buffers or vegetation protection zones in accordance with the policies of this Plan and an Environmental Impact Study.*

Section 4.1.1.3 discusses Minimum Vegetation Protection Zones (MVPZs), or, “specified minimum vegetated buffer areas surrounding a key natural heritage feature or key hydrologic feature.” It is the policy of the Town to, “Achieve or exceed minimum vegetation protection zone requirements of the *Greenbelt Plan* and *Oak Ridges Moraine Conservation Plan*, as established in Table 4.” A MVPZ may be increased as determined by an EIS.

As per Section 4.1.12.1, the Town will:

- c. Require an Environmental Impact Study to be carried out by a qualified professional, to determine the potential for habitats of endangered and threatened species before making a decision on an application for development or site alteration.*
- g. A site assessment by a qualified professional may be required to be completed at the appropriate time of year and using accepted protocols to determine the presence of habitat of endangered and threatened species and to assess the impacts that proposed development and activities may have on the habitat of endangered and threatened species. The assessment shall identify whether any endangered or threatened species are present and whether the proposed activities will have any impact on endangered or threatened species or their habitat. The Province should be contacted for further direction regarding site specific proposals.*

The MVPZ for habitat of endangered and threatened species, found within the ORMCP area, will be “*determined in accordance with Provincial and Federal requirements*” (Town of Whitchurch-Stouffville, 2025).

The MVPZ for fish habitat and permanent and intermittent streams, found within the ORMCP area, is to be 30 m as per the Town’s OP (Town of Whitchurch-Stouffville, 2025). The MVPZ for significant wildlife habitat is to be determined through an EIS.

2.8.2 Wetland Policies

The Subject Property contains Provincial Plan Area Wetlands, which are also shown on Schedule K-3a, including their associated MVPZ. The MVPZ for Provincially Significant Wetlands and Provincial Plan Area wetlands, found within the ORMCP area, is to be 30 m as per the Town’s OP (Town of Whitchurch-Stouffville, 2025). Development is prohibited by provincial policy in PSWs, as well as within identified wetlands within the ORMCP. Under 4.1.8.1, the Town will:

- a. Prohibit development and site alteration in Provincially Significant Wetlands or Provincial Plan Area wetlands and their associated minimum vegetation protection zone, as identified on Schedules K or as determined through environmental studies consistent with the PPS and in conformity with the York Region Official Plan. Development and site alteration may be permitted within the 120 metre Area of Influence but not within the minimum vegetation protection zone, subject to an approved Environmental Impact Study that demonstrates no negative impacts to the wetland feature or its ecological functions.*



- b. Require that applications for development and site alteration within 120 metres of non-evaluated wetlands not evaluated per the Ontario Wetland Evaluation System, or wetlands not shown on Schedules K be accompanied by an Environmental Impact Study that determines their importance, functions, and means of protection and/or maintenance of function, as appropriate, to the satisfaction of the approval authority.*
- c. Prohibit development and site alteration in any wetland, permanent stream or intermittent stream, lake, including kettle lake, and their littoral zones, seepage area and springs, except as explicitly permitted by this Plan, and in accordance with all Provincial policy.*
- d. Identify known lakes, including kettle lakes, wetlands, permanent streams and intermittent streams on Schedules K, based upon data available at the time of approval of this Plan. Wetlands not illustrated on Schedules K but are confirmed through detailed studies such as an Environmental Impact Study are also subject to the policies of this Section.*
- e. Non-evaluated wetlands that would qualify as Provincially Significant Wetlands shall be treated as such. The determination of which wetlands qualify shall be aided by consultation with the applicable Conservation Authority.*
- f. Require a minimum vegetation protection zone for wetlands, permanent streams, intermittent streams, lakes including kettle lakes and their littoral zones, seepage areas and springs as established by Table 4.*
- g. Permit refinements to the boundaries or classification of new wetlands without an amendment to this Plan.*
- h. Consider amending this Plan where new wetlands are evaluated by a trained evaluator in accordance with the Ontario Wetland Evaluation System (OWES) manual. Any new wetlands will be subject to the applicable policies of this Plan and the applicable Provincial plan requirements.*
- i. Study and evaluate non-evaluated wetlands through joint initiatives involving the Town, the Conservation Authorities, Province, York Region, a development proponent or other appropriate parties.*
- j. Require the completion of a feature based water balance or budget to ensure that negative impacts to wetlands and hydrologic features are avoided or mitigated for.*
- k. Implement the following targets for wetland restoration, as established by the Town:*
 - i. No loss of wetland area;*
 - ii. A minimum 30 metre natural vegetation buffer for all wetlands;*
 - iii. Achieving 40% of historic wetland coverage;*
 - iv. Focusing on headwaters and flood plain area to provide connectivity;*
 - v. Focusing efforts on marshes and swamps; and,*
 - vi. Emphasizing minimum edge and maximum interior habitat and, maximum connectivity.*
- l. Implement the following targets for riparian restoration, as established by the Town:*
 - i. No net loss of stream length;*



- ii. *A minimum 30 metre natural vegetation buffer on both sides of watercourses which may be reduced to 15 metre in settlement areas subject to an Environmental Impact Study;*
- iii. *Achieving a minimum of 75% of stream length being naturally vegetated; and,*
- iv. *Maintaining less than 10% impervious area which may be increased to 25% in settlement areas.*

2.8.3 Significant Woodland Policies

The western portion of the Subject Property contains area identified as Significant Woodland on Schedule K-3b – Natural Heritage Features, including portions of their associated MVPZ. The MVPZ for Significant Woodlands, found within the ORMCP area, is to be 30 m as per the Town's OP and Provincial Plan policy (Town of Whitchurch-Stouffville, 2025). As per Section 4.1.9.1, the Town will:

- a. *Work with the Region to develop an Urban Forest Management Plan that may include additional local woodlands for protection.*
- b. *Establish the minimum vegetation protection zone for significant woodlands, as established in Table 4 of this Plan. Development and site alteration is prohibited in a significant woodland and its associated minimum vegetation protection zone, except as provided in this Plan.*
- c. *Prohibit new mineral aggregate operations and new wayside pits and quarries or ancillary uses in significant woodlands within the Protected Countryside and the Natural Heritage System unless the woodland is occupied by young plantation or early successional habitat, as defined by the Province).*
- d. *Require an Environmental Impact Study where development or site alteration is proposed within 120 metres of a significant woodland.*
- e. *Require a minimum vegetation protection zone for non-significant woodlands, as determined through an Environmental Impact Study in support of development applications, to the satisfaction of the Town and Conservation Authority, where required.*
- f. *Consider significant woodlands being verified on a site-by-site basis. The determination of woodland significance shall include those woodlands meeting one or more of the following criteria:*
 - i. *Is 0.5 hectares or larger and directly supports globally or provincially rare plants, animals or communities as assigned by the Natural Heritage Information Centre; or,*
 - ii. *Directly supports threatened or endangered species; or,*
 - iii. *Is within 30 metres of a wetland, waterbody, permanent stream or intermittent stream.*
 - iv. *Is 2 hectares or larger, is located outside of a settlement area and is within 120 metres of a Life Science Area of Natural and Scientific Interest, a Provincially Significant Wetland or wetland, significant valleyland, waterbody, permanent stream or intermittent stream; or,*
 - v. *Occurs within the Natural Heritage System.*



2.8.4 Valleyland Policies

Valleylands are not mapped within the Subject Property, as per the Town's OP. However, valleylands may be present onsite, associated with the Berczy Creek corridor. Valleylands are defined as, "natural areas that occur in a valley or other landform depression that has water flowing through or standing for some period of the year. It is the Town's responsibility, working with York Region and the Conservation Authorities, to ensure that the natural heritage features, functions, linkages, and hazards associated with valleylands are respected." The MVPZ for Significant Valleylands, found within the ORMCP area, is to be 30 m as per the Town's OP (Town of Whitchurch-Stouffville, 2025). Under Section 4.1.10.1, the Town will:

- a. *Prohibit development and site alteration in a significant valleyland, except as provided in this Plan.*
- b. *Require an Environmental Impact Study where development or site alteration is proposed within 120 metres of a significant valleyland.*
- c. *Prohibit development and site alteration within a non-significant valleyland, except where it has been demonstrated, to the satisfaction of the Town and Conservation Authority, through an appropriate study, that the modifications will result in permanent remediation and reduction of risk to existing development, serve to improve public safety, or significantly improve existing hydrological or ecological conditions.*
- d. *Require that a minimum vegetation protection zone for non-significant valleylands be determined through an Environmental Impact Study in support of development applications, to the satisfaction of the Town and Conservation Authority.*

2.9 Conservation Authorities Act: Ontario Regulation 41/42

Toronto and Region Conservation Authority (TRCA) regulations and policies apply to development activities within areas described in Section 28 of the *Conservation Authorities Act* and *Ontario Regulation 41/24 (Prohibited Activities, Exemptions, and Permits)*, commonly referred to as Regulated Areas (Government of Ontario, 2024). These include lands with potential hazards associated with watercourses, floodplains, meander belt widths, hazardous lands, wetlands and adjacent lands (up to 30 m), river or stream valleys, and areas that are adjacent or close to the shoreline of the Great Lakes-St. Lawrence River system or to an inland lake and that may be affected by flooding, erosion or dynamic beach hazards.

As depicted in the TRCA's regulation mapping, the Subject Property contains lands regulated under O. Reg. 41/24, associated with Berczy Creek and adjacent natural features (e.g., wetlands, valleyland, meander belt, floodplain), which bisects the Subject Property (Map 6). Under O. Reg. 41/24, a permit would be required from the TRCA prior to development within these regulated lands.

As per Section 7.3.1.4 of *The Living Cities Policies* (Toronto and Region Conservation Authority, 2014), is it the TRCA's policy that when:

- (b) iii. *There exists a natural feature and/or a natural hazard that warrants protection, but it is not captured by Natural System mapping, the limit of the Natural System be determined by the greater of the outer limits of the natural feature and/or natural hazard to development or site alteration, as follows:*



Wetlands – a 30-metre buffer from provincially significant wetlands and a 10-metre buffer for all other wetlands and any contiguous natural features or areas.

Valley or Stream Corridors – a 10-metre buffer from the greater of the long-term stable top of slope/bank, stable toe of slope, regulatory flood plain, meander belt, and any continuous natural features or areas.

Map 7: TRCA Regulation Mapping depicts the Subject Property (red) consisting of TRCA regulated lands (dark green). The Subject Property contains the following TRCA mapped features: crest of slope (green line), Berczy Creek meander belt (orange line), wetlands (teal), wetlands + 30 m (grey hatching), and flood hazard (estimated; dark blue).



3.0 Methodology

3.1 Background Review

SLR has reviewed relevant background material to provide a focus to field investigations and ensure compliance with applicable regulations and policy. Background information collection is guided by the *Natural Heritage Information Request Guide* (Ministry of Natural Resources and Forestry, 2018). Direction from the Ministry of Natural Resources (MNR) and Ministry of Environment, Conservation and Parks (MECP) is to gather natural heritage information and species occurrence records from available sources; the NHIC Make-a-Map application being the main source of information and records from the Ministry itself (Ministry of Natural Resources and Forestry, 2024). Information gathered is recommended to be balanced and supplemented by professional ecological review of potential habitats and characteristics of a project site.



Background review for the Subject Property and overall area included the collection and review of relevant mapping and reports, including regulations and policies (e.g., TRCA documents and datasets), Official Plans, and zoning by-laws; and the NHIC Make-a-Map application for species occurrences and designated area mapping. In addition to these sources, the following data sources were reviewed for the project:

- **Land Information Ontario (LIO):** certain data types including aquatic resource area (ARA) information is available through these publicly available data layers (Government of Ontario, 2024).
- **Atlas of the Breeding Birds of Ontario:** Provides range maps and other information regarding breeding birds in Ontario (Bird Studies Canada, 2025).
- **Ontario Reptile & Amphibian Atlas:** Provides range maps and other information regarding reptile and amphibian species observed in Ontario (Ontario Nature, 2023).
- **Ontario Butterfly Atlas:** Provides range maps and other information regarding Lepidoptera and insects observed in Ontario (Toronto Entomologists Association, 2026).
- **Aerial Photography, including historical photos:** Available on-line mapping sources were reviewed to identify current potential habitat types, biogeography and terrain.

If Species at Risk are identified on the Subject Property, then direction from the *Species Conservation Act* and associated regulations should be followed regarding the need for registry (many cases) or permit, or whether no further action is needed.

3.2 Agency Consultation

A natural feature staking exercise (wetland and the eastern TRCA headwater drainage feature) was completed on June 1, 2026, with SLR and TRCA staff in attendance, along with the Project's Planner, KLM Planning, and the Project's Proponent, Kingsdale Development. During the natural feature staking exercise, TRCA noted to SLR staff that both headwater drainage features on the Subject Property are within TRCA-regulated lands.

3.3 Ecological Surveys

A two-day (May 21 and June 1, 2026) ecological field investigation was completed as part of this development opportunities and constraints assessment. The following provides a description of the survey methodology employed. The investigation was scoped in consideration of the natural features present on-site. It is anticipated that a fulsome EIS will be required as part of the development application.

3.3.1 Vegetation Communities

Vegetation communities were mapped and described according to the Ecological Land Classification (ELC) system for southern Ontario (Lee, et al., 1998). Ecological land units were mapped using background information, on-site observations, aerial interpretation for land outside of the Subject Property, and professional experience.

3.3.2 Aquatic Habitat

An aquatic habitat assessment was conducted for the Berczy Creek corridor on May 21, 2026, which bisects the Subject Property. Stream characteristics collected during the survey included the following:



- Channel structure and morphology;
- Bank condition and signs of erosion;
- Substrate type and composition;
- Riparian vegetation;
- Canopy cover;
- Visual water quality; and
- Presence of in-stream barriers.

3.3.3 Species at Risk Habitat Screening

For the purposes of this report, SAR include species listed as Endangered or Threatened under Ontario's SCA. The protection provisions for species and their habitat within the SCA apply only to those species listed as Endangered or Threatened on the SARO list. Special Concern species may be afforded protection through policy instruments respecting significant wildlife habitat as defined by the Province or other relevant authority, or other protections contained in Official Plan policies.

Prior to field work, existing SAR records were queried with the NHIC database and other background resources. Once in the field, habitat opportunities for SAR on the site were then assessed by comparing habitat preferences of species deemed to have potential to occur against current site conditions. The species noted during the NHIC search and others known through professional experience to have potential to occur were considered in the assessment.

3.3.3.1 Bat Habitat Assessment

As SAR bats were screened as having limited but potential habitat within or adjacent to the Subject Property, a preliminary Bat Habitat Assessment was completed including potential habitat tree (snag) identification. This preliminary assessment was completed on May 21, 2026, during leaf-on conditions. It is recommended that a fulsome bat habitat assessment be completed during leaf-off conditions as part of the anticipated EIS process for the Subject Property.

Based on MNRF guideline, *Maternity Roost Surveys (Forests/Woodlands)*, Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*) and Tri-colored Bat (*Perimyotis subflavus*) may establish maternity roosts in any coniferous, deciduous or mixed wooded ecosite that includes trees at least 10 cm diameter-at-breast height (DBH) and should be considered suitable maternity roost habitat (Ministry of Environment, Conservation and Parks, 2022). Based on aerial imagery and field investigations, both treed areas and isolated trees within the proposed development limit (plus 6 m) were identified within and directly adjacent to the Subject Property.

3.3.4 Incidental Wildlife Observations

All incidental observations of wildlife were recorded by SLR during the all-site visits. Incidental observations included direct sightings and indirect evidence such as nests, tracks, scat, and browse.



4.0 Existing Environmental Conditions

4.1 Site Conditions

The Subject Property is located west of Woodbine Avenue, north of Stouffville Road, east of Highway 404, and south of Bethesda Road. The Subject Property largely consists of active agricultural land and two rural residential properties and generally exhibits a rolling upland topography. Treed hedgerows and isolated landscape trees are present across the Subject Property. Several ancillary structures (e.g. barn, shed) and a small, regenerating deciduous woodland inclusion are associated with the 12612 Woodbine Avenue residential property. A segment of the Berczy Creek corridor, with contiguous wetlands, woodlands, and headwater drainage features, bisects the Subject Property.

4.2 Vegetation Communities

Vegetation communities were mapped and described according to the Ecological Land Classification (ELC) system for southern Ontario (Lee, et al., 1998). Existing environmental conditions are shown in Figure 2, with a general summary of communities provided below in Table 2. Representative photos of vegetation communities are also provided (Photos 1 to 7). Ecological land units were mapped using background information, on-site observations, aerial interpretation for land outside of the Subject Property, and professional experience. Unevaluated wetlands identified in NHIC mapping during the preliminary background review were ground truthed and their presence or absence was verified. It is recommended that further assessment of vegetation communities be conducted as part of the EIS for the development application.

Table 1: Vegetation Communities (2026)

ELC Code	Description
<i>Terrestrial Systems</i>	
Cultural	
AG: Agricultural	Agricultural fields (i.e., annual row crops) comprised most of the Subject Property (Photo 1). The fields were tilled at the time of SLR's investigation.
ANTH: Anthropogenic	These communities were identified within the two lots that comprise the overall Subject Property. Specific lot descriptions are as follows: <u>12612 Woodbine Avenue</u>: A rural residential dwelling with associated ancillary buildings (e.g., barn, shed) and gravel/dirt laneways. The area was also occupied by heavy machinery and motor vehicles. <u>12586 Woodbine Avenue</u>: The entire lot developed for residential purposes, supporting a vacant residential dwelling, landscaping (planted trees, garden beds) and an accessory building (abandoned chicken coop).



ELC Code	Description
CUM1-1: Dry – Moist Old Field Meadow Type	The cultural meadow community within the centre of the Subject Property was noted to contain Tall Goldenrod (<i>Solidago altissima</i>), Wild Carrot (<i>Daucus carota</i>), sedges (<i>Carex</i> sp.), Tufted Vetch (<i>Vicia cracca</i>), Virginia Strawberry (<i>Fragaria virginiana</i>), and Purple Loosestrife (<i>Lythrum salicaria</i>). The occasional, regenerating European Buckthorn (<i>Rhamnus cathartica</i>) and Red Osier Dogwood (<i>Cornus sericea</i>) were also noted (Photo 2). This community is located atop a topographic high-point/mound, surrounded by wetland and drainage features.
HR: Hedgerow	Five hedgerows were located within and along the boundary of the Subject Property. These were composed of mature deciduous trees, primarily the species Black Walnut (<i>Juglans nigra</i>), Manitoba Maple (<i>Acer negundo</i>), American Basswood (<i>Tilia americana</i>), Sugar Maple (<i>Acer saccharum</i>), Sugar Maple (<i>Acer saccharum</i>), Common Buckthorn (<i>Rhamnus cathartica</i>), and American Elm (<i>Ulmus americana</i>) (Photo 3).
Forest	
FOD3-1: Dry – Fresh Poplar Deciduous Forest Type	A small (0.22 ha) poplar-dominated, regenerating forest was identified adjacent to the rural residential lot at 12612 Woodbine Avenue (Photo 4). This community was comprised of White Poplar (<i>Populus alba</i>) and Trembling Aspen (<i>Populus tremuloides</i>) in the canopy. The subcanopy consisted of European Buckthorn and Manitoba Maple. Groundcover was moderately dense and reflected similar species to that of the cultural meadow type.
FOD7-4: Fresh – Moist Black Walnut Lowland Deciduous Forest Type	This deciduous forest was noted to be associated with the Berczy Creek corridor, within the upper valley limits, and to continue off-property to the south (Photo 5). On the Subject Property, the community is approximately 1.05 ha in size. The dripline limit of this community, associated with Berczy Creek, was staked by SLR staff on May 21, 2026. The community was dominated by young Black Walnut with the occasional American Elm, Manitoba Maple, and Basswood. European Buckthorn and Riverbank Grape (<i>Vitis riparia</i>) was frequent throughout the understory. Ground cover consisted of grasses (<i>Phalaris</i> sp.), Common Dandelion (<i>Taraxacum officinale</i>), Virginia Creeper (<i>Parthenocissus quinquefolia</i>), Garlic Mustard (<i>Alliaria petiolata</i>), and European Buckthorn saplings.
Wetland Systems	
MAM: Meadow Marsh	This marsh community was complexed with the thicket swamp community, associated with the Berczy Creek riparian corridor (Photo 6). This community was approximately 0.85 ha in size (together with the SWT community) and dominated by grasses (<i>Phalaris</i> sp.), Narrow-leaved Cattail (<i>Typha angustifolia</i>), and Purple Loosestrife in the understory. The occasional young White Willow (<i>Salix alba</i>), Red Osier Dogwood, and European Buckthorn were noted in the canopy. Ground cover within the community was dominated by Tall Goldenrod, Common Jewelweed (<i>Impatiens capensis</i>), and Meadow Horsetail (<i>Equisetum pratense</i>).



ELC Code	Description
SWT: Thicket Swamp (European Buckthorn)	This thicket swamp was complexed with a meadow marsh community (0.85 ha in size), associated with the Berczy Creek riparian corridor (Photo 7). The canopy was dominated by dense European Buckthorn with the occasional dead ash (<i>Fraxinus</i> sp.) and young American Elm. Ground cover within the community was sparse given the dense canopy above. A European Reed (<i>Phragmites australis</i>) inclusion was also noted as contiguous with the SWT community and associated with the manmade drainage ditch to the east of Berczy Creek.

Photo 1: Agricultural (annual row crop) community (AG) on the Subject Property (May 21, 2026).



Photo 2: Old Field Cultural Meadow Type community (CUM1-1) centrally located within the Subject Property (May 21, 2026).



Photo 3: Hedgerow community (HR) along the southern boundary of the Subject Property (May 21, 2026).



Photo 4: Poplar Deciduous Forest Type (FOD3-1) associated with the rural residential lot in the centre of the Subject Property (May 21, 2026).



Photo 5: Black Walnut Lowland Deciduous Forest Type (FOD7-4) along the Berczy Creek corridor (May 21, 2026).



Photo 6: Meadow Marsh (MAM) community associated with the Berczy Creek riparian corridor (May 21, 2026).



Photo 7: Swamp Thicket (SWT) community (red arrow) associated with the Berczy Creek riparian corridor (May 21, 2026).



4.3 Aquatic Habitat

4.3.1 Berczy Creek

Berczy Creek is regulated by the TRCA and is located within the Berczy/Bruce Creek subwatershed. The Berczy/Bruce Creek subwatershed is within the Rouge River watershed. Berczy Creek bisects the Subject Property through the thicket swamp and meadow marsh wetland complex, flowing from north to south (Figure 2).

SLR ecologists completed an aquatic habitat assessment of Berczy Creek on May 21, 2026. The creek enters the Subject Property from the north across a farming access road (Photo 8) resulting in a subsequent cascade (i.e., potential fish barrier to non-salmonid species). Other potential minor fish barriers (e.g., wood debris build up) were observed throughout the reach. At the time of SLR's May 2026 survey, the creek channel was well-defined and generally meandering in its upper reaches (Photo 9). Near the upstream limit of the Subject Property, flow disperses across multiple channels over an approximately 90 m-long section before reconfiguring into a single, defined channel through the remainder of the property (SLR Consulting (Canada) Ltd., 2026). Substrate within the creek bed was highly variable and consisted of pebbles and small gravels, likely placed angular cobbles, and comminuted material, with a silty-clay matrix. In general, the channel banks were noted as being well vegetated and mostly vertical (Photo 10) with the exception of areas of meadow marsh (SLR Consulting (Canada) Ltd., 2026). The northernmost and southernmost segments of Berczy Creek, on the Subject Property, were noted as being well-shaded due to dense European Buckthorn in the canopy. Very little in-channel vegetation was noted within the creek where European Buckthorn (SWT) dominated the canopy. In pockets of meadow marsh (Photo 11) along the riparian corridor, shading of the channel was relatively less abundant. In-channel vegetation within the meadow marsh consisted of Narrow-leaved Cattail, Purple Loosestrife, and grasses.

The feature was noted to exit the Subject Property via a single defined channel, with gradual shallow banks and heavily shaded by the overarching canopy (consisting of primarily White Willow (*Salix alba*); Photo 12).

Between 2005 and 2007, the MNR conducted an inventory of fish species within Berczy Creek, approximately 2 km upstream and 5 km downstream of the Subject Property. Brown Bullhead (*Ameiurus nebulosus*), Brown Trout (*Salmo trutta*), Rainbow Trout (*Oncorhynchus mykiss*), Smallmouth Bass (*Micropterus dolomieu*), and White Sucker (*Catostomus commersonii*) were recorded both upstream and downstream of the Subject Property (Ministry of Natural Resources, 2024).

4.3.2 Redside Dace

Through review of DFO's Aquatic SAR mapping (Fisheries and Oceans Canada, 2025), approximately 780 m downstream of the Subject Property, Berczy Creek is identified as Critical Habitat for Redside Dace. Due to being surficially connected to known Critical Habitat, the portion of Berczy Creek within the Subject Property may also provide habitat function for Redside Dace and consultation with DFO is required to determine habitat protections.



Photo 8: Berczy Creek enters the Subject Property via a farming access road to the north (photographer facing west; May 21, 2026).



Photo 9: Confluence of two channels of Berczy Creek (photographer facing east; May 21, 2026).



Photo 10: Vertical, well-vegetated banks along Berczy Creek. Shade is provided by the above canopy (photographer facing north; May 21, 2026).



Photo 11: Berczy Creek channel traversing the meadow marsh community (photographer facing northeast; May 21, 2026).



**Photo 12: Berczy Creek exiting the Subject Property
(photographer facing south; May 21, 2026).**



4.3.3 Headwater Drainage Features

A headwater drainage feature (HDF) was noted to the west of Berczy Creek, along the southern boundary of the Subject Property (HDF1) (Figure 2). This drainage feature was noted as originating at the northern edge of the forest community (FOD7-4), with gradual shallow banks heavily vegetated by both woody and herbaceous species (see Section 4.1). The feature consisted of saturated soils with minor surface water ponding at its upstream point (Photo 13). Saturated, mucky soils were noted immediately upstream of the feature within the agricultural field, but no defined channel was observed. The drainage feature terminates downstream at its confluence with Berczy Creek. It is SLR's assessment that this feature is either intermittent or ephemeral in nature and primarily receives surface water from the adjacent agricultural field during high flow periods. Further studies as part of the EIS process may be required.



**Photo 13: Headwater drainage feature (HDF1) west of Berczy Creek
(photographer facing southeast; May 21, 2026).**



A second HDF was recorded on the Subject Property, immediately east of Berczy Creek (HDF2) (Figure 2). It is SLR's assessment that this drainage feature was likely manmade and/or realigned for purposes relating to agricultural activity. The drainage feature was noted as originating within adjacent lands to the north and terminating at its confluence with the Berczy Creek natural corridor. The feature was recorded as a ditch with defined banks at its upstream and midpoints (HDF2b) (Photo 14), with the channel dissipating into a European Reed patch (Photo 15) and subsequently, the MAM/SWT community prior to reaching Berczy Creek (HDF2a). HDF2b is aligned from north to south and was found dry at the time of the May 2026 survey. Saturated soils were noted within HDF2b. HDF2b was heavily vegetated with grasses (*Phalaris* sp.), European Reed, and Purple Loosestrife with its banks dominated by cultural meadow species. Further studies as part of the EIS process may be required. During the site meeting with the TRCA, TRCA described HDF2B as a "regulated feature". SLR recognizes that this HDF is within a regulated area, however, it is our understanding that HDFs are not regulated by conservation authorities.



**Photo 14: Headwater drainage feature (HDF2b) to the east of Berczy Creek
(photographer facing north; May 21, 2026).**



**Photo 15: European Reed patch at the downstream point of HDF2b
(photographer facing south; May 21, 2026).**



4.4 Incidental Wildlife Observations

At the time of the field investigations, Eastern Grey Squirrels (*Sciurus carolinensis*), and Monarch Butterfly (*Danaus plexippus*) were noted. White-tailed Deer (*Odocoileus virginianus*) and Raccoon tracks (*Procyon lotor*) were also recorded.

Due to the rural conditions of the surrounding landscape, additional species expected to occur include Coyote (*Canis latrans*), Red Fox (*Vulpes vulpes*), and Skunk (*Mephitis mephitis*).



5.0 Assessment of Significance

5.1 Woodlands

To assess the significance of woodlands within the Subject Property, the York Region OP and ORMCP have been reviewed. Under the York Region OP, policy 3.4.30 states:

That significant woodlands be verified on a site-by-site basis and shall include those woodlands meeting one of the following criteria:

... e. On the Oak Ridges Moraine the woodland will be evaluated for significance based on the requirements of the Oak Ridges Moraine Conservation Plan and associated technical papers; or, ..."

Therefore, assessment of significance for woodlands on the Subject Property were determined using the ORMCP's Technical Paper 7 (Identification and Protection of Significant Woodlands). The Technical Paper states:

For the purposes of applying the policies of the ORMCP, significant woodlands shall mean woodlands that have either:

(a) a tree crown cover of over 60% of the ground, determinable from aerial photography ("forest" of Lee et al. 1998); ...

And, which have a minimum average width of 40 metres or more measured to crown edges.

And, which are:

(c) 4 hectares or larger in size located in the Countryside or Settlement Areas of the ORMCP; or

(d) 0.5 hectare or larger in size located in the Natural Core or Natural Linkage Areas of the ORMCP; or

(e) 0.5 hectare or larger located within or intersecting with a key natural heritage feature or hydrologically sensitive feature or their vegetation protection zone.

Using the above policy context, the two forest communities identified on site have been assessed for significance, as follows.

Black Walnut Lowland Deciduous Forest (FOD7-4)

The FOD7-4 community was recorded along the fringes of the Berczy Creek corridor, contiguous with both Berczy Creek and its riparian wetland community. The treed community is also noted as extending off the Subject Property.

As per the ORMCP Technical Paper 7, the FOD7-4 community is considered a Significant Woodland as it intersects with a wetland, watercourse, is within the ORM Natural Linkage Area. The community is approximately 1.05 ha in size within the Subject Property thus, also meeting the 0.5 ha size criteria in this case. In accordance with the size and configuration criteria of ORMCP Technical Paper 7, the limits of the Significant Woodland along the southern Subject Property boundary have been established where feature widths are 40m or greater, beyond which would be considered Hedgerow instead.

Town of Stouffville OP mapping (Schedule K-3b) also identifies the southern extent of the forest community as Significant Woodland.

The FOD7-4 community is also considered Potential SWH and is discussed further in Section 5.5. Poplar Deciduous Forest (FOD3-1)



This small woodland, that is approximately 0.22 ha in size, is not a Significant Woodland under the ORMCP because it is not 0.5 ha or larger, is not within Natural Core Area/Natural Linkage Area, nor does it intersect with another KNHF or its VPZ. This feature is not mapped within the Town's OP.

There are no known special or sensitive features associated with this woodland to date. However, further studies (e.g., Species at Risk assessment) will be required as part of the EIS process to determine the community's function as it relates to wildlife habitat.

5.2 Wetlands

There are no provincially significant wetland on or directly adjacent to the property. The wetlands are identified by the Region as provincial plan wetland, which SLR assumed to be the same as unevaluated wetlands. There are 0.85 ha of swamp thicket (SWT) and marsh (MAM) wetland on the Subject Property. Flora present will be incorporated into the assessment as part of the EIS process. The SWT and MAM complex form the riparian zone of Berczy Creek but remain unevaluated by the MNRF. This wetland complex, however, is classified as a Provincial Plan Area Wetland by the York Region and Town of Whitchurch-Stouffville OPs. A natural feature staking exercise was completed by SLR and TRCA staff on June 1, 2026 to delineate the swamp thicket and marsh wetland (Figure 3). The stakes were surveyed by an Ontario Land Surveyor (OLS).

Wetlands (regardless of evaluation status) are considered either KNHF or KHF under both the ORMCP and York Region policies. The wetlands on the property are all retained under the proposed development. This is discussed further under Impacts and Mitigation.

5.3 Watercourses and Aquatic Habitat

It is SLR's understanding that Berczy Creek functions as a permanent watercourse; with records of Salmonid species (i.e., Brown Trout and Rainbow Trout) within the feature indicating that Berczy Creek is likely a cool to coldwater aquatic system with good water quality and low thermal fluctuations. However, as per the Rouge River Watershed Plan, the headwaters of Berczy Creek are known to have significant temperature fluctuations that may interrupt the feature's function as a cool to coldwater system. These temperature fluctuations have been attributed to on-line ponds, lack of riparian vegetation, and/or adjacent development (Toronto and Region Conservation Authority, 2007). Through review of DFO Aquatic SAR mapping (Fisheries and Oceans Canada, 2025), approximately 780 m downstream of the Subject Property, Berczy Creek is identified as Critical Habitat for Redside Dace. Due to being surficially connected to known Critical Habitat, the reach within the Subject Property may also be identified as Critical Habitat by DFO, or contributing habitat, and will require consultation to determine habitat protections.

Additional studies for Berczy Creek, during the appropriate season(s), are expected to be required as part of the EIS process.

5.3.1 TRCA Regulated Headwater Drainage Features

During the natural feature staking exercise conducted on June 1, 2026 for the Subject Property, SLR staff were notified by TRCA staff that both headwater drainage features (HDF1, HDF2) are regulated by the TRCA. With both HDFs observed as dry by mid-spring of 2026, neither are likely considered fish habitat but may be considered as contributing fish habitat. HDF1 to the west of Berczy Creek is currently within the main natural heritage corridor and will be protected from the proposed development.



Both drainage features will require further studies, during the appropriate season(s), as part of the EIS process to determine flow regimes and assign a management recommendation.

Opportunities to relocate HDF2 may be explored, and a conceptual proposed location has been provided (Figure 3). This relocation would maintain the primary function of this feature as a conveyor of flows to the wetland and Berczy Creek. This would work also provide an opportunity to complete invasive species management related to the Phragmites that has established. Further study and discussions related to this relocation would be required.

5.4 Species at Risk

Based on available background information and the field investigations conducted, a preliminary screening of the Subject Property for potential SAR habitat opportunities was conducted by SLR ecologists in 2026. The assessment was conducted by comparing habitat preferences of species deemed to have potential to occur against current site conditions. This SAR habitat assessment can be found in Appendix A, providing a brief description of each species' habitat (including those with records nearby, but deemed to not have potential habitat), as well as a discussion of habitat suitability within the Subject Property, potential impacts, and mitigation, where applicable. Based on the rationale provided in Appendix A, the following 12 SAR have been identified as having potential habitat within the Subject Property:

Birds

- Chimney Swift (*Chaetura pelagica*) – Threatened (SCA)
- Barn Swallow (*Hirundo rustica*) – Special Concern (SARA)
- Eastern Wood Pewee (*Contopus virens*) – Special Concern (SARA)

Herptiles

- Snapping Turtle (*Chelydra serpentina*) – Special Concern (SARA)

Mammals

- Little Brown Myotis (*Myotis lucifugus*) – Endangered (SCA)
- Northern Myotis (*Myotis septentrionalis*) – Endangered (SCA)
- Tri-colored Bat (*Perimyotis subflavus*) – Endangered (SCA)
- Silver-haired Bat (*Lasionycteris noctivagans*) – Endangered (SCA)
- Hoary Bat (*Lasiurus cinereus*) – Endangered (SCA)
- Eastern Red Bat (*Lasiurus borealis*) – Endangered (SCA)

Fish

- Redside Dace (*Clinostomus elongatus*) – Endangered (SARA)

Insects

- Monarch Butterfly (*Danaus plexippus*) – Endangered (SARA)



Further SAR investigations will be conducted as part of the EIS process for the Subject Property.

5.5 Significant Wildlife Habitat

Significant Wildlife Habitat (SWH) can be difficult to appropriately determine at the site-specific level, as the assessment must incorporate information from a wide geographic area and consider other factors such as regional resource patterns and landscape effects. To help with site level assessments, the MNR has developed the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (Ontario Ministry of Natural Resources and Forestry, 2015). The planning authorities have the responsibility to identify SWH. Except for wintering deer yards (as mapped by the MNR), the detailed identification and designation of SWH has not been completed in York Region or the Town of Whitchurch-Stouffville.

SWH is considered a significant feature in Provincial, Regional, and Town OP policies. SWH is defined by the MNR in the *Significant Wildlife Habitat Technical Guide* (Ontario Ministry of Natural Resources, 2000) and the *Natural Heritage Reference Manual* (Ontario Ministry of Natural Resources, 2010) and includes the following broad categories:

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

Criteria for the identification of these features are also provided in the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E*. These criteria were used to provide a screening for wildlife habitat within the Subject Property for potential SWH within and immediately adjacent to the proposed development footprint, as detailed in Appendix B. As part of SLR's preliminary investigations, SLR has determined that there is potential Candidate or Confirmed SWH for:

- Potential Seeps and Springs
- Amphibian Breeding Habitat (Wetlands)
- Terrestrial Crayfish
- Other Rare Vegetation Communities
- Special Concern and Rare Wildlife Species
- Amphibian Movement Corridors

Further studies associated with the EIS process are required to determine the presence of Candidate or Confirmed SWH on the Subject Property.

Rare Vegetation Communities SWH was considered by SLR staff following field verification of the Fresh-Moist Black Walnut Lowland Deciduous Forest (FOD7-4) community. This ELC community (FOD7-4) is ranked as S2S3 by the Natural Heritage Information Centre (Ministry of Natural Resources and Forestry, 2021). As the Study Area is within Ecoregion 6E and falls within a riparian area, there is some question whether this community is to be considered SWH as the ELC System identifies this community as being associated with Ecoregion 7E. However, Black Walnut is a commonly planted tree and will regenerate and expand readily in neighbouring fields and open areas and establish dominance. The Study Area is highly disturbed resulting from agricultural and anthropogenic activity.



Scattered Black Walnut was also observed throughout the anthropogenic communities on the Subject Property. The establishment of dominance of Black Walnut in this area may be anthropogenic in character and not considered a naturally occurring Black Walnut forest community. This community remains as *Potential or Candidate SWH* until further assessment of the area, including representation of flora, has been completed.

6.0 Proposed Development

The proposed development within the Subject Property consists of a cemetery and related funeral uses (e.g., mausoleum, funeral home buildings; Figure 3). The proposed development seeks to utilize the land for institutional and employment uses located near a major highway (Highway 404). The Proposed Development consists of four buildings that contribute to the cemetery use, including a reception and crematorium, a warehouse, a funeral establishment, and a mausoleum. The reception, crematorium and mausoleum also include underground parking levels. The mausoleum is located in the west portion of the Subject Property and is connected to the main cemetery grounds by a bridge that crosses an existing natural heritage feature (i.e., Berczy Creek). A stormwater management pond is located near the site entrance, where two vehicular access points are proposed along Woodbine Avenue. Internal roads and pedestrian pathways on the Subject Property connect all major components, allowing efficient circulation for visitors, funeral processions, and maintenance operations.

The proposed development largely avoids the natural heritage features on the Subject Property with the exception of the proposed bridge crossing over Berczy Creek (Figure 3). The removal of isolated trees, treed hedgerows and a small poplar-dominated regenerating deciduous forest inclusion are proposed for removal. The proposed development also includes the realignment of the TRCA regulated HDF2 through the existing old field cultural meadow (CUM1-1) community. This proposed realignment is subject to fluvial geomorphological assessment and further ecological study.

An updated site plan, submitted by the project's planner (KLM Planning), for the Subject Property indicates preliminary designs for two additional stormwater management (SWM) ponds to the east and west of the Berczy Creek corridor. The design and location of these preliminary SWM ponds will be discussed as part of the EIS process.

7.0 Environmental Constraints and Opportunities

In the context of the preceding policy framework and on the basis of the results of SLR's background research and initial site investigations, we offer the following preliminary assessment of constraints and opportunities for the Subject Property (Figure 3). It should be noted that preliminary constraints and opportunities have been identified based on two site visits; therefore, adjustments to the constraint areas may occur based on future detailed seasonal ecological investigations. A summary of total developable area is shown in Table 2.

A summary of the environmental constraints and opportunities associated with the Subject Property is provided below:

High Constraint – Restricted Development Potential (approximate areas shown in red on Figure 3 and Table 2)

- Permanent/Intermittent streams (Berczy Creek) and fish habitat require a 30 m MVPZ under the ORMCP. These features are considered high constraint.
- The meander belt of a permanent/intermittent stream (Berczy Creek) requires a 30 m MVPZ under the ORMCP. This feature is considered high constraint.



- Significant Woodland and wetland communities (FOD7-4, MAM/SWT) associated with Berczy Creek within the ORMCP Natural Linkage Area and the Town's NHS are identified as high constraint and require a 30 m MVPZ.
- Valley and/or stream corridors require a 10 m setback from "the greater of the long-term stable top of slope/bank, stable toe of slope, regulatory flood plain, meander belt, and any continuous natural features or areas" as per TRCA policies (Toronto and Region Conservation Authority, 2014). This is identified as high constraint; a 10 m setback has been applied to the Berczy Creek floodplain.
- The realigned HDF2 and its 30 m wide corridor are subject to fluvial geomorphological assessment, further ecological study, and agency approvals. The feature and its 30 m corridor are identified as high constraint.

Moderate Constraint – Further Study Required (approximate areas shown in yellow/green hatching or purple hatching on Figure 3 and Table 2)

- The reach of Berczy Creek on the Subject Property is directly connected to (but currently not identified as part of) known Critical Habitat for Redside Dace approximately 780 m downstream (Fisheries and Oceans Canada, 2025). DFO's current aquatic SAR mapping is considered coarse, and to be used as an initial reference source. DFO consultation is required to clarify if the reach of Berczy Creek is also considered Critical Habitat, and subject to the protection provisions for aquatic species under SARA and the *Fisheries Act*. In this context, Redside Dace habitat (i.e., Berczy Creek, its meander belt and a 30 m MVPZ) is considered moderate constraint. However, this constraint is superseded by ORMCP meander belt policies and thus, is not mapped.
- Both headwater drainage features (HDF1, HDF2) on the Subject Property are identified as a moderate constraint with a 30 m MVPZ and are subject to further study as part of the EIS process.
- Further study is required regarding the old barn at 12612 Woodbine Avenue (purple hatching). The structure could provide habitat for SAR bats and/or Barn Swallow. No MVPZ has been applied.

Moderate Constraint – Further Study Required: Species at Risk Assessment (approximate areas shown in orange on Figure 3 and Table 2)

- The hedgerow (HR) features on the Subject Property have been identified as moderate constraints, as additional studies are required to determine their significance and potential for SAR habitat.
- The Poplar Deciduous Forest (FOD3-1) inclusion has been identified as moderate constraint, as additional studies are required to determine its significance and potential for SAR habitat.
- The anthropogenic (ANTH) areas on the Subject Property have been identified as moderate constraint, as additional studies are required to determine the potential for SAR habitat within the existing structures and planted landscape trees.

Other Constraints and Risks (not mapped)

- In the absence of standard spring and summer surveys (e.g., breeding birds), it is possible that not all potential environmental constraints have been identified. There may be additional SAR habitat not noted during the initial site investigation.



- Seeps and Springs have been mapped on the Subject Property as per Map 4 of the Region's OP. Potential occurrences of seeps and any associated constraints associated with this feature are discussed as part of the hydrogeological investigation for the Subject Property under a separate cover.

Low Ecological Constraint – Developable (approximate areas shown in green on Figure 3 and Table 2)

- The lands within the ORMCP Protected Countryside, that do not consist of KNHF, KHF, or MVPZ are categorized as Low Constraint. However, limitations to development within the ORMCP Protected Countryside policies are in place. Typically, agricultural and specific other related development is permitted within the Protected Countryside under the applicable policies.

Table 2: Summary of Approximate Constrained and Developable Lands at 12612 & 12586 Woodbine Avenue (Figure 3)

Approximate Total Land Area (ha)	High Constraint + Setback (ha)	Moderate Constraint - Further Study (ha)	Moderate Constraint - Further Study (SAR Assessment Required) (ha)	Low Ecological Constraint (ha)
17.5	2.6 (15%)	0.5 (3%)	3.0 (17%)	11.4 (65%)
Red = Development Constraint Yellow = Development Potential (subject to further study) Orange = Development Potential (subject to further SAR Assessment) Green = Developable Lands (with ORMCP policy constraints)				

8.0 Impact Assessment and Mitigation Measures

As the development application advances, further field assessment and review of potential impacts of a more detailed development plan will be needed. The following section provides a general description of potential impacts and mitigation considerations for the identified natural features. For example, a crossing of the watercourse to access the western lands is proposed. Given the significant features within this area, further review of options, locations and design is needed. A preliminary design and location for two SWM ponds has been provided by the project's planner (KLM Planning) however, these will be assessed and discussed from an ecological perspective as part of the EIS process. The final location of stormwater management facilities will also need to be determined in consultation with the project engineer.

8.1 Potential General Impacts

Potential impacts of the proposed development on the Subject Property can be divided into two types: those primarily associated with the construction phase and those that are permanent.

Construction related impacts include:

- Potential for erosion and loss of soils; and
- Disturbance to wildlife including birds during vegetation removal.



Permanent potential or actual impacts include:

- Removal of natural vegetation and associated wildlife habitat;
- Removal or impacts to Species at Risk habitat;
- Impacts to water quality through for example soil erosion, removal of vegetation etc.; and
- Changes to wildlife behaviour due to the introduction of artificial light, noise, and garbage.

The anticipated removal of vegetation communities will consist of the removal of agricultural lands, 'cultural' vegetation communities, treed hedgerows, as well as the small FOD3-1 community.

8.2 Woodlands

The dripline limit of the Significant Woodland (FOD7-4), associated with Berczy Creek, was staked by SLR staff on May 21, 2026. Town of Stouffville staff were unable to attend the June 1, 2026 staking and therefore, SLR's woodland limit has been applied (Figure 3). As per ORMCP guidelines, a 30 m setback was applied to the forest community. The proposed development, with the exception of the proposed bridge crossing, avoids the forest community and its 30 m setback. Further assessment of bridge-related impacts to the woodland community will be assessed as part of the EIS stage. The FOD7-4 community is further discussed as potential SWH under Section 8.6.

Further studies for the FOD3-1 community are required to provide a fulsome impact assessment relating to the proposed development and the feature's potential wildlife habitat function (i.e. SAR bats). Given the relative size and age of the community, it is unlikely that removal of the community would result in any negative impacts.

8.3 Wetlands

The limit of swamp thicket and marsh wetland, associated with Berczy Creek, was staked by SLR and TRCA staff on June 1, 2026. As per ORMCP guidelines, a 30 m setback was applied to the wetland community (Figure 3). The proposed development, with the exception of the proposed bridge crossing, avoids the wetland and its 30 m setback. The limit of the contiguous Significant Woodland (FOD7-4) sometimes supersedes the limit of the wetland therefore, providing additional buffering capacity.

Further studies for the wetland community are required to provide a fulsome impact assessment relating to the proposed development and more specifically, the proposed bridge crossing.

8.4 Watercourses and Aquatic Habitat

The limit of Berczy Creek is contained within both the contiguous forest (FOD7-4) and wetland (SWT, MAM) community limits (Figure 2). As per ORMCP guidelines, a 30 m fish habitat MVPZ was applied to the centreline of the watercourse and a 30 m MVPZ applied to the feature's meander belt (Figure 3). The proposed development, with the exception of the proposed bridge crossing and realignment of HDF2, avoids the watercourse and its MVPZs. The contiguous Significant Woodland (FOD7-4) and wetland communities, and their respective setbacks, provide buffering capacity for the Berczy Creek corridor (Figure 3).



Further studies for the watercourse are required to provide a fulsome impact assessment relating to the proposed development. Further assessment of bridge-related impacts to the watercourse will be assessed as part of the EIS stage. Consultation with DFO is recommended to ensure the proposed development, specifically the proposed bridge crossing, are in conformity with the *SARA* and *Fisheries Act*.

Headwater Drainage Features

HDF1 will be protected from the proposed development through superseding constraints (i.e., Significant Woodland setback) (Figure 3). The upstream extent of HDF2a and the entirety of HDF2b is proposed to be realigned as part of the proposed development (Figure 3). However, it should be noted that the proposed realignment works are subject to agency approvals. Potential impacts to both HDFs include changes in surface water inputs (e.g., volume, quality, flow rate) to the feature due to the proposed development. The realignment of HDF2 may result in the following impacts:

- Temporary loss of vegetation along HDF2;
- Erosion and loss of soils within and downstream of HDF2;
- Spill or release of deleterious substances downstream;
- Spread of invasive species through movement of soils, equipment, and plant materials; and/or
- Temporary disturbance to wildlife and wildlife habitat along HDF2.

Both drainage features will require further study, during the appropriate season(s), as part of the EIS process to determine flow regimes and assign a management recommendation.

8.5 Species at Risk

Live Butternut and Black Ash individuals have not been recorded on the Subject Property to date.

As part of SLR's preliminary surveys, it was determined that there may be maternity roosting treed and anthropogenic (e.g., barn) habitat for SAR bats within the development limits of the Subject Property. There are four potential habitat types: farming structures, forest, hedgerows and isolated trees within the anthropogenic lands. The potential for maternity roosting SAR bats within the FOD7-4 community remains as this community is protected from the proposed development.

Consultation with DFO is recommended to ensure the proposed development, specifically the proposed bridge crossing, are in conformity with the *SARA* and *Fisheries Act* as it relates to Redside Dace habitat.

Further SAR investigations are required as part of the EIS process.

See Significant Wildlife Habitat section for discussion surrounding Eastern Wood Pewee, Barn Swallow, Snapping Turtle, Monarch Butterfly.

8.6 Significant Wildlife Habitat

Further studies associated with the EIS process are required to determine the presence of Candidate or Confirmed SWH on the Subject Property. However, SWH identified as being potentially present by SLR ecologists during the 2026 preliminary investigations are largely associated with the Berczy Creek corridor.



This corridor, its associated natural heritage features, and 30 m prescribed setbacks will be protected from the proposed development with the exception of the proposed bridge crossing. Impacts and mitigation measures associated with the bridge crossing will be discussed as part of the EIS process.

8.7 General Mitigation Measures

8.7.1 Vegetation Clearing Timing Windows

To avoid and mitigate impacts to breeding birds and ensure compliance with the federal *Migratory Birds Convention Act* and provincial *Fish and Wildlife Conservation Act*, removal of all types of vegetation should be completed outside of the nesting bird season of approximately early April to late August (i.e. **April 1 to August 30**).

However, development timing may require clearing within that window. Should this prove to be the case, shortly before vegetation clearing, a qualified biologist should complete a search for actively used nests within the areas of vegetation proposed for removal to ensure that there are no conflicts with these Acts. This survey does not focus on a search for nests but instead uses a variety of information (time of year, habitat present, bird song, bird behaviour etc.) to determine if birds are nesting. If nesting activity is detected, clearing activities should be delayed (potentially weeks or months) until it can be determined that the birds no longer have eggs or young in the nest.

As per SLR's correspondence with the MECP on September 17, 2025, the recommended avoidance window for SAR bat habitat is from **April 1 to November 30**. If SAR bat treed habitat (e.g., hedgerows, isolated trees) is identified on the Subject Property, tree removals may be required to fall outside of this avoidance window. Additionally, registration of the proposed development and development of a compensation plan under the SCA may also be required.

Avoidance windows simply highlight the most likely season when encounters are likely. If a nest egg, fledging or SAR species is encountered work must stop and the appropriate agency (e.g., Environment Canada (MBCA) or, MECP (SAR) consulted for advice.

8.7.2 Erosion and Sediment Control

Site grading will disturb site soils which presents the potential for sedimentation and erosion to the adjacent wetland and watercourse systems. To minimize the potential for erosion and off-site transportation of sediment into surface water features and the natural environment, the project will implement best practices related to Erosion and Sediment Control (ESC) measures. In general, ESC measures should be installed before works commence and be maintained in good condition for the duration of the proposed works. ESC measures are recommended to meet the guidelines outlined in the *Erosion Sediment Control Guide for Urban Construction* (Toronto and Region Conservation Authority, 2019).

With respect to ESC measures, the contractor should follow these guidelines through the detailed design phase:

- Isolate work areas with heavy duty silt fence to protect natural features through detailed ESC plans;
- All works should be properly isolated from watercourse areas to minimize introduction of sediments or other construction generated materials into the open aquatic environment;
- Retain existing vegetation and stabilize ground with native vegetation, where possible;



- Limit the duration of soil exposure and/or phase construction;
- Maintain overland sheet flow and avoid concentrating flow;
- Store and stockpile soil away from natural drainage features and/or shoreline areas; and,
- Assess ESC measures before and after significant rainfall and snowmelt events.
- All repairs required to ESC measures will be completed within 48 hours of notice unless otherwise agreed by the Contractor, the regulatory authority and the environmental inspector(s). Stockpiles are to be protected immediately and, if placed for longer than 30 days, temporarily stabilized.

8.7.3 Restoration Planting

As the proposed development limits are largely within cultural communities (i.e., primarily agricultural fields), it is recommended that the lands associated with natural heritage feature setbacks be planted in order to enhance their buffer/protective functions for the adjacent natural heritage features. It is recommended that plantings ultimately aim to extend the Significant Woodland community. Should this occur, the woodlands will be widened meaningfully. A complete restoration plan would follow at project detailed design.

The proposed relocation of HDF2 would also provide restoration opportunities, management of the invasive Phragmites being a particular component of this work. Further mitigation measures relating to the realignment of HDF2 will be discussed as part of the EIS process.

9.0 Next Steps

It is anticipated that a further detailed EIS will be required to further assess natural heritage features that require protection and a development plan that will not have negative impacts on the identified features and their functions. The purpose of these further studies would be to confirm the presence and significance of any natural features, and to identify any negative effects as a result of the proposed development on any identified features and provide appropriate mitigation strategies. The EIS will be reviewed by the applicable agencies mentioned in this report during a development application. To advance the EIS for the Subject Property, it is recommended to:

- Request further background information from agencies including TRCA and DFO regarding records for rare species and related features;
- Consult with the Region, Town, and the TRCA to establish a Terms of Reference for the EIS;
- Undertake detailed, seasonal ecological investigations including (but not necessarily limited to) floral and faunal inventories as appropriate e.g., leaf-off bat snag surveys (until late April), breeding amphibian (beginning mid-April) and breeding bird surveys (May to July), vegetation surveys, SAR habitat screening, Headwater Drainage Feature (HDF) assessments (late March / April to June), and a supplementary aquatic assessment following the TRCA guidelines at the appropriate time(s) of year (generally spring and summer);



- It is anticipated that the Town of Whitchurch-Stouffville will request an additional natural feature staking exercise for any woodlands on the Subject Property; and
- Further explore the proposed realignment of HDF2 and associated restoration opportunities. Further study and agency consultation related to the feature's realignment will be required.
- Further evaluate and explore the proposed SWM pond locations on the Subject Property. Coordination with the project engineer will also be required. These items will be discussed within the Environmental Impact Study for the Subject Property.



10.0 Closure

Should you have questions on the above report, please contact the undersigned.

Regards,

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Attachments Figure 1: Site Location
 Figure 2: Existing Environmental Conditions
 Figure 3: Constraints and Opportunities
 Appendix A: Species at Risk Screening
 Appendix B: Significant Wildlife Habitat Screening

copy Jason Cole & Dirk Janas (SLR), Marshall Smith (KLM Planning)



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Figures

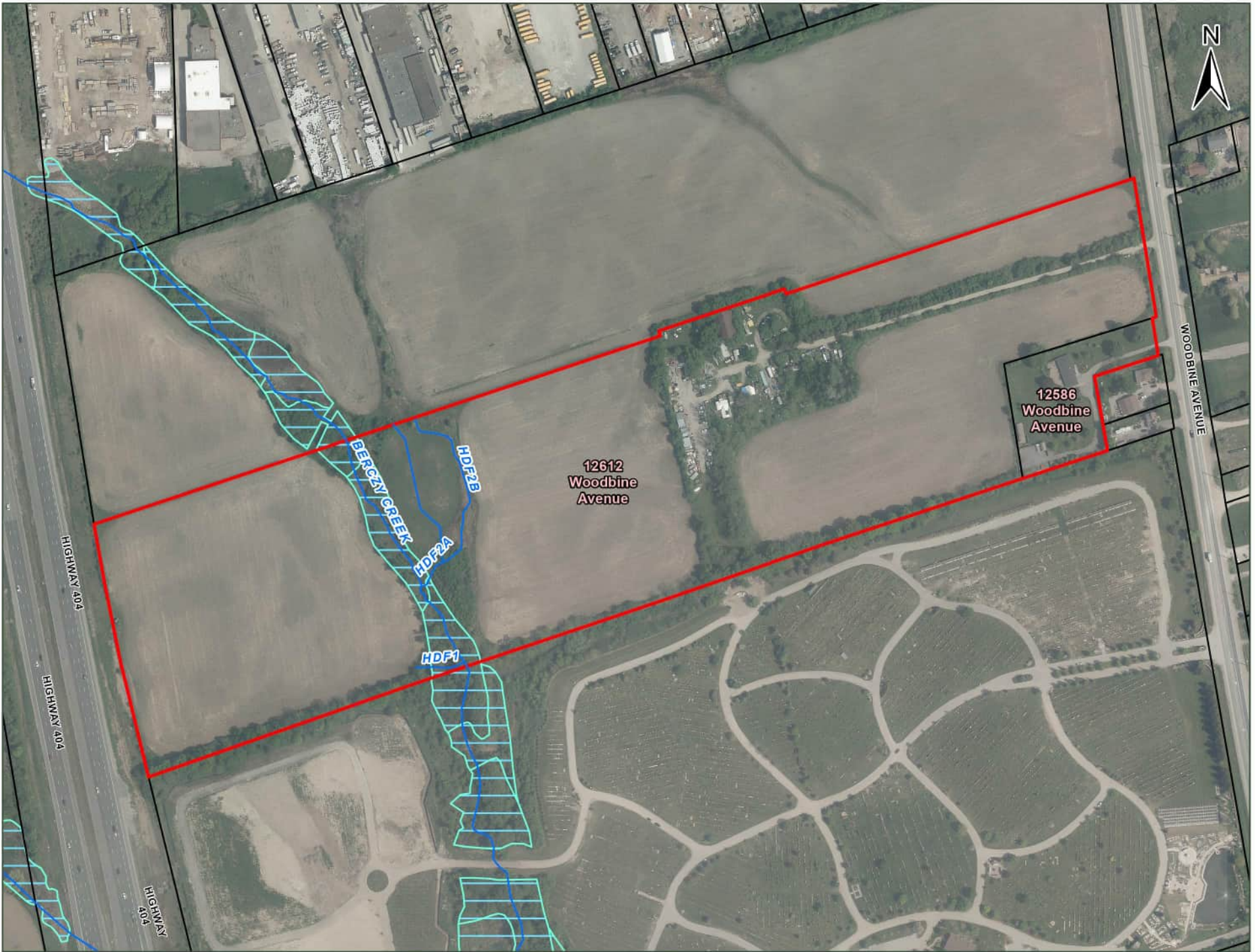
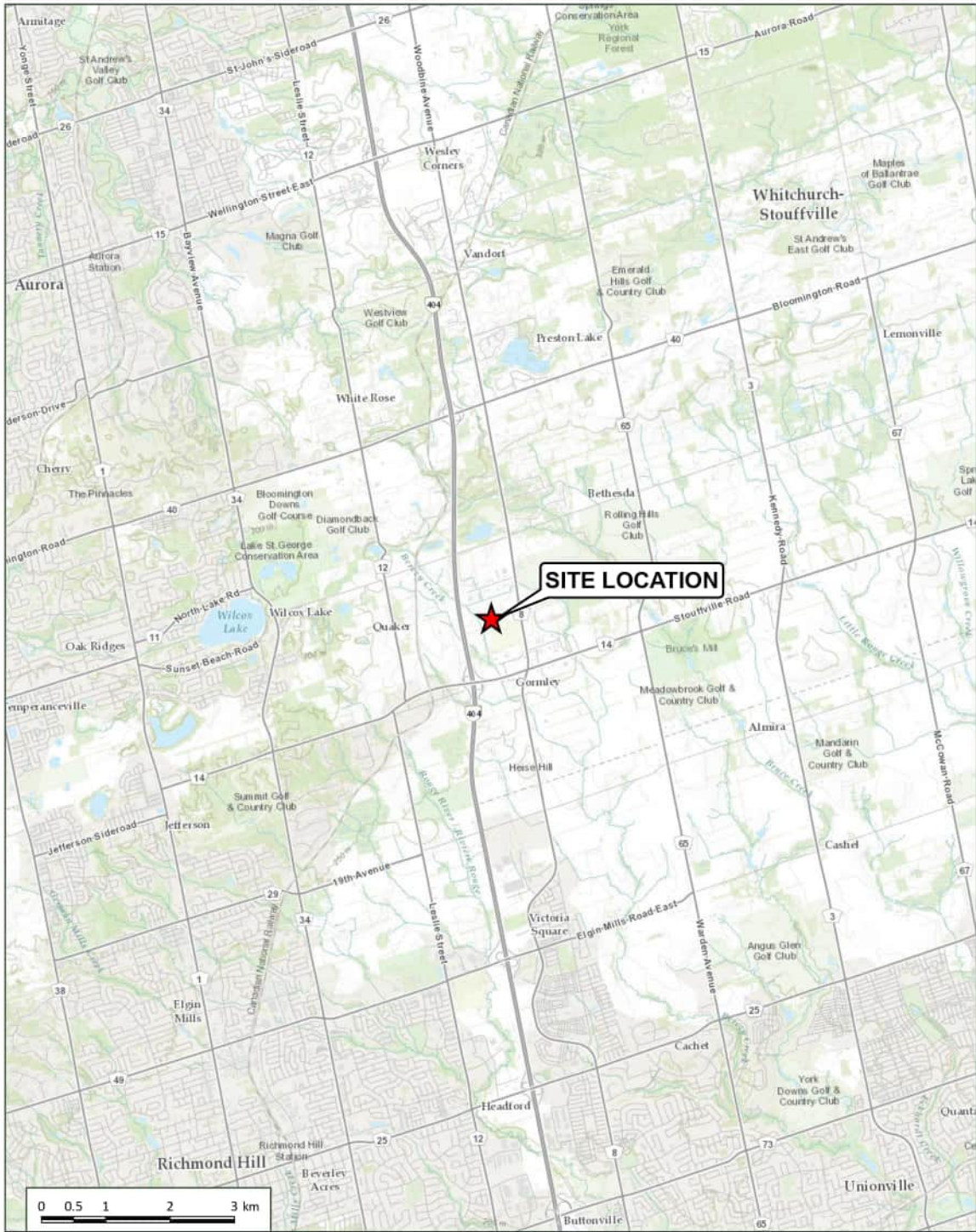
Natural Heritage Due Diligence and Development Feasibility Study

12586 and 12612 Woodbine Avenue, Town of Whitchurch-Stouffville, York Region

Kingsdale Development

SLR Project No.: 243.024905.00001

July 9, 2026



Notes:
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- LEGEND:**
- WATERCOURSE
 - WETLAND - UNEVALUATED
 - LOT LINES¹
 - SUBJECT SITE

0 50 100 200 m

SCALE 1:4,000
PAGE SIZE: 11 x 17
NAD 1983 UTM Zone 17N
THIS MAP IS FOR CONCEPTUAL PURPOSES ONLY
AND SHOULD NOT BE USED FOR NAVIGATION

KINGSDALE DEVELOPMENT
MARKHAM ONTARIO

12612 WOODBINE AVE
NATURAL HERITAGE DUE DILIGENCE
& DEVELOPMENT FEASIBILITY STUDY

SITE LOCATION

SLR

FIGURE NO:
1

DATE: July 9, 2026

PROJECT NO: 243.024905.00001

GIS PATH: G:_Projects\243\243_024905_12612WoodbineAve\1_Workspace1_Maps\20260526_DueDiligence\243_024905_DueDiligence.aprx || 243_024905_2_Existing Environmental Conditions
Last Saved: Thursday, July 9, 2026 12:09 PM by radhika.saini



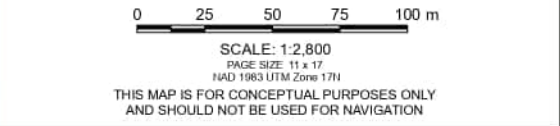
LEGEND:

- POTENTIAL BAT ROOST SNAG (X2)
- WATERCOURSE
- TRCA REGULATED HEADWATER DRAINAGE FEATURE (HDF)
- SIGNIFICANT WOODLAND BOUNDARY - SLR DELINEATED MAY 21, 2026
- WETLAND BOUNDARY - TRCA DELINEATED JUNE 1, 2026
- REGULATED FEATURE LIMIT - TRCA DELINEATED JUNE 1, 2026
- ECOLOGICAL LAND CLASSIFICATION (ELC)
- ELC - INCLUSION
- OLD BARN - POTENTIAL BAT ROOST AND BARN SWALLOW NESTING HABITAT
- SUBJECT SITE

ELC codes:

AG: Agricultural
ANTH: Anthropogenic
CUM1-1: Dry-Moist Old Field Meadow Type
HR: Hedgerow
FOD3-1: Dry-Fresh Poplar Deciduous Forest Type
MAM: Meadow Marsh
SWT: Thicket Swamp (Buckthorn dominated)
FOD7-4: Fresh-Moist Black Walnut Lowland Deciduous Forest Type

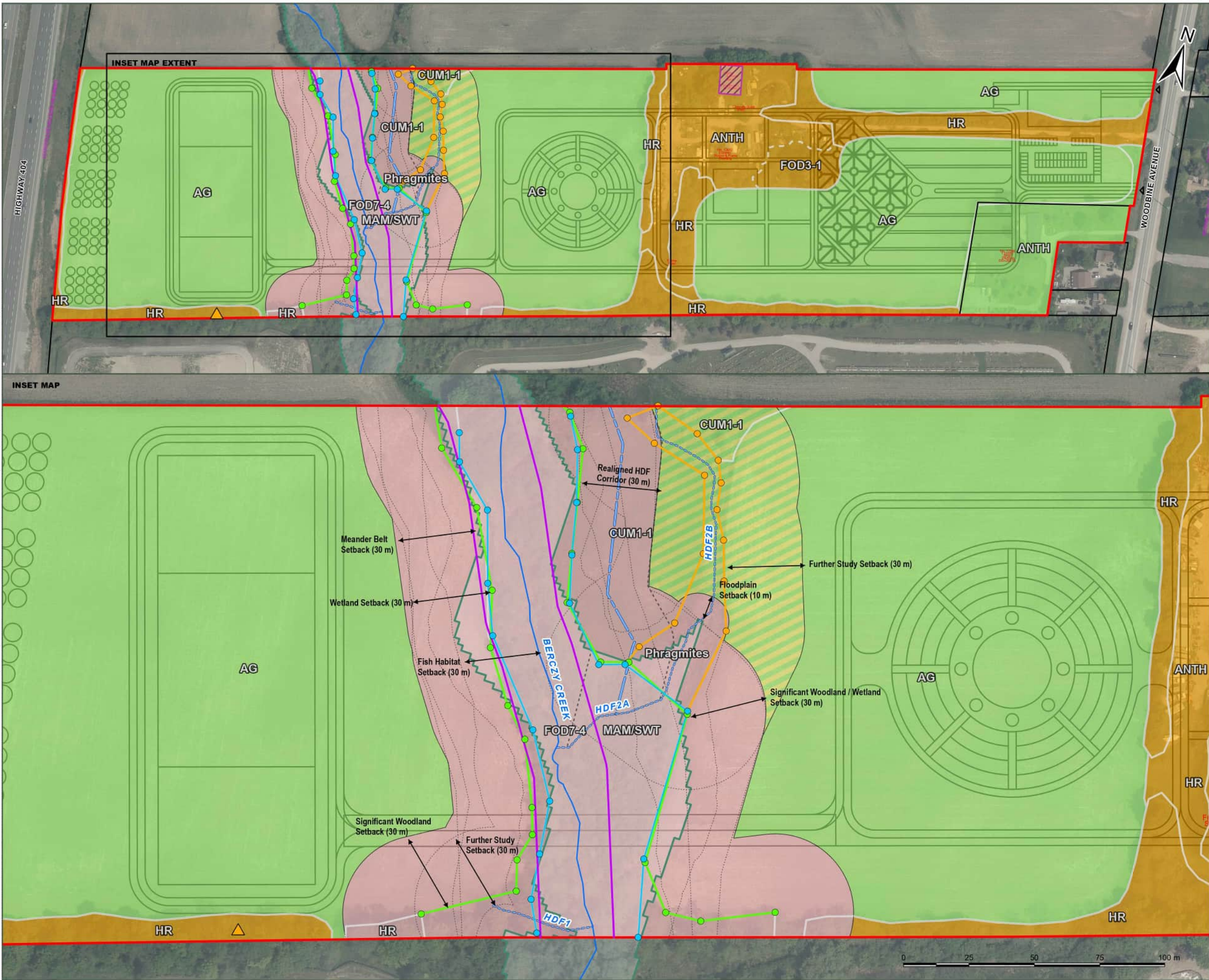
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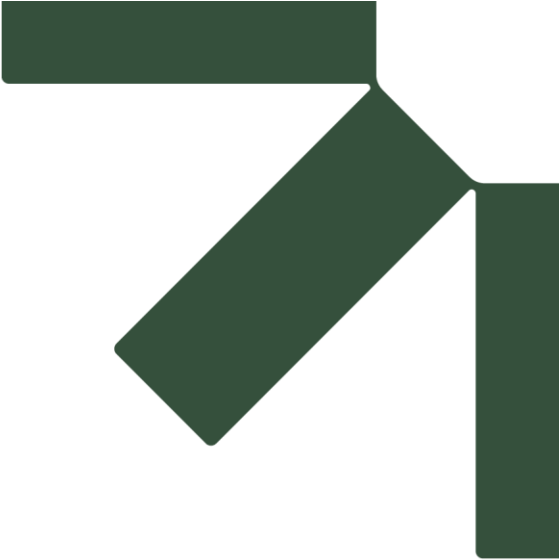


KINGSDALE DEVELOPMENT
MARKHAM ONTARIO

12612 WOODBINE AVE
NATURAL HERITAGE DUE DILIGENCE
& DEVELOPMENT FEASIBILITY STUDY

EXISTING ENVIRONMENTAL CONDITIONS





Appendix A Species at Risk Screening

Natural Heritage Due Diligence and Development Feasibility Study

12586 and 12612 Woodbine Avenue, Town of Whitchurch-Stouffville, York Region

Kingsdale Development

SLR Project No.: 243.024905.00001

July 9, 2026

Appendix A Species at Risk Screening

FAMILY	NAME	S-RANK	PSOL	COSEWIC	SARA	SCHEDULE	SPECIES RANGE AND HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
AVIFAUNA											
Apodidae	Chimney Swift (<i>Chaetura pelagica</i>)	S3B	THR	THR	THR	1	Chimney Swift adopted chimneys for both nesting and roosting. It is now mainly associated with urban and rural areas where chimneys and similar structures are available, and where aerial insects are abundant for foraging (Government of Canada, 2023). In Ontario, it is most widely distributed in the Carolinian zone in the south and southwest of the province, but has been detected throughout most of the province south of the 49th parallel (Government of Ontario, 2024).	OBBA	P	Suitable habitat may be present within the anthropogenic areas (e.g., chimneys) on the Subject Property.	Additional bird and SAR investigations are recommended to confirm presence of the species on the Subject Property.
Caprimulgidae	Common Nighthawk (<i>Chordeiles minor</i>)	S4B	-	SC	SC	1	In Ontario, the Common Nighthawk occurs throughout the province except for the coastal regions of James Bay and Hudson Bay. Common Nighthawk habitat consists of open areas with little to no ground vegetation, such as logged or burned-over areas, forest clearings, rock barrens, peat bogs, lakeshores, and mine tailings. Although the species also nests in cultivated fields, orchards, urban parks, mine tailings and along gravel roads and railways, they tend to occupy natural sites (Government of Ontario, 2022).	OBBA	N	Suitable habitat is not likely to be present within the Subject Property.	None anticipated
Hirundinidae	Bank Swallow (<i>Riparia riparia</i>)	S4B	THR	THR	THR	1	Bank Swallows nest in burrows in natural and human-made settings where there are vertical faces in silt and sand deposits. Many nests are on banks of rivers and lakes, but they are also found in active sand and gravel pits or former ones where the banks remain suitable. The birds breed in colonies ranging from several to a few thousand pairs. The Bank Swallow is found all across southern Ontario, with sparser populations scattered across northern Ontario. The largest populations are found along the Lake Erie and Lake Ontario shorelines, and the Saugeen River (which flows into Lake Huron) (Government of Ontario, 2023).	OBBA	N	Suitable bank habitat is not present within the Subject Property.	None anticipated



FAMILY	NAME	S-RANK	PSOL	COSEWIC	SARA	SCHEDULE	SPECIES RANGE AND HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Hirundinidae	Barn Swallow (<i>Hirundo rustica</i>)	S4B	-	SC	THR	1	Barn Swallow is found throughout southern Ontario and can range as far north as Hudson Bay, wherever suitable locations for nests exist. These birds prefer to nest within human made structures such as barns, bridges, and culverts. Barn Swallow nests are cup-shaped, which are often re-used from year to year and made of mud. They are typically attached to horizontal beams or vertical walls underneath an overhang and prefer unpainted, rough-cut wood, since the mud does not adhere as well to smooth surfaces (Government of Ontario, 2023).	OBBA	P	Suitable habitat may be present within the buildings on the Subject Property.	Additional bird and SAR investigations are recommended to confirm presence of the species on the Subject Property.
Icteridae	Bobolink (<i>Dolichonyx oryzivorus</i>)	S4B	THR	SC	THR	1	In Ontario, Bobolink are widely distributed throughout most of the province south of the boreal forest. In southern Ontario, its range extends from Windsor north to Sault Ste. Marie, and east to Cornwall. Bobolinks are most common in: Bruce/Grey/Dufferin region, Kawartha Lakes and Peterborough region, between Belleville and Kingston and between the Ottawa and St. Lawrence rivers (Government of Ontario, 2024). Bobolink mostly nest in hayfields and pastures, although it also uses wet prairie, grassy peatlands, alvars, abandoned fields dominated by tall grasses (Government of Canada, 2023). Bobolinks often build their small nests on the ground in dense grasses.	OBBA, NHIC	N	Suitable habitat is not considered to be present within the Subject Property.	None anticipated
Icteridae	Eastern Meadowlark (<i>Sturnella magna</i>)	S4B,S3N	THR	THR	THR	1	In Ontario, Eastern Meadowlark is primarily found south of the Canadian Shield but it also inhabits the Lake Nipissing, Timiskaming and Lake of the Woods areas. Eastern Meadowlarks breed primarily in moderately tall grasslands, such as pastures and hayfields, but are also found in alfalfa fields, weedy borders of croplands, roadsides, orchards, airports, shrubby overgrown fields, or other open areas. Small trees, shrubs or fence posts are used as elevated song perches (Government of Ontario, 2024).	OBBA	N	Suitable habitat is not considered to be present within the Subject Property.	None anticipated



FAMILY	NAME	S-RANK	PSOL	COSEWIC	SARA	SCHEDULE	SPECIES RANGE AND HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Picidae	Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>)	S3	END	END	END	1	The Red-headed Woodpecker is found across southern Ontario, where it is widespread but rare. The Red-headed Woodpecker lives in open woodland and woodland edges and is often found in parks, golf courses and cemeteries. These areas typically have many dead trees, which the bird uses for nesting and perching (Government of Ontario, 2023).	OBBA	N	Suitable habitat is not considered to be present within the Subject Property.	None anticipated
Turdidae	Wood Thrush (<i>Hylocichla mustelina</i>)	S4B	-	THR	THR	1	Wood Thrush is found all across southern Ontario. It is also found, but less common, along the north shore of Lake Huron, as far west as the southeastern tip of Lake Superior. Wood Thrush live in mature deciduous and mixed (conifer-deciduous) forests. They seek moist stands of trees with well-developed undergrowth and tall trees for singing perches. These birds prefer large forests, but will also use smaller stands of trees. They build their nests in living saplings, trees or shrubs, usually in sugar maple or American Beech (Government of Ontario, 2023).	OBBA	N	Suitable habitat is not considered to be present within the Subject Property.	None anticipated
Tyrannidae	Eastern Wood-Pewee (<i>Contopus virens</i>)	S4B	-	SC	SC	1	The Eastern Wood-pewee is found across most of southern and central Ontario, and in northern Ontario as far north as Red Lake, Lake Nipigon and Timmins. Eastern Wood-pewee lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is most abundant in intermediate-age mature forest stands with little understory vegetation (Government of Ontario, 2021).	OBBA	P	Suitable habitat may be present within the treed areas of the Subject Property.	Additional bird and SAR investigations are recommended to confirm presence of the species on the Subject Property.
HERPTILES											



FAMILY	NAME	S-RANK	PSOL	COSEWIC	SARA	SCHEDULE	SPECIES RANGE AND HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Chelydridae	Snapping Turtle (<i>Chelydra serpentina</i>)	S4	-	SC	SC	1	In Ontario, the Snapping Turtle can be found throughout southern and central Ontario. Snapping Turtles spend most of their lives in water. They prefer shallow waters so they can hide under the soft mud and leaf litter, with only their noses exposed to the surface to breathe. During the nesting season, from early to mid summer, females travel overland in search of a suitable nesting site, usually gravelly or sandy areas along streams. Snapping Turtles often take advantage of man-made structures for nest sites, including roads (especially gravel shoulders), dams and aggregate pits (Government of Ontario, 2021).	ORAA	P	Suitable habitat may be present within Berczy Creek and its associated riparian corridor.	Additional investigations are recommended to confirm suitable habitat is present on the Subject Property. Erosion and sediment control measures during the construction phase are recommended.
Emydidae	Blanding's Turtle (<i>Emydoidea blandingii</i>)	S3	THR	END	END	1	Blanding's Turtles can be found throughout southern, central and eastern Ontario. Blanding's Turtles are often observed using clear water eutrophic wetlands. Blanding's Turtles have strong site fidelity but may use several connected water bodies throughout the active season. Turtles of all ages occur primarily in shallow water habitats with lots of water plants. Females nest in a variety of substrates including sand, organic soil, gravel, cobblestone, and soil-filled crevices of rock outcrops (Government of Ontario 2024; Government of Canada, 2023).	ORAA	N	Suitable habitat is not considered to be present within the Subject Property.	None anticipated
Ambystomatidae	Jefferson Salamander (<i>Ambystoma jeffersonianum</i>)	S2	END	END	END	1	Jefferson Salamanders are found only in southern Ontario, mainly along the Niagara Escarpment (Government of Ontario, 2024). Adult Jefferson Salamanders, throughout their range, are found within deciduous or mixed upland forests containing, or adjacent to, suitable breeding ponds. Breeding ponds are normally ephemeral, or vernal, woodland pools that dry in late summer. Terrestrial habitat is in mature woodlands that have small mammal burrows or rock fissures that enable adults to over-winter underground below the frost line (Government of Canada, 2017). By midsummer, the larvae lose their gills and leave the pond and head into the surrounding forest. Once in the forest, Jefferson salamanders spend much of their time underground in rodent burrows, and under rocks and stumps.	ORAA	N	Suitable habitat is not considered to be present within the Subject Property.	None anticipated
VASCULAR PLANTS											



FAMILY	NAME	S-RANK	PSOL	COSEWIC	SARA	SCHEDULE	SPECIES RANGE AND HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Juglandaceae	Butternut (<i>Juglans cinerea</i>)	S2?	END	END	END	1	In Ontario, this species is found throughout the southwest, north to the Bruce Peninsula, and south of the Canadian Shield. Butternut is usually associated with deciduous forests, establishing under canopy openings or along forest edges. It is also found in treed fence lines. It prefers moist, well-drained soil and frequently occurs within the floodplains of streams or small rivers. It is also found on well-drained gravel sites and rarely on dry rocky soil. This species does not do well in the shade, and often grows in sunny openings and near forest edges (Government of Ontario, 2024).	NHIC	N	Suitable habitat is present within the Subject Property and one dead, potential Butternut was identified by the Project's Arborist. However, no living individuals have been identified to date.	None expected. If species is determined to be present and requires removal, registration and a potential compensation plan under the SCA may be required.
Oleaceae	Black Ash (<i>Fraxinus nigra</i>)	S4	END	THR	-	-	Black Ash occurs throughout most of Ontario, except the far north. Black Ash can grow on a variety of soil types. It occurs most frequently in deciduous or Eastern White Cedar swamps and may be associated with American Elm, Silver Maple, Red Ash, Red Maple, Basswood and Bur Oak. Black Ash also occurs widely in upland forests, often in locally moist microsites, where it is generally an uncommon to rare species, with Sugar Maple, Yellow Birch and/or Eastern Hemlock being among the dominants (COSEWIC, 2019).	NHIC	N	Suitable habitat is present within the Subject Property, specifically within the wetlands associated with Berczy Creek. Suitable habitat will be protected from the proposed development.	None expected. If species is determined to be present and requires removal, registration and a potential compensation plan under the SCA may be required.
MAMMALS											



FAMILY	NAME	S-RANK	PSOL	COSEWIC	SARA	SCHEDULE	SPECIES RANGE AND HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Vespertilionidae	Eastern Red Bat (<i>Lasiurus borealis</i>)	S3	END	END	-	-	Eastern red bats roost in the foliage of deciduous or sometimes evergreen trees and occasionally in shrubs (Bat Conservation International, 2024; COSEWIC, 2024). Trees used as maternity roosts tend to be large diameter and tall, reaching or exceeding the height of the surrounding canopy. Their solitary roosting behaviour and well-camouflaged fur results in roosts being highly cryptic. Roost sites that have overhead foliage for cover and open flight space below are selected. Eastern red bats typically uses several trees during the breeding season (COSEWIC, 2024).	Professional Experience	P	Suitable habitat is present within the Subject Property. Additional SAR investigations on the Subject Property are recommended.	Additional SAR investigations are required. If species habitat is determined to be present and requires removal, registration and a potential compensation plan under the SCA may be required. Timing windows may also apply.
Vespertilionidae	Eastern Small-footed Myotis (<i>Myotis leibii</i>)	S2S3	END	-	-	-	The Eastern Small-footed Bat has been found from south of Georgian Bay to Lake Erie and east to the Pembroke area. There are also records from the Bruce Peninsula, the Espanola area, and Lake Superior Provincial Park. During the summers, they roost in rock fields and talus slopes, favoring areas with high sun exposure. Colonies are also occasionally found in stone buildings under bridges or hollow trees. These bats often change their roosting locations every day (Government of Ontario, 2023; Bat Conservation International, 2025).	Professional Experience	P	Suitable habitat is present within the Subject Property however, limited due to the lack of rock or talus slope habitats. Additional SAR investigations on the Subject Property are recommended.	Additional SAR investigations are required. If species habitat is determined to be present and requires removal, registration and a potential compensation plan under the SCA may be required. Timing windows may also apply.
Vespertilionidae	Hoary Bat (<i>Lasiurus cinereus</i>)	S3	END	END	-	-	Hoary bats roost solitarily among the foliage of trees, with preferences including maple, oak, ash, elder, hemlock, and redwood trees (Bat Conservation International, 2024). Trees used as maternity roosts tend to be large diameter and tall, reaching or exceeding the height of the surrounding canopy. There is little information regarding roost switching and roost area for Hoary Bats (COSEWIC, 2024).	Professional Experience	P	Suitable habitat is present within the Subject Property. Additional SAR investigations on the Subject Property are recommended.	Additional SAR investigations are required. If species habitat is determined to be present and requires removal, registration and a potential compensation plan under the SCA may be required. Timing windows may also apply.



FAMILY	NAME	S-RANK	PSOL	COSEWIC	SARA	SCHEDULE	SPECIES RANGE AND HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Vespertilionidae	Little Brown Myotis (<i>Myotis lucifugus</i>)	S3	END	END	END	1	Little Brown Bat is widespread in southern Ontario and found as far north as Moose Factory and Favourable Lake. This species is especially associated with humans, often forming nursery colonies in buildings, attics, and other man-made structures. Females may establish summer maternity colonies in large-diameter trees (Government of Ontario, 2021; Bat Conservation International, 2025).	Professional Experience	P	Suitable habitat is present within the Subject Property. Additional SAR investigations on the Subject Property are recommended.	Additional SAR investigations are required. If species habitat is determined to be present and requires removal, registration and a potential compensation plan under the SCA may be required. Timing windows may also apply.
Vespertilionidae	Northern Myotis (<i>Myotis septentrionalis</i>)	S3	END	END	END	1	Northern Myotis is found throughout forested areas in southern Ontario, to the north shore of Lake Superior and occasionally as far north as Moosonee, and west to Lake Nipigon. Northern Myotis are associated with boreal forests, choosing to roost under loose bark and in the cavities of trees. Snags (standing dead or dying trees) are particularly important for this species. During the summer, female bats frequently switching between a collection of different tree roosts (Government of Ontario, 2021; Bat Conservation International, 2025).	Professional Experience	P	Suitable habitat is present within the Subject Property. Additional SAR investigations on the Subject Property are recommended.	Additional SAR investigations are required. If species habitat is determined to be present and requires removal, registration and a potential compensation plan under the SCA may be required. Timing windows may also apply.
Vespertilionidae	Silver-haired Bat (<i>Lasionycteris noctivagans</i>)	S3	END	END	-	-	Silver-haired Bats occurs primarily under bark and in the cavities of trees, making them reliant on habitats where large, decaying trees are available. Silver-haired Bats roost in a variety of large diameter coniferous and deciduous trees. Frequent roost switching is common (COSEWIC, 2024).	Professional Experience	P	Suitable habitat is present within the Subject Property. Additional SAR investigations on the Subject Property are recommended.	Additional SAR investigations are required. If species habitat is determined to be present and requires removal, registration and a potential compensation plan under the SCA may be required. Timing windows may also apply.



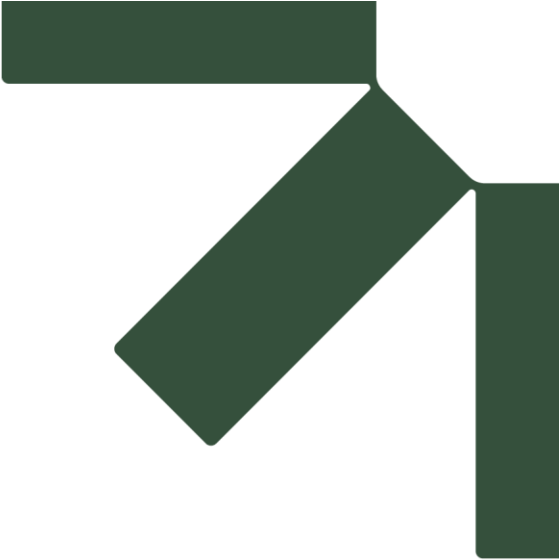
FAMILY	NAME	S-RANK	PSOL	COSEWIC	SARA	SCHEDULE	SPECIES RANGE AND HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Vespertilionidae	Tri-colored Bat (<i>Perimyotis subflavus</i>)	S3?	END	END	END	1	Tri-colored Bat is found in southern Ontario and as far north as Espanola near Sudbury. Because it is very rare, it has a scattered distribution. During the summer, the Tri-colored Bat is found in a variety of forested habitats. They can be found in a range of roosts, including tree cavities, caves, rock crevices, culverts, and buildings. They forage over water and along streams in the forest (Government of Ontario, 2021; Bat Conservation International, 2025).	Professional Experience	P	Suitable habitat is present within the Subject Property. Additional SAR investigations on the Subject Property are recommended.	Additional SAR investigations are required. If species habitat is determined to be present and requires removal, registration and a potential compensation plan under the SCA may be required. Timing windows may also apply.
FISH											
Cyprinidae	Redside Dace (<i>Clinostomus elongatus</i>)	S1	END	END	END	1	Redside Dace populations occupy streams flowing through the Greater Toronto Area into Lake Ontario. This series of streams is bounded on the east by Pringle Creek (Whitby) and on the west by Spencer Creek (Hamilton). Populations are also known from the Lake Erie drainage (Grand River), Lake Huron drainage (Saugeen River, Gully Creeks, Two Tree River), and Lake Simcoe drainage (Holland River). Redside Dace is considered to be a cool-water fish. Redside Dace occupy small tributaries 5-10 m in width with pool and riffle areas. Redside Dace habitat usually has riparian vegetation consisting of overhanging grasses and shrubs such as alder (COSEWIC, 2018).	DFO	P	Suitable habitat may present within Berczy Creek.	Consultation with DFO is recommended to ensure conformity with the SARA and Fisheries Act.
OTHER											
Nymphalidae	Monarch Butterfly (<i>Danaus plexippus</i>)	S2N,S4B	-	END	END	1	Monarchs are most abundant in southern Ontario where milkweed plants and breeding habitat are widespread. Milkweeds (numerous species) are the sole food plant for Monarch caterpillars. These plants grow predominantly in open and periodically disturbed habitats such as roadsides, fields, wetlands, prairies, and open forests. Adult butterflies can be found in more diverse habitats where they feed on nectar from a variety of wildflowers (Government of Ontario, 2022).	OBA	P	Limited suitable habitat is present within the cultural meadow community and anthropogenic areas on the Subject Property.	Species is no longer listed as a SAR under the SCA. Species is considered under Significant Wildlife Habitat.



Notes:

- SC - Special Concern
- THR - Threatened
- END - Endangered
- S1 - Extremely rare in Ontario
- S2 - Very rare in Ontario
- S3 - Rare to uncommon in Ontario
- S4 - Considered to be common in Ontario
- S5 - Species is widespread in Ontario
- SH - Possibly extirpated
- S#S# - Indicates insufficient information exists to assign a single rank.
- S#? - Indicates some uncertainty with the classification due to insufficient data.
- S#N - Nonbreeding
- S#B - Breeding
- Y= Yes, P = Potential, N = No





Appendix B Significant Wildlife Habitat Screening

Natural Heritage Due Diligence and Development Feasibility Study

12586 and 12612 Woodbine Avenue, Town of Whitchurch-Stouffville, York Region

Kingsdale Development

SLR Project No.: 243.024905.00001

July 9, 2026

Appendix B Significant Wildlife Habitat Screening

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/P/N)	Additional Notes and Species Observations
Seasonal Concentration Areas of Animals					
Waterfowl Stopover and Staging Areas (Terrestrial)	Ducks	CUM + CUT ecosites	Fields with sheet-water flooding mid-March to May	N	Suitable habitat of sufficient size is not present.
Waterfowl Stopover and Staging Area (Aquatic)	Ducks, Geese	Ponds, Lakes, Inlets, Marshes, Swamps, Shallow Water Ecosites	Sewage & SWM ponds not SWH. Reservoir managed as a large wetland or pond/lake qualifies.	N	Suitable habitat of sufficient size is not present.
Shorebird Migratory Stopover Area	Shorebirds	Beaches, Dunes, Meadow Marshes	Shorelines. Sewage treatment ponds and storm water ponds not SWH.	N	Suitable shoreline habitat is not present.
Raptor Wintering Area	Eagles, Hawks, Owls	Hawks/Owls: Combination of both Forest and Cultural Ecosites Bald Eagle: Forest or swamp near open water (hunting ground)	Raptors: >20ha, with a combo of forest and upland. Meadow (>15ha) with adjacent woodlands. Eagles: open water, large trees & snags for roosting.	N	Suitable forest habitat is not present.
Bat Hibernacula	Big Brown Bat, Tri-coloured Bat	Caves, Crevices, mines, karsts	Buildings and active mine sites not SWH.	N	Suitable habitat is not present.
Bat Maternity Colonies	Big Brown Bat, Silver-haired Bat	Deciduous or mixed forests and swamps.	Mature deciduous and mixed forests with >10/ha cavity trees >25 cm DBH.	N	The forest communities on the Subject Property are considered to be too small and unlikely given their relative size and age.
Turtle Wintering Area	Turtles (Midland, N. Map, Snapping)	SW, MA, OA, SA, FEO, BOO (requires open waters)	Free water beneath ice. Soft mud substrate. Permanent water bodies, large wetlands, bogs, fens with adequate DO.	N	Suitable habitat is not present.



SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/P/N)	Additional Notes and Species Observations
Reptile Hibernaculum	Snakes	Snakes: Any ecosite (esp. w/ rocky areas), other than very wet ones. Five-lined Skink: FOD and FOM, FOC1, FOC3 - with rock outcrops	<u>Access below frost line:</u> burrows; rock crevices, piles or slopes, stone fences or foundations. Conifer/shrubby swamps/swales, poor fens, depressions in bedrock w/ accumulations of sphagnum moss or sedge hummock ground cover.	N	Suitable habitat is not present.
Colonially-nesting Bird Breeding Habitat (Bank and Cliff)	Cliff Swallow, N. Rough-winged Swallow	Banks, sandy hills/piles, pits, slopes, cliff faces, bridge abutments, silos, barns.	Exposed soil banks, not a licensed/permitted aggregate area or new man-made features (2 yrs).	N	Suitable habitat is not present.
Colonially-nesting Bird Breeding Habitat (Tree/Shrubs)	Great Blue Heron, Black-crowned NightHeron, Great Egret, Green Heron	SWM2, SWM3, SWM5, SWM6, SWD1 to SWD7, FET1	Nests in live or dead standing trees in wetlands, lakes, islands and peninsulas. Shrubs and emergents may be used. Nests in trees are 11 - 15 m from ground, near treetops.	N	Suitable habitat is not present.
Colonially-nesting Bird Breeding Habitat (Ground)	Herring Gull, Great Black-backed Gull, Little Gull, Ring-billed Gull, Common Tern, Caspian Tern, Brewer's Blackbird	Gulls/Terns: Rocky island or peninsula in lake or river. Brewer's Blackbird: close to watercourses in open fields or pastures with scattered trees or shrubs.	Gulls/Terns: islands or peninsulas with open water or marshy areas. Brewers Blackbird colonies: on the ground in low bushes close to streams and irrigation ditches.	N	Representative habitat of an appropriate size is not present.
Migratory Butterfly Stopover Area	Painted Lady, Red Admiral, Special Concern: Monarch	Combination of open (CU) and forested (FO) ecosites (need one from each).	≥10 ha, located within 5 km of Lake Ontario. Undisturbed sites, with preferred nectar species.	N	The Subject Property is > 5 km from Lake Ontario.
Landbird Migratory Stopover Areas	All migratory songbirds. All migrant raptor species.	Forest (FO) and Swamp (SW) ecosites	Woodlots >10 ha within 5 km of Lake Ontario. If multiple woodlands are along the shoreline, those <2 km from L. Ontario are more significant.	N	The Subject Property is > 5 km from Lake Ontario.
Deer Yarding Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	None mapped by MNR.
Deer Winter Congregation Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	None mapped by MNR.
Rare Vegetation Communities					
Cliffs and Talus Slopes		TAO, TAS, CLO, CLS, TAT, CLT e.g., Niagara Escarpment (contact NEC)	Cliff: near vertical bedrock >3m Talus Slope: coarse rock rubble at the base of a cliff	N	Suitable habitat is not present.



SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/P/N)	Additional Notes and Species Observations
Sand Barren		SBO1, SBS1, SBT1	Sand Barrens >0.5 ha. Vegetation can vary from patchy and barren to tree covered, but <60%. <50% vegetation cover are exotic species.	N	Suitable habitat is not present.
Alvar	<i>Carex crawei</i> , <i>Panicum philadelphicum</i> , <i>Eleocharis compressa</i> , <i>Scutellaria parvula</i> , <i>Trichostema brachiatum</i> , Loggerhead Shrike	ALO1, ALS1, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2	Alvar >0.5 ha. Need 4 of the 5 Alvar Indicator Spp. <50% vegetation cover are exotic species.	N	Suitable habitat is not present.
Old Growth Forest	Trees >140 yrs; heavy mortality = gaps. Multi-layer canopy, lots of snags and downed logs	FOD, FOC, FOM, SWD, SWC, SWM	Woodland areas ≥30 ha with a≥10 ha interior habitat, assuming a 100 m buffer at edge of forest.	N	Suitable habitat is not present.
Savannah	Prairie Grasses w/ trees	TPS1, TPS2, TPW1, TPW2, CUS2	A Savannah is a tallgrass prairie habitat that has tree cover of 25 – 60%. <50% cover of exotic species.	N	Suitable habitat is not present.
Tallgrass Prairie	Prairies Grasses dominate	TPO1, TPO2	An open Tallgrass Prairie habitat has < 25% tree cover. Less than 50% cover of exotic species.	N	Suitable habitat is not present.
Other Rare Vegetation Communities		Provincially Rare S1 - S3 veg. comm. are listed in Appendix M of SWHTG.	Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps.	P	FOD7-4 is a S2S3 ranked vegetation community by the NHIC (2021). Further study is required to confirm SWH however, in SLR's professional experience it is unlikely as this community is associated with Ecoregion 7E.
Specialized Habitat for Wildlife					
Waterfowl Nesting Area	Ducks	Upland habitats adjacent to: MAS1 to MAS3, SAS1, SAM1, SAF1, MAM1 to MAM6, SWT1, SWT2, SWD1 to SWD4 (>0.5 ha open water wetlands, alone or collectively).	Extends 120 m from a wetland or wetland complex. Upland areas should be at least 120 m wide. Wood Ducks and Hooded Mergansers use cavity trees (>40 cm dbh).	N	Suitable habitat of sufficient size is not present.
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat	Osprey, Bald Eagle	FOD, FOM, FOC, SWD, SWM, SWC directly adjacent to riparian areas	Nesting areas are associated with waterbodies along forested shorelines, islands, or on structures over water.	N	Suitable habitat of sufficient size is not present.



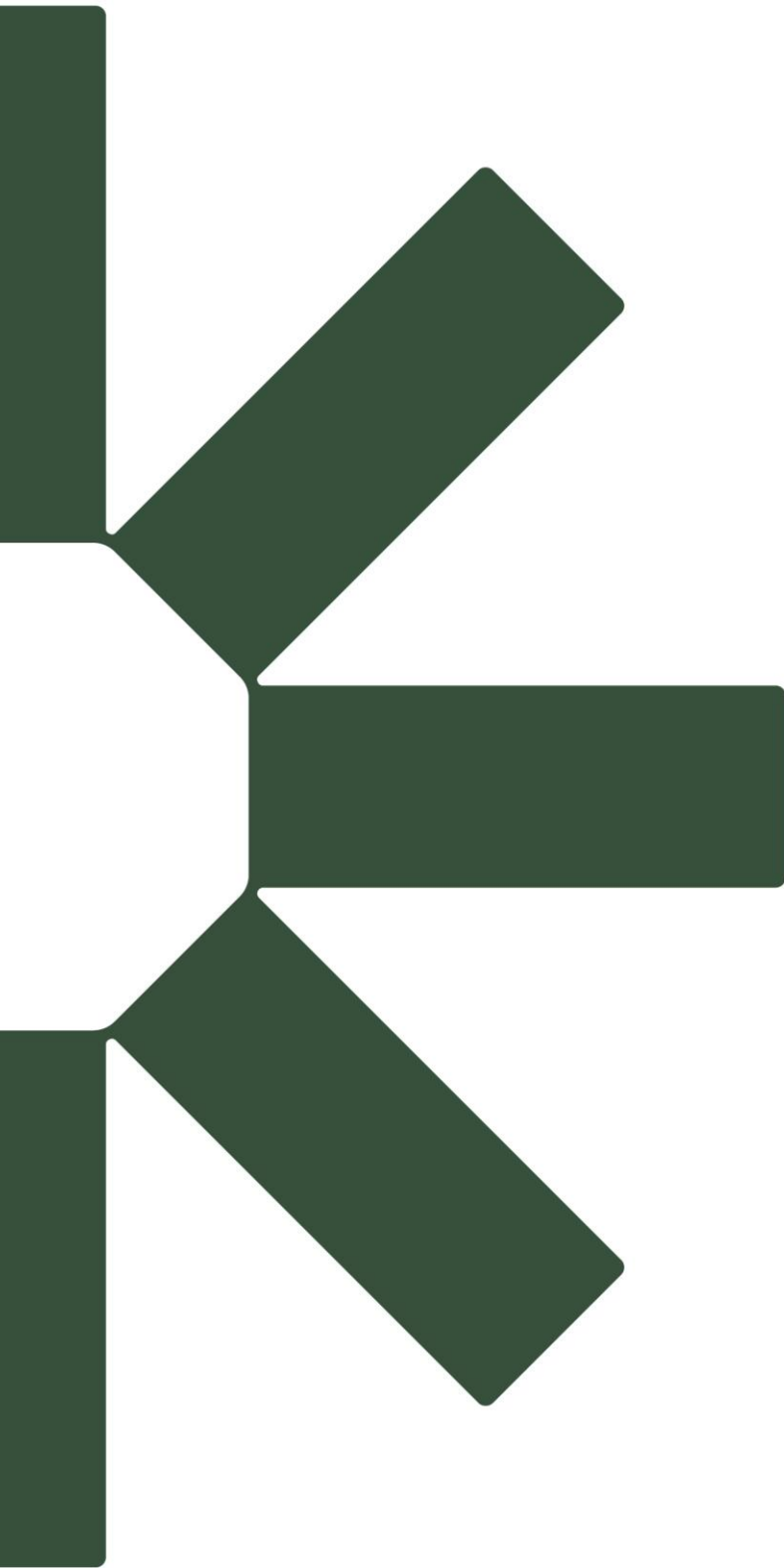
SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/P/N)	Additional Notes and Species Observations
Woodland Raptor Nesting Habitat	Barred Owl. Hawks: N. Goshawk, Cooper's, Sharp-shinned, Red-shouldered, Broad-winged.	Forests (FO), swamps (SW), and conifer plantations	>30 ha with > 10 ha interior habitat.	N	Suitable habitat of sufficient size is not present.
Turtle Nesting Areas	Midland Painted Turtle Special Concern: Snapping Turtle, Northern Map Turtle	Exposed mineral soil (sand or gravel) areas adjacent (<100m) or within: MAS1 to MAS3, SAS1, SAM1, SAF1, BOO1	Nest sites within open sunny areas with soil suitable for digging. Sand and gravel beaches.	N	Suitable habitat is not present.
Seeps and Springs	Wild Turkey, Ruffed Grouse, Spruce Grouse, White-tailed Deer, Salamander spp.	Seeps/Springs are areas where ground water comes to the surface.	Any forested area within the headwaters of a stream/river system. (2 or more confirms SWH type).	P	Suitable habitat may be present on the Subject Property associated with Berczy Creek.
Amphibian Breeding Habitat (Woodland)	Woodland Frogs and Salamanders	FOC, FOM, FOD, SWC, SWM, SWD	Open water wetlands, pond or woodland pool of >500 m ² within or adjacent to wooded areas. Permanent ponds or holding water until mid-July preferred.	N	Suitable habitat is not present.
Amphibian Breeding Habitat (Wetlands)	Toads, Frogs, and Salamanders	SW, MA, FE, BO, OA and SA. Typically isolated (>120m) from woodland ecosites, however larger wetlands may be adjacent to woodlands.	Open water wetland ecosites >500m ² isolated from woodland ecosites with high species diversity. Permanent water with abundant vegetation for bullfrogs.	P	Suitable habitat may be present within the Berczy Creek corridor however, unlikely.
Woodland Area-Sensitive Bird Breeding Habitat	Birds (area-sensitive species)	FOC, FOM, FOD, SWC, SWM, SWD	Large mature (>60 years) forest stands/woodlots >30 ha. Interior forest habitat >200m from forest edge.	N	Suitable habitat is not present.
Habitat of Species of Conservation Concern					
Marsh Bird Breeding Habitat	Wetland Birds	MAM1 to MAM6, SAS1, SAM1, SAF1, FEO1, BOO1 Green Heron: SW, MA and CUM1	Wetlands with shallow water and emergent vegetation. Gr. Heron @ edges of these types w/ woody cover.	N	Suitable habitat of sufficient size is not present.
Open Country Bird Breeding Habitat	Upland Sandpiper, Grasshopper Sparrow, Vesper Sparrow, N. Harrier, Savannah Sparrow, Short-eared Owl (SC)	CUM1, CUM2	Grassland/meadow >30 ha. Not being actively used for farming. Habitat established for 5 years or more.	N	Suitable habitat of sufficient size is not present.
Shrub/Early Successional Bird Breeding Habitat	Brown Thrasher + Clay-coloured Sparrow (indicators), Field Sparrow, Black-billed Cuckoo, E. Towhee, Willow Flycatcher, Yellow-breasted Chat, Golden-winged Warbler	CUT1, CUT2, CUS1, CUS2, CUW1, CUW2	Large field areas succeeding to shrub and thicket habitats > 10 ha. Areas not actively used for farming in the last 5 years.	N	Suitable habitat of sufficient size is not present.



SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/P/N)	Additional Notes and Species Observations
Terrestrial Crayfish	Chimney or Digger Crayfish; Devil Crayfish or Meadow Crayfish	MAM1 to MAM6, MAS1 to MAS3, SWD, SWT, SWM. CUM1 sites with inclusions of the aforementioned.	Wet meadow and edges of shallow marshes (no minimum size) should be surveyed for terrestrial crayfish (typc. protected by wetland setbacks).	P	Suitable habitat may be present within the Berczy Creek corridor however, unlikely given no chimneys have been observed to date.
Special Concern and Rare Wildlife Species	Any species of concern or rare wildlife species	Any ELC code.	Presence of species of concern or rare wildlife species.	P	Suitable habitat may be present.
Animal Movement Corridors					
Amphibians	Amphibians	all ecosites assoc. w/ water	When Breeding Habitat - wetland confirmed	P	Suitable habitat may be present though, unlikely.
Deer Movement	White-tailed Deer	all forested ecosites	When Deer Wintering Habitat confirmed	N	None mapped by MNR.
Exceptions for Ecoregion 6E					
Mast Producing: 6E-14	Black Bear	Forested Ecosites	>30 ha w/ mast producing species: Cherry (berries), Oak, Beech (nuts).	N	Suitable habitat is not present.
Leks: 6E-17	Sharp-tailed Grouse	CUM, CUS, CUT	Grassland/meadow >15 ha adjacent to shrublands, >30 ha adjacent to woodlands. Low agricultural intensity.	N	Suitable habitat is not present.

Notes:
P = Potential
N = No





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